

RELIVING  
ITE'S  
TRANSFORMATION

## **Reliving ITE's Transformation**

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# PREFACE



The lighting of a fire connotes light, warmth, passion and sparks of brilliance. Education is about the lighting of fires. Our children and students are not mere vessels to be filled, but curious and intelligent young people ready to acquire the knowledge, skills and values that will allow them to soar in the global sky of opportunities.

Our education system must keep that fire burning, not only to develop our students to their fullest, but to ensure that every citizen is given the opportunity to participate fully in Singapore's growth. The Singapore Education and Training System has seen radical transformations in the past four decades, as it evolves in tandem with the socio-economic and manpower development needs of the nation.

The Institute of Technical Education (ITE) and its predecessor organisations have been providing Career and Technical Education opportunities to Singaporean youths and adult learners. Since the formation of ITE as a post-secondary education institution in 1992, Singapore's Career and Technical Education System has been completely transformed. This massive turnaround and achievement have been recognised by the Innovations in American Government Awards Programme, Ash Center for Democratic Governance and Innovation, Harvard University's JF Kennedy School of Government, when it awarded ITE the Global IBM Innovations Award in Transforming Government in 2007.

This book tells ITE's story of transformation in the last twenty years: the clarity of vision and goals, through successive five-year strategic roadmaps; its determination in the execution of policies and programmes; as well as the resilience and compassion of its people. They have enabled ITE to transform the lives of one quarter of our school cohort, permitted many dreams to come true and fulfilled many aspirations.

These rich lessons and experiences, as well as the success stories of ITE students and graduates, have now been compiled into a book of voices – voices that speak proudly of a past and boldly towards a future.

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# CHAPTER ONE: THE WAY WE WERE









# HISTORY OF VOCATIONAL AND TECHNICAL EDUCATION IN SINGAPORE

Much like the history of Singapore, the beginning is always about a small fishing village and a man named Sir Stamford Raffles who transformed the village into a thriving seaport and planned town, thus founding modern Singapore. And much like Singapore's success story, the history of vocational and technical education (VTE) is also inextricably linked to the country's economic growth, development and progression. As a nation progresses and grows more complex and the means of living alter, so too must the education system. The development of VTE in Singapore is a reflection of the adaptability of Singapore in a changing world and the changes that take place alongside a nation's ever-changing manpower needs.

Technical education and training have experienced major changes over the past four decades in tandem with rapid changes in the Singapore economy and manpower needs. Vocational training was formalised and given focus with the formation of the Industrial Training Board (ITB) in 1973, when it took over from the former Technical Education Department in the Ministry of Education. ITB subsequently merged with the Adult Education Board in 1979 to become the Vocational and Industrial Training Board (VITB). The VITB concentrated on building up the academic and skills upgrading of the workforce. As vocational training had to be very dynamic, the VITB had to respond to major changes in training needs by introducing many initiatives. Then, there came a point whereby what VITB was doing was inadequate to meet long-term economic and industrial needs. A fundamental change in the way VTE was structured and delivered was required.



*Sewing was one of the vocational skills taught in the 1970's.*



*Another 'old economy' skill in the 1970's was Carpentry.*



# MILESTONES IN TECHNICAL EDUCATION BEFORE THE FORMATION OF INSTITUTE OF TECHNICAL EDUCATION (ITE)

## 1930's:

**1930:** After 111 years of British rule in Singapore, the first government trade school was established in Newton. Called Government Trade School, it provided pre-apprenticeship training to primary school leavers.

**1938:** With buildings donated by the Aw brothers of Tiger Balm, two Gabrielite religious brothers from Abyssinia started classes in Mechanics and Carpentry and the St Joseph's Trade School in Bukit Timah was born.

## 1940's:

**1940:** Government Trade School needed more space and moved to Balestier. It was renamed Balestier Trade School. World War II saw Japanese troops occupying the premises, and it was not until 1948 that the first classes were conducted there.

## 1950's:

**1956:** Tanjong Katong Secondary Technical School and Queenstown Secondary Technical School were opened.

## 1960's:

**1962:** Expansion in the number of students saw a need for more schools and thus a rapid building of more vocational secondary schools and technical secondary schools.

**1963:** Balestier Trade School was renamed as Singapore Vocational Institute (SVI) and focused on teaching 'craft' courses like Mechanical Engineering, Motor Vehicle Mechanics, Woodcraft and Metal, etc. Graduates of SVI were highly sought after by industry.

**1968:** Four more vocational schools were built. A Technical Education Department (TED) was established within the Ministry of Education to oversee the development of technical secondary education, industrial training and technical teacher training. Secondary vocational schools were slowly phased out in favour of vocational institutes.

**1969:** Singapore Technical Institute for secondary school leavers was established.

**1969:** It was not all grease and dirt. The Baharuddin Vocational Institute in Queenstown offered courses from graphic design to dressmaking, nurturing many renowned fashion and graphic designers of today.



*Singapore Vocational Institute*



*Singapore Technical Institute*



*Baharuddin Vocational Institute*



*Aljunied Vocational Institute*

## 1970's:

**1973:** Formation of Industrial Training Board (ITB) with a total of 10 campuses (9 Vocational Institutes and Singapore Technical Institute). The number of graduates increased to over 4,000 — up from just 324 in 1968 — including more girls who had completed courses such as Precision Engineering. ITB was created to centralise and coordinate industrial training. It implemented the National Trade Certificate (NTC) in order to meet the different levels of skills and standards required by industry. Through a standardised system of public examinations, both students and adult learners alike could achieve the NTC at three levels: semi-skilled (NTC-3), skilled (NTC-2) and master craftsman (NTC-1).

**1979:** The Vocational and Industrial Training Board (VITB) was created from an amalgamation of ITB and Adult Education Board (AEB). VITB took in 50 per cent primary school leavers and 50 per cent secondary school leavers. VITB continued the appointment of Trade Advisory Committees whereby persons of expertise and experience in various specialised fields from industry advised on courses, curricula and facilities. A Centre of Vocational Training was set up within VITB to develop professional capability in areas such as the training of trainers, curriculum development and instructional design. VITB continued promoting, expanding and intensifying vocational and technical education in Singapore into the 1980's and early 1990's.

## 1990's:

**1991:** By 1991, a total of 150,000 skilled workers were trained and certified. However, with the introduction of higher value-added industry sectors in Singapore, employers preferred VITB graduates who had at least secondary school education, paving the way for a new chapter in VTE in Singapore.

**1992:** The government decided that VITB had to be restructured as a fully post-secondary institution. Institute of Technical Education (ITE) was born and the rest, as they say, is OUR STORY.



*Bukit Merah Vocational Institute*



*Geylang Serai Vocational Institute*



*Vocational and Industrial Training Board (VITB)*



*Jurong Vocational Institute*



*McNair Vocational Institute*



*Pasir Panjang Vocational Institute*



*Punggol Vocational Institute*

(Information adapted from 'From Economic Debacle to Economic Miracle' by Chiang 1998)



# THE TURNING POINT FOR VTE

The 1990's started with omens of a problem which Singapore's policymakers were realising — the ineffectiveness of the then VTE system that could not cope with the rapidly-developing industrial technological advances of the nation. On 27 February 1992, Dr Tay Eng Soon, then Senior Minister of State for Education, highlighted the challenge in vocational and technical education: "It has become clear that trainees with only primary school education have not been successful. It appears that employers prefer vocational graduates to have at least a secondary education."

From the VITB Graduate Employment Surveys in the late 1980's, graduates with only primary school education were not getting jobs matching what they were trained for. Employers had a preference for VITB graduates who had a secondary school education, as retraining was essential to keep up with economic changes and new technologies. Singapore's next phase of development, as published in a 1991 Economic Plan, was to focus on the building of the manufacturing and services sectors. Companies were encouraged to diversify, upgrade and expand into strong export-oriented companies and invest in regional economies. It became clear that to meet the skilled manpower needs of Singapore's future economic development, a primary school foundation was not sufficient. Rising expectations of the industry and economy in general necessitated a revamp of the VTE landscape.



*Courses offered then were very basic and conducted at old school buildings.*







CHAPTER TWO:  
NEW BEGINNINGS,  
NEW HOPE











# THE BIRTH OF ITE

A good 10 years. That was what the Ministry of Education (MOE) decided as the minimum period of general education every student should go through. This also meant that VTE would be restructured and reorganised as a post-secondary education pathway. This new role meant that a mere reshuffling of the old VITB was insufficient. A metamorphosis that would leave the past behind was crucial. A complete overhaul of the system and a radical transformation meant an entirely new entity — the Institute of Technical Education (ITE).

There were big plans and grand ambitions for ITE. With the repositioning, ITE would stand alongside the three-year polytechnics and two-year junior colleges as post-secondary options in the Singapore Education System, but focus on students with lower academic performance at secondary-level national examinations. In spite of the new status, ITE was unable to shed the negative shadow of VITB. Rather, the negative image of VTE persisted. Societal prejudice against less academically-inclined students, misconception of the value of VTE and information gaps about the 'new ITE' were some of the pressing image issues ITE had to deal with.

So, what would differentiate ITE from its predecessors? What are its mission, vision and values? Who are its people? Who are its stakeholders? How can VTE in Singapore remake itself through ITE? What are Singapore's nation building needs and how can ITE play a part? These were some big questions the Ministry of Education and the ITE Board and management had to carefully think through. Dr Tay Eng Soon, then Senior Minister of State for Education, was the prime architect in creating a new post-secondary VTE system in Singapore. From the excerpt of Dr Tay Eng Soon's speech at the inauguration of ITE in 1992, it was apparent that a lot of careful and thoughtful planning and preparation went into the establishment of ITE. Its roles were well-defined and its functions clear and explicit. ITE was born to do great things.

*Left: With the birth of ITE, there was an increased focus on high-tech new economy courses, like Electronics Communications.*





# A MOMENT IN HISTORY

## **EXCERPT OF SPEECH BY DR TAY ENG SOON, SENIOR MINISTER OF STATE FOR EDUCATION, AND CHAIRMAN, VOCATIONAL & INDUSTRIAL TRAINING BOARD, AT THE INAUGURATION OF THE INSTITUTE OF TECHNICAL EDUCATION, ON TUESDAY 31 MARCH 1992**

### **Mission and Functions of ITE**

ITE's mission will be 'to maximise the potential of Singaporeans through excellence in technical education and training in order to develop the quality of our workforce and enhance Singapore's global competitiveness'. This mission statement reflects ITE's role and commitment in meeting the skilled manpower needs of our economy. To fulfill this mission, ITE will focus on five functions:

#### **1. Provision, Promotion and Regulation of Technical Training and Education Courses**

Firstly, on pre-employment training. As our economy moves upwards, ITE will expand higher-level technical courses for secondary school leavers. New courses will be developed to meet industry needs. School leavers will have a wider range of full-time and apprenticeship courses to match their interests and aptitude. ITE trainees will receive a well-rounded education, so that they are not only highly skilled, but also physically fit and socially responsible. To provide a total learning environment conducive for both skills training and character development, seven new institutes will be built and three existing ones will be upgraded over the next five to six years at an estimated capital expenditure of \$250 million.

#### **2. Upgrading Technical Skills of the Workforce through Continuing Education and Training (CET)**

Secondly, on continuing education and training for workers. The existing Part-Time Modular Skills Training or MOST programme is very successful. Annually, it attracts some 5,000 new participants who are workers with few skills to take up skills training. Our worker education programmes, Basic Education for Skills Training (BEST) and Worker Improvement through Secondary Education (WISE), have been equally successful. However, there is still a large pool of untrained workers who do not participate in the existing CET programmes owing to various reasons. The ITE will be focusing on three new initiatives to help this pool of workers to come forward for training:

- Training Initiative for Mature Employees (TIME) Programme
- A New Scheme to Train Adult Workers
- Formation of Advisory Council on CET

#### **3. Regulation and Promotion of Industry-Based Training and Education in Technical Skills**

The third major function of ITE is to further promote industry-based training. The ITE has two plans:

- Expand the scope of apprenticeship
- Encourage companies to set up in-house training centres

#### **4. Regulation of Certification and Standard of Technical Skills**

As its fourth function, ITE will extend certification to emerging skills. As our economy becomes more service-oriented, ITE will extend the certification of service skills to other new areas and identify more areas for certification at the highest National Technical Certificate Grade One or NTC-1 level.

#### **5. Promotion and Provision of Consultancy Services for Training and Education in Technical Skills**

The ITE will help companies identify training needs, develop training programmes, design instruction and train trainers. ITE will also support Singapore's role in the international community by sharing its experience and expertise in technical training.

ITE will have a significant role to play in the training of our workforce. Many challenges lie ahead. Our mission is to prepare a better educated and trained workforce to meet the challenges of the 21st century.



# REMAKING ITE — HOW IT ALL BEGAN

The students who came to VITB, as well as to ITE in its earlier days, had low self-esteem and morale, accepting the perception that they were 'under-achievers'. With a significant number of students from lower-income families and sometimes dysfunctional homes, their academic performance allowed the stereotype that ITE students were 'under-achievers' to persist, given the strong societal bias for academic education and academic success. Despite its new status as a fully post-secondary education institution, ITE was initially unable to shed its negative image as 'a place of last resort' for academically-weak students.

To address this serious problem, ITE needed to make very radical and fundamental changes and thus embarked on a massive and extensive transformation journey that took place over the next two decades. An instrumental catalyst that prompted the overhaul of ITE was Eric Gwee, Chairman of ITE Board of Governors (1994 to 2007) who asked the senior management of ITE to deal with two important issues — its image and its vision. Known for his people-centred leadership style and charisma, Eric Gwee is credited with steering the successful transformation of ITE through three strategic blueprints – *ITE 2000*, *ITE Breakthrough*, and *ITE Advantage*, playing a critical and central role in shaping the developmental roadmap of ITE and VTE. He has also been a guiding light and inspiration to both the Board and management.



*Above: Although it offered many vocational courses leading to employment, the Vocational and Industrial Training Board (VITB), ITE's predecessor institution, was seen as a place catering to academically-weak students.*

*Right: ITE's transformation has changed how VTE is delivered and perceived, from the courses offered and campus infrastructure, to the people who teach VTE and how the general public perceives ITE.*





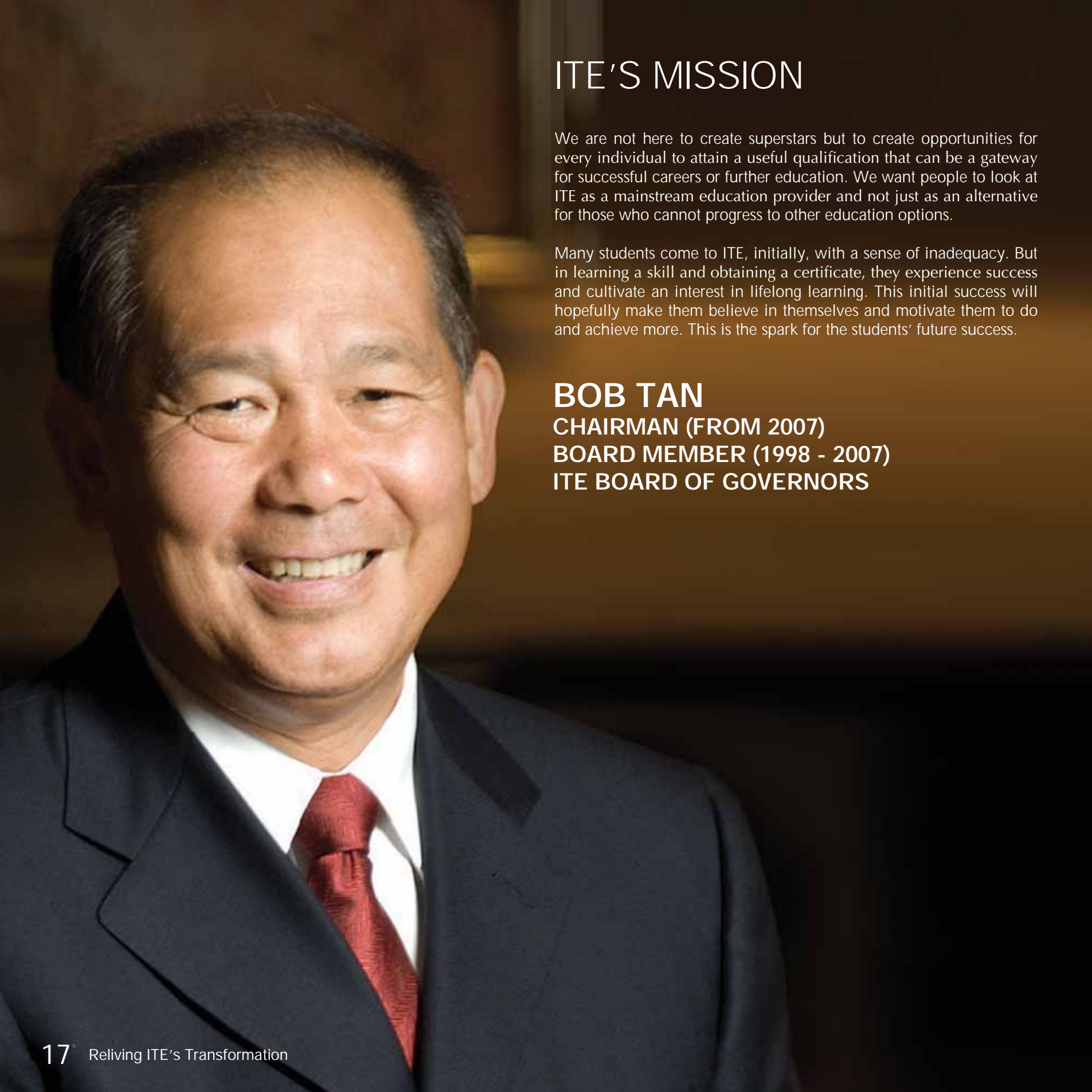
# THE WAY FORWARD

When I was appointed as Chairman in 1994, the then newly-established ITE was trying to shed its 'VITB' image. Image was a very serious concern then. ITE also needed a clear focus as to where it should be in Year 2000, 2005, 2010 and so on. What is ITE's image and how do we change the perceptions of ITE? Image is about how you project yourself, your product, your ITE graduates and how they project themselves in society. So obviously, the priority must be on ITE students and graduates and, hence, the staff, too. We had to first build the image among the students and graduates, and then build the image of the staff. These will reflect on the organisation.

Image was the key to transform ITE, but it was a very difficult thing to do at that time. I visited every campus then just to have a feel of what they were like at that point. After the visits, it was very clear that we needed the support of the Board of Governors and the Ministry of Education, and everyone had to work together to achieve the image we desired for ITE. Changing the image of ITE was nothing about glamour or fancy advertising. It was simply about how every graduate would be looked upon by others — opinion leaders and the public at large. To do that, we needed to understand the profile and traits of the students who came into ITE. The Board's priority was to work with the Ministry and engage the ITE management fully in building up a viable education system that will be readily accepted by students, parents, teachers and society as a whole.

To improve ITE's image then, there were many steps we needed to do. Therefore, we needed a roadmap: a roadmap to find and then create the path to where we wanted to go. The staff's morale was also not high at that time. Many were not clear where they were heading. Vision and forward planning was therefore another key priority for ITE. That was how the Board and management started to envision and create five-yearly strategic plans to guide and bring the staff along a new journey of reinventing ITE. The Board and I are heartened that the ITE management and staff are highly committed and passionate, and delivered the two key priorities of the Board — changing ITE's image and setting clear directions for the way forward.

**ERIC GWEE**  
**CHAIRMAN (1994 - 2007)**  
**ITE BOARD OF GOVERNORS**



## ITE'S MISSION

We are not here to create superstars but to create opportunities for every individual to attain a useful qualification that can be a gateway for successful careers or further education. We want people to look at ITE as a mainstream education provider and not just as an alternative for those who cannot progress to other education options.

Many students come to ITE, initially, with a sense of inadequacy. But in learning a skill and obtaining a certificate, they experience success and cultivate an interest in lifelong learning. This initial success will hopefully make them believe in themselves and motivate them to do and achieve more. This is the spark for the students' future success.

### **BOB TAN**

**CHAIRMAN (FROM 2007)**

**BOARD MEMBER (1998 - 2007)**

**ITE BOARD OF GOVERNORS**



# THE FOUNDATION OF ITE AND ITS PRINCIPLES

Building a quality and sustainable system requires an understanding of the basic principles. Of course, it is possible that we may not have appreciated some of these basic principles during the earlier phases of our development. But, reflecting on our experience, I can safely say that a system is only as strong as its foundations.

What are some of these foundations? One of the key principles for Vocational and Technical Education (VTE), in my view, is its close alignment with economic development. This is why it is essential to develop a close relationship and partnership with industry. We need to know where and what types of jobs will be created. At the national level, manpower planning and coordination has been a strategic tool in Singapore's economic and social development. As an education institution, ITE then ensures that the courses it conducts are relevant and responsive to the needs of students, economy and society. The key outcomes must be skills, knowledge and values for employability and lifelong learning.

The second principle is the pursuit of organisational excellence. Great and high-performing institutions do not happen by chance. They are often founded by people who share a common mission, vision and values. In our case, our early interest in organisational excellence started with the adoption of the People-Centred Management (PCM) philosophy by the former Vocational & Industrial Training Board (VITB) as part of the National Productivity Movement in 1981. I felt then that embracing PCM and its practices would help to forge a culture of open communications, mutual trust and care and concern, where staff would be motivated to strive for excellence and maximise their own potential. We conducted organisational climate surveys. Findings were disseminated by senior management to all staff. Understanding the aspirations, motivations, expectations and hopes of our staff and how they viewed their careers and roles in the organisation was an important step towards building organisational excellence. This soon led to our active participation in the Work Improvement Teams (WITs), Singapore Quality Award (SQA) and Public Service for the 21st Century (PS21) programmes. I, of course, did not know at the time that embracing the PCM would be laying that early foundation for our journey towards organisational excellence – a journey that was to lead ITE into winning the prestigious Singapore Quality Award in 2005.

**DR LAW SONG SENG**  
**DIRECTOR & CHIEF EXECUTIVE OFFICER**  
**OF VITB AND ITE (1981 - 2007)**

*Strong industry representation in the design of new courses and in the review of existing courses meant that ITE's courses were highly relevant to and current with industry needs.*





# STRATEGIC TOTAL TRANSFORMATION

The highest goal of ITE's transformation was to change its status from one of a 'dead-end' option to an attractive, market-relevant and career-focused education option for kinaesthetic learners. For a start, ITE's mission evolved from a mere provider of technical education to become an institution that provides holistic development for its students — empowering them to be adaptable, creative and independent solution providers, with strong values towards self, others and the community.

A total development philosophy was adopted where curriculum and pedagogy extended beyond the acquisition of technical knowledge and skills. Thus, besides skills and knowledge, ITE's mission today includes a key element of nurturing values to land its graduates in good stead for challenges in the changing global environment, giving them the confidence, passion and resilience for their lives and careers. To improve public acceptance, and in turn, to attract students and motivate them to successfully complete their programmes, ITE adopted an integrated 4Ps Approach (**P**eople, **P**roduct, **P**lace and **P**romotion) to remake itself.



# HIS EARLY DAYS AT ITE

When I was asked to be the CEO of ITE, I realised that ITE was already an excellent organisation, with proven systems, processes and practices. It was the first education organisation to receive the Singapore Quality Award in 2005. My challenge was how to keep the *'ITE Heartbeat'* pulsating, while adding new value to the organisation.

My prior experience at the Economic Development Board was invaluable in providing me with a firm foundation of positioning ITE in line with industry's needs. We need to produce market-relevant and quality graduates in a timely manner, to attract the right investment. I was also fortunate that at Nanyang Polytechnic, I had wide exposure across many Schools, which put me in an excellent position to understand the needs of different sectors of industry.

To help me have a good grasp of ITE's needs and priorities, I talked to all our key stakeholders — our students, staff, partners, and especially the employers. The key understanding was that we could no longer serve the needs of industry with broad courses. We needed a shift in our strategy — from that of offering broad-based courses on a large scale, to catering to smaller, niche areas of focus within broad industry clusters. I call these 'T-shaped' courses, which provide breadth in serving different sectors and depth in skills acquisition in order to serve industry better.

As we had focused on more generic Engineering and technical courses in our earlier years of development, there was an imbalance among different Schools in the Colleges. The School of Engineering was very big, for example, compared to the School of Information-Communications Technology. We have rationalised this — taking Electronics out of Engineering and forming a School of Electronics & Info-comm Technology, to take advantage of the synergies between these two fields. We also introduced new Schools in the last five years — Hospitality and Design & Media — to address the emerging manpower needs in these growth areas.

While we kept pace with the rapid changes in industry, I was also very conscious that the market ITE serves is very different from what I was used to at the polytechnics. In ITE, we need an environment that fits the kinaesthetic learning styles of our students. We therefore focused on creating an authentic learning environment for our students — an environment that fits their learning style and yet is realistic to the real industry environment. Our aim is to develop 'Work-Ready, World-Ready' graduates, who will make a mark in industry through our unique education.

While we train ITE students to be work-ready and world-ready, we have to do so with a lot of empathy and patience. Many of them come from less-privileged circumstances. I was very impressed and touched by our staff's passion in wanting to help students and the level of care shown to their students. And this resonated very well with my personal values. To this day, I stand amazed at the extra mile my academic colleagues would go to help and to guide their students towards shining in their lives. To me, it is this single most conviction that keeps many of our staff active and passionate in their roles.

**BRUCE POH**

**DIRECTOR & CHIEF EXECUTIVE OFFICER (FROM 2007)**





# STRATEGIC BLUEPRINTS

ITE's transformation was carried out in four successive waves each led by five-year Strategic Blueprints that had their own multiple levels and layers of innovations. **ITE 2000** (1995-1999) was a Strategic Plan to build ITE into an established post-secondary technical institution by the year 2000. **ITE Breakthrough** (2000-2004) aimed to turn young people from knowledge vessels to knowledge applicators by building a world-class technical education institution that is effective, relevant and responsive to the knowledge-based economy. The **ITE Advantage** (2005-2009) was ITE's third strategic blueprint and sought to establish ITE as a global player that produces not only 'work-ready' but also 'world-ready' graduates capable of holding their own against their counterparts from anywhere in the world. **ITE Innovate** (2010 - 2014) highlights ITE's aspiration to be at the forefront of innovations in VTE in the global arena; it focuses on building a new generation of 'Work-ready, World-ready Graduates'.

## OUR TRANSFORMATION JOURNEY

VISION / OUR FOCUS	Established Post-Secondary Institution	World-Class Institution	A Global Leader in Technical Education	A Global Leader for Innovations in Technical Education
Innovations in Technical Education				
Global Outreach				
Strategic Partnerships				
Customer Focus				
Systems & Infrastructure Improvement				
People Development				
	<b>ITE 2000</b> (First Wave)	<b>ITE Breakthrough</b> (Second Wave)	<b>ITE Advantage</b> (Third Wave)	<b>ITE Innovate</b> (Fourth Wave)

Left: ITE's transformation journey was carried out in Four Waves, each led by a five-year Strategic Blueprint with ambitious Visions.

Below: These Strategic Roadmaps were developed into creatively-designed booklets for distribution to staff, partners and stakeholders.

From left:  
**ITE 2000** (1995 - 1999);  
**ITE Breakthrough** (2000 - 2004);  
**ITE Advantage** (2005 - 2009); and  
**ITE Innovate** (2010 - 2014)





# ITE'S STRATEGIC ROADMAPS

Of the three Strategic Roadmaps we have completed, I would consider the most challenging to be **ITE 2000**. That was the time when we had no reference point. We had never done such a major Strategic Roadmap for transformation. We asked ourselves hard and fundamental questions like: “What sort of approach should we take?”, “What should the structure of the roadmap be like?”, “Who should we consult?”, “What should we focus on?”, “How far can we go?”, “What should be the timeframe?”, “Why are we doing what we are doing?”, “What can we achieve within a certain timeframe?” and “How do we get buy-in from staff?” That was an enormous challenge.

For subsequent roadmaps, we looked at the preceding roadmap, reflected on what we had achieved in the past five years, considered what we were capable of doing then, and what we could be capable of doing in the future, without looking at constraints and limitations. We asked ourselves how far we really wanted to go. Although there was a vision to look ahead to, we also had to be grounded and study the realities of the situation.

The second roadmap was just as challenging, as we were very ambitious then. The name says it all — **ITE Breakthrough**. That was the plan whereby we revisited fundamental assumptions about VTE, revamped our certification, curriculum and pedagogic models, reengineered our processes and aligned our systems and services to be worthy of world standards. In essence, we relooked what VTE meant to our students, industry and the nation. That was a major paradigm shift.

The third and fourth roadmaps — **ITE Advantage** and **ITE Innovate** — focus on building strategic linkages and global partnerships, and strengthening our organisational capacity and capabilities. The roadmaps not only provide clear direction for everyone in ITE, they have been truly inspirational for our journey of transformation.

**SABRINA LOI**  
DEPUTY CHIEF EXECUTIVE OFFICER  
(CORPORATE)



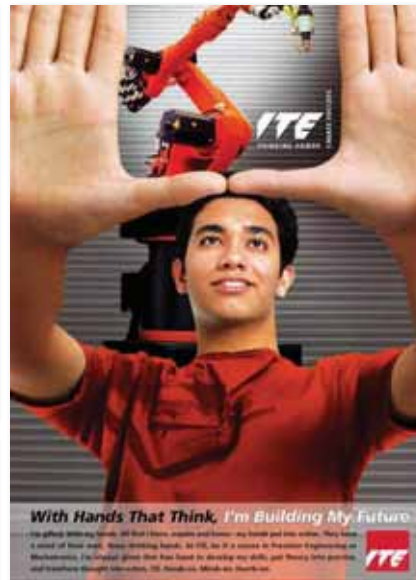
The 4Ps are, in fact, four essential elements for successful transformation. Each of the strategic plans recognised the importance of the 4Ps and addressed them with concrete strategies and measures.

The 4Ps are:

- **People Transformation** (Staff, Culture and Capabilities)
- **Product Transformation** (Certifications and Programmes)
- **Place Transformation** (Infrastructure and Learning Environment)
- **Promotion Transformation** (Image, Branding and Communications)

The 4Ps are interconnected and build upon each other to augment the credibility and sustainability of ITE, ensuring that the transformation was total and comprehensive. 'No stones left unturned' could not have been more apt a description.

The key to transformation was **People**. It enhanced the capability of our staff in creating market-relevant courses and world-class learning facilities which, in turn, built a credible and positive image of ITE. **Product** transformation raised the status of ITE in the national certification process and produced the ITE graduates that employers wanted and Singapore needed. **Place** transformation had the most direct bearing on ITE's image and the morale of its people and students, as well as the extent and magnitude of improvements and innovation our products and courses could afford. Lastly, **Promotion** transformation affected the choices of students and parents as well as public perception of ITE and VTE. At the core of the 4Ps is the most important 'P' of all — Plan. Without forward strategic planning, clear roadmaps and comprehensive transformation plans, the other 4Ps would never have materialised.



*The introduction of higher-level courses to support the quick-paced changes in the economy, the recruitment of new lecturers or upgrading existing ones, and building completely new and top-of-the-line Colleges, changed the landscape of Vocational and Technical Education. This, in turn, led to an increased acceptance of ITE.*





# THE WONDERFUL CHANGES AT ITE

When I first joined ITE as a Board Member in 1998, we had good facilities, but they were not outstanding. Today, with two regional and iconic campuses completed — ITE College East and ITE College West — the contrast is great. ITE campuses are equipped with state-of-the-art and modern learning, sports and recreational facilities. Our students are now immensely proud of the wide array of facilities available in ITE. Their morale has been lifted.

In the old days, when I attended the Graduation Ceremonies, some of the students looked small; their heads were down and they were not confident. Today, I can see the big difference, especially when they look smart in the respective uniforms of the courses they are taking and the careers they are pursuing. The students are more confident and their presentation and communication skills have improved tremendously. They are also more engaged in learning and have goals. They ask good questions and are more confident in their responses. When I meet the students, I often asked them: 'What do you want to do after you graduate?' Without fail, many will say they want to progress to the polytechnics. They all seem to have a purpose. I am touched and extremely proud of how far they have come. That gives me a sense of satisfaction that we are doing the right thing.

In the past, ITE graduates did not make much of an impact on employers. They were always the last to be selected, compared to polytechnic and university graduates. Even if they were hired, employers had to invest heavily in getting them ready for the job. Today, our graduates' skills are much more aligned to the job requirements, partly because of the involvement of industry in the curriculum planning, development and delivery processes.

Employers find our graduates hardworking and determined. They are prepared to roll up their sleeves to get the work done. This explains why ITE graduates are quickly snapped up by employers in good as well as bad times. In fact, we have many examples of graduates who have done so well in their jobs that they were sponsored by their employers to pursue further or tertiary education. Many have risen from the ranks to professional or managerial careers. Others have also become successful entrepreneurs or technopreneurs.

**BOB TAN**  
**CHAIRMAN (FROM 2007)**  
**ITE BOARD OF GOVERNORS**



# THE SUCCESSFUL TRANSFORMATION OF ITE

My 15 years of association with ITE, first as a Board member and subsequently as its Deputy Chairman, were a privilege. They provided me with the opportunity to participate in the breathtaking transformation of ITE from its days of first establishing itself as a post-secondary education institution to one that is currently a front-runner in global Vocational and Technical Education.

When ITE launched its first comprehensive Strategic Roadmap, the *ITE 2000*, one of the key priorities of the Board then was to rebrand ITE and change the public perception of ITE and societal bias towards technical education. I am glad that ITE's management rose to the tough challenge posed by the Board to turn around ITE's image 360 degrees. It was a bold decision, as no public education institution then had embarked on branding.


As ITE grew, the Board felt that there would be no compromise in equipping ITE with world-class teaching and learning facilities, as well as state-of-the-art equipment and teaching tools, so that ITE students are exposed to the latest in every aspect. ITE students can, therefore, stand tall among their global peers, for they can be confident that they are equipped with the most current knowledge and skills in their respective course of study with ITE at their point of graduation.

All these represented turning points that were to change the entire ITE story, and subsequently, the total technical education landscape.

**DR AHMAD MOHD MAGAD**  
**DEPUTY CHAIRMAN (2001 - 2010)**  
**BOARD MEMBER (1995 - 2001)**  
**ITE BOARD OF GOVERNORS**







ITE's successful transformation has redefined how VTE is delivered. More importantly, the transformation has made VTE an attractive post-secondary education option to the secondary school leavers, and their parents, who once shunned ITE. Student enrolment has doubled since 1995, to over 25, 000 each year. Prospective students are excited by the almost 100 full-time courses offered, and ITE students are better motivated and excited about their future.

Perhaps, the most meaningful testament is that many are now proud to tell the world that they are graduates of ITE.



A close-up photograph of a hand holding a small, round, light-colored object, possibly a piece of food or a small toy, against a dark background. The hand is the central focus, with fingers gently gripping the object. The lighting is soft, highlighting the texture of the skin and the object. The background is dark and out of focus, creating a sense of depth and intimacy.

CHAPTER THREE:  
MAKING EXTRAORDINARY  
CHANGES THROUGH  
EXTRAORDINARY PEOPLE





Visionary leadership and engaged staff passionately committed to caring for and delivering successful educational outcomes for its students are undeniably one of the core reasons for ITE's successful transformation. It takes passionate and compassionate teachers to truly care for their students. It takes passionate and compassionate organisations to truly care for their staff. ITE, as both, has reinvented what it means to truly care.





## PEOPLE DEVELOPMENT THROUGH PROFESSIONAL UPGRADING

One of the most important ways to care for staff and students all at once is to make provisions for careers and professional selves to grow. The establishment of ITE as a post-secondary institution in 1992 and the phasing out of National Technical Certificate Grade 3 (NTC-3) courses directly affected a number of teaching staff, particularly those recruited in the 1970s and earlier, who either did not possess the requisite formal technical qualifications or were deployed in areas where full-time courses were phased out. ITE thus introduced a Special NTC-2 Retraining Programme for this group of staff from 1993 to 1996. They had the option of either undergoing day-release retraining or to upgrade under the part-time mode. Some chose alternative career options.

*ITE staff are the most valuable asset to the organisation.*

## HIS GREATEST CHALLENGE

The most painful and challenging episode for me was the staff restructuring exercise involving some 400 teaching staff when ITE was established in 1992. With the new education policy to provide a minimum of 10 years of general education for all students in schools, vocational training was repositioned as a post-secondary system under the ITE. Many of the existing programmes under the former Vocational and Industrial Training Board (VITB) had to be restructured and reconfigured to match the new cohort of school leavers. As a result, training staff whose qualifications had become obsolete or inadequate for new and higher-level skills courses were affected. Our first priority was to offer the maximum opportunities and support for affected staff to upgrade to a diploma level, or retrain in areas of need.

It was a painful exercise, especially for those in their 50s, who did not have the necessary educational prerequisites for upgrading or retraining. It was a major struggle to switch from mechanical-based courses to the electrical or electronics skills areas, which were in demand. Some chose to leave the system under a Special Resignation Scheme, with compensation. Other chose to leave and set up businesses. We understood their concerns and extended assistance in all possible ways. We consulted our training staff union and talked to every affected staff. If the restructuring process had gone wrong, it would have been a major staff problem for all concerned. Fortunately, it was an issue well-managed and satisfactorily resolved.

**DR LAW SONG SENG**  
**DIRECTOR & CHIEF EXECUTIVE OFFICER**  
**OF VITB AND ITE (1981 - 2007)**





With *ITE 2000*, the aims were to upgrade the technical and pedagogic competence of teaching staff and to foster staff commitment to meet the new expectations of students. A number of staff development schemes were made available to those who wished to upgrade themselves to a diploma or degree, to match the upgrading of ITE courses and build confidence and morale of the staff. A new Study Award Scheme for degree-level courses was introduced in 1994 to increase the pool of graduate training staff available for key professional and leadership positions. Individual deployment and training plans for direct teaching staff were formulated so that they knew their future deployment when the restructured technical training system was fully implemented in 1998. It was the year when ITE took in the first batch of Normal (Technical) students who had completed 10 years of general education. By 1995, Individual Training Plans for all direct teaching staff were completed. Through this programme, at least 80 per cent of all staff would be able to meet the academic and professional entry appointments as Training Officers and Training Instructors then.

A Master Training Programme conducted by our Memorandum of Understanding partner in Baden-Württemberg, Federal Republic of Germany, for improving the teaching effectiveness of training staff was launched. This enabled the building of a pool of outstanding ITE teaching staff who could assume the role of Mentors to their fellow teaching staff, thereby raising the pedagogic and technical standards of ITE education. As a result of these, teaching staff increased their confidence and improved their professional image and social status, on top of being more professionally-qualified and competent.

With the admission of more mature post-secondary students with higher expectations, there was a need to employ different approaches to teaching and learning. For example, there was a need to de-emphasise the traditional instructor-centred teaching methodology and employ an interactive, question-and-probe approach. Projects and assignments, correspondingly, needed to be more challenging, requiring students to exercise greater initiative and independence. Staff needed to adapt to this new delivery approach and learning environment. Through a structured student consultation approach outside their teaching timetables, ties and rapport with students were built. Teaching staff used such consultation hours to assist students in their course work and projects or offer career guidance and information. Thus, *ITE 2000* raised the professional, technical and pedagogic competencies of teaching staff by leaps and bounds. Such intensive professional upgrading of teaching officers aptly met the demands of ITE as a high-quality post-secondary institution.

*Right: Today, almost 100% of academic staff possess diploma or higher qualifications.*







# WHAT'S IN A NAME?

A name to truly reflect the new and enhanced profile of its teaching staff was what ITE aimed to do when the teaching staff adopted the new title of 'Lecturer' from September 2002 onwards. With new Curriculum and Pedagogic Models for teaching and learning and the introduction of *eTutor*, a personalised web-based learning system, ITE teachers' professional competency, too, needed to be recognised. This redesignation of ITE teachers was not a superficial renaming exercise. Instead, it recognised the demands and competencies of the ITE teaching profession in the new teaching and learning environment.

The term 'Lecturer' better reflected the enhanced job scope of ITE teachers, raised staff morale and motivated them to continually upgrade their capabilities. As an institution of higher learning, the new designation was an apt description of the roles of ITE's teaching staff. Besides theoretical and practical teaching, lecturers were also involved in industry projects, industry attachments, among many other commitments. Teaching staff also played a facilitator's role in the learning process and helped their students to become independent learners. In the long run, the term 'Lecturer' raised the status of ITE teachers, and this, in turn, raised ITE's image and standing. Some 1,200 staff were redesignated in this exercise. Among the lecturers, some were further emplaced on Senior or Principal Lecturer grades.

*Right: From being called 'Training Officers', academic staff were redesignated as 'Lecturers', recognising the higher demands placed on professional competencies required of ITE's academic staff.*

*Pictured: Suppiah Nagammal, Senior Lecturer-Mentor/Nursing, was a key member of the team of Nursing staff who set up the Centre for Healthcare Simulation at ITE College East, in 2005.*







# FOUR DECADES AND COUNTING

I was appointed as a Student Craft Teacher in 1968 and promoted to a Trainee Craft Teacher two years later. I then attended the Teachers' Training College in Paterson Road for my Certificate in Pedagogy. I was teaching at the Singapore Vocational Institute at that time. I was awarded a Technical Scholarship to study in Adelaide under the Colombo Plan Technical Awards. I was really fortunate, as I was one of the last few recipients of this prestigious award. I spent 18 months in Australia from 1977 to 1978.

On my return from Australia, I was posted to Pasir Panjang Vocational Institute to teach Metal Fabrication & Welding until 1980, when I was appointed as Head of Department (HOD) for Metal Fabrication Department at the former Ayer Rajah Vocational Institute. From 1986 to 1990, I was HOD for Pre-Vocational Training, which was then changed to Basic Vocational Training 1 for Primary 8 (Monolingual) students in 1991. I remained as HOD until 1996, when Basic Vocational Training courses for the Primary 8 students ceased. I then became Head of Learning Resource Centre, which was a new entity then, until 2000.

I completed my three-year day-release retraining in Mechatronics Engineering at Nanyang Polytechnic in 2000, sponsored by ITE. Thereafter, I was deployed to teach Electronics at the then ITE East (*Bedok Campus*) before I joined the first ITE College, ITE College East, in June 2005. I was appointed Senior Lecturer-Mentor a year later.

ITE is constantly retraining its staff, as it phases out obsolete courses and implements new ones. Since the 1980s, retraining of staff was extensive. From in-house NTC-2 programmes to diploma programmes at the polytechnics, to being sponsored for degree programmes, ITE has always been very generous in sending staff for retraining and upgrading.

I have truly enjoyed my career from a Craft Teacher to Senior Lecturer-Mentor. What a journey it has been!

## FOO JONG JIN SENIOR LECTURER-MENTOR/ELECTRONICS ENGINEERING ITE COLLEGE EAST



*Right: Foo Jong Jin (right) with his Staff Identification Card in 1968 and receiving a 40-year Long Service Award in 2010.*





# REASONS FOR ITE'S SUCCESSSES

ITE is where it is today because of its people. It is crucial for us to continue the 'people first' culture for members of the ITE family to continue the caring working relationships they have built and the commitment to ITE and its causes. The challenge ahead would be that, in the past, many of our team members were 'home-grown' talents and we have worked with each other for decades. As we grow, we will bring in people from other organisations and we will need to ensure that the *ITE Care* culture is sustained. Whether we are able to have another 20 years of successful transformation will depend on whether our *ITE Care* culture continues to be the basis for everything we do.

**TAN SENG HUA**  
**DEPUTY CHIEF EXECUTIVE OFFICER**  
**(ACADEMIC)**



# VTE WORKING ENVIRONMENTS — PAST AND PRESENT

It is a privilege to be associated with VTE in Singapore almost from day one. It is almost amusing to compare the stark differences between then and now. When I started teaching in a vocational institute in the 1960's, we had to do many things ourselves. When new machines and equipment arrived, we had to open the wooden crates, unpack the contents, move and shift the machines to designated places with basic lifting and moving equipment. We made and painted shadow boards to keep track of hand tools. They looked so crude compared with the commercially-fabricated shelving which the Colleges have today. At the end of a term, we would wash the shop floors, clean the windows and oil the machines together with trainees before going on vacation.

There were many foreign experts from donor countries like Canada, Japan, New Zealand, UK and USA providing technical assistance. We taught according to the syllabi they brought with them. We worked side by side with them. Some were very good, some were just mediocre, and some were pretty eccentric.

## **NG AH SENG** **RETIRED AS DEPUTY CHIEF EXECUTIVE OFFICER** **(INDUSTRY) IN 2002**



*Ng Ah Seng (bottom row, extreme right) with competitors and experts at Singapore's first foray into international skills competitions — the International Youth Skills Olympics, in Lyon, France, in 1995. The competition has since been renamed WorldSkills Competition and ITE remains as Singapore's Official Member Organisation to WorldSkills International.*



# SERVICE EXCELLENCE THROUGH CONTINUAL LEARNING

Under *ITE Breakthrough*, one of the primary goals was to make ITE a learning organisation committed to service excellence. The strategy to achieve this was the promotion of an environment for continual learning, improvement and innovation. To further instil a culture of learning among ITE staff, Individual Learning Plans (ILP) for staff development was implemented in 1999. With ILPs, each staff member takes personal responsibility for his or her development and training programmes. Under this framework, staff are required to fulfil at least 100 hours of learning per year. Learning was not confined to merely attending lectures or seminars, but also included coaching and mentoring, on-the-job learning and self-directed learning. Lecturers were also required to undertake a three-month industry attachment at least once every five years to keep abreast of the latest technology and practices in industry.

## CONTINUAL LEARNING IN TEACHING

The students of yesteryear were, needless to say, totally different from those that we have today. As teachers, we do our utmost to engage and connect with them. With the advent of technology, we are always learning new ways of communicating with them — from pager messages to SMS and MMS, from email and Friendster to MSN and Facebook. All these mean that the lecturer, in order to engage his or her students, has to have the skills to utilise the latest communication tools well.

## CHAN HIAN HWEЕ SENIOR LECTURER-MENTOR /ACCOUNTING ITE COLLEGE EAST



*Above: Handmade Teachers' Day Card from one of her students.*

*Left: Chan Hian Hwee (Front row, 1st from right) celebrating Teachers' Day with her students.*

## WHAT ITE OFFERS

Our students always attribute their successes and life-changing moments to the many opportunities ITE gives them and the care and patience showered by their lecturers. I will always remember Mohd Nabil. An Engineering graduate, he is a great ITE ambassador and is always happy to share how his achievements in life are due to his time in ITE. Nabil was the third President of the Student Council at ITE College East. We saw him as a natural leader and wondered why he had not been given the opportunity to make use of his strengths before. He later told us that it was because of his relatively weaker academic results. At ITE, we did all we could to groom him. Despite his heavy leadership commitments at ITE, he did well to gain entry into Republic Polytechnic. He is still very active in volunteer work and actively contributes to numerous councils and grassroots organisations.

### **CHONG LEONG FATT** DIRECTOR, COLLEGE SERVICES ITE COLLEGE EAST



*Design Thinking – a creative thinking process to analyse and present solutions to a problem*

## TEACHING AS LEARNING

Life as an educator has always been engaging and enriching. It has allowed me to grow in skills, knowledge and values. Teaching is, after all, learning.

Whilst setting up the Design Excellence Centre, at the School of Design & Media, in 2009, I learnt how we could excite and engage learners in the four aspects of the design workflow: to discover opportunities, define outcomes, develop ideas, and demonstrate solutions. Through the development of the interdisciplinary design elective — Design Thinking for Innovation — I learnt how our learners can develop empathy for those who will be using their solutions, as well as collaborate with interdisciplinary project teams that have vastly different problem-solving approaches to tackle real-world projects.

### **TAN LAY HONG** MANAGER/DESIGN EXCELLENCE CENTRE ITE COLLEGE CENTRAL



# TALENT MANAGEMENT

This second wave, under *ITE Breakthrough*, also focused on the attraction, retention and development of the right people. A Taskforce, led by the then Director and Chief Executive Officer of ITE, Dr Law Song Seng, was appointed by the Board to undertake a comprehensive Teaching Service Review in 2002. The changes were implemented in phases over the following two years. The goals were to raise the profile and status of the ITE teaching staff; strengthen the compensation and reward and recognition systems; expand career progression opportunities; enhance capability and talent development programmes; and create a supportive work environment. Some of the measures adopted to achieve these goals included the raising of the qualification requirements for teaching staff, a redesigned compensation structure using both private- and public-sector benchmarks and more refined recognition awards. There were also Career Tracks for the Teaching Service, with more flexibility in career appointment and development, depending on their aptitude and interest.

More importantly, the ITE Teaching Service was redesigned to have four new career paths, namely, the Teaching, Leadership, Specialist and Technologist Tracks. The new tracks, formulated in consultation with the Union of ITE Training Staff (UITS), provided greater opportunity to better match the different abilities, aspirations and career progression of ITE lecturers.



*Students and staff eagerly examining the Aermacchi S211 Trainer when it was received from the Republic of Singapore Air Force.*

# WHY I JOINED ITE

Many people have asked me, "Why did you choose to teach?" and "Why did you choose ITE?"

I would pause and answer, "I was a VITB student back in 1984, and VITB (the predecessor of ITE) gave me a second chance to excel in my studies. While I eventually progressed to further education, I did not forget where my journey began. I wanted to return to ITE for what I received, to share my knowledge and skills with the students and to shower them with tender care, just as my VITB teachers had cared for me."

## GOH BEE TIN HEAD/STUDENT RELATIONS ITE COLLEGE CENTRAL

*Right: Going beyond imparting skills and knowledge, lecturers at ITE are able to build a strong rapport with students and give advice like an old, trusted friend.*









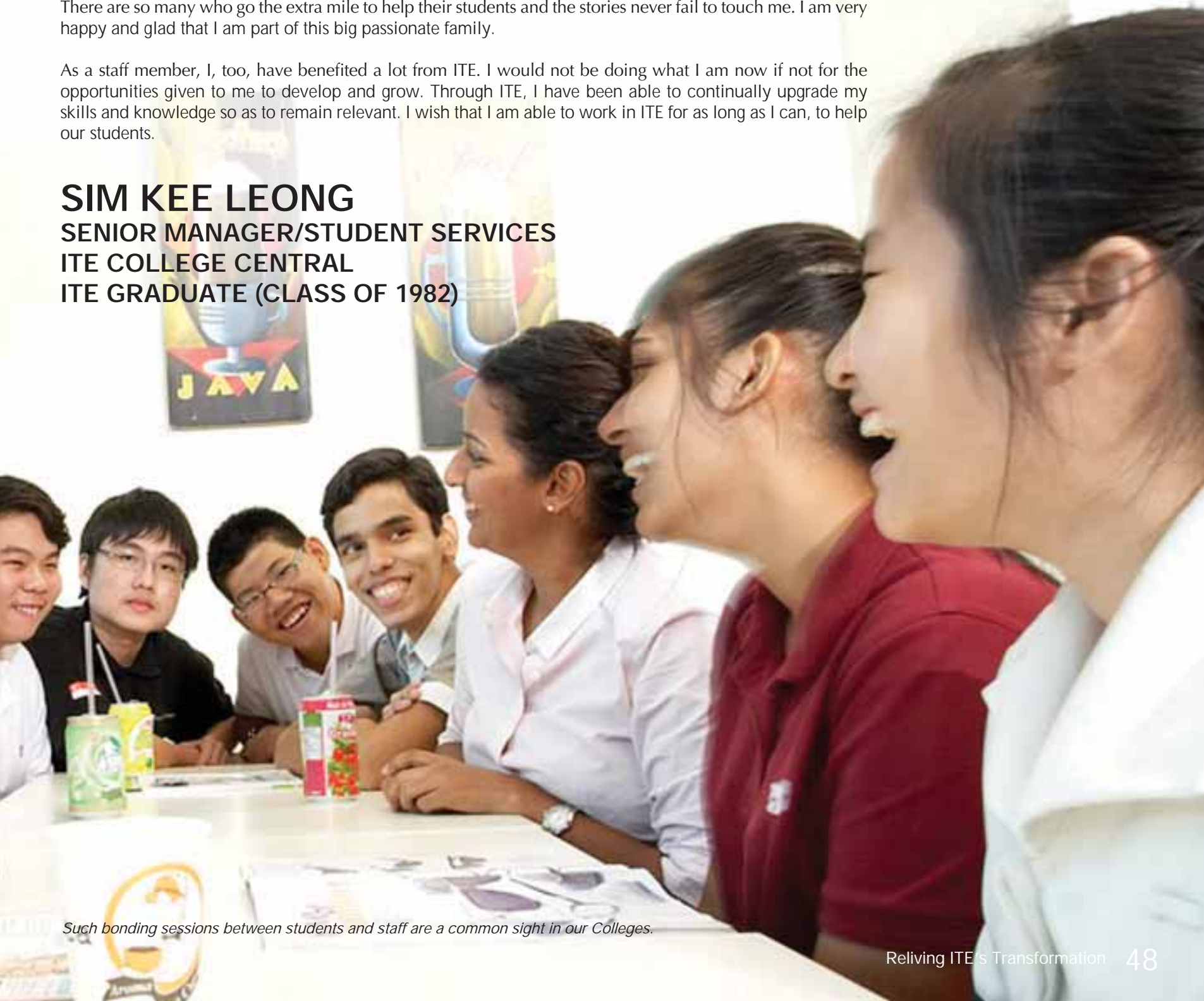


# FOREVER WITH ITE

ITE is a very caring organisation. Many less academically-inclined students and needy students have benefited greatly from ITE. And because of our *ITE Care* values, we have been able to attract many caring and passionate people from industry to join us. We have heard many inspiring and heart-warming stories of our teaching staff. There are so many who go the extra mile to help their students and the stories never fail to touch me. I am very happy and glad that I am part of this big passionate family.

As a staff member, I, too, have benefited a lot from ITE. I would not be doing what I am now if not for the opportunities given to me to develop and grow. Through ITE, I have been able to continually upgrade my skills and knowledge so as to remain relevant. I wish that I am able to work in ITE for as long as I can, to help our students.

**SIM KEE LEONG**  
**SENIOR MANAGER/STUDENT SERVICES**  
**ITE COLLEGE CENTRAL**  
**ITE GRADUATE (CLASS OF 1982)**



*Such bonding sessions between students and staff are a common sight in our Colleges.*









# WHY I WILL NOT LEAVE

In all honesty, I have sometimes thought about quitting when I see my former classmates who are captains of industry and in the 'Who's Who' of the rich and famous. But then, I think again and ask if they all have what I have.

I will always remember one of my students, Mani, from Engineering, who slept in my class most of the time. He was always tired, but he did his work diligently. One day, I decided to ask him why he was napping in class. He told me that he worked at night as a delivery driver and often had to work very late into the night. After that, he needed to rush home and help out with the chores to lighten his mother's load. And yet, I had always thought him to be a 'lazy and nonchalant' boy. How mistaken I was. That day, I learnt to view things from a different perspective.

Months later, when we were queuing up to buy *roti prata* at the canteen, Mani told the stall holder in Tamil to let me have my food first. I was touched by his simple gesture, which nevertheless showed his consideration and respect.

There are many such little incidents happening every day in every classroom. Every 'sleeping' boy or every 'talkative' girl teaches me new things. When we learn to listen to them with a heart, we will hear a whole new world of love, hope and dreams.

This is why I choose to stay in ITE. There are so many lovely mysteries of life to unravel and to touch. Though I may not be a 'Who's Who', I can be that teacher who makes a difference for the next 'sleeping' boy.

**ERNEST LIM KWON YONG**  
**LECTURER-MENTOR/LIFESKILLS**  
**ITE COLLEGE WEST**





ST PHOTO: EDWIN KOO

**BUILDING TIES AND BRIDGES:** Lecturer Gan Geok Hong, 40, with her building drafting students at ITE College Central (Bedok) campus. Like many of her students, she is no stranger to the hard life and knows how difficult it can be to have to juggle homework with working after school hours to supplement the family income.

## Teacher, peacemaker, social worker and friend

**School holds 'graduation ceremony' earlier to fulfil mum's dying wish**

# She sees him graduate, dies hours later

REPORT: **JOANNA SEOW**  
joseow@sph.com.sg

**H**IS mother, stricken with breast cancer, was dying.

Her last wish was to see her 20-year-old son graduate from the Institute of Technical Education (ITE).

But his graduation ceremony would take place only three weeks later.

So Chang Ze Xun called his school for help.

That evening, two staff members from ITE College West rushed down to his home and conducted a simple "gradua-

"That morning, the doctor told us to be prepared – that she might (die) in one to two weeks," Ze Xun recalled.

The family took her home from Singapore General Hospital that day.

On the way home, the young man called his school and asked if there was anything they could do to help fulfil his mother's wish to see him graduate.

Two staff members from ITE College West – Mr Alfred Tan, course manager of mechanical engineering and automotive technology, and Mr Ong Lye Sum, section head of mechanical engineering – headed

Left:  
*The Straits Times*  
27 October 2007

Below:  
*The New Paper*  
6 August 2010



**MEDAL WINNER:** ITE graduate Chang Ze Xun (left) and his late mother, Mdm Ong Siew Kee (above).

TNP PICTURE: JACINDA Y

# ORGANISATIONAL EXCELLENCE THROUGH TOTAL SYSTEM CAPABILITY

The third wave of people transformation aimed to establish an ITE workforce that would propel ITE to become a 'Global Leader in Technical Education'. *ITE Advantage* focused on enhancing capability for organisational excellence. Lecturers were required to update themselves regularly throughout their careers. As such, an ITE Academy was set up to build staff competency and professional capabilities. To develop and maximise talents, ITE implemented a Competency-based Performance Management System for teaching staff in 2005 to permeate a performance-oriented culture in ITE.

In 2007, a Total System Capability initiative was introduced, to put in place a holistic, integrated and sustainable programme to promote a continual process of developing the capabilities of ITE staff, to ensure their continued relevance in a global economy. Professional Capability is defined at three levels. At Level 1 'Know', staff have the professional knowledge and skills to fulfil their roles competently. At Level 2 'Do', staff have the professional knowledge and skills to undertake projects or consultancy work. At Level 3 'Lead', staff have the expertise and standing to lead in projects or consultancy work. The level of professional capabilities will determine the relevance and standing of academic staff to provide an industry-relevant education to students. The core outcomes are relevant and committed staff who are responsive to changes and capable teams who are ready for challenges and innovations, as well as a system that is ready for strategic changes any time.

## BUILDING CAPACITIES AND DEVELOPING TALENTS

Ensuring the long-term relevance and sustainability of the organisation are critical. I place a high emphasis on capability development, and building the future talent pipeline. We have a responsibility in ensuring that our staff remain relevant to the changing needs of industry. I have personally benefited from such developments in my previous appointments at the Economic Development Board and Nanyang Polytechnic, where I was sent to France, Japan and United States of America for training in advanced technology in microprogramming, robotics and machine vision, and flexible manufacturing. It is painful to see staff becoming redundant or obsolete over time. Between choosing the release of staff on a special resignation scheme and providing them further help so as to remain employable, the choice for me was clear. I want to help staff stay relevant.

To me, new staff who join us with a skill set should not become obsolete after they have been with us for some years. We have to continue to enhance and value-add what they have acquired, so that, years down the road, they remain as valuable to us and to industry. With this in mind, I introduced the Total System Capability (TSC) initiative, to inspire staff to continually learn, grow and share their experiences. It provides an integrated approach in human capital development through staff undertaking industry projects or consultancy work to deepen or grow their domain expertise, as well as broaden their cross-domain competencies. They can then multiply their knowledge and skills through sharing with peers. This initiative has boosted the expertise among ITE lecturers and has spawned new ideas and innovative projects among staff and, more importantly, with students.

With the rapid expansion in our capacity and growth over the years, we faced a severe manpower crunch, especially at the professional and middle management levels. We have since reviewed and introduced new positions and opportunities for our professional and leadership staff, in line with other post-secondary institutions. This has facilitated more effective organisation of work and better work-life balance, and built up our talent pipeline.

I meet all management appointees personally, to emphasise the importance of developing their staff, collaboration and teamwork — within their own work units, across units and across the entire organisation. I believe that a good leader must know how to identify talent; engage and motivate their staff; develop and groom them for higher responsibilities. And we have all types of development and education programmes to coach and develop our talents, locally or overseas.

**BRUCE POH**  
**DIRECTOR & CHIEF EXECUTIVE OFFICER (FROM 2007)**





*Bruce Poh, Director & CEO/ITE (centre), viewing innovative staff projects at the 2011 ITE Innovation Fiesta.*

# A HOLISTIC *ITE CARE*

By 2012, ITE had a staff strength of more than 2,500, and the development of people offered the greatest scope for ITE to optimise its resources. About half of ITE's teaching staff now have Degrees, Masters or PhDs. Nearly 1,000 of them have benefited from sponsorships granted to upgrade formal qualifications since 1992. Staff are able to maximise their potential and talent through benchmarked career tracks, and talents are developed through a performance-based reward structure.

The cornerstone of ITE's people practices is *ITE Care*. This *ITE Care* culture permeates the organisation and is consistently demonstrated by management and staff. Simply put, *ITE Care* (Integrity, Teamwork, Excellence and Care) values is a set of four core values that represent the way ITE does things, the way ITE treats others and the way the ITE family functions. The *ITE Care* culture is very much alive in the organisation through its people and work in such genuine and sincere ways that anyone who walks through its doors can feel it.



*Above: Management and staff alike, 'hands-on' during the activities at the Corporate Work Plan Seminar 2009.*

## PEOPLE — THE SECRET INGREDIENT IN ITE'S SUCCESS

I firmly believe that one of the anchors of ITE's success is the attention it pays to its people, across all levels. Employee engagement is high and there are frequent and synergised communications to all staff, to bring everyone on board. I have personally worked with some of the staff, and their competence and dedication are exemplary. The energy and resources ITE puts into developing its employees continue to pay high dividends, as staff are energised to keep up with all the changes and developments at ITE over the years. As I have had the privilege of chairing ITE's Establishment Committee — which deals with people matters — since 2007, I am not at all surprised that ITE was recognised as one of Aon Hewitt's Best Employers in Singapore in 2011.

**HENG CHIANG GNEE**  
**DEPUTY CHAIRMAN (FROM 2010)**  
**BOARD MEMBER (2003 - 2010)**  
**ITE BOARD OF GOVERNORS**





# ITE CARE VALUES

*ITE Care* is a simple set of four core values which represent the way we do things, ITE's organisational culture and the way we treat others. Firstly, 'Integrity' is something very fundamental, especially as we are a public institution. 'Teamwork' means that we always work as a team to achieve success for everybody. To me, the collective wisdom of the team is more important than individual wisdom. We have always pushed for 'Excellence'. We want to be better and more efficient. We want to create even better value for our students and stakeholders. It is a journey whereby we are always trying to shift the goal post to try to do better, to innovate and create new value for staff, students and the organisation. Lastly, 'Care' is the glue that binds the people to care for our students, colleagues and others. And 'Care' must be genuine and sincere without expectations.

We are gratified that the *ITE Care* values have been our unifying force, touching the lives and hearts of our students and staff.

## CHUA AI LIAN DEPUTY DIRECTOR (CORPORATE & INTERNATIONAL DEVELOPMENT)



*1st row, second from left, Chua Ai Lian and colleagues after the Corporate Work Plan Seminar 2011*

# THE PERVASIVE *ITE CARE* CULTURE

Our success in ITE is not just about the beautiful new buildings or pedagogic innovations. I believe that we have managed to transform so many youths who have come to us because of our strongest competitive asset — our staff — who really care for our students and live our *ITE Care* values.

I really appreciate the intense and passionate effort of staff to develop and help our students. I appreciate the fact that our staff are rich in 'heartware'. We are heartened when our graduates write in to share with us the difference their lecturers have made in their lives. We have heard stories of staff using their own money to make sure their students have meals; staff who take their students' calls even in the wee hours of the morning because they need help; staff who turned around students who are not keen to study into eager learners aiming for higher success. When I speak to our students and graduates, I am always touched by the amount of praise and regard that they have for their teachers.

But it is not just about caring for our students. It is just as important that, as an organisation, we walk-the-talk in caring for our staff as well. Our HR policies and practices are anchored on our ITE values of *Integrity, Teamwork, Excellence* and *Care*. We strongly believe that the *ITE Care* Culture is not just for our students, but something that we live in our day-to-day working relationships, too.

I have heard some of our colleagues share that, during job interviews, when asked why they considered ITE, some applicants shared that their friends or family working in ITE have cited the caring culture here. For an organisation to receive such strong word-of-mouth recommendations, I am happy to think that we are doing it right!

**BRUCE POH**  
**DIRECTOR & CHIEF EXECUTIVE OFFICER**  
**(FROM 2007)**









# LEADERS ROLE MODEL *ITE CARE*

I have seen much transformation in how ITE engages its people since I first joined ITE as a rookie executive in the Human Resource Division 25 years ago.

First and foremost, I am truly touched by the passion and dedication shown by the management over the years in personally leading the positive changes in ITE's people-focused culture of *ITE Care* and its philosophy of 'People-centred Management'. It is certainly a tough job to deliver results at the organisation level and, at the same time, caring for staff's development and welfare from the heart and engaging them at a personal level to be passionate and innovative to deliver quality technical education and services to our customers. This was evident at various assessments during our Organisation Excellence journey, where I have heard my colleagues speak passionately about what it means to be an ITE staff and how Management has cared for and supported them in various ways to make positive and meaningful changes for the organisation, ITE students and for themselves. Many staff have shared that they progressed in their career through the support provided by ITE, such as personal guidance, support for further studies, and the many other opportunities to develop and grow within the organisation. And many staff, including the Unions, have openly commended ITE Management for its care and concern, from the heart, for staff.

An innovation which has had great positive impact on staff is the Total System Capability framework introduced to support the development of ITE staff's professional and technical competency. It keeps them relevant in these times of fast-changing technology and industry practices. It makes me proud to know that our academic staff are able to do projects which are at the forefront of technology applications, and winning top awards, such as those from USA's League of Innovation and the International Quality Control Circles (IQCC) Conventions, and garnering support and funding from innovation partners such as Ministry of Education and the Singapore Totalisator Board. And all our staff have every reason to be proud of our achievements in this area, as we have come a long way from our humble VITB days.

## JANE CHIA DIVISIONAL DIRECTOR (ENTERPRISE ADMINISTRATION)



*Jane Chia receiving an ice-cream from Bruce Poh, Director & CEO/ITE at the ITE Care Festival 2011, where Senior Management staff put on aprons and handed out goodies to staff.*



# UNITED IN MISSION

We see the Union's role as one that works with management to advance the organisation and to bring about employment stability. It is also about the collective voice for our members at their workplace, as well as their well-being. UITS has reorganised itself, as ITE developed itself from the 10 campuses into the three Regional Colleges. From the 10 branches that we organised our members in the past, we have restructured into three branches at each of the Colleges and one branch at ITE Headquarters (HQ). This would be further restructured when ITE HQ moves next to the new ITE College Central, merging the branches at HQ and ITE College Central to better serve our members.

During the period when ITE, together with UITS, organised staff upgrading programmes that led to the award of polytechnic diplomas, some of our members experienced some difficulties in coping with their studies. The Union lobbied for support from some lecturer-members and offered tuition to those members having difficulties gaining momentum in their upgrading programme. ITE management had been supportive of helping staff cope with the changes.

The cordial Union-Management relations that the leaders of both ITE and UITS built and reinforced over the years allow for fruitful dialogues to take place, sensitive issues to be resolved, and challenging policies to be implemented successfully. Indeed the strong ITE-UITS labour-management relation is envied by many affiliated unions.

**JEFFREY KOH**  
**PRESIDENT**  
**UNION OF ITE TRAINING STAFF (UITS)**

The Union ensures that members' rights are protected, represents members on grievances, and helps members cope with changes. From the aggressive tactics of early days, unions have evolved to a more consultative and negotiable stance when engaging management.

Over the last 20 years, the Unions have established excellent ties with management through dialogues, annual Management-Union Games and Joint Industrial Relations, which involve the Amalgamated Union of Public Employees (AUPE) Management. There is transparency and respect during these meetings, with outcomes that lead to win-win situations.

I particularly remember one incident which involved a serious job mismatch of a member in his workplace. It affected the member to such an extent that he had sleepless nights and could not function effectively in his workplace. Through negotiations with management, the member has since been placed in a position where he is more productive. His self-esteem has since grown, too. There were also other incidents involving redundant positions. This involved negotiations that sensitively approached staff's needs, as well as career planning and training for the transition.

**NIVA HUNDAL**  
**CHAIRMAN**  
**ITE ADMINISTRATIVE & ANCILLARY**  
**STAFF BRANCH (ITEAASB)**



30th

ITE Management-Union

Friday, March 20, 10:00 Hrs

*Celebrating the 30th Anniversary of ITE Management-Union Games. (From left) Niva Hundal; Sabrina Loi, Deputy CEO (Corporate); Ma Wei Cheng, General Secretary, Amalgamated Union of Public Employees; Heng Chiang Gnee, Deputy Chairman/ITE; Bruce Poh, Director & CEO/ITE; and Jeffrey Koh.*



# I JUST WANT MY STUDENTS TO BE HAPPY

It was 1 April 2002. I was all psyched up to teach my first class of students in ITE. I had my own set of expectations and I wanted the students to meet my expectations. It appeared that this was not the easiest thing to achieve.

It took me a while, but I realised that teaching in ITE is not about students meeting my expectations. I learnt that it is about accepting students as they are. It is not a matter of getting them to listen to you. I learnt it is about listening to what they have to say.

Over the years, I have evolved. I now channel my energy from placing expectations on students to getting to know my students individually. I now focus on building good relationships with them so that they can trust me and that there would be no barriers between us. I know they do not care about how much I know until they know how much I care. I want my students to be willingly accepting of me and the knowledge that I impart.

In short, I want them to be happy in all my classes.

## **ASRINA BTE ABDUL SAMAD** **E-LEARNING SPECIALIST/ MECHATRONICS ENGINEERING ITE COLLEGE CENTRAL**



# LOVING MATH, LOVING MADAM ASRINA

Just hearing the word 'Mathematics' makes me cringe. Hate it or love it, there was no way I could escape that subject during secondary school. I loathed it. I studied it just for the sake of studying. Ironically, I was chosen to take Additional Mathematics. That made me detest Mathematics even more. And then I fell in love. Ironically, with Mathematics.

My sudden and surprising love affair with the subject started during my first year in ITE College Central. When I was told that I would have to take Mathematics again for the course I was enrolled in, I thought to myself, "Ouch, not again!"

Then came along Madam Asrina. She was truly different. When she taught, everyone somehow stopped what they were doing and listened. She had a friendly approach and this made us feel that she was a friend of ours, too. As students, we totally respected her and paid attention whenever she was teaching. She took great pains to make sure all of us understood her lessons. She had an amazing way of helping us understand different methods and concepts. She infused fun into the lessons, and chatted and joked with us whenever she could. There was never a dull moment. She made us practise hard with revision papers before the exams and she was always there, explaining mistakes, solving difficulties. She taught us how to draw mind maps to summarise the topics we learnt. I found it so useful I am still using it. She encouraged us to ask questions whenever we were in doubt, convincing us that there was nothing to lose, only lots to gain.

In the end, I scored an A for my Mathematics. And now, in the polytechnic, my love affair with the subject is still as passionate as ever. Everything she did made learning Mathematics enjoyable and she never once gave up on us. In return, we did not dare to give up on ourselves either. So we worked hard, hoping to do well in order to show our gratitude.

## **NUR HIDAYAH BTE SALLEH** **ITE GRADUATE** **HIGHER NITEC IN MECHATRONICS ENGINEERING (CLASS OF 2009)**

## FIVE MINUTES



*Above: Teachers' Day Celebrations were held in classes with students bringing home-cooked food for all to share. Heng Gek Hiong (centre, placing a hand over student's shoulder).*

When I started, teaching was a 'messy' affair with smudged transparency sheets and dusty chalkboards. On hot afternoons, I had to give five-minute toilet breaks and tell short stories to keep students awake in my accounting classes. I cherished those moments of bonding.

One day, a usually passive student asked for permission to tell a story in that short five-minute break. I knew the story and gave her the green light. This student was able to describe the details well and bring the story to life. I was not sure if I could have done it better had we swapped places.

From then on, she was more attentive during accounting lessons. She had transferred her liking for story-telling to the subject. This surprise discovery gave me another avenue to connect with students.

Sometimes, five minutes is all it takes.

**HENG GEK HIONG**  
SENIOR LECTURER-  
MENTOR/ACCOUNTING  
ITE COLLEGE EAST

## SEEK FIRST TO UNDERSTAND

During my early years as a Training Officer, I was a stickler for rules and good manners among my students. Scolding them when they did not behave well seemed such a natural thing for a teacher to do.

My perspective of classroom management shifted radically when I met one of my students. He would talk very loudly in class to his classmates. Sometimes, he would even shout to his classmates in class, even though the classmates were a mere two seats away. And he did it when I was teaching. It certainly did not help that his voice was way louder than mine! Occasions like these were happening so often that I became more and more irritated and upset with him. I did not understand why he had to shout all the time. So I would do what teachers were supposed to do — give him a piece of my mind and ask him to stay quiet. He would, but would also look miserably unhappy.

Once, I had an opportunity to ask him the question that had been bothering me for a long time — why did he have to shout all the time. He replied that it was what he did all the time, even at home to his parents. I probed further and asked him about his parents, only to realise that they were farmers in *Lim Chu Kang*. They lived on the farm, too. Since both parents were often working in the fields a good distance away from the house, the family grew accustomed to shouting to one another just so they could be heard. It was a habit that grew out of circumstances, and not bad manners as I deemed it to be.

This incident taught me one good lesson — that it is important to seek first to understand. And then be understood.

**NG CHENG HUAT**  
SENIOR LECTURER/  
MECHATRONICS ENGINEERING  
ITE COLLEGE WEST



# ITE'S TRANSFORMATION, OUR DEDICATION



*While ITE has continued to offer courses in Marine Engineering over the years, the learning environment and technology have vastly improved.*

I joined ITE (then known as VITB) in May 1985. It was then a vocational institute and the focus was on providing basic vocational skills to students. The curriculum provided basic skills. So, at the then Ang Mo Kio Training Institute where I was, bench-fitting, pipe works, wood working and bricklaying were some of the areas covered under the 'Pre-vocational Training Programme'. Students then progressed to the Basic Skills Training Programme. The better students moved on to the NTC-3 courses. The students in the Pre- and Basic Vocational Training Programme those days were basically premature school leavers or those who did not do well in the secondary schools.

Most of the institutes we occupied then were hand-me-down former primary schools. Our staff and students were resigned to the fact that we were the 'poorer cousins' in the education system. ITE, today, has transformed itself in many ways. Our Colleges today have learning facilities that are on par with or exceed those in other post-secondary institutions. ITE has been described as 'the jewel in Singapore's education system' by none other than a former Education Minister. This is truly delightful.

This transformation has been achieved, not only through improvement in our facilities and infrastructure, but through what I would term a complete system overhaul; our staff, curriculum, processes, services and publicity measures.

Our staff are now better qualified both academically and professionally. Our students, though still from the lower segment of the educational spectrum, have completed their secondary education and have a higher sense of self-esteem. Our curriculum is able to provide more pathways to meet our students' aspirations for better educational qualifications. Our collaboration with key industry partners ensures our graduates enjoy good and well-paying jobs on graduation.

The one prime factor that I see remaining constant over the decades of change is the commitment and dedication of our staff in providing our students with opportunities to prove that they can also be successful in their own ways. And that care never stops.

**SANGARAN GOPAL**  
**COURSE MANAGER/  
MARINE ENGINEERING**  
**ITE COLLEGE CENTRAL**

# MATURITY

I left school prematurely before completing my General Certificate of Education 'Normal' and 'Ordinary' (GCE 'N' and GCE 'O') Levels. I then took the 'O' level as a private candidate twice, only to do badly again and again. In total, I wasted about three years of my life. On hindsight, I wonder why I did not consider ITE earlier. I guess it was because of the negative perception I had of ITE then. But how wrong the perception has turned out to be.

ITE changed my life. The change agent came in the form of my Class Advisor, Mr Low Hock Siew. It came as a surprise to me that he never once questioned me about my older age or my past. It came as a surprise that despite my inattentiveness and lackadaisical attitude in class, he never gave up on me, and continued caring and showering attention on me. It came as a surprise that he treated all of us like friends, with no air of authority, just lots of amicability and kindness. These were not what I expected.

One fine day, I decided to give myself a chance to try to listen to his lectures, as attentively as I can. I also decided to give my best shot in the upcoming test. To my surprise, I scored 76% and although it was not perfect, that was the first time I ever scored a 'B' grade in my life. So I worked harder and did all the theory and practical assignments. From that point onwards, I aced all my modules and graduated with a perfect Grade Point Average (GPA) of 4.0.

Besides the realisation that I am not a 'failure', the biggest difference ITE made to me was my mindset and attitude towards life. ITE matured me — the mature student who was plain immature and irresponsible in the past. I know now that maturity comes not with age, but the ability to be responsible for one's own life. I know I wasted enough time. My thirst for knowledge grows constantly and my dream becomes clearer and grows nearer each day. I want to teach one day and share my knowledge and my story with future generations. I want to be just like Mr Low.

**SEAH GUO LONG**  
**ITE GRADUATE**  
**HIGHER NITEC IN ELECTRONICS**  
**ENGINEERING (CLASS OF 2009)**







*Lecturers are more friends than teachers as we help our youths rediscover learning at ITE.*




Developing staff capability is never just about the students we care about; it is also about fulfilling the different needs of each individual member of the ITE family. As such, ITE cares deeply for both its staff and students. ITE's transformation is made possible by first reinventing what it means to care.









CHAPTER FOUR:  
CREATING THINKING HANDS  
AND CARING HEARTS





In Singapore, VTE is synonymous with ITE. ITE's transformation rewrote the history of VTE in Singapore. ITE's courses, ever evolving and changing to meet demands of the economy, are continually challenging the boundaries of VTE and what VTE can do.

In 2012, ITE offers close to 100 courses in Applied & Health Sciences, Business & Services, Design & Media, Electronics & Info-comm Technology, Engineering and Hospitality, for its students to choose from. This is a stark difference from its early days back in 1992 when there were just 24 courses available. Pedagogy and processes of training remain in a state of evolution to meet the needs of different generations of students and the ever-changing needs of the economy.







*Hands-on, Minds-on, Hearts-on education epitomised by the passion and care in the Pastry & Baking course under the School of Hospitality.*

# COURSES — THEN AND NOW



*In the pre-ITE days, some courses offered were more skills-based, like Sewing and Carpentry. Even in Engineering and technology-based courses, like Automotive Technology, facilities and equipment were basic. Students also had a common uniform across all campuses and courses.*





Today, students at ITE have access to some of the best technology and facilities available for each field of study — like high-fidelity mannequins to provide 'as close to human as possible' patients in our Nursing course, systems and hardware in Electronics and Communications training, real aircraft and cockpit simulators for Aerospace courses, and authentic shopping spaces for students in our Retail courses.





*At ITE College West, students training for a career in the hospitality industry learn in an 'authentic' hotel lobby. This lobby is part of ITE's School of Hospitality, which also has a 22-room Hotel@College West, and four training restaurants and kitchens.*







# NEW CERTIFICATION SYSTEM

One of the earlier certification titles for vocational and technical courses was 'National Trade Certificate Grades 1 — 3 (NTC)' issued by VITB. It was replaced with 'National Technical Certificate' in 1992. Along the years, with the addition of new courses, there were new titles. Prior to 2002, ITE offered career and technical education to secondary school leavers under six certification titles, namely, the Industrial Technician Certificate, the National Technical Certificate Grades 1 and 2, Certificate in Business Studies, Certificate in Office Skills, and National Certificate in Nursing. With so many certifications, it was not easy for the public to understand the equivalence of each certificate.

Hence, a new Certification System was needed. A new Certification System with three distinct levels of training based on entry pre-requisites was launched in July 2002. The new Certification System was a milestone in the ongoing development of ITE's training system. The move reflected ITE's improved status as a post-secondary institution.

## A MOMENT IN HISTORY

### **EXCERPT OF ADDRESS BY MR TEO CHEE HEAN, MINISTER FOR EDUCATION AND SECOND MINISTER FOR DEFENCE, AT THE OPENING OF ITE EAST (*MACPHERSON*) AND THE NATIONAL SKILLS COMPETITION 2002, ON 4 JULY 2002**

Two years ago, when I officiated at the Opening of ITE West (*Bukit Batok*) campus and the National Skills Competition 2000, I said that ITE's new Curriculum and Pedagogic Models would go a long way in preparing ITE students to face the challenges of the New Economy. Already, ITE graduates are well sought after by industry, and assessment by employers is positive. ITE has done well to strengthen their students' foundation and mastery of the three key competencies, that is, Technical, Methodological and Social Competencies.

Today, I am pleased to announce another major initiative by ITE to streamline its system of certification. The new system will give better recognition to the value of an ITE qualification. It is a clear reflection of the changing needs of the economy, quality of students and brand name of ITE as an established post-secondary technical education institution.

The current ITE system of certification has evolved since the 1970's, in tandem with the changing economic and educational needs, and profile of ITE students. Many of us are now familiar with ITE certifications, such as the Industrial Technician Certificate, Certificate in Business Studies, National Technical Certificate, National Certificate in Nursing and Certificate in Office Skills. These certifications were developed along occupational groups, as the titles of the certifications would suggest. While this certification system has met our needs in the past, it is no longer adequate for the new economy.

Firstly, it has limitations in responding to the demand for qualifications in new areas of training, especially in the service sector. For example, the present National Technical Certificate, which was developed for technical skills, cannot be expected to appropriately accommodate service skills in say, Nursing or Tourism. Therefore, without this flexibility, the present system will lead to a proliferation of certification titles in the future. Already, we are beginning to see this trend when titles such as National Certificate in Nursing, Certificate in Office Skills and Certificate in Travel Services had to be separately created. A streamlined certification system based on the level of training would provide this flexibility to accommodate new qualifications to meet emerging needs.

Secondly, the profile of ITE students has improved over the years. Before the formation of ITE in April 1992, less than 50 per cent of the students enrolled in the former Vocational & Industrial Training Board had a secondary education. Today, 95 per cent of ITE students have GCE 'O' or 'N' qualification. They have a stronger foundation in literacy, numeracy and IT skills. Many changes have also been introduced by ITE in recent years to provide a more well-rounded training programme. The system of certification should therefore appropriately reflect the new education profile, quality and competencies of ITE graduates.



Thirdly, with modern and well-equipped campuses, high-quality training programmes and successful graduates, ITE now commands a strong brand name as an established post-secondary technical education institution in Singapore and overseas. The ITE Certifications are well-recognised and accepted by industry. It is, thus, timely to recognise this ITE brand name and further enhance the status and value of technical training through a new system of certification.

I am pleased to announce that, after a comprehensive review last year, ITE has rationalised its existing six certifications into three levels. The new certifications, which take effect from July 2002, are:

- The **National ITE Certificate**, or **Nitec**, for courses whose prerequisite entry requirement is the GCE 'N' level. **Nitec** will replace the existing National Technical Certificate Grade 2 (or NTC-2), the National Certificate in Nursing and Certificate in Office Skills;
- The **Higher National ITE Certificate**, or **Higher Nitec**, for courses with GCE 'O' level as the prerequisite entry requirement. The **Higher Nitec** will replace the existing Industrial Technician Certificate and Certificate in Business Studies;
- The **Master National ITE Certificate**, or **Master Nitec**, for ITE graduates with the existing NTC-2 or the new **Nitec** qualification, and have work experience. The **Master Nitec**, which is similar to Germany's 'Meister' qualification, will replace the National Technical Certificate Grade 1 (or NTC-1).

This new ITE Certification System will give ITE greater flexibility in introducing new courses to meet the changing needs of the new economy. It will align certifications with prerequisite entry requirements and will provide a clearer definition of the different levels of ITE training to school leavers, employers and the public. The new National ITE Certificate or **Nitec** is, in essence, the new benchmark for ITE training. As a post-secondary qualification, **Nitec** will be to ITE what a 'Diploma' is to a polytechnic or a 'Degree' to the university. The incorporation of the ITE name in the new system of certification will further enhance the recognition and value of an ITE qualification. It better reflects the ITE today and the quality of its graduates.



# A HOLISTIC *HANDS-ON,* *MINDS-ON, HEARTS-ON* ITE EDUCATION

*ITE 2000* first introduced a Total Training Philosophy. The moulding of ITE students into all-rounded individuals through the Total Training Philosophy was a continual process that finally created that unique brand of ITE education. *ITE Advantage* aimed to make students' learning holistic through the *Hands-on, Minds-on, Hearts-on* education philosophy, supported by a vibrant and conducive learning environment. This allows students a new approach — to integrate theory with practice through coursework, industry exposure, projects and experiential learning.

*Hands-on* training will equip ITE students with the skills-set required on the job, while *Minds-on* learning will develop them into thinking and flexible practitioners, who are able to keep learning and adapting to changes in the environment. *Hearts-on* learning will develop 'complete' ITE students who care for the community and society. The whole objective is to prepare students of different abilities, talents and interests for the new challenges and requirements of the global market, and train them to become market-relevant, adaptable, enterprising and compassionate.







# A BREAKTHROUGH CURRICULUM MODEL

The *ITE Breakthrough* introduced a new Curriculum Model in 2000, which placed a high emphasis on the learning of practical skills, in line with the strengths of ITE students. Though the emphasis is on 'hands-on' learning, students are also taught the related underpinning theoretical knowledge. Elective modules, intended to broaden or deepen a student's knowledge in various subject areas, gave students a choice related to their area of training or personal interest.

Foundational generic modules, called 'Lifeskills', were introduced to provide students with the necessary personal qualities they need to succeed at the workplace. Such soft skills are taught over and above those infused into the core curriculum.







## A STUDENT-CENTRIC PEDAGOGIC MODEL

Under *ITE Breakthrough*, a new Pedagogic Model was also introduced, with the primary aim of nurturing ITE students into graduates who are more than just technologically-savvy and adaptable, but creative and globally competitive, too. Implemented for all full-time courses since July 2000, the model has paved the way for more dynamic methodologies of teaching and learning.

With the new Pedagogic Model, students take on a much more proactive role — planning their learning process and exploring all available resources, while teachers, being facilitators, coach from the sidelines. Students can look towards having a sturdier learning foundation through such an active and collaborative learning environment. By implementing a Key Competencies Model to strengthen students' Technical, Methodological and Social skills, VTE was redefined and students were prepared for life-long learning and success.

# MEETING THE MANPOWER NEEDS OF THE ECONOMY

Traditionally, the aims of VTE are only to prepare youths for the world of work, to be good and useful citizens, and develop their potential abilities. These aims are still valid, but the speed and boundaries in which VTE operates have changed tremendously.

Industrialised countries link their VTE to economic competitiveness in the global market. Priorities are set for VTE to supply quality skilled manpower, at the right time, place and in right numbers. Inadvertently, VTE has to respond to globalisation, a knowledge-based economy, and rapid changes in technologies and labour market conditions in recent times.

The changes are very evident in ITE. Looking at the diversified range of courses and disciplines, the learning environments, physical infrastructure and the learning and teaching technologies, it goes to show how responsive and relevant ITE is, as a VTE institution.

ITE is now acknowledged as a world-class VTE institution. I am proud I was once in the team that made it happen. A huge part of my career in ITE was with the Curriculum Design and Development Division of ITE. We were responsible for putting in place the Credit System, which offers choice and flexibility for an all-rounded training of students. The Credit System puts ITE on par with top community colleges in United States of America. The adoption of Key Competencies in the curriculum, way before others, adds on a new dimension in ITE training. The Key Competencies is the forerunner of Employability or Life Skills being promoted now in VTE, especially by Workforce Development Agency (WDA).

ITE has built up the training capability of our local enterprises over the years through its CET and industry-based programmes, notably the Certified On-the-Job Training Centre (COJTC) Scheme, of which I was involved in the design and implementation phases. The COJTC was popular and received wide support from companies, big and small. The scheme requires the company to appoint their workers as trainers and OJT blueprint developers. ITE provides short courses in modules to train them under the Train-the-Trainer programmes, which are still running today. This scheme has built up a big pool of trained personnel to conduct training at the enterprise level and facilitates the government's drive for worker training to raise productivity. This is an important infrastructure built over many years by ITE, and WDA is now spearheading these efforts.

## **NG AH SENG** **RETIRED AS DEPUTY CHIEF** **EXECUTIVE OFFICER (INDUSTRY)** **IN 2002**

*Right: Ng Ah Seng (left) with Eric Gwee at the ITE Awards Presentation Ceremony 2002 following his retirement from ITE.*





# REFORMS IN CURRICULUM AND PEDAGOGY

The ITE Curriculum and Pedagogic Models underwent major revamps in the late 1990s, culminating in the introduction of a new ITE Curriculum Model and an ITE Pedagogic Model called the PEPP (Plan, Explore, Practice and Perform) Model in year 2000.

As a Pedagogic Model, PEPP was very relevant to the acquisition of career and technical skills. It is systematic and process based. Our concept was that if every ITE student was put through the process-based learning several times during his two years with ITE, he would become familiar with the process of planning, exploring, practising and performing in learning new skills and in solving new problems. This teaching process would therefore enable ITE students to acquire 'learning to learn' skills. The main driving force for the revamp was to address the shift towards a knowledge-based globalised economy and the pervasive use of IT in our daily life and workplace.

We recognised that technical skills have to remain as the core competencies of ITE graduates, but the softer Life Skills (we called these Employability Skills then), such as communication, thinking and problem solving, would be just as important for ITE graduates to function effectively in an increasingly more knowledge-based workplace. In addition, we also felt that our students should be given the opportunity to explore beyond their specific disciplines, to allow them to broaden their scope of study and make learning in ITE more interesting and challenging.

**TAN HONG CHOON**  
RETIRED AS PRINCIPAL,  
ITE COLLEGE WEST IN 2005



# CONNECTED LEARNING

ITE initiated a variety of e-learning and e-services as part of the IT Master Plan to provide connectivity, flexibility and accessibility. The two fully-integrated web-based systems, the *eStudent Services System* and the *eTutor Learning System*, were the first of their kind in the region at that time. The move created a seamless e-community and brought various ITE campuses closer together.

The launch of the *eTutor* signified ITE's commitment towards raising the proficiency of its staff and students in the field of IT and preparing them for emerging challenges and opportunities in the new economy. It also brought ITE a step closer towards establishing a vibrant community of connected online learning campuses. In addition, the *eTutor* facilitated multi-disciplinary learning, an aspect that featured significantly in the *ITE Breakthrough*. With courseware available in the *eTutor Learning System*, ITE students were able to access the relevant resource materials anytime and anywhere. The web-based learning system complemented the new Curriculum and Pedagogy Models that ITE introduced.



*Left: When launched in 2002, eTutor and eStudent were revolutionary systems allowing students anytime, anywhere access to selected learning modules and student administration procedures.*



# RIGOROUS PLANNING AND VALIDATION OF ITE CURRICULUM

The planning of ITE curriculum is a well-established world-benchmarked process that is rigorous and consultative, taking in inputs from all levels of industry and pertinent stakeholders to ensure robust and relevant curricula. ITE forms extensive partnerships and collaborations with key industry players and taps on their expertise, to develop skills standards and curriculum. Doing so ensures that the courses remain relevant and responsive to the needs of industry. Through the internationally-recognised DACUM (Developing A Curriculum) process, ITE ensures that its graduates are equipped with the right skills for the job.

ITE also has a rigorous and well-established system to validate each course syllabus. Academic Advisory Committees (AACs) examine and approve syllabi of courses for the respective industries or occupational clusters. The AACs meet regularly to discuss and review the syllabi, provide feedback on changes in industry, as well as provide specialist advice on technological trends. Each AAC comprises employer representatives, professionals and specialists from the respective industries. The AACs represent a vast resource of expertise, knowledge and experience to help ITE stay relevant, responsive and, if possible, anticipative of the changing needs of industry, society and the community.

The revamped Precision Engineering courses served as an excellent example of how ITE's regular stocktake of developments in industry and review of existing Physical Education curriculum ensured that ITE courses are not only relevant, but address the emerging and advanced skills required by various industry sectors. In January 2009, ITE implemented four entirely new courses related to the field. The new full-time courses were: *Nitec* in Aerospace Machining Technology, *Nitec* in Machine Building Technology, *Nitec* in Medical Manufacturing Technology and *Nitec* in Semiconductor Tooling Technology. In addition to being equipped with stronger niche competencies and precision skills, ITE students will be exposed to high-value manufacturing skills through industry attachment in these industries.



*Input on manpower needs and curriculum design from industry helped ITE reinvent courses offered under Precision Engineering and offer training in niche areas with higher value-add, like Aerospace Machining Technology, Machine Building Technology, Medical Manufacturing Technology and Semiconductor Tooling Technology.*

# THE ROLE OF ITE AND ITS COURSES

ITE is fulfilling two important roles in terms of helping students who have not accomplished much academically in the early years of schooling. Firstly, it equips students with core skills so that they can get a job easily. Secondly, it builds up their self-esteem and confidence. Some students come to ITE with a sense of failure. But once they learn a marketable skill and obtain a certificate widely recognised by employers, they experience success. This makes them feel good and want to achieve more.

One area that ITE has done well is the wide choices of interesting and industry-relevant courses on offer. ITE has more than quadrupled the number of courses since its inception. In the past, ITE courses were mainly in the technical and Engineering areas. As the economy evolves, ITE has responded with new courses in service-related skills and creative areas, such as Design & Media, Nursing and Beauty Therapy. Instead of telling people to fit into the courses, we offer courses based on industry needs and students' interest and passion. The Board and I are gratified by how our students' lives are transformed after an ITE education.

## **BOB TAN** **CHAIRMAN (FROM 2007)** **ITE BOARD OF GOVERNORS**

*Right: Bob Tan, Chairman/ITE, meeting students on attachment and internship at Sentosa Development Corporation, during a Board visit to industry.*







# THE LONGER PATH

Before joining ITE, I had no idea what 'studying' was, why I was studying, or why I should even be studying. I had no purpose and certainly no aspirations. But ITE helped me discover my interest and allowed me to pursue (satisfy) my curiosities in life. I began to realise that what I was learning was like putting two and two together, much like building a puzzle to see the bigger picture.

After graduating from ITE, I enrolled in Singapore Polytechnic's (SP) Diploma in Biomedical Science. In 2010, I went for an overseas internship programme at Harvard Medical School in Boston. ITE has prepared me exceptionally well for the hands-on approach, as the practical sessions were quite like a walk in the park. I am certain that the training I received from ITE would serve me well in school, my career and life.

During my first year at SP, I was often asked what my GCE 'O' Level aggregate score was. Many of my coursemates were taken aback when I told them '26 points' with a Grade D7 in Mathematics. Of course, my score was nothing to boast about, but I would then tell my lecturers and friends that I was from ITE, and am proud of it. I have never regretted my choice. The two years at ITE have been my best investment so far. I am glad I decided to opt for a practical education and a valuable certificate instead of following the crowd to re-do my GCE 'O' Levels.

It was a longer path up the mountains, but the view has been great and I have been strengthened.

## DANIEL POH YUAN KAI ITE GRADUATE HIGHER NITEC IN BIOCHEMICAL TECHNOLOGY (CLASS OF 2009)

*Right:  
The Straits Times  
12 June 2010*

### Ex-ITE student picked for Harvard internship

By AMELIA TAN

GOING on to university in Singapore was a stretch for former Institute of Technical Education (ITE) student Daniel Poh while he was growing up, let alone securing a stint at Harvard University.

But next month, the 21-year-old will embark on a 10-week internship at the Children's Hospital Boston, which is part of the Harvard Medical School.

He will be joined by Miss Jaslyn Ng, 18, who will be attached to Harvard's Wyss Institute which specialises in translating technologies developed by its faculty and staff into commercial products and clinical therapies.

Both are in Singapore Polytechnic's (SP) biomedical science course, and their internship at Harvard marks a first for polytechnic students here. They will be helping to do research on stem cells.

The duo have their lecturer at the School of Chemical and Life Sciences, Dr Tan Eng Lee, and Dr Jonathan Loh - an SP alumnus who is currently a research fellow at the Children's Hospital Boston - to thank for the chance.

Dr Tan recalled what Mr Poh said when told he was being picked for the stint. "He told me 'Sir, I am from ITE. I told him I don't care. What matters is that he is here now and he is doing well,'" Dr Tan said.

The former St Patrick's Secondary School student scored a dismal O-level aggregate of 50 points and went on to study at ITE College East after being rejected by the three polytechnics he had applied to.

He had to contend with his mother, who objected to him enrolling in the ITE and wanted him to resit his O-level examinations. But it was at ITE, where he was enrolled in a biochemical technology course, that he found his calling in science research.

"In secondary school, I didn't put in effort in my studies because I didn't know why I was studying or what I was aiming for. But at ITE, I became interested in sci-



Mr Daniel Poh, currently studying at Singapore Polytechnic, will embark on a 10-week internship at the Children's Hospital Boston, which is part of the Harvard Medical School. ST PHOTO: JOYCE FANG



# AUTHENTIC LEARNING THROUGH INDUSTRY AND GLOBAL COLLABORATIONS

ITE's collaborations with industry include the setting up of Centres of Technology (COTs) and introduction of Joint Certifications with industry partners. COTs are specialised centres set up with global industry players to build up core capabilities and niche areas in ITE Colleges. This allows ITE to adopt the know-how and technology of its industry partners.

The COTs provide the opportunity for ITE staff to enhance their technical capability, and more importantly, keep up-to-date with the practices and standards in industry. In the same way, ITE students will benefit from an ITE curriculum that remains relevant and responsive to the changing needs of the employment market. ITE now has 17 Centres of Technology, with leading partners like Allmänna Svenska Elektriska Aktiebolaget (ASEA) Brown Boveri (ABB), Keppel Offshore and Marine, Hewlett-Packard, International Business Machines (IBM) Corporation, and Singapore Technologies Aerospace.

Students can immerse themselves in 'real-life' industry projects at these COTs, absorb the latest technology, master the 'coolest' IT gadgets and even take up Joint Certification electives. Such Joint Certifications attest to the knowledge and skills competencies of ITE graduates, which are benchmarked against global industry standards. ITE students who graduate from these programmes will have that competitive advantage in technical skills and the opportunity to progress to higher-level professional certifications administered by global leaders in the respective industries.

In 2011, ITE had 92 active Memoranda of Understanding with industry partners to participate in ITE education by providing expertise, attachment opportunities for students and staff, and technology transfer.

By leveraging on the resources of ITE's global partners, students benefit from authentic learning, best practices, state-of-the-art hardware and software, and industry attachment opportunities provided by leading industry players. Through international collaborations, ITE seeks to deepen and widen its linkages for learning, sharing and exchange for staff and students.

Globally, ITE has also partnerships and Memoranda of Understanding (MOU) with renowned global institutions in Australia, Federal Republic of Germany, France, Hong Kong, Switzerland, the United Kingdom and the United States of America, including:

- Box Hill Institute of TAFE (Australia)
- Challenger Institute of Technology (Australia)
- Holmesglen Institute of TAFE (Australia)
- IMI University Centre (Switzerland)
- Institut Paul Bocuse (France)
- Kirkwood Community College (United States of America)
- Ministry of Education, Youth and Sports (Federal Republic of Germany)
- Southern Alberta Institute of Technology (SAIT) Polytechnic (Canada)
- University of the Arts London (United Kingdom)
- Vocational Training Council (Hong Kong)

ITE and three global institutions, Box Hill Institute, Australia; Kirkwood Community College, USA; SAIT Polytechnic, Canada are members of the Global Education Network (GEN), where students and staff connect and learn globally.

*Right: MOU signing with IBM and CITRIX in 2011.*



# THE ITE-MEYS SYMBIOSIS

One of ITE's oldest partners is the Ministry of Education, Youth and Sports at Baden-Württemberg in the Federal Republic of Germany. Initiated in 1990 by Dr Tony Tan, the then Minister for Education during a visit to Germany, the partnership has, over the past 20 years, borne fruits for both partners. Besides sharing information, expertise and experiences in technical education, an Institutional Partnership has also provided for collaboration between technical colleges in Germany and ITE. The German Colleges that partnered ITE include Gottlieb-Daimler Schulen 1 and 2, and Carl-Benz Schule, Gaggenau.

ITE has learned much from Germany's renowned Dual Vocational Training System. In particular, the acquisition of Key Competencies (Technical, Methodological and Social) required at the work place and the Teacher Mentoring System were adapted into the ITE Curriculum and Pedagogic approaches.

The partnership started off with an MOU officially signed on 1 June 1991 between the Ministry of Education, Youth and Sports at Baden-Württemberg [Ministerium für Kultus, Jugend und Sport, Baden-Württemberg (KM)], Germany, and the VITB, establishing a five-year bilateral cooperation in the field of technical education and training. As provided for under the MOU, a separate Institutional Partnership was also established between Gottlieb-Daimler Schule, a Technical College in Sindelfingen, Baden-Württemberg, and the then ITE *MacPherson*. Both the MOU and Institutional Partnership expired on 1 June 1996, and were renewed on 7 November 1997 and 25 February 1999 respectively for further five-year terms. In April 2002, the status of the MOU was reviewed and both parties were greatly satisfied with the value and benefits of the cooperation. The MOU was renewed the second time on 29 October 2002 for another period of five years.

In 2009, the Principals of all three ITE Colleges went to Baden-Württemberg to renew, for the fourth term, a MOU between ITE's three Colleges and three German Colleges, namely, Gottlieb-Daimler Schule 1, Gottlieb-Daimler Schule 2 and Carl-Benz Schule, Gaggenau. The occasion was graced by Baden-Württemberg's then Minister for Education, Youth and Sports, His Excellency Helmut Rau. The partnership has benefited both ITE and its partner Colleges greatly through study visits, staff and student exchanges, industrial attachments, joint projects and video-conference discussions. ITE staff and students have gained from first-hand experience with a different training system, culture and technology. The long partnership with Baden-Württemberg has enabled ITE to keep abreast with the latest trends in vocational and technical education and training in Europe's most innovative region.



It was a privilege for me to visit Singapore and ITE, and to sign the renewal of our Memorandum of Understanding for Co-operation in Vocational Education and Training (VET) in Singapore in 2002, and in Germany in 2006. In my decade-long stint as former Permanent Secretary and later as Minister of Education, Youth and Sports, Baden-Württemberg, I have witnessed ITE's great achievements and transformation in vocational education and training over the years. In my stint as Minister of State in the Premier's Office, I still follow closely your unbelievable changes and achievements in VET with great enthusiasm.

In the 20 years of our collaboration, ITE Singapore has grown from one of the regular VET training institutes from among 15 countries which Baden-Württemberg cooperated with, to the Leading and Number One Global Partner of Baden-Württemberg in VET worldwide. Not a single country, starting at the same level like ITE some 20 years ago, has achieved the same level of excellence and quality like ITE Singapore. This explains why ITE Singapore is the only institution worldwide where we decided to offer our Technical Engineer Diploma (TED) in Machine Technology and grant the same examination and qualification offered in Germany. This means that the TED offered by ITE is fully recognised in Germany.

I would like to congratulate ITE for your outstanding quality and excellence in VET not only in Singapore, but globally.

## HELMUT RAU

### FORMER MINISTER OF EDUCATION, YOUTH AND SPORTS, BADEN-WÜRTTEMBERG FEDERAL REPUBLIC OF GERMANY



*Third Memorandum of Understanding between ITE and Ministry of Education, Youth & Sports, Baden-Württemberg, Germany, 29 October 2002, signed by Dr Ng Eng Hen, then Minister of State, Education and Manpower, Singapore, and Helmut Rau, then Minister of Education, Youth and Sports, Baden-Württemberg, Federal Republic of Germany.*

The highlight of the collaboration was the launch of a new Technical Engineer Diploma (TED) in Machine Technology at ITE in 2008. A full-time programme, the course fills a critical niche for highly-skilled technologists in the Precision Engineering industry and is a new progression path for ITE graduates who possess *Nitec* or *Higher Nitec* qualifications in related fields. It is modeled after the *Staatlich Geprüfter Techniker* (State Certified Technical Engineer) course, issued by the state of Baden-Württemberg. The strategic inclusion of another German College, Carl-Benz Schule, Gaggenau in the partnership started the collaboration towards a new TED in Automotive Engineering. One of only three schools in Baden-Württemberg to offer courses for the certification of automotive technicians, Carl-Benz Schule, has more than a century of history in the German automotive industry.





*The Technical Engineer Diploma in Automotive Engineering is one of three niche diplomas offered by ITE to provide more progression opportunities for ITE graduates.*



# INDUSTRY-DRIVEN COURSES

In the early years, most of our courses were generic and broad-based. As we grow, though, the courses that we now introduce are increasingly driven by industry. As a result, leading industry players have become more willing to partner and support ITE in developing new courses by advising on curriculum, as well as through technology transfer.

ITE has set up Centres of Technology like the ITE - Keppel Offshore and Marine Technology Centre, ITE - Singapore Technologies Aerospace Airframe Maintenance Centre, and ITE - Republic of Singapore Air Force Aircraft Engine Maintenance Centre by leveraging on the technology our partners contribute. These Centres not only showcase industry's technological capabilities, but also provide authentic training opportunities for our students. As examples, the Republic of Singapore Air Force donated an Aermacchi S211 training jet and a Bell UH1H helicopter, which are housed in a custom-built hangar, to create a realistic training environment; Singapore Technologies Aerospace provided cut-out fuselages from their aircraft conversion programme, which are being used for sheetmetal repair training; and Keppel Offshore and Marine donated a Ship Hull Structure, which is used for training on ship commission systems.

The collaborative partnerships with industry go beyond the enhancement of the delivery of training. Many organisations also award scholarships to our students and offer them jobs with good pay and prospects upon their graduation.

## LIM TECK LEE

**SENIOR DIRECTOR OF SCHOOL  
SCHOOL OF ENGINEERING  
ITE COLLEGE EAST  
ITE GRADUATE (CLASS OF 1977)**





# A NEW PATHWAY — TECHNICAL ENGINEER DIPLOMA (TED)

We found that a number of ITE graduates who were trained for key industries such as Precision Engineering and Culinary Skills ended up either pursuing a more generic diploma programme or switched to a programme that is different from what they had been trained for because there were no diploma programmes which were directly relevant.

Over the years, we had established a number of strong overseas partnerships, many of them offering diploma programmes which are relevant for ITE graduates. As it is beyond the means of most ITE graduates to go for overseas studies, we worked with the Ministry of Education to partner reputable institutions to offer such programmes in Singapore. These programmes not only benefit ITE graduates, they also benefit ITE staff because of the capability development, as ITE staff will be trained by our overseas partners to deliver these programmes.

With our long-standing partnership with Baden-Württemberg, which is very strong in engineering and technology, we identified and introduced two Technical Engineer Diplomas in Machine Technology and Automotive Engineering in 2008 and 2010 respectively. The third Technical Diploma in Culinary Arts with Institut Paul Bocuse, France, was launched in 2011.

**HENG GUAN TECK**  
**DEPUTY CHIEF EXECUTIVE OFFICER**  
**(ACADEMIC) (2003 - 2011)**





Under *ITE Advantage*, the need to build global mindsets in students became a crucial aspect of an ITE education. The Overseas Programme was relaunched as the Global Education Programme (GEP), in 2005, to equip students with global skills-set and mindset, as well as expose them to global trends and developments, challenges, work practices, and cultural differences. This holistic development of our students would put them in good stead for challenges anywhere in the global environment. The ultimate aim is to send at least 25 per cent of ITE's students overseas for programmes. Over the years, ITE students have had the opportunity to participate in various overseas programmes in more than 20 different countries like Australia, Canada, China, Federal Republic of Germany, France, Hong Kong, India, Indonesia, Korea, Japan, Malaysia, Nepal, New Zealand, Taiwan and the United States of America.



*Going global to gain wider cultural outlook and experiences. From top: ITE students in a community project in Taiping Village, Hainan, China, 2002; and Global Education Network students from Box Hill Institute, Australia; Kirkwood Community College, USA; and SAIT Polytechnic, Canada, with their ITE counterparts, participated in a Project management Course in Singapore in 2010 and met then Senior Minister Goh Chok Tong (back row, centre)*



# REAL-LIFE TESTIMONIALS OF ITE'S SUCCESS

When the ITE Alumni Association (ITEAA) was formed in 1997, it took us some time to adjust and work out a collaboration plan with ITE. When we realised that we could dovetail our plans with ITE's five-year Strategic Plans, we started having clear directions on how to add value to ITE and to the students who have come after us.

We organise many talks and seminars for the newer ITE students, to share our trials and tribulations in becoming who we are today. We want to let students know that there is a big pool of entrepreneurs and high-level executives who began their journeys at ITE. We hope to be the role models for them. And to the public, our illustrious alumni members are real-life testimonials of ITE's success and value.

We have also embarked on creating Overseas Chapters of the ITEAA, as we have found that many of our members have moved overseas. We now have four — Suzhou, China; Shanghai, China; Penang, Malaysia; and Ho Chi Minh City, Vietnam. Through these Chapters, we are happy that we can bring overseas attachment and internship opportunities for ITE students.

## **ROGER LEE** **PRESIDENT, ITE ALUMNI ASSOCIATION** **MANAGING DIRECTOR,** **INNOTECH ELECTRONICS**



# INTERNATIONAL STUDENT SEMINARS

One of the major events in the Global Education Programme is the International Student Seminar (ISS). The first ISS was held in 2007 in Hong Kong. The seminar saw some 300 ITE students exchanging views and interacting with their counterparts from Institutes under the Hong Kong Vocational Training Council (HKVTC). Based on the theme 'Global City, Inclusive Society', the 600 students from both countries deliberated on issues pertaining to the sub-themes: Global City — New Opportunities for All and Inclusive Society — Caring for Others.

The Seminar also marked a new milestone in the series of ISS: It was the first joint Seminar between ITE and HKVTC. A MOU partner since 1998, this was the first student seminar of such magnitude between the two partners. It was also the first time an ITE student seminar was held completely in an overseas location; and all student participants were involved in action-based projects based on the theme of the Seminar.

Through holding the Seminar in Hong Kong, and through interaction with Hong Kong students and speakers with rich international experience, students have had an opportunity to examine the issues of globalisation from a wider perspective, and be challenged to reflect on the roles they can play in caring for society.

The ITE-VTC ISS, alternating between Hong Kong and Singapore, is now a regular biennial event that students look forward to.

*Below: The HKVTC and ITE International Student Seminar is an event much anticipated by students. Organised biennially to rotate between the two countries, about 300 students from each of the institutions are joined by students from partner institutions from Australia, Canada, Federal Republic of Germany, France and the United States of America.*





# CeMTA: NURTURING ARTISTIC TALENTS

In 1998, a Musical Extravaganza was organised by ITE for the first time, to bring together artistically-inclined students to showcase their talents. The concert, held over two nights at the then Kallang Theatre, was very well-received by students, staff and external guests. Encouraged by positive feedback and reviews from those who saw the students in action, ITE established a Centre for Music and the Arts (CeMTA) in 2000.

The establishment of CeMTA has given students opportunities to learn and further develop their artistic talents and potential. Since its formation, the Centre has attracted strong interest from students and alumni. Besides staging biennial Musical Extravaganza shows in its earlier days and subsequently full musicals, CeMTA members are highly sought after for ITE and external functions.

In 2004, CeMTA presented its first public musical called *My Fair Singaporean Lady* involving some 120 students. This light-hearted production was a modern-day Singaporean version of George Bernard Shaw's classic *Pygmalion*. For many of the students, that was the first time they were taking part in a musical for the public. Said Sukumaran s/o Govindarajoo, an Electronics student from the former ITE West (*Bukit Batok*), who was 17 years old then: "The first time I performed in front of an audience was when I took part in a Talentime contest at Fuhua Secondary School. I won the second prize and was very encouraged to take to the stage. So when I heard about this musical, I promptly auditioned for a role. Playing one of the lead roles is like a dream come true for me. I'm so glad ITE has given me the chance to develop my acting talents."



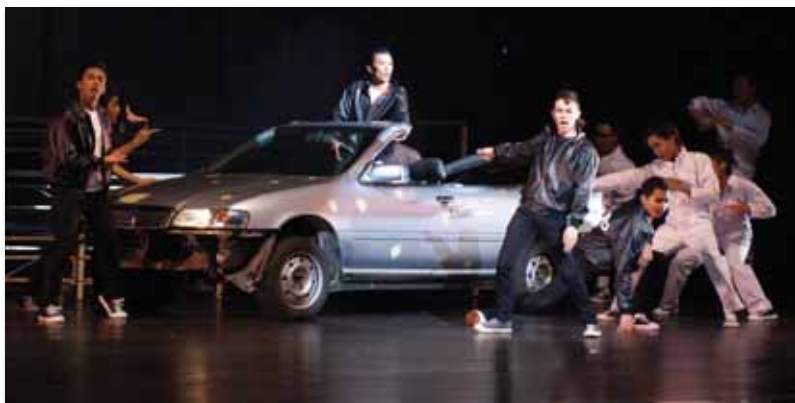
Two years later, CeMTA presented an inspiring story of love, forgiveness and redemption called *Joseph and the Amazing Technicolor Dreamcoat*. This musical showcased a diversified range of vocal talents. The cast comprised some 80 students from all three Colleges who were involved in the acting, dancing and production of the show.

In 2009, for the first time among all educational institutions in Singapore, *GREASE* was staged as a full-version musical by CeMTA.

The musical was directed by Mr Tony Quek, who has also directed past CeMTA productions. On his experience on working with ITE students, Mr Quek said: "I am very excited to see the standard of each batch (of students) improving over the years, especially when they move on to get recognised for their work in the arts industry. I find ITE students open to learning, and ITE has given them wonderful opportunities to explore their creativity." Mr Quek was so inspired by ITE students and their talents that he decided to join ITE to coach students in the performing arts full-time in 2010. He also directed the most recent musical, *West Side Story*, in 2011. Students from the various relevant courses professionally handled sound and lighting, make-up, hair and action.



*My Fair Singaporean Lady*



*GREASE*



*Joseph and the Amazing Technicolor Dreamcoat*



*West Side Story*



# HE WHO 'BUILT' ME

When I was a kid, I was in awe of Arnold Schwarzenegger and his muscular physique! As a skinny kid, I was always being pushed around in crowds. Not long after, I decided to start lifting weights. Pretty soon, the gym bug hit me and I was hooked. But it was not until I went to ITE that bodybuilding became more than a sport. It became a part of my life. It is now my pride and my joy. It is hard work, but it is also satisfaction and fulfillment. I have won seven bodybuilding contests and have been placed in the top three in many others. I have also represented Singapore in 2010 and finished fifth in the World Athletic Physique (170cm Category).

For all these, I have two mentors from ITE to thank. They 'built' me into who I am today. Mr Lim Wee Lip was a Physical Education teacher in the former ITE Dover back in 2004. As I frequented the school gym, I met him there often. That was how I was 'talent-spotted'. He asked me to represent ITE for a tertiary bodybuilding contest called NUS Muscle War, in 2004. That was the beginning of my 'career' in competitive bodybuilding. Mr Lim also groomed me to be the Chairman of the Fitness Club. I took charge of the gym and was given a set of keys to the gym. I ran the facility during breaks and after classes. This gave me a lot of extra time to work out there. I also helped other students who were interested in improving their physique. Mr Lim himself was an exemplary teacher. Besides his excellent physique, he was also an excellent role model.

Another person I would like to give a special mention to is the late Mr Albert Tan, whom I first met outside school. We happened to be training at the same gym and started to chat. It was then that I realised that he was actually a teacher at ITE in charge of the bodybuilding team. We exchanged our numbers that day and he subsequently invited me to join the rest of Team ITE for training. He offered me a lot of valuable advice. I am so grateful that a chance meeting developed into a strong student-mentor relationship.

Mr Tan was a bodybuilder himself who had won many competitions. He organised many of ITE's bodybuilding contests and was fervent about raising awareness in fitness, healthy dieting and bodybuilding. He was instrumental in discovering bodybuilding talents and training and nurturing them, inspiring passion in them. Most importantly, he helped me discover the 'body and mind' I never thought I had in me. On top of being a great teacher, mentor and an inspiration to all around him, he will forever be remembered for his contributions to the ITE Bodybuilding Team.

**DANIE DHARMU S/O JOSEPH SEGARAN**  
**ITE GRADUATE**  
***HIGHER NITEC* IN ELECTRONICS ENGINEERING**  
**(CLASS OF 2005)**

He thought ITE was for students with no hope. Then, he realises...

# We get so many opportunities

*Industrial joint venture*

*Chance to study some modules in the polytechnics*

*Exchange programme with Melbourne school*

**Tan May Ping**  
*mayping@sph.com.sg*

**N**O-HOPE place. That was the stereotypical image Mr Jonathan Mark Manogaran, 26, had of the Institute of Technical Education (ITE).

So, having fared poorly in his O-level exams, he decided to venture into the working world after completing his NS.

He never even gave the ITE a second glance because he was conditioned to think



◆ *Mr Jonathan Mark Manogaran and Mr Benjamin Loke presented their project to MM Lee Kuan Yew who visited the ITE campus yesterday. They said MM Lee was friendly and joked with them.*

Picture:  
**JONATHAN CHOO**

*Above:  
The New Paper  
22 February 2008*



# PEDAGOGY AND CURRICULUM

ITE adopts a pragmatic approach in the design of our VTE curriculum, one that is heavily slanted towards practical training and, to a much lesser extent, on theoretical knowledge. Hitherto, the proportion of practical skills training within a typical ITE curriculum has not changed much, although we have moved to a knowledge-based economy. However, there is now more emphasis on the latter as well.

It is of utmost importance to ensure that at the forefront of course planning, business trends and inputs are gathered in a timely manner from relevant stakeholders, such as employer associations, Human Resource planners of Multi-National Corporations and Small and Medium Enterprises, key industry players, government agencies, etc. We have an established and proven methodology, such as DACUM, in developing our courses. Our curriculum specialists are trained to regularly elicit, analyse, evaluate and aggregate the findings to draw up a competency profile that will then be translated into the initial blueprint of a new training programme. The resulting curriculum documents are then subject to validation by a wider group of employers, to ensure that each and every curriculum we develop is relevant and responsive to the manpower requirements of particular industries.

ITE's training approach, like many other institutions elsewhere, began very much with the conventional instructor-led approach where, besides the usual classroom, ample drills and routine practices were demonstrated and carried out in labs and workshops. Increasingly, however, as our economy matures and evolves moving from the industrialisation phase to a more knowledge-based digital milieu, training students in specific processes and technical competencies is still necessary, but insufficient. Hence, we started shifting to a more student-centric approach in curriculum delivery, propagating a more inquiry-based pedagogy called the Plan, Explore, Practice and Perform (PEPP) Model to nurture essential life skills, such as planning and organising, teamwork, problem-solving, interpersonal, and communication skills. All this was done to better prepare our youths to cope with uncertainties and often ill-defined problems they will encounter in the real working world. Today, we have moved even closer to fostering an authentic curriculum and learning environment by actively collaborating with companies for 'real work' projects and internships for our students and staff.

**IRIS SEET**  
**DIVISIONAL DIRECTOR, CURRICULUM AND**  
**EDUCATIONAL DEVELOPMENT**



# ENHANCED INDUSTRY-BASED TRAINING

**ITE 2000** strengthened industry-based training infrastructure for both school leavers and adult learners. To do that, ITE worked directly with companies and industry. Our new Apprenticeship System, launched in 1990, was modelled after Germany's Dual System of Vocational Training. This system was expanded for school leavers who preferred an 'earn-as-you-learn' approach in acquiring a career qualification. In contrast to VITB students, who comprised mainly those who had completed only primary or lower secondary education and were therefore too young to capitalise on the apprenticeship option, the new Normal (Technical) school leavers targeted by ITE would be at least 16 years old, making apprenticeship a viable option.

To make apprenticeship programmes more attractive and ensure that they remained relevant to the economy, ITE reviewed and restructured its Apprenticeship System and rebranded it as a 'Traineeship Scheme' in 2000, under **ITE Breakthrough**, to reflect the enhanced quality of post-secondary training. The features included a new 'sandwich mode' of training, consisting blocks of full-time training alternating with on-the-job training. The training structure was competency-based rather than time-based, which means that the trainee who did well could complete his training in a shorter time. There was also an enriched curriculum that offered Employability Skills and the opportunity to take elective modules to encourage multi- and cross-disciplinary learning.



*Tan Chong Motors Pte Ltd*



*Singapore Technologies Aerospace Ltd*



*National Dental Centre of Singapore*

*Above: Some of ITE's many partners offering Traineeship opportunities are Tan Chong Motors Pte Ltd, which takes in trainees for Nitec in Automotive Technology (Light Vehicles); Singapore Technologies Aerospace Ltd, for Nitec in Aircraft Maintenance (Mechanical); and the National Dental Centre of Singapore, for Nitec in Dental Technology.*



# INDUSTRY-BASED TRAINING

ITE has a very comprehensive system of engaging the industry, be it in training partnership, curriculum development or transfer of technology. The intent is for ITE to stay relevant in order that the Singapore technician-level workforce is primed to face the challenges ahead.

The skills spectrum in the industry is wide-ranging and specialised. It is not possible for ITE alone to train graduates for all sectors of the economy. Wherever possible, in-house company training capabilities should be developed and encouraged. Besides conducting full-time institutional training and part-time continuing education and training programmes for fresh school-leavers and adult learners, ITE also facilitates the training and assessment of working adults conducted by companies at the workplace through various Industry-based Training (IBT) schemes. These schemes are dynamic and versatile, as they are conducted through structured curricula and methodology designed with the needs of both employers and the workforce in mind.

By involving industry directly in delivering training, significant advantages can be achieved. This includes creating more upgrading pathways for workers, tailoring training to company-specific needs, having the flexibility to schedule training around production needs, and leveraging on technological capabilities in industry. Training can either be provided fully by the employer in his company or jointly conducted, with the on-the-job training component conducted by the employer, and ITE delivering the off-the-job training component at its Colleges. The industry collaboration is also particularly useful in some areas requiring highly-specialised and capital-intensive equipment, where training is most effectively delivered in-company.

Industry-based Training Schemes have received strong support from industry through the years, with some 70,000 annual training places offered by some 130 Approved Training Centres, 350 Certified On-the-Job Training Centres and four Skills Assessment Centres.

**AW YORK BIN**  
**DEPUTY CHIEF EXECUTIVE OFFICER**  
**(INDUSTRY)**



# CHANCE TO CHANGE

People make mistakes. Mine made me realise that success does not come knocking on one's door without hard work. After my Primary School Leaving Examination results were out, I thought my fate was somehow sealed since I would be in a Normal (Technical) stream. Thus, I did not take my studies seriously. I joined ITE after secondary school, but the courses then did not appeal to me. I chose Electronics because it was one of the most popular courses at that time. On the first day of my *Nitec* course, I told myself that I would focus.

However, my determination paled and I did not put in the effort to learn. I was inattentive in class and showed little interest. My lecturers tried to motivate me, but to no avail. At the end of the semester, I accumulated a Grade Point Average (GPA) of 1.7, which was the lowest in my class, as everyone else had GPAs of 2.0 and above. I felt so devastated and ashamed of myself.

The lecturers kept on reminding us that there were stringent requirements in order to pursue a *Higher Nitec* course in ITE, but their words fell on deaf ears. In the end, my application was rejected. I regretted this deeply and kept on telling myself that things could have been so different if only I had worked hard.

My initial intention was to sign on in the military as a full-time career. My lecturers then reminded me that without higher qualifications, my prospects there would be limited. This got me thinking. I needed to put my life back together again. So I mustered enough courage and appealed personally to ITE and prayed for a miracle to happen. My prayers were answered when I received a call from ITE informing me that my application was successful. I was given a second chance to redeem what was lost and to change myself.

This was the turning point in my life. I promised myself that I was going to double my efforts and be diligent. I set personal goals. I cut back on spending time outside with my friends and hit the books immediately when I went home. I wanted straight 'A's for all my modules and to be independent in my studies. Although I had to retake some modules again, I was undaunted. My determination spurred me on. My classmates would seek my help, as I was more familiar with the modules. I had a great sense of satisfaction in helping them. That soon grew into a passion that translated to sheer hard work and tenacity. At the end of my *Higher Nitec* course, I was awarded a Certificate of Merit for my outstanding performance. I even scored a perfect GPA of 4.0! With that, I was granted direct entry to the second year of polytechnic studies. Currently, I am pursuing my Engineering degree at a local university.

In retrospect, it has been an arduous journey for me. But the passion ignited by ITE has kept my will to learn alive. This passion, too, has ignited a spark that, one day, I would want to come back to teach in ITE. And indeed I did.

**MUHAMMAD KHARIL B ABDUL MANAN**  
**TECHNICAL SUPPORT OFFICER/MOBILE SYSTEMS AND SERVICES**  
**ITE COLLEGE WEST**  
**ITE GRADUATE (CLASS OF 2005)**



# MANY REALISED DREAMS

To be honest, I was not happy to be posted to ITE back then. But now I am extremely thankful, for in ITE and beyond, many dreams were found and realised.

In ITE, I attended public speaking workshops that gave me ample opportunities to speak and build up my confidence. I had the chance to be the master of ceremony for an award ceremony and to be speaking to thousands of people on the stage was an awesome experience. It was like a dream come true for someone as under appreciated or neglected (back in secondary school) as I was.

Being the Vice-President of the Concert Band also gave me the chance to fly to Australia with my ITE mates for a band performance. That was yet another dream come true. One of my lecturers, Mr Aaron Tang, helped me realise that I actually had leadership qualities. Mr Tang is, in the eyes of many, a very tough nut — feisty and ready to take on a battle any time. He showed us how dreams could come true when he went all out to raise funds to make our Australian trip happen. He did it by getting sponsorships creatively through the publication of magazines and networking. Mr Tang also inspired and taught us well. He showed us what determination was, and that nothing was impossible to a willing mind. His endless energy and passion in giving the best to us was unconditional. All these gave me hope and allowed me to rise to the occasion.

Like many of my classmates, we had a busy Co-curricular Activity schedule, but yet we did remarkably well in our studies. We learned how to juggle different commitments through good time management, with the help of our passionate lecturers who were always there for us. We might have been less academically-inclined or less attentive or more playful students in our younger days, but these lecturers who saw our potential understood just what we needed to blossom and grow.

In ITE, it is really the lecturers who made the difference in our morale, confidence and ability to thrive. One of the most important things Mr Tang taught me was that it was important not to be fearful. When needed, we should speak up, challenge the status quo and do things differently. We should not be afraid to change and should lead in change. I have lived by this idea and shared it with my colleagues and seen its fruitful results. Today, I am a business coach and speaker with a vision to help more people to succeed, empower themselves, and realise their own dreams.

Because I did, with ITE.

## BRENDA TAN SOCK HUA

### ITE GRADUATE

### CERTIFICATE IN BUSINESS STUDIES (ACCOUNTING) (CLASS OF 1998)




*Left: Brenda Tan (middle row, 4th from left), during a tour of Perth with the ITE Clementi Band.*

ITE's brand of education redefined VTE completely — what should be taught, how it should be taught, who it should be taught by and, most importantly, the enormous potential a quality education can unlock in a student's life and in a nation.









CHAPTER FIVE:  
BUILDING PLACES  
TO LEARN,  
LAUGH AND LIVE





# COLLEGES OF THE FUTURE

A key enabler for ITE's success is a strong government committed to providing world-class education and with the political will to invest heavily in education infrastructure. The quality of the physical environment in which students learn is a critical factor that contributes to their success and well-being. ITE first undertook a 10-year *Physical Development Plan*, from 1992, to build seven new campuses and upgrade the facilities in three existing campuses built in the mid-1980's. Infrastructure, facilities and equipment in each of the campuses were all state-of-the-art.

With bigger cohorts and greater needs for interdisciplinary training, ITE began its physical rejuvenation with the consolidation of its 10 satellite campuses into three world-class comprehensive Colleges under the *ITE College Master Plan*, from 2003 to 2013. The new Colleges in *Choa Chu Kang*, *Simei* and *Ang Mo Kio* are not mere buildings. They are learning environments that ITE's hands, minds and hearts are relentlessly and passionately reconstructing every day.

*Right: The Atrium at ITE College East — a central venue for students' gatherings, concerts and performances.*









*ITE 2000* paved the way for an upgraded physical environment compatible with the image and standing of a post-secondary education institution, by developing and upgrading ITE's teaching and learning environment to support the needs of students and the public. The ITE Physical Development Plan was launched to build, rebuild or extensively upgrade 10 technical institutes for a modern, new-generation campus environment providing high-quality training facilities and a campus environment conducive to the total development of each student.





**ITE Breakthrough** carried the ITE Physical Development Plan through to its completion. In addition, it unfolded the blueprint to a variety of e-learning and e-services with the IT Master Plan to provide connectivity, flexibility and accessibility. This also allowed the creation of a community of connected online learning campuses and learners.

In 2001, the 10 ITE technical institutes were consolidated into two Networks. With the new Network structure, they were redesigned as campuses under 'ITE East' or 'ITE West'. At the helm of each ITE Network was a Principal, who was assisted by Directors of Schools. There were many benefits from a Network structure: it facilitated multi-disciplinary and cross-level learning, and enabled more students from different fields and diverse disciplines to combine talents in project work.

Staff, too, from the same Network, were able to pool their resources and ideas to experiment with innovative ideas in teaching. The Network structure also fostered better relations among students and staff in the various ITE campuses. Such apparent benefits paved the way for the evolution of the corporate governance model that the next strategic plan, **ITE Advantage**, rolled out.

*Clockwise from left: Students at the Visual Communication studio at ITE College Central; students learning how to do facial treatments at the Beauty & Wellness learning facility at ITE College East; and a lecture theatre at ITE College West.*





# AUTHENTIC LEARNING

Students joining ITE are more kinaesthetic and benefit more from a practice-based education. In short, they're really good when it comes to getting things done, rather than reading about how to get things done. ITE has embraced an Authentic Learning pedagogic approach as a best fit to our *Hands-on, Minds-on, Hearts-on* educational philosophy.

Our practice-based lessons are conducted in settings which simulate, as closely as possible, actual work conditions in industry. So our Nursing students learn in a Healthcare Simulation Training Centre, which replicates actual hospital conditions, even down to high-fidelity mannequins which respond to treatment; students undergoing Hospitality courses learn in fully-equipped training kitchens and restaurants, and a 22-room training hotel; while Aerospace students train on actual Aircraft in a dedicated hangar.

Authentic Learning helps our students bridge the theory-practice gap better. When they graduate, it allows them to seamlessly transition to jobs in industry without the need for further training.



*Above: Practice-based 'classrooms' of various courses: (top) Visual Merchandising, (middle) Western Culinary Arts, (bottom) Nursing.*

# ITE PHYSICAL DEVELOPMENT PLAN





**1992:** Following the establishment of ITE as a post-secondary institution, the 10 Vocational Institutes were renamed as Training Institutes with a new ITE logo and brand name.

**1993:** ITE Bishan was completed. It was first established in 1982 as the National Institute of Commerce, located at Prince Edward Road, to train secondary school leavers for jobs in accounting, secretarial practice and office skills. Prior to the completion of the new Bishan campus, which was built at a cost of \$34 million, the Institute was operating from two temporary campuses, at Cuppage Centre and Dakota Crescent.



*ITE Bishan*

**1995:** The various corporate offices of ITE, which operated from three different places at PSA Building, Dover Drive and Nassim Hill, were relocated to a new Headquarters (HQ) at Dover Drive, together with a new ITE Dover. A One-Stop Service Centre was established at the new HQ to provide career counselling services and information on all ITE courses and registration for full-time courses, apprenticeship programmes and public trade tests.



*ITE Headquarters and ITE Dover*

ITE Dover, built at \$58 million, had up-to-date training facilities and equipment, including a Learning Resource Centre. ITE Dover offered Industrial Technician Certificate (now *Higher Nitec*) courses.

**1996:** ITE Ang Mo Kio, ITE Clementi and ITE Bedok, built in 1984, 1985 and 1986 respectively, were all upgraded.



*ITE Ang Mo Kio*



*ITE Bedok*



*ITE Clementi*

**1997:** ITE Balestier was opened. Redeveloped at \$37 million, it was formerly called Government Trade School in the 1930s and then renamed as Singapore Vocational Institute in 1963. ITE Balestier housed the specialised Precision Engineering Industry (PEI) Centre.

**1998:** ITE Yishun began operations in June, taking over the functions of ITE Bukit Merah, and offered NTC-2 courses. ITE Tampines, built at a cost of \$31 million, was operational. Its predecessor was the former Singapore Technical Institute, which offered Industrial Technician Certificate (now *Higher Nitec*) courses. It was the first ITE institute to install a Campus Online system through which its students could learn and review lessons, hold discussions and submit assignments electronically. With Campus Online, students could access ITE-developed courseware and software learning packages. These packages use simulations, animation and multi-media features to encourage and motivate students to learn independently and at their own pace.



*ITE Yishun*



*ITE Balestier*



*ITE Tampines*

**2000:** ITE Bukit Batok, the ninth new-generation technical institute to be built, was developed at \$63 million and had special simulated facilities to conduct Chemical Process Technology courses. It was poised as a 'community college' for the neighbourhood, as closer ties with grassroots organisations, other schools, as well as residents were forged. The institute's wide range of facilities were made available to residents in the vicinity.



*ITE Bukit Batok*

**2001:** The commencement of ITE MacPherson also meant the closure of ITE Pasir Panjang, an old institute which was refurbished from 'Nissen Huts' built by the British Army. Built at \$40 million, ITE MacPherson was high-tech and high-touch, with the latest Information Technology infrastructure and facilities, thus enabling a connected learning community. The completion of ITE MacPherson marked the end of the ITE Physical Development Plan, which cost a total of \$360 million.



*ITE MacPherson*

**ITE Advantage** saw the implementation of the revised Governance Model, the *One ITE System, Three Colleges* Governance and Education Model, which aimed at devolving higher autonomy to the Colleges, while ensuring alignment to common organisational policies, goals and standards. This meant major changes to the way ITE was governed and managed. The 10 satellite campuses were regrouped and consolidated into three larger entities, known as ITE Colleges — ITE College Central, ITE College East and ITE College West — in order to facilitate better interdisciplinary learning, provide a more vibrant campus environment and to consolidate resources.



ITE College West (2010)



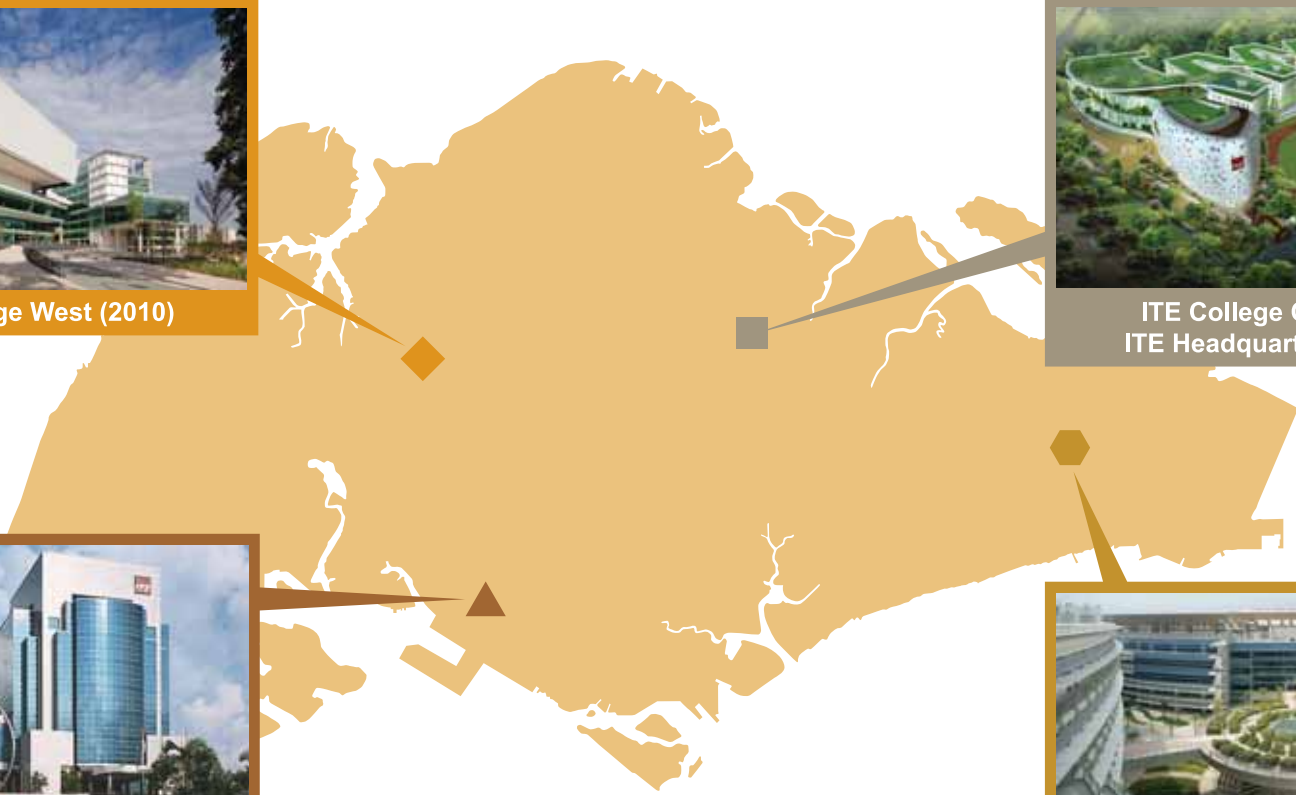
ITE College Central & ITE Headquarters (2013)



ITE Headquarters (1995 - 2012)



ITE College East (2005)



*ITE Colleges are spread across Singapore.*



The plan to develop the three ITE comprehensive Colleges over a period of 15 years first went public when then Prime Minister Goh Chok Tong announced the initiative in his 2001 National Day Rally Speech. But why the need for bigger campuses?

National projections showed that ITE's annual enrolment would be increased in 2005 — from 16,000 to 21,000, based on birth rate trends in the 1990s. Instead of building more satellite campuses to cater to the bigger enrolment, then Minister for Education, Mr Teo Chee Hean, mooted the idea of redefining the learning space for VTE by building mega-campuses, which would allow ITE to better meet the needs and aspirations of more post-secondary students with its new Regional Campuses.



*ITE College East was the first mega-campus providing students with a wider range of facilities for teaching and learning, as well as broader areas of interaction for work and leisure.*

Having larger and more comprehensive campuses would also raise ITE's profile as a provider of world-class technical education, while better supporting ITE students' learning and development, and raising their esteem. They would be able to attend a wider number of courses under one roof and this would help facilitate interdisciplinary and cross-level learning. Students with better abilities, especially, would benefit from studying higher-level modules.



*Each of the comprehensive campuses was planned with the students in mind. They were not merely buildings, but learning spaces that construct positive, enduring and meaningful learning experiences every day.*



# ONE ITE SYSTEM, THREE COLLEGES GOVERNANCE AND EDUCATION MODEL

Since 2005, ITE's corporate governance structure has complemented the ITE Brand of College Education perfectly to develop *Hands-on, Minds-on, Hearts-on* ITE graduates. The concept of *One ITE System, Three Colleges* arose as part of the regular reviews to ensure better alignment, responsiveness and synergy among ITE Headquarters and its institutions to changes in our operating environment.

A review in 2000 regrouped ITE's 10 campuses into two Networks — ITE East and ITE West (each with five campuses then) to facilitate greater multi-disciplinary and cross-level learning for students within each Network. In coming up with the new structure, ITE took into account various factors, including the significant changes which the organisation had undergone, in terms of its physical infrastructure and learning environment, education focus, training philosophy, staff capability and corporate image over the years. The review was also in tandem with ITE's plan of regrouping and resizing its campuses into three mega-campus over a 15-year period, with the first ITE new comprehensive College to open in 2005.

The aim of the new Governance and Education Model was to build a stronger ITE identity, while devolving greater autonomy and accountability to the three ITE Colleges for them to achieve greater College excellence and distinctiveness. The new model is fully aligned with, and supports the drive for a more diversified, flexible and vibrant education landscape.

Under this model, ITE retained its current mandate of administering the National System of Vocational and Technical Education with ITE Headquarters handling key policy issues, academic standards and quality assurance under *One ITE System*. At the same time, the new structure would devolve greater autonomy to the Colleges — to encourage them to innovate and diversify, and to carve out niches of excellence and core competencies, based on their individual strengths and distinctiveness, and to instil a greater sense of ownership in them.

## STUDENT'S FILE

### Then I couldn't, now I can

Tan Yee Ling, 22, Integrated Logistics Management

"I FAILED O-level English and retook English as a private candidate in 2004. When I got another ES, I thought I'd just go to the ITE and give it a try. I asked my mum if she would be angry. She told me if I went in, I must work hard."

I signed up for a certificate course in Service Skills (Retail) and went on to a higher certificate in Integrated Logistics Management.

When I first started, I used to hide the ITE logo on my books when I travelled to ITE College East. Now I don't do that.

The teachers at the ITE are like our friends. They ask us to go out with them for coffee. They try to give us more confidence.

At the ITE, I have received many awards, like the Lee Kuan Yew Co-curricular Activity Award. As a Bridge Leader, I help motivate new students.

In the past, I didn't dare motivate others, because I couldn't make it. But now I can.



ST PHOTO: LIM WEE LING

## It's not the end, rather it's a new beginning



Is the new ITE just the old ITE with more bells and whistles? Senior Writer Yap Koon Hong reports

GERMAN vocational education director Harman Mattes recalls how Singapore was one of 13 developing countries his state of Baden-Wuerttemberg decided to help 16 years ago.

The project coincided with the launch of the Institute of Technical Education (ITE) to spearhead a government drive to equip the poorest-performing quarter of secondary school leavers with skills to help them find jobs.

"After just four or five years, Singapore leapt ahead of the pack which included Indonesia, Vietnam, Chile, Brazil, Algeria, Morocco and several other African countries," he told The Straits Times in a telephone interview.

Today, says Mr Mattes, who runs the state's technical education, Singapore is first-world in vocational education.

He says it is even ahead of Germany in some areas, especially in new fields of technical training like infocommunications, technology, animation, mobile games, new media) and hospitality and tourism.

Baden-Wuerttemberg is a key reason Germany leads the world in vocational and technical skills. The state is home to Germany's automotive and high-tech engineering industry.

Mr Mattes isn't alone in his admiration. Last month, Harvard University's John F. Kennedy School of Government validated the ITE's achievement in making vocational and technical education a thriving option for students.

It picked the ITE over more than 100 competitors worldwide, including the Singapore Treasury, to receive an IBM-sponsored

award that recognises innovations in government programmes. The award, introduced 20 years ago, was limited to American entries until this year's contest.

By picking the ITE as the first global champion, the awards panel confirmed that the institute had reinvented itself from a school of last resort into a campus for students to find another route to wards better jobs and higher education.

Wags used to say that ITE stood for the unfortunate phrase "It's The End".

Not any more.

Nine in 10 ITE graduates have found jobs within the last 10 years.

Four in 10 of its graduates go on to tertiary education at the polytechnics and university.

The number of students and graduation rates have swelled from 11,600 and 60 per cent respectively in 1995 to 24,600 and 81 per cent today.

But the school's real achievement, according to staff and students, is the tangible makeover of its charges from viewing themselves as academic rejects to becoming confident, purposeful youths.

Almost half the graduates go on to obtain a diploma or degree. "This is the real value-add that ITE offers," says Mr

Dirves Puh, its chief executive officer. "That's why we describe our system of education as 'ITE Care'."

Motivating students by showing them

that they are in a school that cares for them is the first, constant theme during their two-year course.

"Students who come to us are not high in confidence and self-esteem," says Mr Puh. "What the public misses is that the ITE infuses the kind of value-adding that transforms students this way."

New students usually start with the baggage of a double whammy: They were not only backward academically, but also lost out to the academically stronger ones for personal development in leadership and co-curricular activities.

So the first task is to win their trust and motivate them. "It's a long process and can take up the first six months, even at least a year under many," says Dr Yeh Tiew Ming, principal of College West, one of the ITE's three colleges.

Even the physical change the ITE has embarked upon plays a role in communicating the message of care.

By current infrastructure can be confusing because the colleges are in transition from several small campuses into three massive grounds.

The first of the three, the \$240-million ITE College East, in Simex Avenue, was launched two years ago and has more than 8,000 students.

The other two, ITE College Central and ITE College West, each has five mini-campus of under 2,000 students.

That's why we describe our system of education as 'ITE Care'.

Motivating students by showing them

Left:  
The Straits Times  
27 October 2007

CONTINUED ON FACING PAGE



ST PHOTO: LIM WUI LIANG

## Training in top-notch facilities

FROM PREVIOUS PAGE

In the next five years, College Central and College West will move into tertiary-size campuses in Ang Mo Kio and Choa Chu Kang respectively, each with about 8,000 students.

The change is partly aimed at sending a signal to the public and students that the ITE isn't a refuge for secondary school non-achievers but a stepping stone to tertiary education.

"Visitors from other countries ask us why we build such a big campus with the most modern equipment," says Mr Tan Seng Hua, principal of current flagship, College East.

He explains that the physical environment works in tandem with other efforts to convince students that they deserve the best – and are getting it.

It is part of the institute's entire effort to nurture not only latent talent, but hope and ambition as well.

Apart from a structured orientation programme, each fresh student has a senior buddy.

Home visits by teachers to acquaint themselves better with their students' background are not uncommon although staff are not required to do so, says Dr Yek.

Mega or minor, the atmosphere in the campuses is vibrant and oozes enthusiasm.

During breaks at the Simei campus, students relax in an amphitheatre located in the centre of the campus, watching videos on a large, sleek LCD monitor of their peers campaigning for student elections.

The seated stands, track and field are an athlete's dream. National football and track teams train there.

Nine-gold-medal Olympian Carl Lewis visited the school and held a clinic.

"We build first-class sports grounds and facilities like the amphitheatre because our students are strong in sports and performing arts," says principal T Lewis.

The rapport between students and teachers is relaxed and informal. "I teachers are the best of all," says a 1st-year biochemical technology student.

*Above & Right:  
The Straits Times  
27 October 2007*

Shiqah Samad, 20. She transferred from junior college to ITE and described the switch as a journey from misery to joy.

She dreaded junior college because she was afraid of seeking help from her teachers. "At my junior college, teachers expected students to keep up and even if you couldn't, you had to give the impression that you did."

"Here, when you don't know, it means you don't know and the teachers know that and exactly how you feel. They are cheery and want us to understand what's being taught."

College Central's principal Ricky Tam describes a happy problem at his School of Infocomm Technology on the MacPherson campus. It offers the only collaborative digital animation course in Singapore involving a cutting-edge company, Toon Boom of Canada.

» **VIEWPOINT**

## There's a lot going right at the ITE

For many on the outside, the ITE is no plum place to be. But the sky's the limit for students who dare to dream and grab the opportunities available



By Ho Ai Li

I HEAR a lot about the Institute of Technical Education (ITE) and much of it is not pretty.

Some call it the point of no return, others imagine it is full of monster students from the wrong side of the education tracks.

It seems some people do not know how to react when they meet an ITE student.

One girl revealed how a relative snubbed her when told she was in the ITE. A boy described relatives who gave him pitying looks.

One mother admitted that she did not even dare step into the ITE.

I visited two ITE campuses last week to see for myself.

At one, I saw a huge sports complex, with a running track, football field and swimming pool – facilities better than those at many secondary schools and junior colleges I have been to.

At the other, a smaller and older campus, I saw groups of teenage boys having a laugh in the canteen, enjoying a kick-about in one corner.

I checked the pillars for graffiti, scanned the grounds for cigarette butts and tried to spot the bad hats in uniform. I gave up after five minutes, feeling silly.

Yes I came across a tattooed student, and another looking all Gothic in black. But you might well see the same at a polytechnic or university. What's wrong with a little youthful self-expression anyway?

What made more of an impression was meeting some very earnest educators, who seemed fired with a mission to bring out the best in their students.

It is no mean feat, considering ITE students arrive with little reason to feel good. They are Singapore's weakest, academically, and have endured school life knowing so far years.

Yet, some of the teachers I met are passionate about giving these youngsters hope, helping them to discover a talent or skill to be proud of, and to spark in them a desire to look beyond the ITE to further their education or land a decent job.

Among them is Mr Tan Seng Hua, who has been in technical education since the 1960s and is now principal of ITE College East. He is known to volley back a hearty "Yo!" when students greet him that way.

The students I met were the fittest you could imagine from being down-and-out or hopeless.

There was Wany, 21, a footballer who led a group of 12 sports management students to help out at the Special Olympics in Shanghai.

And Mohammad Dzirri, 23, who went to Hong Kong in July for a student seminar and is looking forward to an attachment in Guangzhou in December.

How can I forget Alphonsus, 18, who drifted through school until the ITE

**WRONG NOTIONS**

I checked the pillars for graffiti, scanned the grounds for cigarette butts and tried to spot the bad hats in uniform. I gave up after five minutes, feeling silly.

Employers see the transformation as well. Mr James Foo, Singapore president of Swiss-based high-tech engineering multinational ABB, says that his company was wary of hiring ITE graduates in the past.

Now, the graduates are better-trained and confident because of superior facilities and resources.

One key reason is that the ITE listens to and works closely with industrial and commercial leaders like ABB, Microsoft and IBM and lesser-known but influential ones like Toon Boom.

It invests in training centres for each of these on its premises and the companies reciprocate by sharing their resources and training ITE staff and students.

Singapore's international street-fashion industry icon Elm Chew of 77th Street allowed the ITE to replicate her store in College East to train students in running a retail outlet. "An ITE education is superb for hands-on practical education," she says.

Yet, the ITE's image as the forced refuge of the academic underclass is hard to

» **STUDENT'S FILE**

### Got an engineering diploma, but she'd rather be in sports

Wany Rafie, 21, Business Studies (Sports Management) student

"I WAS at Ngee Ann Poly where I did engineering. I graduated, but didn't want to work as an engineer.

Sports is my passion, so in 2005, I joined ITE College East to do sports management.

My mother asked, "You already have a diploma but now you want to go to the ITE. What's the point?"

But I wanted to be happy and do something that I like."

The difference between Singapore and Germany is that vocational training is still seen in Singapore as the least preferred educational route, he says.

"In Germany, it has never been the attitude of the less able going into vocational education."

Germany's vocational training has a 300-year history, its graduates command wages that match academic professionals like teachers.

"Germany has incorporated a sense of social acceptability that Singapore has not," he says.

He believes that changing mindsets cannot be achieved overnight but incrementally, over time.

ITE chief Bruce Poh agrees that its image as the last-chance route will be hard to crack.

"The public still has this reservation," he says. "The initial response to an ITE education is still, 'well, not my son, not my daughter'."

For now, that is a price the ITE seems prepared to pay.

Its primary mission, says Mr Poh, is

» **STUDENT'S FILE**

### Vocational training dropout who went back and topped the school

Samuel Kitchpar, 22, Mechanical Technology student

"I WAS at Qihua Primary in Woodlands. I was very naughty then, never did my Tamil and English homework. I was just not interested."

I failed my PSLE twice and went to Assumption Vocational Institute (AVI).

I was there for two years, but I left to work as an operator at National Panasonic when I was 15. The money was very attractive. I could earn \$1,500 a month.

My mum also works as a factory operator and my father is a port worker.

One of my sisters is studying business at ITE Clementi, the other is in Woodlands Secondary. I didn't know how

important education was until I went for national service. My friends rose up very quickly. After a few months, they became sergeants. It was very hard for me. It was hard when I communicated too. They were super English, mine was broken English.

My youth leader at church told me to go back to school. I went back to AVI again. I topped the school and was accepted into ITE College East.

After this, I want to go to the poly and then to Nanyang Technological University to study mechanical engineering.

I may join the police, or the Singapore Civil Defence Force, be a vessel manager at ST Marine, or an assistant manager at Seagate.

My only thought before was which company could pay me \$60 a day. Now I can think beyond that."



ST PHOTO: DOMINIC WONG

brought out the leader in him. As a Bridge Leader, he plans activities for new students. Earlier this year, he and 29 other ITE students went to Laos to build a library for villagers.

These students were enjoying school, had a sense of purpose and adventure, and made me wish I had the same opportunities when I was in school.

Was it all too good to be true? Suspecting I might be missing the truth, I decided to go undercover for a day, donning the ITE uniform and passing myself off as a student.

My guide was the bubbly and helpful Yee Ling, a Logistics student who plays big sister to many. She holds a part-time job, and dreams of ways to keep improving herself.

"I've always wanted to study retail management at the poly," she shares. Her O-level grades led her to the ITE instead.

Aside from giving the youth a few laughs at my very convincing attempt to pass off as a student, I was no wiser about what makes the ITE so scary to those on the outside.

Maybe the truth is that it is fearsome only to those who do not know it.

But consider this – most ITE students get jobs when they graduate, or move on to polytechnic, and some go all the way to university too.

The time they spend at the ITE brings out the best in many. They are a loyal bunch, returning to visit their teachers, and some even come back to teach.

My visits made me think about my own, more comfortable journey and what most would regard as the right side of the education tracks.

I started out like many an ITE student, attending a humble primary school two minutes away from my Housing Board block.

But I took a different route through secondary school, junior college and university, because I could sit for hours and pay attention when teachers spoke. I was great at remembering dates (very useful for a History major), and I still like nothing better than to read.

The students I met at the ITE this week were not like me. They are great at

learning a task by watching someone demonstrate how to do it.

They dive in and do, using their hands, and they learn. They take things apart and put them together again.

They just learn differently.

It's not hard to understand why few parents would wish for their children to land in the ITE when conventional wisdom equates success with sparkling grades and a smooth ride to a degree.

But many of us book-smart types who take the conventional route to university end up seeking comfortable white-collar respectability.

What I saw this week, and the people I met, told me the sky is the limit for ITE students who dare to dream and seize the opportunities available to them.

Having come up the harder way, they have street smarts, resilience and a streak of derring-do, to teach for jobs that suit them best, or aim to be the next generation of Singapore towkays.

There's nothing wrong with going to the ITE. In fact, there's a lot that's right about being there.

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# A MOMENT IN HISTORY

## EXCERPT OF ADDRESS BY DR NG ENG HEN, MINISTER OF STATE FOR EDUCATION AND MANPOWER, AT THE GROUNDBREAKING CEREMONY FOR THE FIRST ITE REGIONAL CAMPUS ON SATURDAY 7 SEPTEMBER 2002

Each new Regional Campus, which will have a full-time student enrolment of 7,200 and a part-time enrolment of 8,000, would be able to provide a more comprehensive and integrated learning environment for students and adult learners. A wider range of courses in Engineering, Applied Sciences, Info-communications, Business Studies and Services would be available in the new Regional Campus. This would not only widen the choice of courses for students, but will also help to facilitate inter-disciplinary learning. With greater collaboration among students and staff in a bigger campus setting, there will be more opportunities for synergy and cross-fertilisation of ideas for innovative learning and curriculum delivery, leading to a more vibrant campus environment.

The economies of scale of a bigger campus would enable ITE to provide a wider range of co-curricular facilities and student amenities for its students. Such an environment can better support ITE's focus on the total development of its students and its educational outcome of moulding knowledgeable, well-trained, active and confident graduates, who are ready to contribute to society and serve the community.

By consolidating the training resources in a bigger campus, ITE could better optimise the utilisation of its specialised facilities and the core expertise and competencies of its staff. There will be greater opportunities to establish stronger linkages with industry and promote the spirit of entrepreneurship among students by establishing Centres of Excellence and a Technopreneurship Incubation Centre.

The concept of a Regional Campus goes beyond the physical and infrastructural aspects. It embodies opportunities for breakthrough changes in educational approaches, systems, processes and practices. All these possibilities and changes will further reinforce the standing of ITE as an established post-secondary education institution.

In conclusion, the development of the first ITE Regional Campus is a significant milestone in the further transformation of ITE's system of training. The concept of a Regional Campus is another important breakthrough in repositioning ITE for the challenges of the new economy. With this repositioning, the ITE graduate will have more reasons to be proud of his training, his alma mater and his contribution to our society.



*Left: Tan Seng Hua, Dr Law Song Seng and Dr Ng Eng Hen contemplating the future of ITE as they examined a model of ITE College East during the Groundbreaking Ceremony.*

# BUILDING ITE COLLEGE EAST

The planning for ITE College East, our very first comprehensive campus, was a huge challenge. Frankly, we could have done it simplistically. But what was on the team's mind was: "How could we capitalise on the opportunity to try to do something different, something extraordinary?" Our starting point was to put ourselves in the shoes of students. We asked ourselves, "If I were a student, what do I want to see? How would I like my school to be?" We decided that we will build an 'environment' rather than a building. We wanted to build an excellent learning environment, and the architect's job was to provide the hardware to fulfil that vision. Our students not only needed places to learn in, like technology workshops and laboratories, but they also deserved first-class sport facilities and student amenities as well. A lot of detailed planning went into creating more opportunities for students to play a bigger part in their school environment.

When the College first opened its doors in 2005, there was a tremendous sense of satisfaction felt by all. We hit the bull's eye in many aspects for both staff and students. The public was also in awe. In the first two years of operation, we adopted a 'free-for-all' approach for visits to the College. We received hundreds of visitors, but we regarded this as a worthy investment. The time and effort paid off and it helped people understand what we were offering. Community outreach is important to us, and you cannot do that without a proper environment to convince people with.

When we started ITE College East, we started with a dream, a concept. We then built the environment and hardware. Now, we have the benefit of knowing the behaviour and expectations of students and staff. We know what works and what does not. What are some things we still need, but are lacking? What are some things we can do more efficiently? Having learnt from the experience, we applied our learning to the building of our next two comprehensive Colleges.

## TAN SENG HUA DEPUTY CHIEF EXECUTIVE OFFICER (ACADEMIC)



*Left: Tan Seng Hua (centre) with ITE students at the Groundbreaking Ceremony of ITE Headquarters and ITE College Central, 1 December 2010.*



# ONE ITE SYSTEM, THREE COLLEGES

To me, the *One ITE System, Three Colleges* Governance Model is extremely innovative. It allows a balance between promoting collaboration and healthy competition among the three Colleges. The *One ITE System* allows us to ensure that we produce consistent standards and quality in delivering our courses and services at the Colleges. We are also able to achieve higher efficiency, with centralised functional and services support systems like Estates, Finance, Human Resource and Public Relations. Overall, the model has been very effective and efficient for ITE.

**DR YEK TIEW MING**  
PRINCIPAL  
ITE COLLEGE WEST



# ITE — A SECOND HOME

While we have built these beautiful Colleges, we also need to create the environment in our Colleges to engage students more outside the classroom in meaningful activities. We provide easy access to sports facilities, like table tennis, badminton and boxing, to encourage physical activity. We have made available pianos, guitars and electronic drums, and are expanding dance areas wherever we can find space. We are also keenly encouraging staff who would like to share their personal interest and talents to start new Co-curricular Activities — some have come forward in diverse areas like Angklong, sports car racing, disc-jockeying and graffiti art.

We have created many opportunities for students to perform, participate in competitions or demonstrate their skills so that they feel that the College is their second home. This is important, as many of our students come from disadvantaged homes. We need to create this inspiring and appreciative environment for our students so that they are motivated to attend class. This is an important first step before we talk about developing their skills.

**EDEN LIEW**  
**PRINCIPAL**  
**ITE COLLEGE EAST**





*From left: Bruce Poh, Director and CEO/ITE; then Minister for Manpower, Gan Kim Yong; Deputy Prime Minister, Teo Chee Hean; Prime Minister Lee Hsien Loong; then Minister for Education, Dr Ng Eng Hen; Bob Tan, Chairman/ITE; and Dr Yek Tew Ming, Principal, ITE College West, at the Official Opening of ITE College West in 2011.*





# ITE COLLEGE EAST — COLLEGE OF ENTERPRISE AND INNOVATION

A spanking new state-of-the-art ITE campus on a sprawling 11.2-hectare site at Simei Avenue. Hailed as the VTE 'College of the Future', it redefined the ITE learning environment completely and changed the course of VTE delivery. The campus was the first among three mega campuses to be built under the 10-year *ITE College Master Plan*.

This campus is special in many ways. A two-tier central forum structure forms a focal point of meeting and interaction for students from four Schools — Applied & Health Sciences, Business & Services, Electronics & Info-comm Technology, and Engineering. The School of Applied & Health Sciences is unique to ITE College East.









# ITE COLLEGE WEST — COLLEGE OF SERVICE AND INNOVATION

The architectural design of ITE College West — ITE's second comprehensive College — is inspired by ITE's transformation journey and is a metaphorical depiction of ITE's 'Waves of Excellence'. The design is an integration of education with urban architecture, landscape design and green engineering. It is also built on the pedagogical principle of a borderless campus, where learning is boundless and goes beyond the confines of the classroom.

The College covers a land area of 9.54 hectares and opened its doors to its first cohort of students in July 2010. The College has four Schools — Business & Services, Electronics & Info-comm Technology, Engineering, and Hospitality. The School of Hospitality is unique to ITE College West.

The borderless and green campus of ITE College West, with many commercial outlets, a 22-room training hotel (Hotel@College West) and four training restaurants, is a business town by itself.









# ITE COLLEGE CENTRAL — COLLEGE OF CREATIVITY AND INNOVATION

## The change that ITE brings

ITE Government announced this week that it will spend \$2 billion on the Institute of Technical Education (ITE) over the next five years. More than made up, but not all, of the difference in vocational and technical education in Singapore. More funding in the last two decades has certainly helped many children, including those less academically inclined, develop to their fullest potential. If a measure of progressive schooling is its ability to ensure even the least scholarly endowed succeed, investment in ITE has helped Singapore to beat that mark. The quantum spent is important, but only hint at educators' imagination, passion and dedication in equipping every student

with skills to earn a living. Enormous resources and ITE's achievements have convinced society that every child can and should be educated to become a productive citizen. Parents can stop despairing of children poor in academic subjects but, instead, be reassured that different paths are available in educational careers and working life. What was previously regarded as a dump for primary school failures has become a model that inspires vocational institutions elsewhere. The Organisation for Economic Co-operation and Development has hailed it as "perhaps the best in the world" and "a significant element of the Singapore success story". More

recently, The Economist magazine noted: "Singapore... has created yet another centre of excellence..." Such recognition, which Prime Minister Lee Hsien Loong manifested when opening the second of three ITE colleges on Monday, is well-deserved. A measure of success is that ITE graduates are much in demand. Nine in 10 find jobs within six months. Employers rate 91 per cent of them positively on performance. ITE has other quantifiable goals to meet. At the upper end, one in four of its graduates should make it to a postgraduate by 2015, up from one in five. At the other end, it should persevere in efforts to cut the dropout rate from

18 per cent in 2006 to 10 per cent by 2014. Grants and allowances from community self-help groups like Mendaki are needed, as the main reason for dropping out is financial difficulty. But the teaching staff might also need to compensate with extra attention to students lacking home conditions conducive to learning. More money will be available for scholarships and enrichment programmes, as the Government helps build its endowment fund with 1.5 times matching grants. There is no reason why ITE, with so much funding and instructional investment, should not be able to achieve those and other targets. It should maintain, even increase, its global lead.



NEW MEGA-CAMPUS: Chairman of the Development Committee Lee Yoo Hoo (above from left) DP Director-General of Education Mr Kim Yong looking at a model of the new mega-campus. Photo's impression (right) of the recent Plaza.

### What the new ITE will have

- SCHOOLS**
  - School of Business & Services
  - School of Engineering
  - School of Electronics & Informatics Technology
- SOME COURSES**
  - Hospitality
  - Pastry and baking
  - Fitness training
  - Banking services
  - Automotive technology
  - Security technology
  - Digital media design
- NICHE AREAS**
  - Hospitality
  - Culinary
  - Automotive Technology
- FACILITIES**
  - A convention centre with a 600-seat auditorium, and a lecture theatre with 170 seats
  - A sheltered plaza for operations
  - About 130 training workshops and labs, including demo kitchens, a tourism resource centre and a banking centre
  - An automotive technology showroom and service centre

By Ho Ai Li

## ITE mega-campus or five-star hotel?

WHEN the Institute of Technical Education's (ITE) second mega-campus comes up in the west by 2010, visitors will probably do a double take in its reception area and take it for a hotel. It will, indeed, look like the lobby of a five-star hotel, complete with soft lighting and plush carpeting. More than that, this 9.54ha ITE College West campus in Choa Chu Kang will also house 22 functioning hotel rooms, restaurants, shops, a convention centre and even a tourist information centre — all open to the public, so students will have hands-on training for future careers in the tourism sector. "The new college is purpose-built to support the growth of the hospitality and tourism sector," said principal Yee Tak Ming at the unveiling of its features last month.

The second mega-campus, ITE College East, is planned to replace the ITE's existing campus with world-class regional campuses. The new college reaffirms the Government's strong commitment to providing international quality and standards for technical education and training, said Minister of State for Education Gan Ee Yong.

The ITE has come away from being an institution of last resort for low-achieving students to a school where graduates are becoming more employable. A survey last year found that 93 per cent

of its graduates landed jobs in six months, a percentage points higher than in the previous year. Its porters in public areas show its students getting hands-on training in cutting-edge trades like game design, and its winning of the IBM Innovations in Transforming Government Award from Harvard University last year put it in the global spotlight.

The ITE also aims to upgrade its "business" of planning partnerships with a French culinary school and a Swiss school known for hospitality management to offer courses. Details will be revealed later.

Visitors to the campus will be able to peer through a glass facade into the college's restaurants and shops as the students get their training in training these facilities, said Mr Lee Sung, who is a member of the ITE's new consortium "business town", the college will

ITE College West to have hotel rooms, restaurants and even a tourist centre

opened its doors in Simei in 2005, is the first educational institution to be built under a public-private partnership. Under a \$22.7 million contract awarded to the Garmoon Capital consortium, it will build and run the campus, leaving the ITE free to focus on academic cases.

A third mega-campus, ITE College East, is planned to replace the ITE's existing campus with world-class regional campuses. The new college reaffirms the Government's strong commitment to providing international quality and standards for technical education and training, said Minister of State for Education Gan Ee Yong.

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## Real-life work in ITE classrooms

Facilities at ITE College West include restaurant, retail outlets and 'hotel'

By Jane Ng

RESIDENTS in and around Choa Chu Kang who want to dine at a French restaurant or book an overseas tour can soon head to the new Institute of Technical Education (ITE) College West nearby. The campus, which opened its doors to students in July, has facilities that double as a training ground for students and a service provider to the community. It includes a fine dining restaurant, a travel agency, a computer repair shop and retail outlets which will sell apparel, lifestyle goods and sports equipment. Apart from the fine dining restaurant number01, which is already in operation, other amenities will be ready early next year. Such real world experience is the best training a school can give its students, said principal Yee Tak Ming after a media tour of the campus yesterday. "In the design of the campus, we want to make sure we provide students the opportunity to serve real customers. There will be more transfer of knowledge and skills when there is an authentic learning environment. The students will be work- and world-ready and the community will benefit as well," said Dr Yee. ITE College West has 7,200 students in four schools, taking 27 courses in hospitality, business, engineering, and electronics and informatics technology. With a niche in hospitality-related courses, the school offers programmes in the culinary arts, pastry and baking, food and beverage and hotel operations. There is also a barista training centre, a joint project between the ITE and coffee supplier Bonafe. To give students more hands-on oppor-

tunities, there is a 22-room "hotel" occupying two levels within the campus. Students will learn housekeeping activities along with mopping the front desk and how to best serve customers. The hotel is not open to the public as the school does not have a licence to do so but there are plans to offer it to conference events again giving the students more opportunities to apply their skills. Stefan Lee, 19, a first-year hospitality student, said he is looking forward to learning the ropes in the "hotel" before working in a real one. "It's better that we have hands-on experience in school where we can learn everything from scratch, before we enter the industry," he said. The students from the food and beverage operations course have already got a taste of funny or unkempt customers at a restaurant, which is currently open for lunch on weekdays during term-time. The food is prepared by students from the culinary course who specialise in French cuisine. Aston Liew, 19, another first-year student who works as a member of the service staff there as part of his training, said: "Customers are supposed to wear covered shoes and trousers but someone turned up in a singlet. I tried to tell him there's a dress code but he insisted eventually as it was his first time here."



ITE students with their lecture in the training kitchen (above). The campus will have retail outlets selling apparel, lifestyle goods and sports equipment (left). Meanwhile, a "green field" will give students some hands-on experience. First-year student Divya Sambhu (left), 17, explains. (ST PHOTO: JANE NG)

From the top:

The Straits Times (Review & Forum), 22 April 2011  
The Straits Times, 19 February 2008  
The Straits Times, 21 September 2010





# NEW ITE HEADQUARTERS

The new ITE Headquarters will be co-located with ITE College Central to capitalise from having a greater synergy between the College and Headquarters. This new education complex will renew ITE's involvement in *Ang Mo Kio*. With a significantly larger student and staff base, ITE hopes to become a major community partner in *Ang Mo Kio*.



*Artist impressions of the new ITE Headquarters and ITE College Central*



# CHAPTER SIX: SHAPING IMAGE AND PERCEPTION





# REDIRECTING PERSPECTIVES

ITE's image transformation was thrust with many challenges; the key ones being societal prejudice against less academically-inclined students, misconception of the value of VTE offered by ITE and information gaps about the 'new ITE'. VTE does not enjoy the same prestige or public recognition as academic education. While ITE could strengthen its infrastructure, systems and programmes, the negative perception and information gaps would take a long time, as well as relentless branding and communication to change. In 1997, ITE undertook a major benchmark Public Perception Study to understand how key stakeholders, opinion leaders and the public perceived ITE and VTE, as well as the key imageries that affected ITE's image. The independent study covered nine stakeholders groups and eight post-secondary education options. The benchmark study and subsequent triennial studies provided rich insights, learning points and information gaps to help ITE reposition VTE and rebrand itself.

ITE thus began the exciting and persevering journey of rebranding and repositioning via a slew of communications strategies, including public branding campaigns, proactive media and public relations strategies, and direct engagement with key stakeholders. The series of branding campaigns were useful to reposition both ITE and VTE in terms of public mindset and perception. Each campaign was aligned to the strategic blueprints — 'ITE – Make Things Happen' for the **ITE 2000 Plan**, 'ITE – A Force Behind the Knowledge-based Economy' for **ITE Breakthrough**, and 'Thinking Hands Create Success' and 'We Make You Shine' for **ITE Advantage** and most recently, 'I Believe' for **ITE Innovate**, ITE's latest 5-year strategic plan rolled out in 2010.

## PUBLIC CAMPAIGNS

At the strategic level, ITE first sought to understand the information gaps and misconceptions among stakeholders and the public through independent focus group discussions with stakeholders, followed by a Public Perception Study by an independent consultant. Using the findings, ITE commissioned a maiden branding campaign in 1998 targeted mainly at the general public and opinion leaders like teachers, parents and employers. The aim was to address the information gaps while repositioning technical education as a viable and market-relevant education option. The campaign lasted three years.

Since then, ITE has been conducting three-year public campaigns with Public Perception Studies conducted after each campaign, to measure the perception shifts and identify new areas to address. While using public campaigns is not a new idea in itself, the effective rebranding messages and integrated communications efforts require the use of marketing research to first understand market perceptions and then devise appropriate strategies and messages to address the gaps in information or misconceptions. The triennial Public Perception Tracking Studies have allowed ITE to pinpoint these communications gaps and needs, and modify strategies and messaging to have a much stronger impact on key stakeholders.



*Above: ITE conducted special roadshows in heartland shopping malls up to the mid 2000's to showcase the creative abilities of our students and bring ITE to the doorsteps of the general public.*



**ITE 2000** aimed to strengthen promotional efforts for technical and skills training and increase visibility of ITE to members of the public. ITE's maiden '*ITE - Make Things Happen*' campaign sought to create an appreciation for technical skills and how important they were to our everyday lives. Moving ahead, ITE focused on its relevance to the key growth industries with its '*ITE – A Force Behind the Knowledge-based Economy*' campaign.

The next campaign, '*Thinking Hands Create Success*', focused on the talents and aspirations of ITE students, positioning them as promising young talents. The series of campaigns sought to tackle the deep bias against ITE and technical education. With 'thinking hands', ITE students are positioned as thinking-doers who can excel in experiential hands-on learning, having new and added dimensions. It also served to engage the minds of the public in viewing ITE from a completely different perspective.

The next campaign, '*ITE – We Make You Shine*,' aimed to position ITE as an 'alternative pathway to success', where parents are proud to send their children; and for students, proud to make ITE their choice for further education. The visuals centred on the aspirations of ITE graduates and their desire to achieve inspirational goals. The images highlighted the outcomes and successes of an ITE education — like chefs, designers and entrepreneurs — that have emerged from a unique brand of education. The ultimate message is that ITE graduates are confident, passionate and able to hold their own in a global economy. The branding campaigns effectively engaged the public and key stakeholders. ITE is no longer seen as 'a place of last resort'. It is now very much an institution of choice.

It keeps you on the line with Lisa in LA.

Who keeps it on line?

ITE

With my passion and self-belief, and ITE's unique College Education, my potential is nurtured to its fullest. I have an appetite for growth that brings out the creativity and entrepreneurial spirit in me. With these market-ready skills, I am poised to shine in the global economy.

**We Make You Shine**

www.ite.edu.sg 1800-CALL ITE (1800-2255 483)

With Hands That Think, I Deliver Beyond

I'm gifted. With my hands. All that I learn, acquire and know - my hands put into action. They have a mind of their own. These thinking hands. At ITE, be it a core engineering course or a special course like Retail or Tourism, I've always given that true hand to develop my skills, put theory into practice, and transform thought into action. ITE. Hands on. Mind on. Heart on.

www.ite.edu.sg 1800-CALL ITE (1800-2255 483)

Ambition: An award-winning chef entrepreneur

Stephen Wong, ITE Graduate and Gourmet Chef

With my passion and self-belief, and ITE's unique College Education, my potential is nurtured to its fullest. I have an appetite for growth that brings out the creativity and entrepreneurial spirit in me. With these market-ready skills, I am poised to shine in the global economy.

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# IMAGE OF ITE AND THE RATIONALE FOR CREATIVE BRANDING

In order to have a breakthrough, we asked ourselves what we should do. How could we change the perception of others? Who are our key target groups? How do we reach them? The most difficult thing is reaching out to people who do not know us and what we stand for. One of these groups is parents who can affect their children's choices, and the second is the general public. Why is the latter group important? If they are the opinion leaders, but do not have a good perception of ITE, they may influence more people negatively. We went ahead to develop a creative branding campaign, which was something not done by other public education institutions at that time. The message was very important in order to reach out to the public at large. It had to be clear, easily understood and something that everyone could remember. That was why we came up with simple and direct messages.

I am very glad that, after all our campaigns, it has proven that we have done the right thing to try to change public perception about ITE. Through our perseverance and conscientiousness to reach out to various stakeholders, we have fundamentally changed public perception of ITE and the value of our education and students. From an image equity score of just 34 per cent in 1997 based on 16 image attributes, we have doubled this to 69 per cent in 2010, which is a tremendous achievement and shift. Our bold and unprecedented rebranding strategy has raised the profile and standing of our students, staff and ITE.

## SABRINA LOI DEPUTY CHIEF EXECUTIVE OFFICER (CORPORATE)





# EDUCATION WEEK

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AMERICAN EDUCATION'S NEWSPAPER OF RECORD

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**COMPLETE MAKEOVER:** Cosmetology students practice applying makeup on one another at the Technical Education Institute in Singapore. Well known for its math and science prowess, the nation refashioned its career and technical education system with the aim of moving low-achieving students into high-demand jobs. American policymakers are watching. PAGE 10

## Singapore Crafts Vocational Ed. With Industries in Mind

By Sean Cavanagh

Singapore's success in turning out students with exceptional math and science skills has won praise for the former British colony-turned-international-financial-hub from educators and scholars around the world, the United States included.

But recently, outside observers have become intrigued with another, less discussed feature of Singapore's education system: its career and technical education programs. Since the 1990s, the country has revamped its trade-oriented academic classes and moved many low-achieving students into high-demand jobs, despite Singapore's traditionally heavy focus on core academics.

For years, American policymakers have searched for ways to raise the quality of the United States' career and technical education programs—the refashioned term for vocational education—and make them more relevant to today's economy.

While some U.S. programs draw praise from industry and school officials, critics say too many fail to weave academically demanding content from mathematics, science, and other subjects into classes

covering automotive training, construction, nursing, and other fields. Others say American schools should be giving students interested in specific trades clearer direction on the academic and career-focused classes they should be taking throughout high school.

As U.S. officials cope with those challenges, Singapore's experience could prove instructive, some American education officials suggest, despite the two nations' obvious educational and cultural differences.

### Winning Over Parents

Singaporean society has long placed a heavy emphasis on academic achievement, particularly in subjects such as math, science, and English. Students typically attend at least 10 years of school, with six years of primary school and four or five years of secondary education.

At the end of secondary school, most students choose from three options. Some go to "junior colleges," a form of preparation for university study. Others attend polytechnic schools, which blend academic and career-oriented studies, also a common precursor

*An article in Education Week — a premier publication in the USA aimed at raising the level of understanding and discourse on critical issues in American education — dated 15 July 2009, that exemplifies an increasing international recognition for Vocational and Technical Education in Singapore.*

# DIRECTLY ENGAGING STAKEHOLDERS

ITE's success in engaging stakeholders can also be attributed to the wide variety of engagement activities designed for each stakeholder group. Prospective students were involved in counselling sessions in their own schools and could participate in a unique two-day attachment programme, called the *Experience ITE Programme* (EIP). This experiential programme allowed these students to have fun with hands-on learning projects, while experiencing the modern and exciting learning environment at ITE. Parents of prospective students and educators, too, had dedicated sharing and learning programmes to help them appreciate the developments and transformation at ITE.



*Prospective students in a fun activity during ITE Fiesta 2011.*



*Above: Interactive projects and activities to orientate prospective students to ITE education.*



# NETWORKING WITH SCHOOLS

In its efforts to reach the stakeholders and fill the information gaps among school principals, teachers and students about career and technical education, *ITE 2000* started to create a Networking System with secondary schools to enable ITE, through informal contacts, talks, open houses and specially-packaged publicity materials, to gradually increase the acceptance of technical education among students and those who were likely to influence their choice of further education and training. This was essential because misperceptions and lack of information could discourage school leavers from taking up ITE education as an attractive educational option before entering employment. The ITE Training Institute-School networking framework was first implemented in 1993. Each institute then had, on average, established contacts with about 12-15 secondary schools.

*ITE Breakthrough*, with its goal of making ITE an institution of choice for technical education, established a Career Services Centre and introduced an *ITE Discovery Programme* for teachers in secondary schools and potential teachers undergoing teacher training. The latter is a joint effort between the National Institute of Education (NIE) and ITE. Since the inception of the *ITE Discovery Programme* in 1998, approximately 18,000 trainee teachers have visited and discovered ITE to be a dynamic organisation that champions technical education for the real world. Using a learning and sharing approach, this programme enables teachers to experience the ITE learning environment, discover the latest developments in technical education, interact with ITE lecturers and students, and learn the strengths and behavioural characteristics of kinaesthetic learners, and motivate and guide prospective students better through deeper understanding of what ITE can do for them.

ITE also focused on parents of prospective students by inviting them for seminars to increase their awareness of the ITE brand of education and to view the learning environment for themselves. The invitations are sent directly to the parents and they are given the option of choosing an engagement session in English, Chinese or Malay.



*Prospective students touring the vibrant campus at ITE College East.*



*A project at the Experience ITE Programme Centre being explained to Trainee Teachers during a visit in 2005.*

# MARKETING COMMUNICATIONS — IT'S ALL ABOUT THE STUDENTS

Prior to joining ITE, I had the perception that students who had an ITE education may not be able to make it very far in life. I never realised the extent of the role ITE plays to help technically-inclined students to further their education then. But after joining ITE, I found out how ITE played such a crucial role for this group of students. It is far more than just getting a certificate. I realised how an ITE education could make a difference to students because of the hands-on learning approach which they are able to enjoy and excel in, and also, the importance of equipping them with a relevant and marketable skill. I also realised that ITE students are just as capable as any other. They just have a different set of talents and learning style.

One aspect of my job when I was with the Marketing Communications team was counselling and advising secondary school teachers, students and parents about ITE and what it has to offer. Students, being students, sometimes ask the most irrelevant questions like which of the Colleges has the prettiest girls! But sometimes, I get questions that would stop me in my tracks and make me realise the importance of my job. I was once asked how ITE intended to change the image of our students. My response was to ask them if it was indeed their own perception that needed changing, or was it the yardstick that was used to measure them that had to change? Being able to educate people about ITE and what it does makes me feel that I can actually make a positive difference to our students' future.

**SHALINI VEIJAYARATNAM**  
HEAD, PUBLICITY  
ITE HEADQUARTERS





# PROMOTING VTE THROUGH SKILLS COMPETITIONS

Another means of promoting VTE was through skills competitions. Raising the image and status of skilled workers through skills competitions was suggested by then Prime Minister Goh Chok Tong during the inauguration of ITE in 1992. He felt that the valuable contributions of skilled workers to Singapore's economic development should be highlighted and accorded recognition so that more students would be encouraged to take up technical training and play an important role in the next lap of nation building. In 1993, ITE became Singapore's Official Representative to the International Vocational Training Organisation, which was later renamed WorldSkills International.

The National Skills Competition (NSC) was conceived to enable our youths who were good in technical skills to display their talents and gain public recognition for their role and contributions.

Organised by ITE, in conjunction with the local polytechnics and the Singapore Hotel Association Training & Educational Centre (SHATEC), the inaugural NSC took place in June 1994. At the event, 54 finalists pit their skills against one another in eight skills competition areas. The winners represented Singapore at the 33rd International Youth Skills Olympics (IYSO) held in Lyon, France, in 1995. There were nine Gold medallists who were selected to represent the nation, and Team Singapore eventually won a Gold Medal in Industrial Electronics, a Bronze for Mechatronics, and two 'Diplomas of Excellence' for Milling and Cookery at the Skills Olympics. For a first effort at the international arena, it was an outstanding performance. Encouraged by the successes of this first NSC and the achievements in Lyon, the second NSC in 1996 went on to be a bigger national event with even more competition areas.



*Then Prime Minister Goh Chok Tong with Dr Law Song Seng and winners at the 1st NSC in 1994.*



*The first-ever Team Singapore contingent heading to the IYSO in Lyon, France, 1995.*

Since then, ITE and its co-organisers have organised more NSCs, which were later renamed as WorldSkills Singapore when IYSO became known as the WorldSkills Competition. Singapore sent teams of representatives to future competitions and had greater achievements year after year.

### International Skills Benchmark

33rd 1995: Lyon, France (1 Gold, 1 Bronze, 2 Medallions for Excellence)  
34th 1997: St Gallen, Switzerland (1 Gold, 1 Silver, 3 Medallions for Excellence)  
35th 1999: Montreal, Canada (2 Golds, 4 Medallions for Excellence)  
36th 2001: Seoul, South Korea (2 Golds, 2 Silvers, 1 Bronze, 2 Medallions for Excellence)  
37th 2003: St Gallen, Switzerland (2 Golds, 1 Silver, 1 Bronze, 5 Medallions for Excellence)  
38th 2005: Helsinki, Finland (2 Golds, 1 Bronze, 3 Medallions for Excellence)  
39th 2007: Shizuoka, Japan (3 Golds, 1 Bronze, 6 Medallions for Excellence)  
40th 2009: Calgary, Canada (3 Golds, 1 Bronze, 8 Medallions for Excellence)  
41st 2011: London, United Kingdom (4 Golds, 1 Silver, 2 Bronzes, 7 Medallions for Excellence)

By now, such competitions receive their much-deserved attention and are often reported in the media.

The status of the competition, the students who compete and the skills and trades have been elevated. Such a shift would not have been possible without our consistent and persevering efforts to promote the importance of technical and skills education for the Singapore economy and to validate the different talents and abilities of our youths.



*A triumphant Team Singapore at the 40th WorldSkills Competition in Calgary, Canada, 2009.*



# WORLDSKILLS LONDON 2011

Team Singapore, comprising a record number of 22 competitors participating in an unprecedented 19 skills categories, rose above 50 countries at the 41st WorldSkills Competition held in London in 2011 by finishing in sixth place. With some 1,000 competitors all over the world competing in 46 skills areas, Team Singapore punched well above its weight and delivered its most outstanding results to date — four Golds, one Silver, two Bronzes and seven Medallions for Excellence.



*ITE students representing Singapore in Cooking, Restaurant Service, Ladies'/Men's Hairdressing, and Beauty Therapy.*

Shunner Villanueva Leong, a *Nitec* in Beauty Therapy graduate, put Singapore and ITE on the world map, as she emerged champion in the Beauty Therapy skills category. Since Singapore's maiden participation in the biennial WorldSkills Competition (WSC) in 1995, this was the first time an ITE competitor had won a medal at this prestigious biennial global skills competition.

On how she discovered her talents, Shunner said, "In my secondary school days, I always get to see my mum doing up her nails. It made me want to know how to do it, and so I end up learning a bit from my mum. When it came time for me to choose my ITE course, I knew that Beauty Therapy was definitely the course for me. After my application interview, I became aware that Beauty Therapy was not just about nails, but about everything in the aesthetics and spa industry. I know that this is what I want to do in life. There is satisfaction in helping people look beautiful and feel good after a spa treatment."



The strategic and tactical engagement of key stakeholders have resulted in a more informed and supportive public, especially among students, parents and educators. This has, in turn, led to improved perceptions and acceptance of ITE. Over the years, ITE has been measuring the impact of its repositioning. The very positive results have been worth the huge effort put into the rebranding. Independent studies have shown a remarkable change in public perception: ITE's Triennial Public Perceptions Studies also show that ITE students are now better regarded, and seen as 'creative' and 'innovative' — a big plus in a country where education authorities constantly wonder how to get students to dream big. As ITE's image and public perception improve, so do the self-esteem and confidence of ITE students. Students are proud to be part of an institution that the world recognises as exemplary and commendable. More importantly, students recognise that the impact made on them goes beyond a quality education or a successful career — ITE builds their self-esteem, gives them hope and changes their lives.







MEMORANDUM  
SIGNING CEREMONY

STATE OF TECHNICAL EDUCATION



well

SINGAPORE JAMCO PRIVATE LIMITED

ENGINEERING

# A SUCCESSFUL NURSING ENTREPRENEUR

I was not an academically-inclined student. I joined the army after my GCE 'O' Levels and was adamant about not going to ITE. Soon after, I became an ambulance driver with Comfort Ambulance. It was then that reality hit me and I realised the value of an ITE education. I was keen to enroll for the *Nitec* in Nursing course. However, I was rejected twice. I persisted, and was third-time lucky.

Throughout my years at ITE, my lecturers remained a source of strength and gave me the opportunity to turn my life around.

Upon graduation, with just \$800 and an ITE Certificate in hand, I started my own ambulance service company. ITE has given me hands-on skills and an entrepreneurial spirit which have enabled me to grow my business, and live the dream I have always imagined.

Unlike what I believed earlier, an ITE Certificate is very well-recognised, and has enabled me to pursue my dream. I am thankful for the opportunities and the care the ITE lecturers have given me that have enabled me to become what I am today.

## **SIVACHANDRAN** **ITE GRADUATE** **NITEC IN NURSING (CLASS OF 2008)**

## HOW DIFFERENT LIFE MAY BE, IF NOT FOR ITE

It was not because of a particular person that I changed. It was not because of the passion for the subject that I changed. It was not even because of a significant event in my life that I changed. Yet I changed, radically and enormously, while in ITE.

If I must pinpoint a reason for that change, it has to be 'self-esteem'. ITE gave me the self-esteem that I was unjustifiably denied for too long. ITE changed how I perceived myself as a person. It gave me self-confidence that I thought I did not deserve. After all, I was never a good student in school. My secondary school days were not about studying. Since I was not good at it, I had no reason to do it. Even my father believed that I was not cut out for studying, and discouraged me from continuing my education, as it could be a waste of time and money. Thankfully, the fees at ITE were reasonable and I supported myself throughout my studies by working part-time as a delivery man at night.

At ITE, I started scoring 'A's in my subjects. I started realising my true potential. I could not even do simple Mathematics back in secondary school, but I could do so at ITE. I attribute this to having supportive and encouraging lecturers who believed in me and taught me so well that I could begin to believe in myself. The self-esteem slowly built up to the point that I attained a perfect 4.0 Grade Point Average (GPA). I also held leadership positions in both my co-curricular activities and was able to give a lot more back to the community.





Today, I am a Business Development Engineer in a plastic injection moulding company and I get to travel abroad often, which I thought I could never do prior to joining ITE. As I write this piece, I am in Shanghai for a business trip. I used to admire people who had decent jobs, cars, houses and the chance to fly around the world. I am now living this dream and have everything I need, with bright prospects still awaiting me. ITE has literally changed the course of my entire life.

One day, I hope to pay it forward by becoming a lecturer in ITE, to inspire young people, build self-esteem and hopefully change some lives, just like what had happened to me.

**MELVIN MAH JIANMING**  
**ITE GRADUATE**  
***NITEC* IN MECHATRONICS**  
**(CLASS OF 2005)**

Many pioneers and staff of ITE regard image transformation as the toughest nut to crack since it is hugely dependent on the way the public think and view ITE. Old stereotypes and entrenched belief systems cannot be changed overnight. What one can do, at most, is to redirect perspectives, turn eyes to the light and shift minds to the right. To remind everyone that it is not just about the kinds of students ITE receives; it is also about the kinds of students we eventually produce — bright, savvy and as ready for the world as any other.



*An important part of repositioning ITE is helping the public recognise the new and high-tech courses available to students, like the Nitec in Semiconductor Tooling Technology.*





Measuring Strain with  
**STM6**  
Non-destructive Strain Measurement with Scanning Tunneling Microscopy

Scanning Tunneling Microscopy (STM) is a powerful tool for measuring strain in materials. It provides high-resolution images of the surface of a material, allowing for the measurement of strain at the atomic level. STM6 is a specialized software package that allows for the measurement of strain in materials using STM. It provides a user-friendly interface for data collection and analysis, and is capable of measuring strain in a wide range of materials. STM6 is a valuable tool for researchers in materials science and engineering, and is used in a variety of applications, including the study of the mechanical properties of materials, the development of new materials, and the optimization of existing materials.

OLYMPUS

CHAPTER SEVEN:  
CELEBRATING OUR  
TRANSFORMATION  
JOURNEY







The successful implementation of *ITE 2000*, *ITE Breakthrough* and *ITE Advantage*, as well as the still on-going *ITE Innovate*, have built ITE into an institution that is well-received and recognised locally and globally. Two decades of transformation have enhanced our organisational and staff capabilities, developed state-of-the-art infrastructure and provided our students with a high-quality and market-relevant technical education. Today, ITE continues with the relentless re-creation of its successes, every single day, in every single classroom and workspace. Its pursuit of excellence and transformation has changed the VTE of today significantly.





# HIGH GRADUATE EMPLOYABILITY

ITE graduates remain highly demanded by employers with an average of 90 per cent having found jobs within six months of graduation over the last decade. Employability remained at a high 84 per cent even during the 2008-09 global financial crisis.

An ITE Certificate is the qualification that will get you a job when business is bad. Manufacturing companies say the products of ITE (graduates), who are trained in specific skills, will always be in demand.

**'Demand and Pay are Up for ITE Graduates'**  
The Straits Times, 26 February 2004

# HIGH EMPLOYER SATISFACTION

Regular surveys of employers reflect a high Satisfaction Rate, of above 90 per cent in terms of ITE graduates' Technical, Methodological and Social Competencies.

Our ITE graduates are proud of their skills and are valued by employers. That's why they have had the highest employment rates of any (tertiary-level) graduates over the last two years, and their wages went up last year, against the flow of high unemployment rate.

**Then Education Minister Tharman Shanmugaratnam**  
**'Break Out of the Mould. Different Talents Welcome'**  
**The Sunday Times, 7 March 2004**

I have had the privilege of working with ITE students for many years. I found them reliable, trustworthy, humble and doers. One of their strengths is positive attitude, and that's all that matters.

**James Soh, PBM, MBE**  
**Executive Director, National Youth Achievement Award Council, Singapore**







## Bright future for ITE students

Institute of Technical Education students are proving that ITE does not stand for 'It's The End' - both in their further education and career prospects. **Sandra Davie** sizes up the prospects for ITE graduates

### MOVING UP TO POLYTECHNICS

A record number of 1,643 ITE graduates made it to polytechnics this year, up from 1,154 last year.

The increase is due partly to a policy change that allows ITE students to defer their national service until they complete their three-year diploma studies.

Another reason is that there were more ITE graduates this year because of larger intakes in 2004 and 2005, part of whom were the Dragon Year babies.

But even if those factors are discounted, the number of ITE students making it to polytechnics has grown over the years. Just five years ago, a mere 700 made it to the polytechnics.

To qualify for polytechnic studies, an ITE student needs a two-year National Institute of Technical Education Certificate (Nitec) qualification with a minimum grade point average (GPA) of 3.5, or alternatively a Higher Nitec.

Higher Nitec students with a GPA of 3.5 and above can obtain direct entry into the second year of the polytechnic course.

Generally, those with N-level qualifications take the Nitec course, while those with O levels opt for Higher Nitec.

Polytechnic lecturers note that ITE students do well in poly as they are more mature, motivated, and bring with them good technical skills.

The ITE does not track how many of its students who make it to the polytechnics go on to take up a degree, but officials say the majority do head to local universities or overseas.

There are a few who have returned with first class honours.

One of them was highlighted by Prime Minister Lee Hsien Loong in his National Day Rally speech last year.

Mr Eric Chen, 32, went from Ngee Ann Polytechnic to the University of Edinburgh, where he graduated with first-class honours. He then completed his master's at Imperial College in London but turned down an offer to do his PhD, opting instead to return in 2002 to teach at the ITE.

### MOVING ON TO JOBS

ITE graduates who entered the job market last year had no trouble landing well-paid jobs, going by the employment survey findings.

Compared with their counterparts surveyed in 2004, graduates did marginally better last year in the job market on several fronts.

More were offered full-time jobs within three months of job hunting - 91 per cent, compared to 89 per cent the previous year.

More were also working at the time of the survey: 90 per cent last year, compared with 87 per cent in 2004.

And when it came to the starting pay, there was a two per cent increase over that of 2004. Fresh graduates last year earned about \$1,250 a month, while those who had served national service earned about \$1,550.

Most in demand were mechatronics graduates, who commanded the highest average gross monthly salary of \$1,815. Mechatronics students study mechanical, electrical and electronic engineering. In general, an ITE engineering graduate received \$1,666 a month.

### MOVING UP IN THEIR CAREERS

ITE tracks its graduates to see if they continue to do well in the job market in the long term.

Last year, it surveyed its students who graduated from 1993 to 1995 and of the 870 respondents, 98 per cent were gainfully employed.

A quarter held managerial and professional jobs. On average, they earned \$2,500 a month.

Of the respondents, 37, or four per cent, reported they had started their own businesses.

# A MOMENT IN HISTORY

## EXCERPT OF SPEECH BY MR PETER CHEN, SENIOR MINISTER OF STATE FOR EDUCATION AT THE 4TH ITE INSTITUTE DAY STUDENT AWARDS PRESENTATION CEREMONY ON TUESDAY 25 APRIL 2000

### Success Stories

ITE's annual publication, 'I Did It My Way', has featured a number of successful ITE graduates. They include those who have made a significant mark in their chosen careers, entrepreneurs who have succeeded in business and those who have pursued and attained higher educational qualifications. The majority of them have attributed their success to the excellent foundational training and strong learning support received at ITE. Many have spoken favourably of the developmental opportunities provided through Extra Curricular Activities (ECA) and projects, which have enabled them to take on leadership positions and helped to increase their confidence and self-esteem.

I would like to share with you the success story of Mr. Roger Lee, President of the ITE Alumni Association. During his early days in Whitley Secondary School, Mr. Lee was very active in his CCA. He was a sergeant in the Red Cross Society, a Prefect as well as a Class Monitor. He took part in many National Day Parades. When he enrolled in ITE, he was again appointed as Monitor of his class. Mr Lee chose to participate in community service in ITE. He was able to apply his knowledge of electrical wiring and installation for a Home for the Aged, which was located in the neighbourhood of the institute.

Mr Lee is now the Managing Director of two companies. Despite his busy working schedule, he has not forgotten about his alma mater. In 1997, Mr Lee led a team of enthusiastic ITE graduates to set up the ITE Alumni Association. He and his team have been working tirelessly over the past three years to promote the importance of technical skills and ITE. Their hard work has come to fruition and ITE Alumni now has 4,000 members. Mr Lee exemplifies the types of students ITE wants to produce. Both ITE management and myself will be very pleased to see many more students coming forward to follow Mr Lee's good example.

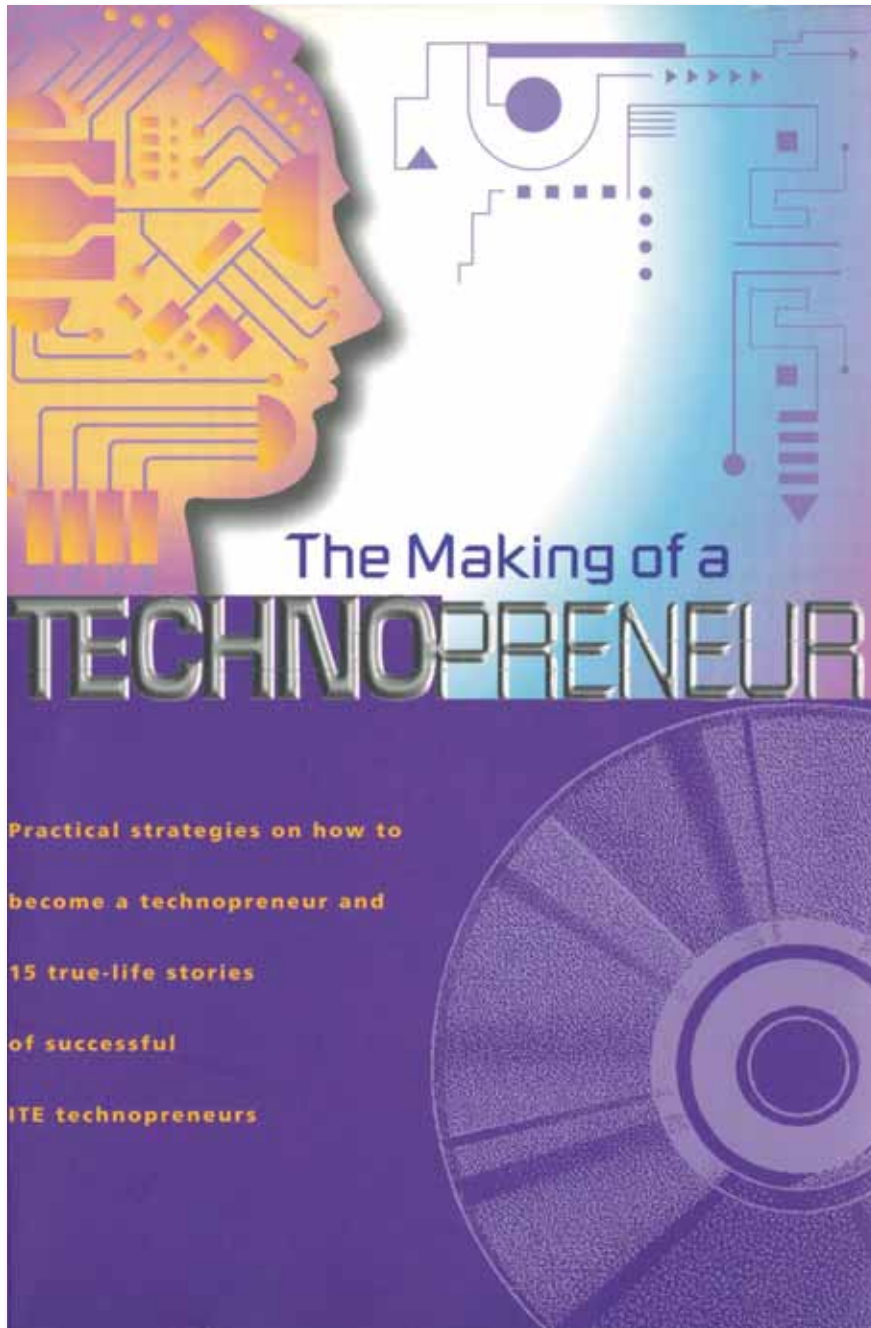


Above:  
The Straits Times  
22 December 2006



# ABUNDANT OPPORTUNITIES FOR ITE GRADUATES

With an ITE qualification, ITE graduates can build good careers in industry, become successful entrepreneurs and technopreneurs, or progress to further education.



Would you like to be a millionaire many times over? You do not need good 'O' Levels or plenty of money in the bank to form a company that could rake in your first million within a year...the remarkable stories of the gutsy people who rose from the bottom of the education heap to become successful entrepreneurs whose companies do up to \$140 million worth of business a year...What they have in common are grit, determination and a never-say-die attitude that have helped them to win big in the business world. The other common factor is that they all picked up technical skills at the ITE, skills that were used to exploit market potential...The 15 ITE Graduates, who are featured in a book *The Making of a Technopreneur*, rose from underdogs to become millionaire-technopreneurs with sheer grit and determination.

**An excerpt from 'From Underdog to Top Dog — Finding Success Despite Not Having Any Degree' The Straits Times, 10 April 1999**

FROM ITE TO POLY TO UNI

# A student's dream comes true

I REFER to Monday's article, "Get poly students into university" by Ms Amelia Tan. I graduated from the Institute of Technical Education (ITE), then proceeded on to Ngee Ann Polytechnic with a scholarship and recently secured a place in the National University of Singapore.

It was a long and tough uphill climb, but it helped that I came across many supportive and dedicated lecturers. Also, I had strong family support throughout my arduous journey.

To study at one of the local universities is indeed a dream come true for me. Gone are the days when polytechnic students were not even eligible to apply to the local universities, which was what happened to my uncle.

The fact that an ITE student has the opportunity to proceed from a diploma to a degree here shows that Singapore is

indeed a meritocratic state which truly believes in talent and abilities. I worked my way up through sheer hard work and perseverance.

It takes time to assess if more places are needed for polytechnic students in

## Polys can help grads through tie-ups with foreign varsities

I REFER to Monday's article, "Get poly students into university" by Ms Amelia Tan, and agree with the writer that our education system must evolve with the changing times.

It is good for a polytechnic graduate to aspire to go to university to acquire further skills. However, we must remember there is another group of students who are seeking to be trained at the

local universities as it means fewer junior college students will be able to find a place in the varsities. After all, we already have a diploma which allows us to command a decent salary, compared with an A-level graduate, who needs a

degree to join the workforce.

I believe in the Government's slow, measured approach to get the balance right. If you are hardworking, dedicated and conscientious, then the world is at your feet.

**Marcus Chia**

universities to be administrators, lawyers, accountants and other professionals after having spent two years in junior colleges preparing to do so.

With the increasing competition for university places between JC students and polytechnic graduates, we must find ways to fulfil the wishes of both these groups of aspiring youth.

I suggest that the polytechnics collabo-

rate with foreign universities to offer degree courses after their students have obtained their diploma.

The curriculum for these graduates can be tailored to strengthen the training they have already received and can perhaps include an internship in a related industry.

**Patrick Sto**

*Left:  
The Straits Times (ST Forum)  
9 June 2010*

## FROM ZERO TO HERO

From a forced refuge of the academic underclass, ITE is now one of the top choices for post-secondary education, according to the triennial, independent Public Perception Studies.



# FINDING MY PASSION AT ITE

I live and breathe the kitchen, spending long hours perfecting every dish I have learnt. What makes my day is seeing the delighted expression on people who savour my gastronomic creations. After a long day, I retire to my bedroom to research the best ways of cooking, the best combination of ingredients and the different culinary styles.

I started cooking at my mother's cafe six years ago, and I have not stopped yet. My supportive mum was the one who encouraged me to pursue my passion and to do a *Nitec* in Culinary Skills (Western) at ITE, even though I could have gone to a polytechnic. Never did I imagine that my two-year training would bring me thus far. At ITE, not only did I learn the necessary skills which prepared me to be chef, I also had the opportunity to experiment with eclectic culinary flavours and be challenged at a global level.

I am not quite a typical student. When I am not in school, I would usually be in a restaurant or hotel somewhere as a part-time chef honing my skills. When I am not in Singapore, I could be in Shanghai or France or Canada participating in culinary competitions. WorldSkills Calgary 2009 was an experience I would never forget. The competitors against me were all top-notch and that only made me want to be better. I have to admit that this is hard work and I miss going with friends and all, but taste is something that cannot be compromised. I aspire to serve nothing but the very best.

I became the top culinary student, valedictorian, and also received the Lee Kuan Yew Gold Medal, the highest award given to an ITE graduate. When I graduated in 2008, I was asked if I ever regretted the sacrifice I made in choosing this career, but really, I love what I do. It is as simple as that.

## **TIMOTHY JUNG MING** **ITE GRADUATE** ***NITEC* IN CULINARY SKILLS (WESTERN)** **(CLASS OF 2008)**



ITE is an exceptional organisation which sets the highest standards for its students, faculty and staff. We, at SAIT Polytechnic in Calgary, Alberta, Canada, are very proud to have ITE as our global partner.

ITE's reputation for exceptional practices continue to be surpassed year after year, and that other organisations throughout the world emulate the education and training practices demonstrated by ITE.

If I had to rank ITE and compare this organisation to the more than 30 countries we have been engaged with over several decades, they would be my first choice in the top of any ranking scale...Having worked in Alberta's publicly-funded system for over 30 years, I can honestly state that few can measure up to the ever high standards set by ITE... which serves as a benchmark for others to attain.

ITE serves as a role model for developing strategic plans which focus on the future needs of both students and country, with the objective of improving its performance, and hence contributing to the productivity of Singapore. They understand and deliver on a promise to turn strategy into action which few organisations worldwide can match, let alone surpass, with such a dedication to quality.

ITE is internationally-renowned for the quality of its facilities, programmes, principles and practices and serves as an example to learn from and to aspire to as a global leader in bringing the world to its students and its students to the world.

**DR IRENE LEWIS**  
**PRESIDENT AND CHIEF EXECUTIVE OFFICER**  
**SAIT POLYTECHNIC**  
**CANADA**



ITE has become a world leader in the Vocational Education and Training Sector. Given its challenging mission of catering to Singapore's least academically-inclined 25 per cent student cohort, it has developed a model that is 'best-in-class', which is the envy of many international VTE colleagues.

It is renowned for its *ITE Care* philosophy and culture that make a difference to people's lives. ITE adopts a holistic approach to enhancing students' contribution to society, by implementing new innovative teaching methodology, such as iDe'Lite®, and by teaching students to participate in industry projects. It has become a benchmark for international partners globally.

This, together with the extensive level of engagement and linkages with local and international organisations, enables ITE to provide students with relevant and up-to-date training, which is of a world-class nature.

The Total Organisation Excellence Framework adopted by ITE has provided clear direction for ITE to reach both excellent national and international standards, which has enabled ITE to become a global leader in technical education.

**JOHN MADDOCK**  
**CHIEF EXECUTIVE OFFICER**  
**BOX HILL INSTITUTE**  
**AUSTRALIA**





Our work with ITE has been invaluable to Kirkwood in several ways. Their commitment to the highest standards in educational delivery has been a model to guide several of our programmes in Iowa. Our new Healthcare Simulation Centre was built with several wise and efficient aspects, thanks to inputs from ITE. That same keen insight can be found in our Hospitality, Arts, Graphic Communications and Project Management programmes.

For several years, ITE and Kirkwood faculty and students have exchanged places, travelling from Iowa to Singapore and back. These exchanges have proven to have lasting, profound worth in both directions.

## **MICK STARCEVICH** **PRESIDENT** **KIRKWOOD COMMUNITY COLLEGE** **UNITED STATES OF AMERICA**



As Provost and Vice Chancellor of the University of Wisconsin-Stout, the first and only university to receive the Malcolm Baldrige National Quality Award, I have visited ITE thrice and served as a member of ITE's External Review Panel. ITE has also sent delegations to UW-Stout on two occasions to share and benchmark best practices in post-secondary education.

Over the years, I have been extremely impressed with ITE's transformation from a vocational school that was viewed as a last resort for poor students to a state-of-the-art institution that has become the 'jewel' of the Singapore's education system. ITE has many accomplishments, including training more than 350,000 members of the Singapore workforce. Enrolment at ITE has doubled since 1995, and graduation rates have continued to increase. The current graduation rate of 83 per cent is among the highest in the world for vocational technical institutions. ITE graduates are in high demand by employers from numerous sectors, averaging an employment rate of 90 per cent over the past decade.

The leaders of ITE have demonstrated skills at visioning, planning and deploying action plans to achieve their desired state. In becoming a global leader in vocational technical education, ITE has built impressive learning facilities, developed new curriculum to meet the needs of students and employers, hired and developed dedicated faculty and staff members, and successfully rebranded itself through an integrated marketing communications approach. This transformation is sustainable and is transferable to other educational institutions, and ITE has made great efforts to share its experiences with educators around the globe.

In summary, ITE has changed the lives of thousands of kinaesthetic students who may be less academically-inclined, and has become an institution that is known for its outstanding results relative to student learning and stakeholder satisfaction. ITE plays a key role in the development of Singapore's workforce, economic development and society.

## **JULIE FURST-BOWE** **PROVOST AND VICE CHANCELLOR** **UNIVERSITY OF WISCONSIN-STOUT** **UNITED STATES OF AMERICA**



ITE's development since its foundation in 1992 is a success story which, as far as I can see, is unparalleled in the world. Developing an Institution of Vocational and Technical Education, with students from diverse backgrounds and with the goal of providing a state-of-the-art academic, practical, social, and moral education primarily for those students of Singapore's educational system who belong to the 25th percentile of kinaesthetic school leavers, is a bold and grand endeavour.

Throughout my career as Professor of Higher Education Management and University President, and as Auditor in Institutional Assessments, I have seen more than 200 higher education institutions worldwide. Among them, ITE stands out among the top league institutions for organisational excellence and quality education globally.

**DR RAINER KÜENZEL**  
**PROFESSOR OF HIGHER EDUCATION MANAGEMENT AND POLICY**  
**FACULTY OF ECONOMICS**  
**UNIVERSITY OF OSNABRÜECK**  
**FEDERAL REPUBLIC OF GERMANY**

## ITE more renowned internationally than locally

**Its achievements have been lauded by The Economist magazine and OECD**

By **LEE U-WEN**

ALMOST every other day, the top brass at the Institute of Technical Education (ITE) have to play host to a foreign visitor – in many cases, groups of them – eager to find out what makes this post-secondary institution tick.

Last year alone, more than 1,000 guests dropped by at one or the other of ITE's two mega-campuses in Simei and Chua Chu Kang. One group from Australia even brought their own architects and videographers to take footage of



**Coming soon:** An artist's impression of ITE College Central in Ang Mo Kio, which is due to enrol its first intake in January 2013 and will have the largest cohort of 10,400 students

*Left:  
The Business Times  
25 July 2011*



# ITE EDUCATION SERVICES AND HOW ITE CAN BE TRULY WORLD-CLASS

In ITE, we recognise the importance of VTE in the economy. More companies are emphasising training and education training and they began to see people with technical skills as a very critical part of their workforce. This is not just experienced here, in Singapore, but around the world, as you can see the high employment rates among the youth. It is not merely about getting a university degree. In Singapore, it has become more pressing because most of the companies are fighting on international platforms. Having competency standards that are localised is not sufficient. Competing in the global arena, you need a wider array of skills and deeper and higher level of expertise. It is about upgrading for a real fight overseas, in terms of cost, and ability to deliver quality work on time.

ITE's entrance into the global arena is about exposure for our lecturers and students, so that they can keep abreast of the latest developments and be motivated to develop and to expand in the area that is needed. It will enable our staff to prepare our students to be 'work-ready' and 'world-ready'. To say we are the best may make us lose our motivation to strive on. The journey is more important to us. If we can help, not just emerging economies, but also developed countries, to replicate the ITE system, we will be truly world-class.

**DR BENJAMIN TAN**  
**DEPUTY CHIEF EXECUTIVE OFFICER**  
**(DEVELOPMENT), ITE**  
**AND CHIEF EXECUTIVE OFFICER,**  
**ITE EDUCATION SERVICES PTE LTD**



# THE BACKBONE OF THE ECONOMY

Over the years, ITE and its predecessor institutions have trained more than 350,000 graduates, who form the backbone of the Singapore workforce, particularly in manufacturing and services, Singapore's twin engines of growth. ITE's achievements contributed to a world-class technical workforce in Singapore, achieving a 100 per cent score in the BERI (Business Environment Risk Intelligence) Labour Force Evaluation Assessment consistently since 2001.





In its own quiet, efficient way, the ITE contributions to Singapore's manpower needs have been no less praiseworthy, but understated...Besides its economic mission, it ought to be remembered that the ITE, and especially its predecessor the Vocational and Industrial Training Board (VITB) had an unspoken social role. ITE has trained more than 100, 000 youths with 'N' or 'O' Levels qualifications for careers, as opposed to mere jobs...and many ITE graduates have become managers, technopreneurs and professionals.

**'Hats Off to ITE'**

The Straits Times Editorial, 23 August 2001

ITE's name is now up in the lights. Its certificate graduates are having such a good run in the job market, and so many have gone on to study for diplomas in polytechnics, that ITE should just be taken to mean, 'It's The Entrée'...The acknowledgement (that ITE has played a big role in Singapore's modernisation as an economy) is well-earned and the marketplace is the best judge of the worth of its (ITE) graduates... The government has now rightly moved to elevate ITE's status with its campus centralisation plan. It is no exaggeration that ITE College East (at Simei), which cost \$240 million to build, surpasses many colleges and even some smaller universities in other Commonwealth countries for its design and range of facilities and equipment.

**'Entrée It Is for ITE'**

The Straits Times Editorial, 18 October 2004



# CHANGING LIVES

The real success of ITE has been the fact that it has successfully raised the prospects and maximised the potential of young Singaporeans who, in other education systems all over the world, would have been left behind. The fact that youth unemployment in Singapore is not a problem, even in the middle of a recession, is evident of the success of ITE.

## TEO CHEE HEAN THEN MINISTER FOR EDUCATION PARLIAMENT BUDGET DEBATE 2002

### ITE EDUCATION

## Lessons from school of life

ENOUGH of the negative clichés hurled at the Institute of Technical Education (ITE), the most common one aimed at its acronym – “It’s The End”.

The latest salvo was in a letter last Saturday, “Schools should encourage Sec 5 students”, in which Ms Liza Ho criticised a school’s senior staff member for trying to persuade her child and his schoolmates to opt for the ITE route.

I felt that way once because of such negative perceptions. My O-level results were poor and I was offered a secretarial course at the ITE. Because I was fed with a poor image of an ITE education, I turned the offer down.

Instead, I worked in a restaurant for a year before starting national service

(NS) in 2004. Being in NS and society opened my eyes to the importance of a good and effective education. I vowed to get one.

In 2006, I enrolled for the National Institute of Technical Education Certificate (Nitec) in Service Skills (Retail) at

ITE College East. During my studies, I was awarded a Young Retailers Scholarship Programme, sponsored by the Workforce Development Agency in conjunction with Tangs.

By the end of my course, I was given an Outstanding Graduate Award.

An ITE education was my redemption. I realised that the ITE was serious in its mission statement – to create opportunities for school leavers and adult learners to acquire skills, knowledge and values for lifelong learning in a global economy.

After fulfilling my scholarship bond with Tangs last year, I returned to ITE to enrol for the Higher Nitec in Business Studies (Administration) – at age 24. I chose to return because the ITE develops aptitude alongside fortitude. It encourages lifelong learning.

To all who are reluctant to enrol in the ITE, do not hesitate. ITE does not stand for “It’s The End”. On the contrary, it is the beginning, of a wonderful journey in education and, above all, life.

Aloysius Teo

### WRITEIN

LETTERS should be sent only to The Straits Times. They should be no longer than 400 words and must include the writer’s full name, address and phone numbers. The Forum editor reserves the right to edit a letter. For women, please indicate Miss, Ms, Mrs or Madam. Please e-mail your letter to [stforum@sph.com.sg](mailto:stforum@sph.com.sg).

## Good, dedicated leadership key to success

» CONTINUED FROM PAGE 11

suit Singapore’s unique needs.”

In the end, they built their own model: more applied modules run by polytechnics in secondary school; more applied subjects that can replace existing O-level subjects; direct admission to polytechnics from secondary schools.

### Good governance is key

PRIVATE-SECTOR industry captain Eric Gwee, 58, has seen up close public servants’ commitment to educating the less academically inclined. The former ExxonMobil senior executive chaired the ITE Board from 1994 until last month.

“In all my 13 years, every minister, minister of state, permanent secretary and deputy secretary has been supportive of ITE,” he says.

One of the early advocates was the late Dr Tay. Mr Er Kwong Wah, 60, permanent secretary for education then, recalled the day Dr Tay called him from his home to discuss some aspects of technical

education before he was warded.

A few days later, Dr Tay died of heart failure. “I thought we had an unfinished conversation,” says Mr Er.

Not long after the funeral, he received a call from Mrs Rosalyn Tay. She had found a note in her husband’s briefcase addressed to him. It contained a few points that Dr Tay had jotted down after their last discussion.

This personal factor, say policymakers, is hard to institute and reproduce.

Says Mr Gan: “So many other countries have looked at our ITE, looked at our polytechnic and said, ‘Wow, this is a good system. We would like to duplicate it in our countries.’”

“We always share with them that the system, we can replicate, we can help you, but it’s the people that will make the difference.”

Finding the right leaders for the educational institutions is critical, he notes: “Without the right person, we cannot have autonomy, and we cannot run the Singapore system without autonomy because

the education sector is so diverse.”

Also unique to Singapore, Mr Gan believes, is that the ministry, the ITE and the five polytechnics work closely as a team and in collaboration with industry players. At least once every quarter, he chairs a coordinating meeting followed by tea with eight to 10 industrialists, to hear first-hand how the ITE and polytechnics are meeting the needs of employers.

Mr Tharman says Malaysian Education Minister Hishammuddin Hussein is among those following developments in Singapore. “The Malaysians, Indonesians, Thais, Vietnamese take great interest in our system,” he says. “They read what we are doing, come here to study our system, and my counterpart in KL, Hishammuddin, tells me squarely, ‘We are following what you are doing.’”

“Why are we able to do it? Because we have this whole team that works seamlessly together – listening to the ground, coming up with ideas, and implementing them where they make sense.”

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Left:  
*The Straits Times*  
29 January 2010

Left:  
*The Sunday Times*  
8 April 2007



Ms Angela Li Jiao, 21, and Mr Muhammad Fadzuli Mohamad Said, 25 (right), graduated this year from Nanyang Polytechnic and gained direct admission to a two-year master's programme in entertainment technology at Carnegie Mellon University, a leading US university.

Ms Li completed high school in China before attending the polytechnic here. Mr Muhammad Fadzuli is Singaporean. Both have applied for government scholarships.

"In China, everything is from the textbook, but I had a good foundation. Over here, you do research and individual study. I also learnt teamwork. It's not a one-man effort to create a game. You have to communicate with others."

- MS LI

"I'd rather spend two years to get a master's overseas than six years to get one here. I'm already 25 - I have to rush."

- MR MUHAMMAD FADZULI

Mr Shawn Tan (below), 37, went from the pre-ITE Singapore Technical Institute, to Singapore Polytechnic, and then to the National University of Singapore. He set up software firm In Touch Systems in 2000.

"The lecturers at the institute gave hands-on work which triggered my interest."

- MR TAN



Ms Teo Qi (above), 15, moved from Normal (Technical) to the Express stream in three years, thanks to flexibility in the system. She topped the Secondary 2 Normal (Technical) stream at Zhonghua Secondary School in 2005, switched to Secondary 2 Normal (Academic) last year and did well enough to move up to Secondary 3 Express this year. She loves biology and hopes to be a doctor some day.

"You've to manage your time and be consistent in your work. You can't look down on yourself."

- MS TEO

#### ► Goh Chin Lian

YOU must be asleep to miss it when you take the MRT from Tanah Merah to Simei.

It is a campus with an 823-seater sports stadium, an Olympic-size swimming pool, and a huge banner, six-stories high, of a smiling girl with a microscope and the tagline "With my heart and mind in the right place, my hands are my cutting edge."

"The view along the MRT track is like a 365-day open house," principal Tan Seng Hua says proudly of ITE College East, the first of three regional mega-campuses for technical education.

You would expect Mr Tan, 54, to be a fan of ITE. After all, he has spent more than three decades in this line of work. Similarly, you may remain unmoved when Education Minister Tharman Shanmugaratnam calls the ITE the "jewel" of Singapore's tertiary education system.

Then, take it from a 2005 report by the World Bank: "ITE has achieved a significant breakthrough by establishing itself as an established post-secondary institution. It has effectively rebuilt and transformed its former 'vocational' institutes into top-line educational colleges."

Many Singaporeans hold the stereotype that the country has an elitist education system that punishes students who cannot get past the academically oriented O levels and A levels.

That's history. The current reality is a system that provides opportunities for all kinds of learners, including the many who are more attuned to practice-based courses and jobs.

"ITE has given skilled occupations a new social and economic importance, creating viable careers for its graduates," the World Bank report said.

As Mr Tan takes insight on a tour of his sprawling campus, the first stop is the top floor, where student nurses practise on a dummy patient.

The high-tech humanoid blinks, breathes and behaves according to the medicine administered. Cameras capture the trainees' every move, allowing a dozen-plus others to follow the action from behind a glass panel.

Two floors down are two infocomm technology centres set up with Microsoft and Sun Microsystems. These IT giants supply the latest technology, train the lecturers to use it and provide certification for the students.

The final stop is a spa with its own hydrotherapy tub, facial steamers and piped-in music. Some 120 students a year learn the finer points of nail care, and facial and body therapy, in preparation for a projected boom in the services industry when the integrated resorts open their doors.

While many university degree holders may be unaware of the strides that the ITE has made, its own graduates know better.

Like Ms Li Lizen, 23, who was in the bottom-rung EME class in primary school and Normal (Technical) in secondary school, but blossomed in the ITE.

"The lecturers paid attention to individual students and made sure we understood the lectures," she says.

She made quick progress, graduating in 2003 with a sterling Grade Point Average of 3.8 out of 4. She then secured a diploma in accounting at Ngee Ann Polytechnic and is now a freshman at the Singapore Management University.

## The end is just the beginning

The old joke about ITE being short for 'It's The End' no longer holds true. These days, ITE is more like the jewel in the Education Ministry's crown

The polytechnics are also scoring new successes. One example is Mr Muhammad Fadzuli Mohamad Said, 25. This year, he graduated from Nanyang Polytechnic with a diploma in digital entertainment technology.

Carnegie Mellon University officials offered him direct admission to its two-year master's programme in entertainment technology - a vote of confidence for the polytechnic's programme from a leading American university reputed for its expertise in that field.

Mr Tharman says: "Our polytechnics and ITEs, to my mind, are the unique strength in our tertiary system, with the ITEs being the jewel."

In the next two months, Thai and Vietnamese education ministers will be visiting to find out more about Singapore's practice-based learning.

This approach at the ITE and polytechnics - and increasingly in secondary schools - differs from most other countries, which insist that everyone takes the academic route until they finish high school.

Such rigidity tends to make a whole lot of teenagers lose interest in their studies and drop out, says Mr Tharman. In Singapore, about two-thirds of students go on from secondary school to polytechnics and the ITE.

"We recognise that a substantial proportion of students take more easily to this way of learning, a less academic way and closer to real application, and it is what will spark off a real interest in the subject," he says.

When foreign officials visit, they will hear a success story that involved decisive leadership and a commitment to keep in step with the manpower requirements of the economy as well as the public demand for higher education.

The first leap forward for the ITE was made in

"ITE has given skilled occupations a new social and economic importance, creating viable careers for its graduates."

- A 2005 WORLD BANK REPORT

"Without the right person, we cannot have autonomy, and we cannot run the Singapore system without autonomy because the education sector is so diverse."

- MR GAN KIM YONG, Minister of State for Education, on the need to find the right leaders for educational institutions

1992. Its predecessor, the Vocational and Industrial Training Board, had been catering to primary school leavers.

But it had become clear that employers needed vocational graduates with at least secondary education, said former ITE chief executive Law Song Seng in a paper for African officials here on a World Bank visit last year.

Thus, ITE was fashioned as a post-secondary institution.

"It was an example of the forces driving change in the schools and the rising expectations of industry and society," said Mr Law.

#### Mega-campuses

"JUST go and look at the facilities, it's like a university in many other countries," says Mr Tharman of the ITE College East campus.

Things will only get better. The ongoing plan is to cluster 10 small campuses with some 1,800 students each into three mega-campuses by 2011, each able to take some 7,000 students.

Soon after Mr Teo Chee Hean took over as Education Minister in 1997, it occurred to him that the vocational centres had been planned, like secondary schools, to be close to students' homes.

"But once the ITE became post-secondary, there was no difference from a polytechnic. Travel was not much of an issue," says Mr Teo, who is now the Defence Minister.

The larger campuses would also bring together a range of disciplines and provide for the total development of the student, from sports to the arts.

#### Polys: Against the tide

SINGAPORE's big polytechnic push went against international fashion. Other countries phased out poly-

technics and upgraded them into universities - sometimes by just a name change.

But Singapore expanded the polytechnic system, with the latest, Republic Polytechnic, set up just five years ago.

Mr Tharman says time has proven Singapore policymakers right.

"Most countries decided to convert their polytechnics to universities and they now are regretting it because they have a diluted form of university education that the market doesn't want," he says.

Singapore struck with a "pragmatic" approach that suited the range of individual talents in the population, he adds.

Tenasek Polytechnic's first principal, Dr N. Varaprasad, 58, recalls a trivial but telling exchange that showed how firmly the Ministry of Education (MOE) believed in the polytechnics' distinct role.

The school had designed a graduation gown for its first batch of graduates. The idea was vetoed by Dr Tay Eng Soon, MOE's late senior minister of state.

"We were told not to try to imitate a university," says Dr Varaprasad, who is now chief executive of the National Library Board. Dr Tay told him the graduates should dress smartly in work clothes to show they were industry-ready.

The 100 gowns were stashed away and eventually sold to a college in Johor.

With fewer doubts now about the place of polytechnics, this year's graduates of Republic Polytechnic wore gowns, Dr Varaprasad notes, adding wryly: "Things move with the times, and sometimes we are ahead of our time."

Today, the emphasis is on "many routes up, many ways to succeed", as Prime Minister Lee Hsien Loong put it in his 2005 National Day Rally speech. He encouraged polytechnics to link up with foreign universities to run degree programmes in niche areas.

Ngee Ann Polytechnic responded first, announcing last October a tie-up with Wheelock College in the United States to offer a degree in early childhood education.

This thrust resulted from a 2004 study by ministry officials and polytechnic principals. They wanted to respond to the rising aspirations of polytechnic students for a degree, says Ms Chang Hwee Nee, 44, MOE's deputy secretary for policy.

The committee picked foreign university tie-ups over the slower and costlier options of expanding university places in Singapore. The tie-ups would also be more flexible, market-driven and allow for courses not offered at the three main universities here.

"Education is a very complex system," notes Minister of State for Education and Manpower Gan Kim Yong. "When you change something, the tendency is it will affect many other pieces of the jigsaw."

And while policymakers used to be able to import ideas from overseas, they now tend to require indigenous solutions to Singapore's increasingly complex conditions.

Mr Gan found this out when he led a committee in 2005 to look into infusing secondary school classes with poly-style hands-on training. Officials visited the US and Europe, he says, adding: "Our conclusion is that there is really no single model that can

» CONTINUED ON PAGE 12

Left:  
The Sunday Times  
8 April 2007

# THANKFUL, WE ARE BACK FOR GOOD

Going to ITE was one of the best decisions of my life. I had a group of very caring lecturers in the Mechanical & Electrical Engineering Design (MEED) course, who treated us like young adults and constantly motivated us to do well in our studies. I did well in my studies from then onwards, eventually getting a First Class Honours in Mechanical Engineering and a Master of Science. I told myself I would pay it forward and go back to teach in ITE. Thus, I became a lecturer at ITE in 1999.

There are little things we can do that may not cost us much, but can have incredible impact on our students' lives. Just like ITE has impacted me, I hope to be of impact in my students' lives. This motivates me even more to stay on in ITE.

I dropped out of school when I was in Primary 5. Shortly after, my father managed to enrol me in another school which offered me a place in the Monolingual stream in Primary School. When I found out later that I would never be able to take the Primary School Leaving Examination and progress to secondary school due to the stream I was in, I was devastated. I lost all confidence and started feeling remorseful. That was a turning point in my life and I have not looked back. My life is a testimony to lifelong learning and though there were many obstacles along the way, I am just glad I did not give up.

ITE has been with me all along the way, as I took up various learning opportunities here. But the most significant moment had to be when I was invited to be a motivational speaker to some 200 students, in the year 2000. I knew then that teaching at ITE was what I wanted to do for the rest of my life.

I am proud to be a staff at ITE. I am even prouder to be an ITE graduate. I always introduce myself to my friends and public members as an ITE graduate who was transformed as a student and am now, as an ITE staff, transforming the lives of many other students. These are my roots, my purpose, the calling of my life and my home.

**CHRISTOPHER LEOW**  
**COURSE MANAGER, FACILITY**  
**TECHNOLOGY**  
**ITE COLLEGE WEST**  
**ITE GRADUATE (CLASS OF 1993)**

**ELSON KOH**  
**SECTION HEAD, MECHATRONICS**  
**ITE COLLEGE WEST**  
**ITE GRADUATE (CLASS OF 1996)**





*From left: Christopher Leow, Elson Koh, Steven Low, Edmund Tan*

I am proud to be an ITE graduate. After graduating in 1980, I joined the Republic of Singapore Navy as a Naval Mechanic. Thereafter, I joined ITE as a Training Instructor in 1986. I have upgraded myself over the years with strong support from ITE. For every opportunity given, I am eternally grateful. Of course, I am repaying ITE in the best way I can by doing my best as a staff!

In my 24 years of service here, I have been given many opportunities to try different portfolios. My current job assignment is my 13th deployment. Staying here until retirement is certainly on the cards, as I believe I can still continue to contribute positively to ITE. I am very proud to be an ITE staff because we have achieved what many nations failed to do well in terms of vocational and technical education. We have changed and shaped the lives of so many students who may otherwise have strayed and not found some meaning in their lives. ITE offers hope and serves as a 'beacon of light' to steer students towards the path of success, as it did for me.

**STEVEN LOW**  
**MANAGER, STUDENT AFFAIRS DIVISION**  
**ITE HEADQUARTERS**  
**ITE GRADUATE (CLASS OF 1980)**

It has been 14 years since I started life as a student in ITE. ITE is now totally different from what it was then in terms of physical infrastructure, teaching pedagogy and the array of courses available. Like many others, I used to see ITE as a place for those without a choice. But now, having experienced ITE as a student and an employee, I see it as a place of limitless options and opportunities instead.

I am proud to say I am an ITE graduate. I was given a chance to view things from a different perspective. Not only was I able to gain knowledge, the hands-on way, I also enjoyed the challenge of proving to people who looked down on ITE students wrong. ITE opened many doors for me in terms of further education choices. I initially felt that the options for further studies would not be as wide as I would have liked them to be, but over time, I came to realise that I have travelled a more targeted path towards my goals.


**EDMUND TAN**  
**PROJECT OFFICER, CAMPUS**  
**DEVELOPMENT & ESTATES DIVISION**  
**ITE HEADQUARTERS**  
**ITE GRADUATE (CLASS OF 2003)**

# ITE INNOVATE: THE FUTURE

The successful implementation of past strategic plans has built ITE into an institution that is well-received and recognised. The five-year strategic roadmaps have enhanced our organisational and staff capabilities, developed state-of-the-art infrastructure and provided our students with a high-quality and market-relevant technical education. ITE spearheads the future with a new strategic direction — Innovation. ITE innovates the future.

Our new vision — A Global Leader for Innovations in Technical Education — places a distinctive emphasis on creating new value for our customers and stakeholders by doing new things or doing things differently. It challenges us to take a new look at everything we do, and how we do them, while forging ahead in the international realm of VTE.

To stay relevant and ahead of competition, ITE graduates need to be well-rounded in terms of skills, knowledge and values. In addition, they need to have a global mindset and be open to changes. With a youth audience that is growing increasingly individualistic, better informed and technologically-savvy, **ITE Innovate** redefines and reinvents our educational approach, and modes of student engagement. Ultimately, **ITE Innovate** encourages a mind-shift in the general public to view ITE as an extraordinary institution, with extraordinary people, promoting progression and innovation.



*One of the courses for the future, Aerospace Technology, has proven to be very popular with students.*



# HIS VISION AND HOPE FOR ITE

My earnest hope is that there will be no more stigma about ITE education and its students so that students can choose their education paths wisely. If a student is mediocre academically and chooses to study in a polytechnic, he or she is likely to remain so among his or her peers. However, if the student goes to ITE and then progresses to a polytechnic, he or she can do better than the GCE 'O' Level and polytechnic students, given his or her foundation in ITE and the confidence gained.

I want our graduates to be readily assimilated and accepted by employers. I hope employers will value them and give them every opportunity to upgrade. Employers should not just value the skills of our graduates, but also their values and traits. ITE students work very hard, against all odds, just to continue their ITE education. Many juggle several jobs while studying at ITE. Kudos to all of them!

I would like ITE to continue to attract passionate people who want to make a difference to the lives of students, and not just see teaching as a job. We do not bring in people based on their academic qualifications. We look at the attitudes and values of the applicants. After all, it is the people in ITE that make ITE.

## **BOB TAN** **CHAIRMAN (FROM 2007)** **ITE BOARD OF GOVERNORS**



# HALLMARKS OF EXCELLENCE (INTERNATIONAL AWARDS)

	Name of Award	Year of Award	Conferring / Organising Body
1	<b>Harvard-IBM Innovations Award in Transforming Government</b> (Top Award among 30 countries) — Trail-blazing Transformation in Singapore’s Vocational and Technical Education (For ITE’s Innovative 10-Year Transformation Programme)	2007	Ash Institute, JF Kennedy School of Government, Harvard University, USA
2	<b>United Nations Public Service Award 2011</b> (Finalist) (For Improving the Delivery of Public Services)	2011	United Nations Department of Economic and Social Affairs
3	<b>Innovations of the Year Awards</b>  a) Alternative Energy & Fuel-Efficient Eco-Friendly Cars b) Aircraft Fuel System Simulator c) iDe’Lite® (Interactive Diagnostic Evaluation for Learning@ITE) for service training using video-based pedagogic approach	2011 2010 2009	League for Innovation in the Community Colleges, USA
4	<b>Public-Private-Partnership (PPP) Deal of the Year Award (Asia Pacific)</b> (For development of new ITE College West Campus)	2009	Project Finance International (London), UK
5	<b>Order of Friendship Award</b> (For ITE’s role in setting up the first Vietnam-Singapore Technical School in Vietnam)	2006	Vietnamese Government



Singapore’s Institute of Technical Education has not only improved the lives of its students, it has created a highly sustainable model for transforming poorly-performing educational institutions worldwide. We are pleased to honour the Institute’s achievements and commend the outstanding dedication of multiple administrations of ITE leadership in collaboration with an international portfolio of technology and business partners. ITE’s contributions extend far past the school room and have a direct impact on youth employment rates, community safety and the Singapore economy.

**STEPHEN GOLDSMITH**  
**DANIEL PAUL PROFESSOR OF THE PRACTICE OF GOVERNMENT**  
**AND DIRECTOR OF THE INNOVATIONS IN AMERICAN**  
**GOVERNMENT PROGRAMME**  
**ASH CENTER FOR DEMOCRATIC GOVERNANCE AND INNOVATION**  
**HARVARD’S KENNEDY SCHOOL OF GOVERNMENT**




# ITE WINS GLOBAL IBM INNOVATIONS AWARD

On 25 September 2007, the Ash Center for Democratic Governance and Innovation at Harvard University's John F. Kennedy School of Government announced Singapore's Institute of Technical Education (ITE) as the winner of the IBM Innovations Award in Transforming Government. Selected by an international panel of experts, ITE's transformation was recognised as a model programme in improving Vocational and Technical Education (VTE). With its bold and innovative ways of addressing complicated and delicate issues in VTE, the panel found that ITE had not only transformed many young lives, it had also created profound impact on the social progress and economic growth of Singapore.

*Representing ITE at the Award Ceremony were: Bob Tan, Chairman/ITE (holding Award, left); Bruce Poh, Director & CEO/ITE (holding Award, right); and Sabrina Loi, Deputy CEO (Corporate) (far left); while IBM is represented by Todd Ramsey, General Manager, IBM Public Sector, USA (behind Award), and Harvard University, by David Ellwood, Dean, John F. Kennedy School of Government (2nd from left) and Gowher Rizi, Director, Ash Institute (far right).*



A photograph of Prime Minister Lee Hsien Loong of Singapore. He is in the foreground, wearing a blue dress shirt and a dark blue tie, smiling warmly. He is surrounded by other people, some of whom are out of focus in the background, suggesting a social or professional gathering. The lighting is bright and indoor.

We are all very proud of ITE. ITE has developed a unique brand of education, to train students with 'thinking hands' who excel in technical vocations. A first-class ITE system is critical to enabling every Singaporean to maximise his potential, and participate fully in Singapore's growth and progress. The ITE staff and students have worked long and hard to make this vision a reality. This award shows that they are succeeding, and winning international recognition. Congratulations!

**PRIME MINISTER LEE HSIEN LOONG, SINGAPORE,  
CONGRATULATING ITE ON THE WIN OF THE  
GLOBAL HARVARD-IBM INNOVATIONS AWARD IN  
TRANSFORMING GOVERNMENT, 2007**



ITE is the jewel in Singapore's education system. This global award is external recognition of ITE's efforts to advance the opportunities of its students with its unique and successful *Hands-on, Minds-on, Hearts-on* learning. It is also recognition of our educational approach that builds on Singaporeans' diverse aptitudes and talents.

**THEN EDUCATION MINISTER THARMAN SHANMUGARATNAM, SINGAPORE,  
CONGRATULATING ITE ON THE WIN OF THE GLOBAL HARVARD-IBM INNOVATIONS AWARD  
IN TRANSFORMING GOVERNMENT, 2007**



# HALLMARKS OF EXCELLENCE (LOCAL AWARDS)

	Name of Award	Year of Award	Conferring / Organising Body
1	<b>Singapore Quality Award with Special Commendation</b> (First Education Institution to win pinnacle SQA SC Award)	2011	SPRING Singapore
2	<b>Public Service Premier Award</b> (Top Organisational Excellence Award in Public Sector) (First and Only Education Institution to achieve this)	2011	Prime Minister's Office
3	<b>Singapore Quality Award</b> (First Education Institution to win SQA)	2005	SPRING Singapore
4	<b>Public Service Distinguished Award</b>	2010	Prime Minister's Office
5	<b>Distinguished Public Service Award for Organisational Excellence</b>	2005	Prime Minister's Office
6	<b>Public Service Award for Organisational Excellence</b>	2003	Prime Minister's Office
7	<b>Singapore Innovation Class</b> (For Innovation Excellence)	2011	SPRING Singapore
8	<b>Singapore Service Class</b> (For Service Excellence)	2011	SPRING Singapore
9	<b>ISO 9001: 2008 Certification for ITE's Quality Management System for Academic Programmes</b>	2011 2008 2005 2002	International Organisation for Standardisation
10	<b>People Developer</b> (For People Excellence)	2011 2007 2003 2000	SPRING Singapore
11	<b>Best Practice Award (Stakeholder Engagement)</b> (For innovative customer engagement strategies and turning around public perception)	2010	Prime Minister's Office





	Name of Award	Year of Award	Conferring / Organising Body
12	<b>Aon Hewitt Best Employers in Singapore 2011</b>	2011	Aon Hewitt International
13	<b>Human Capital Corporate Champion Award</b> (For building People Capabilities)	2010	Human Capital Singapore
14	<b>Singapore HR Awards 2010</b> (Six Awards): a) Corporate HR Award b) Leading CEO Award c) Leading HR Practices in Strategic HR Award d) Leading HR Practices in Learning and Human Capital Development Award e) Leading HR Practices in HR Communications & Branding Award f) Leading HR Practices (Special Mention) in Corporate Social Responsibility Award	2010	Singapore Human Resources Institute
15	<b>Public Relations In the Service of Mankind (PRISM) Excellence Awards</b> a) Outstanding Public Relations Champion (CEO/ITE) b) Outstanding Overall Corporate Reputation Enhancement Programme c) Excellence Award for Best Public Service Campaign (Government)	2010 2008 2006 2000	Institute of Public Relations, Singapore
16	<b>Outstanding Innovation &amp; Quality Circle (IOC) Organisation National Award</b>	2005 2000 1996	SPRING Singapore



# BUSINESS EXCELLENCE TODAY, GLOBAL EXCELLENCE TOMORROW

In 2005, ITE won the nation's most prestigious **Singapore Quality Award (SQA)** for attaining world-class standards of excellence in technical education. Being the First Education Institution to win the SQA was a significant milestone in ITE's journey of excellence. It meant a national recognition of our transformation into a world-class post-secondary institution, focusing on vocational technical education and skills. It also reaffirmed ITE's belief and success in creating a unique ITE Brand of College Education that is attractive to a quarter of Singapore's school cohort.

In 2011, ITE won the pinnacle **Singapore Quality Award with Special Commendation** and it was the most rewarding endorsement of ITE's Organisational Excellence journey. The SQA with Special Commendation is the highest business excellence accolade, distinguishing ITE as the 'best-of-the-best' in Singapore, and recognising ITE's global excellence and leadership in Vocational and Technical Education.



*From left: Heng Guan Teck, Former Deputy CEO (Academic); Dr Yek Tew Ming, Principal, ITE College West; Tan Seng Hua, Deputy CEO (Academic) & Principal, ITE College Central; Sabrina Loi, Deputy CEO (Corporate); Bruce Poh, Director & CEO/ITE; Eden Liew, Principal, ITE College East; Dr Benjamin Tan, Deputy CEO (Development); and Aw York Bin, Deputy CEO (Industry).*





Since its establishment in 1992, ITE has transformed the Vocational and Technical Education System in Singapore. ITE is today a unique one-of-its-kind institution in the world, befitting its status as a world-class technical education institution. ITE's unique full-time programmes, stemming from its Education Philosophy of *Hands-on, Minds-on, Hearts-on* learning, nurture all-rounded students. This philosophy has enabled ITE to be recognised both locally and internationally for the quality of its programmes, facilities, learning resources, graduates, and organisational practices.

## **PROFESSOR CHAM TAO SOON** **CHAIRMAN OF THE SQA GOVERNING COUNCIL**



ITE is well known for its world-class curriculum, innovation teaching and facilities, and ABB is happy to support ITE in its progress. My colleagues at ABB have shared with me that when they work with ITE students and graduates, they notice a spirit of innovation, enterprise and desire to succeed. These are values that resonate with ABB.

## **JAMES FOO** **PRESIDENT AND COUNTRY MANAGER** **ABB, SINGAPORE**

## In the end, it's a top educator

Global award from Harvard institute is icing on cake for ITE

**DERRICK A PAULO**  
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IT ONCE used to be the bottom feeder of the educational system in the eyes of parents. Now, the Institute of Technical Education (ITE) stands on top of the world.

It has won a global award for improving vocational and technical training in Singapore.

At a ceremony in the United States last night (this morning, Singapore time), a Harvard University institute held up the ITE as a government programme to be noted for its reforms, and it wants the post-secondary education provider to share its story with the world.

ITE is getting US\$100,000 (\$150,000), sponsored by IBM, to do just that. One of the key criteria for the IBM Innovations Award in Transforming Government, which saw more than 100 entries from 30 countries, is whether the programme can be replicated successfully in other countries.

In its citation of ITE, the Ash Institute at Harvard described how it was "formerly a last resort for low-achieving students" but underwent a 10-year reform plan, "revamping irrelevant curriculum, upgrading learning environments and installing new academic requirements for current teachers".

As a result, ITE reported a 33-per-cent increase in graduation rates and a 50-per-cent rise in students enrolled between 1995 and last year.

The award also represents a culmination of ITE's go-global plan, a bid to increase its influence worldwide. This includes licensing its courses overseas, working on consultancy projects and offering short-term training.

The most important aspect of its efforts has been the alliances it has forged with other vocational and technical education institutes, ITE chief executive Bruce Poh told TODAY.

It recently joined the Global Education Network, comprising institutions from Australia, Canada and the US.

"These MoUs open doors for ITE to not only increase our global presence, but also

expand the global education programme with new opportunities for students," said Mr Poh.

ITE has already exceeded its target last year to offer overseas opportunities to 8 per cent of its student cohort. Some 1,380, or 11.5 per cent, went to 13 countries under its global education programme. Mr Poh now thinks ITE can aim for 20 per cent over the medium term.

Until now, the most significant development for ITE on the global stage had been an agreement signed in June to offer its first international niche diploma to students here.

The technical engineer diploma in machine technology, targeted for launch next April with an initial annual intake of 50 students, will provide them the opportunity to progress to Universities of Applied Sciences in Baden-Württemberg, Germany, whose Ministry of Education, Youth and Sports will validate the diploma.

While go-global efforts like these have benefited ITE through "mutual learning" and "benchmarking" of courseware development, curricula standards and faculty development, when it comes to international recognition, its latest award is the icing on the cake, said Mr Poh.

ITE already has plans to share its knowledge with developing countries. Having provided consultancy work in the last two years to Indonesia, Jordan and Thailand, it will be helping leaders of technical education in three African countries — Madagascar, Mozambique and Ghana — when they visit Singapore in January.

ITE graduate Mohamed Suhayil, 30, now a country account manager for a multinational smart card company, told TODAY that his *alma mater* deserves the plaudits for its achievements, especially for transforming its image. "Without all the bits and bytes I picked up from ITE, I wouldn't have developed this far in my career."

Prime Minister Lee Hsien Loong also congratulated ITE: "It has developed a unique brand of education, to train students with 'thinking hands' who excel in technical vocations. A first class ITE system is critical to enabling every Singaporean to maximise his potential, and participate fully in Singapore's growth and progress."



**ATTACHMENT IN SHANGHAI:** ITE students on an industrial attachment at Flextronics Technology (Shanghai), which is located in Malu, Jiading, Shanghai. Chatting with them are (from right) ITE chairman Bob Tan, ITE director and CEO Bruce Poh, and ITE Alumni Association President Roger Lee, during a visit in July.



▶ **Ho Ai Li**

FROM April last year to March this year, the Institute of Technical Education (ITE) hosted 616 visitors from countries ranging from Rwanda to China.

The post-secondary institution can expect more international visitors after receiving the prestigious IBM Innovations In Transforming Government Award from Harvard University on Monday.

It beat four finalists shortlisted from more than 100 applicants from 30 countries to win the award. Winners were chosen based on criteria such as the impact of the programme and how replicable it is.

As the Harvard citation noted, the ITE has gone from being "an institution of last resort for low-achieving students" to being internationally recognised.

Its results speak for themselves:

▶ The ITE doubled its full-time student numbers from about 12,000 in 1995 to almost 25,000 last year.

▶ Its graduation rate rose from 60 to 80 per cent during the same period.

▶ Last year, almost 96 per cent of its graduates received job offers within half a year.

▶ About one in four ITE graduates goes on to obtain a diploma.

In 2005, the ITE also be-

## ITE: From 'school of last resort' to 'jewel in S'pore's crown'

came the first educational institution here to win the Singapore Quality Award, a leading business award, for its overall excellence. The same year, it won praise from the World Bank.

Dubbed the "jewel in Singapore's education system" by Education Minister Tharman Shanmugaratnam, the ITE has come a long way since it rose from the ashes of the former Vocational and Industrial Training Board (VITB) 15 years ago.

It was formed after a shake-up of the primary and secondary school systems, to get students to have at least 10 years of general education.

Instead of taking in primary and secondary school leavers, the ITE was re-positioned as a post-secondary institution for the least academically able 25 per cent in each cohort.

There were high hopes the ITE could shed the negative image of vocational institute students as dropouts and low achievers.

Speaking in 1992, then ITE director and chief executive officer Law Song Seng declared: "We want parents and school-leavers to realise we have a new image and direction."

Dr Law, an engineer by training who retired as ITE director and CEO in February this year,

mapped out ITE's transformation in five-year plans.

Its first five-year plan saw the ITE build 10 modern campuses and upgrade its courses and the qualifications of its lecturers. In 1992, only 4.8 per cent of its lecturers had at least a degree. Fifteen years on, the figure has risen to about 45 per cent.

In its latest One ITE System, Three Colleges model, it plans to have three regional campuses by 2011. The first to be ready, ITE College East in Simei, has earned rave reviews from visitors since it opened two years ago.

In its second five-year plan, the ITE focused on improving curriculum and teaching. On top of rolling out a compulsory module which teaches life skills such as communication and team work, the ITE also introduced online learning in about 20 per cent of its lessons.

The ITE may have greatly improved but this matters little if it is not communicated to the public.

To that end, it embarked on branding campaigns from 1998, with taglines such as "ITE Makes Things Happen" or "Thinking Hands Create Success" in posters and advertisements. It also reached out to

about 50,000 students, teachers and parents through open houses and road shows.

In its latest five-year plan, it aims to become a global leader in technical education.

It has already formed alliances with institutions in Canada, Germany, the United States, Hong Kong and South Korea. Next year, it is introducing the ITE Technical Engineer Diploma in Machine Technology, in partnership with the German Ministry of Education, Youth and Sports, Baden-Württemberg.

Graduates from the two-year course will receive a German diploma and be recognised for entry into German universities such as the University of Esslingen, which offers degrees in English.

The ITE is also offering consultancy services to countries in the Middle East and Africa, and aims to send 20 per cent of its students overseas.

At home, it has helped thousands of students demoralised by poor results in their earlier school career to further their studies, and hopes more will do so.

Former EM3 pupil Tan Kai Soon, 25, credits his ITE teachers for motivating him in his studies. Today, he is an engineering graduate from Nanyang Technological University.

Now, about 80 per cent of Normal (Technical) students join the ITE after graduation.

But that is not enough. Having achieved recognition abroad, the ITE has to work on one of its key goals: to reach out to the 1,000 Normal (Technical) students who miss out on an ITE education each year.

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Above:  
TODAY  
25 September 2007

Above:  
The Sunday Times  
30 September 2007



# International recognition for ITE

FROM PAGE A1

foreign visitors.

It has also become internationally known from the many accolades it has won: It was recently mentioned in The Economist's special report on the future of the state; the OECD (Organisation for Economic Cooperation and Development) Publication last year hailed it as "perhaps the best in the world" among vocational and technical systems, and "a significant element of the Singapore success story".

The superlatives reflect Singapore's commitment to building "an education system catering not just to an elite or a minority, but across the board to all our students", said PM Lee.

In his thumbnail sketch of ITE's history, he noted that vocational training began here in the 1960s.

A milestone came in 1992, when vocational education became a post-secondary programme, so all ITE entrants had to have completed secondary education.

As a mark of how far ITE has come, its graduates are now sought after by employers: Nine in 10 are hired within six months, and employers think well of them, said PM Lee.

The ITE will be part of a "flexible, porous education system" so



The 9.54ha ITE College West at Choa Chu Kang was officially opened yesterday. It has been equipped with a 22-room training hotel, a coffee-barista training centre and state-of-the-art facilities. ST PHOTO: LIM SIN THAI

students can pick from multiple avenues to reach "different pinnacles of success", each according to his ability.

N-level graduates, for example, may choose to skip their O-level examinations to pursue Higher Nitec courses at ITE, and be assured of a place at the polytechnics.

And to ensure no student will miss out on a shot at education because finances are tight, those from the lowest one-third of households in terms of income will have their education costs entirely covered.

The Government ITE build up its end which can go into special aid and scholarship \$1.50 for every dollar.

PM Lee had this to ITE students in yesterday: "I hope students will take full the opportunities offers you and continue best for yourselves country, for man come."

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**The ITE is a system of technical and vocational training not found elsewhere in the world, said PM Lee. It is through this system that the Government aims to equip every young Singaporean - even those less academically inclined - with skills he needs to hold his own, make a good living and be a part of this country's economic transformation.**



PM Lee Hsien Loong being offered pastries by ITE student Alyssa Nur Salia Sani at the pastry and baking training kitchens of ITE College West. The campus has 7,500 full-time students and will focus on culinary and hospitality services, land transport, security technology and service innovation. ST PHOTO: LIM SIN THAI

For both:  
The Straits Times  
19 April 2011

# ITE route a S'pore success story: MM



ST PHOTOS: DESMOND FOO  
**HERE'S HOW IT'S DONE:** Mr Marcus Chia, 21, showing MM Lee a project he did in his ITE nursing course – a naso-gastric tube detector which checks that the tube is in the stomach by emitting a high frequency soundwave. Looking on are Mrs Lee and former chief justice Yong Pung How.



**QUICK TOUR:** MM Lee stops to chat with ITE students Muhammad Firdauz Mohamed Salleh and Alfred Bay (centre), who designed an exercise machine speciality for patients.

It has helped to uplift less academically able students by tapping their other skills so they can make a good living

By GOH CHIN LIAN

ITE graduate Marcus Chia dreams of going to university some day to study nursing and join the United Nations in disaster relief work.

He is one step closer to his dream, having finished his first year at Ngee Ann Polytechnic for a diploma in nursing.

The 21-year-old represents how Singapore has been able to uplift those who are less academically able through the Institute of Technical Education (ITE).

Making this observation yesterday, Minister Mentor Lee Kuan Yew said: "It's one of the success stories of Singapore to be able to uplift the academically less advantaged 25 per cent and use their other skills – hands-on skills and ability to improvise – to give them that added value."

MM Lee, making his first visit to an ITE campus, noted that the hallmark of a good education system is one that takes into account the fact that not everyone can take the usual academic route.

"What a good educational system has to do is to find out quickly what is it they are good at, maximise it and find a way in which in today's modern IT economy, they would be able to make a contribution to society and make a good living."

Singapore's move to provide a flexible education system began in earnest in the late 1980s, when it had more resources to cater to people who did not fit into the mainstream school system, said Mr Lee.

Today, Singapore has a Sports School, Arts School and NUS High School of Mathematics and Science.

Universities and polytechnics, too, offer different specialities and modes of teaching.

The result is a national education system that is "more variegated" and "sensitive" to the different strengths of students.

The Minister Mentor made these points after a two-hour tour of ITE College East in Simei, the first mega-campus to be built in 2005.

Details of a second mega-campus to be built in Choa Chu Kang in 2010 were unveiled on Monday, while a third in Ang Mo Kio is planned for 2012.

Mr Lee's first stop in his tour was the Experience ITE Centre, where secondary school students are given hands-on assignments to get a taste of learning ITE-style.

Students also gave a presentation of their projects in automation technology, such as using SMS to control lights in a house.

He also sat in on a class for trainee nurses who were practising on high-tech humanoids that blink, breathe and behave according to the medicine administered.

Above:  
 The Straits Times  
 22 February 2008

*"I think it (ITE) is one of the success stories of Singapore that we are able to uplift the academically less-advantaged 25 per cent and use their other skills, hands-on skills and ability to improvise, to give them that added value so that they can make a contribution to life, to society and to make a good living."*

**MINISTER MENTOR LEE KUAN YEW, SPEAKING TO THE MEDIA DURING A VISIT TO ITE COLLEGE EAST, 21 FEBRUARY 2008**





ITE will continue to contribute exciting and enduring chapters to the Singapore Story. While the Education System has been enhanced over the years to provide greater flexibility and different pathways to cater to different aptitudes and abilities of students, the lower prestige of VTE is likely to remain with some skeptics.

However, undaunted by challenges to come and empowered by its standing as a *Global Leader in VTE*, ITE will continue to ensure that its graduates will be highly esteemed and demanded by industry, as well as enjoy good opportunities for social progression. The Cinderella of the Singapore Education System has emerged the jewel of the Singapore Education System's crown, and the pride of our nation as the 'Singapore Success Story'. Even so, the transformation will not cease. ITE is poised to continually innovate and create new opportunities and value for its students, staff and stakeholders.



# THE ITE CARE FAMILY WHO LIVE THE ITE HEARTBEAT

Bruce Poh Geok Huat • Law Song Seng • Aw York Bin • Heng Guan Teck • Liew Ee Chong Eden • Loi Sabrina • Tan Lin Boon Benjamin • Tan Seng Hua • Yek Tiew Ming • Ng Ah Seng • Ong Eng Kian • Ricky Tam Yin Jun • Sam Sui Chee Rowland • Tan Hong Choon • Alvin Goh Kian Heng • Andrew Selvan Stephen • Ang Bee Eng Florence • Ang Bee Theng Jenny • Ang Chai Soon • Ang Chee Hou • Ang Kiam Wee • Ang Nam Choon • Ann Lim Kwee Lang • Anna Lee • Au Yong Lay Hiong • Aw Bee Eng • Aw Kim Geok • Aw Wee Meng Kenneth • Bek Sok Hoon • Bernard Chan Heng Leng • Callistus Chong Teck Meng • Chan Chee Wah Alvin • Chan Fong Teng Juliana • Chan Kok Choy • Chan Kwong Mun • Chan Lay Lee • Chan Lih Wei Javihn • Chan Soon Weng • Chan Tze Wee • Chang Whay Kheong • Chao Tian Kong • Chatterji Niva • Cheang Wee Kok Shang • Chee Han Boon Thomas • Chee Wai Yip • Cheng Shing Hour • Cheng Yau Kit Karen • Cheng Yin Mei • Cheok Eng Choon • Cheong Hwa Yew • Cheong Mei Kuen • Cheong Sok Yee • Cheung Kwok Hang • Cheung Lai Yip Eric • Chew Ee Sin • Chew Kim Heok Dorothy • Chew Pei Wei Roy • Chew Wai Kit Gregory Celestine • Chia Kim Choo Jane Teresa • Chia Ti Yu @ Xie Zhiyou • Chia Wee Leng Winna • Chia Yung Kang • Chiam Tau Poh • Chiam Zhi Hua • Chiang Cheng Pun • Chiang Hai Hoeng • Chin Chi Wei • Chin Kok Leong • Chin Mei Ling • Chin Siew Foong • Chiok Koon Cheng Diana • Chng Siok Hong • Chng Teck Heong Alan • Chong Chee Kin Jason • Chong Chon Hsien • Chong Choon Leong • Chong Fook Keow • Chong Geok Teng Loretta • Chong Kong Fok • Chong Leong Fatt • Chong Weng Foo • Choo Kuen Yew Kelvin • Choo Poh Ling • Choo Syn Hwei • Chow Tat Meng • Chua Ai Lian • Chua Chew Seng • Chua Chiew Yong • Chua Kong Jin • Chua Eng Sing • Chua Kheng Hern • Chua Lam Soon • Chua Mui Yim • Chua Puck Beng • Chua Siew Lian Gloria • Chua Ying Hwee • Claire Leong Lai Fun • Darrel Kon • David Jia-Wei Ng • David Lau Siew Kiat • Denise Tan Yi Min • Derek Yeo Seng Ann • Dominic Seet Tze Song • Dorcas Tang Teo Hiang • Doris Lim Ching Lin • Ee Peck Lian Margaret • Ee Yam Kheng Andrew • Elnie Shumastri Binte Mashari • Elson Koh Chun Chye • Fang Wei • Faris Salahudeen • Fee Mei Feng • Felicia Lim May Ping • Fong Chiew Min • Fong Hing Yee • Foo Jee Hing • Foo Ling Ling • Foo Wing Yung • Foo Yoke Yung • Foong Chee Weng • Fu Qiang • Gerald Teo Sze Chin • Goh Beng Hong Christopher • Goh Chai Poh • Goh Gek Mee • Goh Kay Hock • Goh Leng Choon • Goh Mei Sze Ariel • Goh Mong Song • Goh Yang Hoong • Gwee Guat Mui Magdalene • Gwee Mui Boon • Han Man Teh • Han Wee Ping Army • Hasnah Bte Syed Ahmad • Heng Keow • Heng Seng Meng • Heng-Lam Lye Foong • Henrietta Chew May Siong • Ho Koon Juay • Ho Kum Fai • Ho Mun Wai • Ho Teck Siang John • Ho Wye Kei Benny • Hon Lye Kiat • Hong Jiayi Ashley Faith • Ho-Ong Gek Hwa • Hoong Khak Tuk • Hu Kwang Hwee • Hung Nyet Hiong • Irene Lee Ka Huay • Irwanta Salim @ Lin Xiu Wan • Jenne Foo Yueh Ing • Jennifer Low Heng • Judith Chng Ming Ming • Kang Jaw Yeu • Kasee Neelamaykaruben • Kay Kong Huat • Kee Wei Chin • Kelvin Ho Swee Wee • Kelvin Yap Chee Aun • Kerwin Hing We Kiat • Khoo Gee Chuan Marcus • Khoo Su Tiang Lucia • Koh Chay Noi Kristin • Koh Chung King • Koh Geok Lan Lena • Koh Ho Seng • Koh Hock Huat • Koh Kim Hong • Koh Kwai Peng Adeline • Koh Soo Nang • Koh Thong Lin Lemen • Koh Weng Cheong Jeffrey • Koh Yong Mong • Kok Kah Wan • Kok Kam Wah • Kok Lam Wai • Kok Yit Sang • Kong Chee Chong • Kong Chee Seng • Kribaraja Paul • Kuo Effie Lo • Kwan Chooi Har Grace • Kwek Cheng Guan • Kwek Jee Juan Edward • Kwok Jee Ann • Kwok Yew Nam • Lam Guey Fang • Lam Koon Wun • Lam Meng Seng • Lam Sing Tong • Lau Chin Leon Lionel • Lau Hung Hwa Alexander • Lau Siew Tiang • Lau Yen Lin Yvonne • Law-Chan Fong Yee Lucy • Lawther Scott Robert • Lee Chee Hian • Lee Chong Leng • Lee Chye Yim Shereen • Lee Foo Wah • Lee Fook Kee • Lee Helen • Lee Huay Wen • Lee Hui Kim Angeline • Lee Keong Chuang • Lee Khoy Yeow • Lee Khuang Choo • Lee Kian Seem Lynette • Lee Leng Huat • Lee Mei San • Lee Mui Lan • Lee Seck Kuang • Lee Ser Tat • Lee Teck Kheng • Lee Tin Hui • Lee Yun Kee • Lee Yan Kwang • Lee Yuet Wah • Leo Chin Sim • Leong Kim Soon • Leong Pak Kin • Leow Ching Yun • Li Siao Daniel • Liang Wei Gee • Liew Beng Keong • Liew Jia Shing • Lim Boon Tiong • Lim Cheng Lian Angela • Lim Cheng Siong • Lim Chin Chye Anthony • Lim Choon Heng • Lim Han Cheong • Lim Hwa San • Lim Hwee Tse Alice • Lim Jee Tan • Lim Lai Soon • Lim Leng Hong Linda • Lim Neo Seng • Lim Peng Ser • Lim See Kwan Eric • Lim See Yew • Lim Seng Fatt • Lim Seow Yan • Lim Siew Hong Linda • Lim Siew Hwa • Lim Siew Leong Susanz • Lim Sin Chye Gregory • Lim Soon Huat • Lim Teck Guan Eric • Lim Teck Lee • Lim Tong Joo • Lim Trevor Ian • Lim Wee Lian • Lim Yam Meng • Lin Kok On • Liong Choi Yin Ivy • Lo Yong Hua Sebastian • Loh Cheng Bing Jacquelyn • Loh Fook Siong • Loh Kum Fei • Loh Sah Muay • Loke Wai Leong • Loo Guay Ho Linda • Low Chwan Chyi • Low Eng Tat • Low Hwee Geok • Low Sau Bing • Low Yin Hui Stephanie • Lui Chiew Yee • Lum Lai Kuen Janice • Lum Pak Hoon • Luvinderpal Singh S/O Gurmukh Singh • Mak Yoke Chuen • Mak-Lun Yoke Ming Theresa • Malcolm Chung Kim Yu • Mary Teresa Pee Lay Hoon • Masban Bin Masood • Maslan Bin Masool • Mathusuthan S/O Parameswaran • Maureen Goh Guek Ngor • Mohamed Heikal Bin Mohamed Yusope • Mohamed Tahir Bin Ali • Mohd Hirman Bin Mohd Tohir • Mohd Jailani Bin Nathan • Mohd Zaki Amrullah Bin Zainuddin • Mok Soh Hah • Mulyaty @ Liang Qiu Ling • Nah Chio Hia • Neng Rashidah Bte Hussain • Neo Aik Guat • Neo Teng Long • Ng Chun Kee • Ng Chwee Chan • Ng Ho Heng • Ng Hong Kok • Ng Hwee Ming • Ng Kian Kwang James • Ng Lee Keng • Ng Seow Eng • Ng Swee Thiam • Ng Teow Thy • Ng Tiong Lian • Ng Wee Boon • Norhayati Binte Daud • Oh Bee Hua • Oh Meng Teck • Ong Beng Chee Raymond • Ong Bok Liong • Ong Chee Aik • Ong Cheng Huat • Ong Eng Neo • Ong Hong Siang • Ong Hwee Teng • Ong Kim Heok • Ong Kok Leng Albert • Ong Kwee Kok • Ong Lee Lian Edmund • Ong Lip Sing • Ong Lye Sum • Ong Siew Ching • Ong Siew Hong • Ong Siew Yen Jessie • Ong Tiam Chye • Parwinder Singh Grewal • Peggy Leong-Kok • Peh Wee Leng • Peter Ooi Soon Hai • Peter Siah Eng Tiong • Peter Syddall • Phee Lay Ling • Phong Yuen Feng • Phua Kok Siang Edwin • Phua Meow Lang • Pitchian Anthonysamy • Poh Hoe Pin • Poon Kim Choo • Puah Keng Hai • Puah Peng Hoo • Puah Sor Bee • Quay Cindy • Quek Ah Kow Richard • Quek Ai Fah • Quek Keng Lin • Quek Swee Keow • Ramanath Sathyanarayana Hassan • Ramu Saravanan S/O Ramasamy Tanabalan • Ravi S/O Thangaraju • Ravindaran S/O Ramasamy • Raymond Ng Kok Hui • Rina Goh Mia Siew • Rosemary Pang Buck Lan • Samuel Goh Keng Swee • San Shang Shui • Sandamurthi S/O Rethinam • Sangaran Gopal • Sapiah Bte Ahmad • Seah Hock Chee • Seah Yew Chin • Seam-Yeo Mui Huang • See Kek Hua • See Soon Cheng • Seet Iris • Seetho Meng On • Sempio Gremer Martinez • Seow Chui Hoon Alice • Seow Seng Loi • Seow-Tang Hong Yung • Shek Kwai Teng • Sheryl Eunice Wong Lye Yung • Siah Kai Ming • Siew-Ong Gek Kheng • Sim Choon Kiat • Sim Hong Kwang • Sim Hooi Hong • Sim Hui Hui Pauline • Sim Joo Thiam • Sim Kang Chong • Sim Kee Leong • Sim Sian Khoo • Sim Sioy Luang • Sng Chye Ann • Soh Chong Meng • Soh Geok Hong Catherine • Soh Guan Kiong • Soh Juin Wei @ Teng Oi • Soh Sze-Wei • Soh Thiam Soon • Song Eng Eng-Low • Soo Jingkan • Soon Choon Boon • Steven Tay Wee Chung • Subramaniyam Thirunaukrarasu • Sugumar D • Susan Jane Robinson • Szeto Yee Jean • T Mathews Mathew • Tan Chai Soon Alan • Tan Ching Ching • Tan Chong Teik Roy • Tan Chun Keng • Tan Chun Kuang • Tan Geok Hui • Tan Geok Ling • Tan Hong Ming • Tan Hwee Siang • Tan Kay Chuan • Tan Kheng Sui Frederick • Tan Kim Hock • Tan Kock Leong • Tan Kok Seng • Tan Kum Tien • Tan Kwang Hwee • Tan Kwong Luck • Tan Lay Chin Josephine • Tan Lay Hong • Tan Lee Suang • Tan Li Khoon Beatrice • Tan Meng Huay • Tan Nee Chong • Tan Peng Hock • Tan Seok Yan • Tan Shiang Yong • Tan Sock Leng • Tan Song Boon • Tan Song Huey • Tan Soon Hwa Jaci • Tan Suan Piow • Tan Swee Meng • Tan Teck Hwa • Tan Tiam Kwee • Tan Wee Hiong • Tan Wee Khian • Tan Ween Sheen June • Tan Woon Leng • Tan Yee Hua • Tan Yok Song Gabriel • Tang Buay Choo • Tang Sheue Yin Mae • Tang Sok Yin Joanna • Tay Houw Jin • Tay Wei Sern • Tay-Lim Poh Kim Dorothy • Teh Tuan Ann • Teo Kok Leong • Teo Siok Cheng Jennifer • Teo Wi Huang • Teo Yu Lee Mervyn • Teo-Ng Sok Eng • Teo-Pua Hwee Kheng • Terence Goh Keng Leng • Tham Heng Kok David • Tham Kin Foon • Tham Kwee Ching • Tham Lai Yin • Tham Mei Leng • Tham Wai Wah Jacqueline • Thang Tze Yian • Thangavelu Raja Segar • Thian Eng Poh • Thng Lisa • Thong Chee Chung • Thong Kei Seng • Timothy Tan Kay Kheng • Tin Boon Yew Bryan • Ting Kok Guan • Toh Ser Chye • Vivien Chiong Su Wun • Wang Hua Jock • Wang Yachang • Wee Keat Kheng • Wee Siew Fong • Wee Thiam Teck Samuel • Wee Tiong Heng Stephen • Whatt Kum Kwan @ Watt Kum Kuan • William Chong Meng Wan • Wilson Lim Ser Khye • Wong Fong Yen • Wong Hin Pong Ryan • Wong Sheow Leong • Wong Sook Wen • Wong-Choong Ming Ling • Wong-Tay Buay Kee • Woo Kuan Hoong Patrick • Yap Shau Tat • Yap Siew Joo Geraldine • Yar Kah Chuan • Yee Lai Peng • Yek Geok Yung June • Yeo Chit Ming • Yeo Kim Suee • Yeo Lay Choo Jayvin • Yeo Sock Tin • Yeow Swee Soon • Yik Tze Yin • Yim-Teo Tien Hua • Yio Siew Hui • Yip Choong Seng Jimmy • Yip Kum Seng • Yoong Chi Keen • Young Hsien Loo Carolina • Yow Ting Ting • Zaleha Binte Yahaya • Zhang Jian • Zulkifli Bin Mohamed Zain • Abd Rahman B Abdol • Abdol Malek Bin Abdul Rahim • Abdul Hamid Moxsin • Abdul Kader S/O Hassan Mohamed • Abdul Karim Bin Shaik Alludeen • Abdul Malik Bin Mohd Hashim • Abdul Rahim B Mohd Salleh • Abdul Rahim Bin Mahmood • Abdul Rahman Bin Abu Bakar • Abdul Rahman Bin Jailani • Abdul Rahman Bin Jamal Ludin • Abdul Rahman Bin Ninsawi • Abdul Rahmat Bin Mordiffi • Abdul Raof Bin Salleh • Abdul Rashid Bin Salleh • Abdul Razak Bin Ahmad • Abdul Suckoordeen Kasim Mohamed • Abdul Wahid Bin Zaini • Abdullah Bin Ahmad • Abdullah Bin Saidan • Abu Tahir Bin Nayan • Adlinah Kamsir • Agnes Poh @ Poh Ah Hee • Ahmad Bin Sukaimi • Ahmad Loqman Bin Ishak • Ahmad Soribah Bin Hj Ahmad • Ahmadi Bin Abu Bakar • Aida Bte Mohamed Sadli • Ainah Binte Ma'Armin • Alamelu Ramanathan • Alexander Anandharaj • Ali Bin Haniff • Alimah Bte Arif • Allan Tan Cher Soon • Alvin Teo Soon Jin • Amala D/O Manikam Muniandy • Amidah Bte Ismail • Amos Francis Lim Choon Chye • Anbhuarasan Mahalingam Ramarajan • Andrew Goh Keok Choon • Andrew John Hutcheon • Andy Lim Alias Lim Chung Hua • Andy Mirza Bin Mohd Marwi • Ang Bee Bee • Ang Bee Bee Eunice • Ang Bee Geok Daphne • Ang Beng Koon • Ang Boon Keong • Ang Chang Pin • Ang Hwee Teng Agatha • Ang Kee Thye • Ang Keng Sing • Ang King Hock • Ang Kok Keong • Ang Lay Beng • Ang Lay Beng Andrew • Ang Qing Rong • Ang Seng Teck Andy • Ang Ser Hui Mary • Ang Suyin • Ang Tiong Keng • Ang Wee Ian • Ang-Chng Suat Neo • Angeline Tay Gek Hoon • Ang-Ng Foon Foon • Ang-Ow Yong Ngan Kit • Anizah Bte Atan • Anna Poorani • Annaletchumy Supramaniam • Anthea Chai Sing Hui • Anthony Erwin Cruz Revecho • Anthony Nguan Joo Huat • Anthony Samy Francis Xavier • Anuar Bin Harun • April Tong Yui Yui • Arumugam Sukumaran • Asiah Binti Matly • Asiah Bte Ahmad • Asiah Bte Ibrahim • Asmah Bte Mahat • Asrina Bte Abdul Samad • Au Kean Hoong • Au Yew Thong • Aw Beng Lan • Aw Shang Shang Audrey • Aza Bte Ahmad • Aziz Bin Ahmad • Aziz Bin Mohamed Amin • Azman Bin Haroon • Azman Bin Yusro • Azniah Binte Abdul Aziz • Baey See Hion • Bahari Bin Abdul • Balonggay George Tabafunda • Beh Mui Huat • Benjamin Kwek Chong Sin • Bernard Ng Kae Mun • Bi Liwei • Bik Kiang Kiang Emerald • Bitoon Ericson Bohol • Boey Puay Hoon Aileen • Bok Kwee Eng • Boo Wei Ping • Borhan Bin Mydeen • Brendon Yam Yat Meng • Bu Juan • Buddhima Dinushini Williams • Buhari Bin Sarwan • Bukhari Bin Ahmad • Byju Chacko • C Uma D/O Chandra Segara • Cai Qingxu • Cai Zhenyou • Caron Joslyn Chua Jiak Choo • Chai Yoon Peow • Chairul Anwar Bin Abdul Kadir • Chan Bee Keng • Chan Cheow Phoo • Chan Cheow Yong • Chan Chiew Lam • Chan Chow Fong • Chan Hian Hwee • Chan Jamie • Chan Jie Xin • Chan Kah Khooi • Chan Kam Soon • Chan Kang Wei Melvin • Chan Kim Chwee Stephen • Chan Lai Seng Alvin • Chan Li Ling Cherilyn • Chan Maggie • Chan Siew Leong • Chan Sin Hoon • Chan Thim Choy • Chan Tong Wai • Chan Wai San • Chan Wee Heng • Chan Wei Hong Harry • Chan Weng Gan • Chan Yen Oo • Chan Yim Meng Yvonne • Chan Ying Hui • Chang Chiew Mun • Chang Choo Liang • Chang Chow Khin • Chang Kee Howe • Chang Kim Chai • Chang Rui Fen • Chang Siang Mei • Chang Wee Lee • Chang Yi Ping • Chang Yingyan • Chan-Ng Hua • Charissa Marie Nair • Charlotte Wong Shou Fang • Chawla Akshay • Chay-Tan Wah Wong • Che Mohd Rosli Bin Omar • Cheah Yik Min Kallista • Cheak Kai



Kok • Cheang Lai Meng Regina • Cheang Yan Chew • Chee Boon Hwee • Chee Kee Soon • Chee Kok Liang • Chee Ping Ping • Chee Po Chang • Chee San Buan • Chee Shih Ling • Chen Jianning • Chen Jiaying • Chen Joo Soon • Chen Ling Min • Chen Weihang Fabian • Chen Ye • Cheng Chee Keong • Cheng Joo Juan • Cheng Muon Cheun • Cheng Soo Lee • Cheng Yue Chiang Calvin • Cheng Yue Rong Sarah • Cheok Keng Chye • Cheok Shu Shyan • Cheong Boon Leng Jonathan • Cheong Chak Wai • Cheong Chee Leong • Cheong Chee Meng • Cheong Fook Loy • Cheong Kam Weng • Cheong Kong Weng • Cheong Kwok Onn • Cheong Pei Pei • Cheong Sun Sin • Cheong Wai Fong • Cheong-Tan Bee Hoon • Cheong-Tay Bee Ai Karen • Chervel Chew • Chew Bak Hua • Chew Chow Yoong • Chew Ek Soo • Chew E-Yen • Chew Gim Hoe • Chew Hok Eng • Chew Jen • Chew Kar Sim • Chew Keng Hui • Chew Kok Tiong • Chew Kuan Kok • Chew Lai Yee • Chew Seow Siang • Chew Siew Ju • Chew Siew Ling Pearlina • Chew Siew San • Chew Siang Kiong Starla • Chew Soh Keow • Chew Tee Liang • Chew Tee Tin • Chew Winnie • Chew Ying Ying • Chew Yong Hui • Chia Aun Teik Gary • Chia Choh Seng • Chia Kee Chong Robin • Chia Kiah Ngian • Chia Kin Seng • Chia Mingrong • Chia Teck Huat • Chia Tet Yew Raymond • Chia Wei • Chia Yiau Fong • Chiam Kheng Peng • Chiam Seah Peng • Chiang Teck Meng • Chiang-Lee Pee Hong • Chick Wai Fun • Chin Chiap Pui • Chin Chong Keat Kelyvn • Chin Choon Pow • Chin Hon Cheong • Chin Lip Miang • Chin Wee Min • Chin Whai Fuang • Ching Farn Kher • Ching Kian Leng • Ching Mei Ling • Chio Puay Hoon Daphne • Chionh Puay Kiat • Chitra D/O Saranggabani • Chiu Chih Kang • Chng Hui Yi • Chng Kay Long • Chng Puay Kuet • Chng Siew Heng • Chng Voon Nee Jerine • Chng Wee Kian • Chngelithara Joseph Santhosh • Cho Kok Weng • Choi Chee Loon • Choi Oi Hing • Chong Chang Leong • Chong Chui Yin • Chong Huey Yueh Sophia • Chong Kam Weng • Chong Kar Cheong • Chong Kian Fung • Chong Poh Ying • Chong Seow Yew • Chong Siow Min • Chong Soon Keong Anthony • Chong Tak Yong • Chong Wee Ling • Chong Xiao Jun • Chong Yeong Song • Choo Beng Kee • Choo Gim Soon • Choo Lay Kheng • Choo Lee Mei Karen • Choo Meng Cher • Choo Nah Nah • Choo Siew Geuk • Choon Kim Moi • Choon Zeh Kwong • Choong Bee Hong Irene • Choong Kim Fook Xavier • Choong-Lee Sau Fun • Chow Chee Sun • Chow Kok Weng • Chow Lai Chun • Chow Tuck Choy • Chow Wai Har • Chow Yuen Choy • Chow-Lee Siew Lian • Choy Chun Yong • Choy Peng Hoong • Christina Choo Wen Hwei • Christina Lim Shee Poh • Christine Lim Hwee Ling • Chu Lay Koon • Chu Poh Heng • Chu Tee Wong • Chu Yew Seng • Chua Ai Gek Clara Jade • Chua Ban Theng • Chua Bee Ling Jenny • Chua Boon Leong Nelson • Chua Chee Meng • Chua Chin Hua • Chua Chong Lian • Chua Chuan Soon Melvin • Chua Eel Woei • Chua Eng Suak • Chua Geok Wei @ Cai Yuwei • Chua Guan Yong • Chua Hock Hai • Chua Hui Tieng • Chua Hwee Kuan • Chua Hwee Theng Edna • Chua Ing Haur • Chua Jia Qi • Chua Joo Moi • Chua Ka Wen • Chua Kiat Lee • Chua Kim Heng Jason • Chua Kok Teng Elaine • Chua Lee Meng • Chua Lee Wah • Chua Li Kiang • Chua Ming Sing • Chua Ngak Yiang • Chua Say Khiang • Chua Sen Huay • Chua Seow Kiang • Chua Shu Fen • Chua Siew Ling • Chua Siew Tin Madeleine • Chua Sing Ming • Chua Soo Chin Edwin • Chua Swee Peng • Chua Sze Yin Joei • Chua Wee Kang • Chua Wee Seng • Chua Yih Jiun • Chue Fong Sin • Chui Fook Kong • Chui Wing Fatt • Chui Woon Ying • Chuminah Bte Abdul Rahman • Chung Kit Yan • Chung Lai Fong • Chung Vui Min • Chung Woon Heng • Chwa Hock Lai • Cindy Seah Wee Choo • Craig Samuel Calvin • Crisencio Tambien Tenebroso • Cynthia Geraldine Rajasingam • Dahlia Bte Mohammedan • Dai Wei Ming • Dalip Kaur • Danny Chuon Chu Bing • Darnitanty Binte Daut • Dayana Binte Mohamed Tahir • De Leon Fransel Laurence Duritan • Devaki D/O Suppramaniam • Dewi Bte Amir • Dharamnath Singh • Ding Shunguang • Donato Borlongan Ligon • Edmund Chong Jun Meng • Edwin Chua • Edwin Low Hock Chye • Ee Keok Lye @ Yunus Ee Bin Abd • Ee Ling Wei • Elaine Koh Lay Keow • Elaine Tan Pei Yen • Elaine Tan Siew Chen • Eleanor Ang Yin Ping • Eleanor Goh Shi Yan • Elfa Irwani Bte Amin Iskak • Ellyfa Hafsa Binte Abdullah • Emily Woo Kan Moy • Emran Bin Yusoff • Eng Siew Jia • Er Hoe Kiat • Er Puay Gek • Eric Joseph Chong • Ernesto Nicholas Villenguez • Esther Tan Lae Hoon • Eu Tse Tho Eugene • Evani Venkata Anantha Lakshmi • Evin Tay Geok Ling • Fabian Cheng Peng Boon • Fadil Bin Jaafar • Fahimah Begam Bte Jalaludeen • Fairouz Binte Yusoff • Faizah Bte Salleh • Faridah Bte Hassan • Faridah Bte Latiff • Faridah Bte Salleh • Fauziah Bte Wahab • Fauziah Abdul Aziz • Fhirhad S/O Omar Khtab • Fiona Karan • Fong Kok Wah • Fong Wah Kay • Fong Yoke Chui • Foo Boon Lai • Foo Chee Jeong • Foo Chek Luan • Foo Hai Hong • Foo Hui Ying Grace • Foo Jong Jin • Foo Meng Ann • Foo Meng Keen • Foo Meng Wan • Foo See Boo • Foo See Pock • Foo Soo Leong • Foo Soon Lian • Foo Suan Kiat Justin • Foo Tiang Yoong • Foo Yong Kwong • Foo-Chia Lay Tuan • Foong • Foong - Looi How Chan • Foong Jun Wen • Foong Yee Fun • Fouziah D/O Abdul Samad • Francis Mary Anne • Francis S/O Anthony Savarimuthu • Fu Jiamin Jasmine • Fu Jiating • Fu Jiemin Jassilin • Fun Sue Lyn • Gan Chin Chin • Gan Geok Hong • Gan Ghim Chiew Winston • Gan Hui Ling Stella • Gan Kok Hua • Gan Nam Liong Samuel • Gan Poh Choo Peggy • Gan Puay Bee Jennifer • Gan Ser Hui • Gan Woon Hock • Gan Xuguang Leonard • Ganesan S/O Kasi Servai • Gay Choon Har • Geraldine Tang Hui Chan • Ghafar-Hamidah Darkon • Godfrey Lau Shien Loong • Goh Ah Heng • Goh Ah Hong • Goh Ah Soon • Goh Ai Wai • Goh Bee Tin • Goh Chin Lee • Goh Chong Guan • Goh Choon Poh • Goh Chuan Bin • Goh Chwee Sim • Goh Hak Meng • Goh Hang Pheow • Goh Hock Chuan • Goh Hwee Hian Roy • Goh It Hun • Goh Jack Hseng • Goh Jin Han Xavier • Goh Jin Quan • Goh Joo Hiang • Goh Kar Wah • Goh Kee Ann • Goh Kha Hiah • Goh Khong Ming • Goh Kiang Kok • Goh Lian Hwa • Goh Liang Woei • Goh Mei Lee • Goh Poh Hua • Goh Poi Heng • Goh See Shyong Jon • Goh Seok Chin • Goh Shuo Yi • Goh Siew Heng • Goh Siew Lan • Goh Siew Ling • Goh Siow Chiang • Goh Sok Lang • Goh Teh Thor • Goh Test Soon • Goh Tiang Heng Clement • Goh Wee Chuan • Goh Wei Hsu Rachael • Goh Winsome • Goh Yeow Koon • Goh Yew Hui • Goh Yitian • Goh Yong Eng • Goh-Cheo Ching Ching • Govind Madhav Sakhardande • Govri D/O Mykle • Grace Quek Wei Lin • Grimes Ryan Edward • Guan Nanyao • Guo Chang Haw • Gurmukh Singh • Haerlena Binte Idrus • Hafizah Binte Kassim • Hah Lai Ming • Hajjiah Bte Koming • Hamidah Bte Hussein • Hamidah Bte Musa • Han Choon Kwang • Han Kum Kwang • Han Mee • Han Mui Theng • Han Sern Chiew • Han Siew Yew • Han Tock Juan • Han Yaw Kwong Mark • Haridas P. Pillai • Hariharan Dharmarajan • Haron Bin Sikin • Hasanah Bte Mahali • Haslina Bte Hashim • Haslina Bte Kassim • Hasnah Binte Dholi • Hassan Bin Mohamed Yatim • Hawa Bte Mohamed • Hee Ching Perng • Hee Xiao Jie • Heng Boon Kheng • Heng Cher Hiong • Heng Denise • Heng Gek Hiong • Heng Park Jwee Jonathan • Heng Shu Khee Cindy • Heng Siu Min • Heng Yeow Kiat • Hew Fong Chok • Hizam Bin Hashim • Ho Aileen • Ho Ban Chye • Ho Bee Heng • Ho Chan Seng • Ho Chee Fang • Ho Chee Huat • Ho Chen Yee Grace • Ho Chong Weng Peter • Ho Fong Pheng • Ho Fook Leong • Ho Kok Kuen • Ho Kum Wah • Ho Kwee Kian • Ho Kwong Yin • Ho Li Yan • Ho Mei Chun • Ho Noo Tub • Ho Pheng Khin • Ho Sang Dring • Ho Sang Jun • Ho Siew Peng • Ho Suet Wai • Ho Thiam Chwee • Ho Thian Choo Joyce • Ho Yanyan Sheena • Ho Ying Cheng • Hoh Kian Pee • Ho-Ng Mei Siew • Hong Saut Peng • Hoo Pek Teng • Hor Lai Mei • How Kok Sin • Huang Kwek Shin • Huang Shuting • Huang Xiufang • Hussainuddin B S Kadarisman • Ida Farhana Binte Mohamed • Idris Bin Abdul Wajis • Indra Adrisudiro • Indrani D/O Karuppiyah • Ip-Mok Phui Lan • Iris Mar Wan Yee • Iris Tham Wai Ching • Ishak Bin Abdul Rahman • Ismadi Bin Suhadi • Ismail Bin Ahmad • Ismail Bin Haron • Ismail Bin Hujang • Ismail Bin Mohamed • Ismail Bin Sukardi • Izriena Binte Idris • Jaafar Bin Awab • Jacelyn Pan Yijiao @Pan Xuejiao • Jaime E Masagca • Jamaludin Bin Samin • Jamberi B Kamis • Jamil Bin Rafii • Jamil Bin Salim • Jamilah Begum Bte Sulaiman • Jamilah Bte Ahmad • Jamilah Bte Ihsan • Jamilah Bte Selamat • Janie Eng Mui Kee • Jasban Kaur • Jasni Bin Mohamed Babu • Jawiya Bte Junid • Jayakrishnan Rajkumar • Jebaraj Preethi • Jeffrey Tan • Jessica P Lim • Jeykanth S/O Jeyapal • Jiang Kan • Joanna Chung Suet Kim • Johari Bin Abdul Kadir • John Lim Joo Chai • John Santhanasamy • Jonathan Tham Weng Meng • Joseph Jeremiah Vijayaseghar • Josephine D/O Lefort Alfonso • Joshua Chew • Jude Goh Kai Kia • Judy Patricia Methodious • Julia Bte Mohamed Nardi • Juliana Wong Hwee Ling • Julieana Bte Shariff • Jumahat Bin Yatiman • Juminah Binte Yusoff • Juraidah Binte Hamid • Justin Wong Phoeey Kee • K Jenivar Arul • K Manjeet Singh Waleh • Kalimuthu Suselarani • Kam Wei Li Elis • Kamaruddin Mohd Said • Kamsani Bin Sidi • Kanagarajah S/O Suppiah • Kanapathy Ratnavelu • Kandiah Kuhan • Kang Ah Kok • Kannathasan S/O Jeevanantham • Karen Wong Lai Yi • Kartina Bte Pani • Karuppiyah Santhanakrishnan Vijayaraghavan • Kasan Bin Rashid • Kasmany Bin Sanif • Kassim Bin Ali • Kathy Plik Pui Wong • Kaven Jukka Heikki • Kavin Prakasam • Kee Bee Ling • Kee Kok Meng • Kee Ling Li • Keith Buttazzoni • Kelvin Choo Pheng Chuan • Khairin Nadira Bte Khamarudin • Khairul Amilin Bin Khalid Alkhatib • Khalid Bin Kassim • Khalsom Bte Ibrahim • Khasirah Bte Saleh • Khiew Tzong Yong • Khng Jingyi Louise • Kho Puay Huang • Khong Fook Heng • Khong Yin Fong • Khoo Kay Beng • Khoo Mun Yau • Khoo Seok Hong • Khor Eik Fun • Kinnimajalu Sudheer Mahabala Bhandary • Kiran Kaur • Koh Andy • Koh Bee Bee • Koh Beng Kwan • Koh Boon Kim • Koh Cheng Chye • Koh Cheng Hwang • Koh Chi Er • Koh Choon Kheng • Koh Chuan Poh • Koh Geok Kuan • Koh Guang Feng Kelvin • Koh Hock Tong • Koh Hong Huat Steven • Koh Hong Lye • Koh Junhui Shamus • Koh Keng Cheng • Koh Ken-Lin Angela • Koh Khee Kim • Koh Kia Liang • Koh Kim Hoe • Koh Leong Sim • Koh Mei Ling Pamela • Koh Pee Oon • Koh Pee Teck • Koh Phee Wei • Koh Poh Huat • Koh Puay Yan • Koh Seow Chwan • Koh Shao Yu • Koh Shu Chin • Koh Siang Guek • Koh Siew Choo • Koh Siew Khim, Doreen • Koh Siew Luan • Koh Siew Mee Agnes • Koh Sok Hong • Koh Soo Chong • Koh Swee Leng • Koh Teck Koon • Koh Wai Leng • Koh Yee Chye • Koh Ying Lee Annie • Koh Zhi Wei • Koh-Leng Loo Lan • Kok Heng Woh • Kok Kok Lin • Kok Soon Heng • Kok-Mak Lai Kuen • Kolanthavelu Kaneson • Kon Soi Cheong • Kong Eu-Jin • Koo Eng Khoon • Koo Hui Ping • Koo Oi Peng Lindy • Koo Tian Loy • Koo Yee Siong • Koon Peng Bee • Krishnasamy Gunasekaran • Krishnasamy Sourirajan • Ku Wei Kian • Kua Beng Khai Cliff • Kuah Soo Huang • Kueh Lai Poo • Kum Poh Ling • Kursheed Banou D/O Anwel Khan • Kwah Ban Kok • Kwan King Kuen • Kwan Kok Chuan@Guan Guoquan • Kwan Sin Fook • Kwan Sow Tong • Kwan Toh Meng • Kwan Yeng Wah • Kwang Siew Hong • Kwek Chik Khoon • Kwek Juan Chee • Kwek Jwee Koon • Kwek Su Yen Sharon • Kwok Chai Ho • Kwok Chun Kwan Anson • Kwok Ka Wai • Kwok Kwong Sang • Kwok Mei Yun • Kwok Wei Feng • Kwong Chee Guan • Kwong Sui Ha • L Clara Shanti • Lai Anne • Lai Chong Leong • Lai Lye Khum Jennifer • Lai Oi Lye @ Lai Aili • Lai Pui Fun • Lai Shiu Mun • Lai Wai Leong • Lalithal D/O Mkv • Lam Lai Pheng • Lam Mei Kay • Lam Ngien Seet • Lam Sew Qun • Lam Shen Keong • Lam Siew Yin • Lam Su Yi • Lam-Zee Lee Lah • Latifah Binte Abdul Latif • Latifah Bte Mohammad Ariff • Latifah Bte Rajab • Lau Bee Eng • Lau Chin Kiang • Lau Hen Lunn • Lau Joyceline • Lau Ming Yong • Lau Mun Wai • Lau Puay Hua • Lau Soek Yan • Lau Sue-Ann • Lau Swee Sang • Law Chee Kheong • Law Poh Ling • Laws Leong • Lay Wai Hain Mary • Leah Jade Fellstad • Lee Ang Li • Lee Beng Seng Gary • Lee Boon Liang • Lee Boon Ling • Lee Chee Meng • Lee Chian Chin @ Chrystella • Lee Chong Kit • Lee Choon Giap @ Li Junye • Lee Chwee Lam • Lee Eu-Li Sarah • Lee Foong Mui • Lee Han Yeong • Lee Hock Huat • Lee Hok Keong Adrian • Lee Jiawen Benjamin • Lee Jim How • Lee Jin Min • Lee Joon Yew Tony • Lee Juan Kow • Lee Kai Tyng • Lee Kay Chor • Lee Kay Meng • Lee Kian Soon • Lee Kim Boon • Lee Kiow Meng • Lee Kok Hoong • Lee Kong Huat • Lee Kwai Sim • Lee Kwai Ying @ Lee Koon Yi • Lee Kwi Lin • Lee Lee Koon • Lee Lai Fun • Lee Lay Hee Juth • Lee Lay See • Lee Lee Leng • Lee Li Lian • Lee Li Yee • Lee Li Yiat • Lee Mei Xian (Li Meixian) • Lee Mun Hon • Lee Na • Lee Nguk Kwee • Lee Peng Siong Richard • Lee Pin Lim • Lee Pui Kuan • Lee See Kee • Lee Siew Cheng • Lee Siew Kheng • Lee Simon • Lee Song Khim • Lee Soon Meng • Lee Su Wei • Lee Suet Yin • Lee Teck Hor • Lee Teck Loong • Lee Teck Meng • Lee Tee Han • Lee Tek Siong • Lee Ting Kok • Lee Tse Yew • Lee Tuck Cheong • Lee Wan Jen Janice • Lee Wei Shun • Lee Wen Yen • Lee Weng Kwong • Lee Woan Sim • Lee Xue Ting Sharon • Lee Yee Jin Andrew

• Lee Yee Wenn • Lee Yeng Tuck • Lee Yeow Yee • Lee Yew Mun • Lee Yi Wei Mark • Lee-Lum Wai Har • Lee-Ng Hui Lan Angie • Lee-Ng Sook Han • Lee-Quek Chye Hah • Lee-Soh Hwee Ling • Lei Huiwen • Leng Lee Ching • Leong Chee Khoon • Leong Chong Meng • Leong Lye Lin Cecilia • Leong Mun Onn Martin • Leong Poong Choon • Leong Pui Kuen Gladys • Leong Siew Yen Lisa • Leong Tze Lyn Winifred • Leong Wai Fong • Leong Yim Foong • Leow Chee Leong • Leow Choon Seng • Leow Hwey Min • Leow Kong Sin • Leow Lay Yen • Leow Peter • Leow Xiao Hui • Ler Ai Choo • Ler Beng Hin • Leung Keng Hong • Leung Wai Yee • Lew Mei-Na • Lew Wan Lai • Lian Yew Chuan • Liang Chung Yee Terence • Lianza Jefferson Domingo • Liao Wenqin Pamela • Liau-Chan Puay Hway • Liew Choon Chin • Liew Hui Ping • Liew Wan Chong • Lim Ah Kiang Marianne Therese • Lim Bee Geok • Lim Bee Hian • Lim Bee Khim • Lim Bee Lam • Lim Bee Leng • Lim Beng Hian • Lim Boey Choo Pearl • Lim Boon Cheng • Lim Boon Huat • Lim Chee Wan • Lim Chek Boon • Lim Cheng Hong • Lim Cheng Seng • Lim Chew Teng • Lim Chien Thye Ernest • Lim Chin Chwee • Lim Chin Heng • Lim Chin Li Jane • Lim Chiok Kia • Lim Choon Gwee • Lim Chun Lian • Lim Ee Hai • Lim Eng Eng • Lim Eng San • Lim Fang Ting • Lim Hai Sim • Lim Ho Soon • Lim Hock Hong Andrew • Lim Hong Chin • Lim Hui Choon Shirley • Lim Hui Ling • Lim Huiting • Lim Inn Wei • Lim Jiow Yong • Lim Joo Khim @ Chan Yip Tong • Lim Juat Fong • Lim Kah Seng • Lim Kee Yian • Lim Keng Cheong • Lim Kian Kok • Lim Kian Lam • Lim Kian Seng • Lim Kim Eng • Lim Kim Joo • Lim Kim Kee Judy • Lim Kim Kiat • Lim Kim Pang • Lim Kim Soon • Lim Kok Cheng • Lim Kok Hwee • Lim Kwang Yong • Lim Kwoon Yong Ernest • Lim Lai Hoon • Lim Lam Hoe • Lim Lay Cheng • Lim Lay Choo Regina • Lim Lay Li • Lim Lee Lee • Lim Leong Beng • Lim Li Hoon • Lim Li Yin Laura • Lim Lian Hock • Lim Lily • Lim Loy Ngok • Lim Meng Liang • Lim Mu Hong • Lim Pang Kwee Robert • Lim Peck Gee • Lim Puay Hwee • Lim Sai Mui • Lim See Lee Lily • Lim Seng Huat • Lim Seng Neo • Lim Seow Chiong • Lim Seow Hock • Lim Shih Wei Jessica • Lim Shu Chiung Angeline Jane • Lim Shu Wei • Lim Siang Poo • Lim Siew Chin Shari • Lim Siew Ling @ Edwina • Lim Siew Mei • Lim Siew Noi • Lim Siew Siew Valerie • Lim Siew Yin Belinda • Lim Sin Huat • Lim Sin Kiat Ronald • Lim Sin Poh • Lim Siok Ee • Lim Sock Choo • Lim Soo Hian • Lim Soo Ting • Lim Soon Lie Andrew • Lim Soon Peng • Lim Swee Huat • Lim Sze Mei Clara • Lim Sze Tien Christabel • Lim Tau Kum • Lim Teck Kim • Lim Teck Lee Gordon • Lim Teow Guan • Lim Thiam Chye • Lim Ting Ting Magdalene • Lim Tow Kee • Lim Tze Chuang Dustin • Lim Tze Ying Deborah • Lim Wee Fong • Lim Wee Han Ronald • Lim Wee Lip • Lim Wei Chuan • Lim Wei Lan Violet • Lim Woon Hong Becky • Lim Xinhua Veronica • Lim Zhiwei Kelvin • Lim-Foo Fong Lee • Lim-Ng Lee Choo • Lim-Phua Cheh Huan • Lim-Phua Chiew Kheng • Lin Liling • Lin Qifen • Lin Siew Wen • Lin Soon Hin Joseph • Lin Zhiyin • Lina Gesper • Ling Eng Chew • Ling Geok Tsui Jenny • Ling Sin Chee • Ling-Seow Bee Ling • Linny Phang Sim Lee • Liow-Chan Lai Meng • Lip Kah Yin • Liu Kaikil • Liu Shuhua Esther • Liu Yuchan • Lizawati Binte Mohd Ta'At • Lo Chue Har • Loh Chan Theng Alex • Loh Chue Wah • Loh Heng Ping • Loh Jin How • Loh Kah Pei • Loh Kia Lok • Loh Kim Meng • Loh Koi Whee • Loh Lok Kee • Loh Qi Zhuang • Loh Soo Gek • Loh Wai Yee Serene • Loh Weilong • Loh Yew Kong • Lok Chee Meng • Loke Jun Qing Joseph • Loke Tshee Yeen • Loo Hanley • Loo Hui Fong • Loo Kok Hoe Winston • Loo Seh Peng • Loo Wai Kan • Loo Chai Leng • Low Chew Ling • Low Ger Loon • Low Guek Eang • Low Hock Siew • Low Hong Jong • Low Hua Chong • Low Johnny • Low Joon Piang Riordan • Low Kay Boon Valerie • Low Ken Yang • Low Kerk Chek • Low Khee Seng James • Low Kuan Chan • Low Kwok Kee • Low Lay Hong • Low Liang Seng • Low Pei Pei • Low Peng Hu • Low Ping Ping • Low Shir Li • Low Siew Teng • Low Sock Hwee • Low Soo Hue • Low Soon Keat • Low Sow Toh Mary • Low Tiap Ngjan • Low Wai Yee • Low Yeow Kwang • Low Yoke Yin • Low-Wang Kwang Cheng • Low Chee Kiong • Lu Peng • Lui-Wong Mei Chien • Luke Arthur Lim Meng Hin • Luke Manimaran Degarajoo • Lum Fook Choon • Lum-Loh Chee Lan • Luo Yang • Lynette Goh Hui Lyn • Ma Concordia Lao Sy • Ma Lie • Ma Phyo Thet Wai Janice • Ma Siew Khooi • Mageswary D/O Ramasamy • Mah Yen Ling • Mahani Bte Abd Manan • Mak Lai Peng • Mak Peck Wan • Mak Sok Han • Mak Ziheng • Malarrvizhy Ganesan • Manisah Bte Bani • Maria Lorna Santos Sun • Mariam Bte Aris • Mariana Binte Silahuddin • Martini Bte Mohamad • Marziah Bt Mohd Yatim • Masduki Bin Mayuni • Masjuri Bin Maswan • Masliana Binte Mas'Od • Maslimah Bte Amri • Masni Binte Mohamad Maideen Sahip • Masriah Bte Ithanaib • Masturah Binte Mohd Ali Hanafiah • Matias Ericson Pascual • Mawar Melati Binte Abdul Gaffaur • Md Ithinin Bin Kasmin • Md Yunan Bin Ab Aziz • Md Yusof Bin Md Zaid • Meng WeiLin • Mervyn Foo Yong Hui • Miranti Binte Hamid • Moh Xuan Yan • Mohamad Farid Bin Chemat • Mohamad Johari B Abdul Kadir • Mohamad Rasid B Mohamad Sani • Mohamad Sahibi Bin Ali • Mohamad Suhaili Abdul Latiff • Mohamad Tamami Bin Pani • Mohamed Amin Bin Musa • Mohamed Haron Bin Kamis • Mohamed Ishak Bin Ismail • Mohamed Jannif Bin Mohd Yusof • Mohamed Jasmin Bin Hamid • Mohamed Khafid Bin Bakri • Mohamed Khair Bin Kasmin • Mohamed Nasir Bin Hasar • Mohamed Nizamudeen Bin Abdul Rahman • Mohamed Shali Bin Buang • Mohamed Shalikin Bin Abdul Rahman • Mohammad Munir Bin Omar • Mohammad Nadzi Bin Abu Sujud • Mohammed Nasir Bin Abdul Karim • Mohammed Roslie Bin Mohammed Sidik • Mohan Vidhyavathi • Mohd Ali Bin Abdul Hamid • Mohd Amanullah Bin Peer Mohd • Mohd Argil Bin Sairi • Mohd Bahtiaraffandi Bin Safari • Mohd Farook Bin Mohd Hussain • Mohd Hasmid Bin Ahmad • Mohd Hosni Bin Hamid • Mohd Ismail Bin Abd Hamid • Mohd Kamal Aswat • Mohd Khair Bin Mohd Noor • Mohd Moner Bin Hamzahan • Mohd Razali Bin Abdul Majid • Mohd Rustam Bin Mohd Shah • Mohd Sabli Bin Ali • Mohd Salleh Bin Hussain • Mohd Seth Bin Sulaiman • Mohd Suhaimi Bin Mohamed Noor • Mohd Yunus B Mohd Ibrahim • Mohd Zaidi Bin Md Yacob • Mohd Zain Bin Abdul Wahab • Mok Chuang Lee • Mok Keng Cher • Mok Mun Yin • Mong Ee Ting • Monika Hermanto • Mousumi Roy Chowdhury • Muhammad Asri Bin Arshad • Muhammad Azlan Bin Ahmad • Muhammad Basheer Bin Mohammed Rafi • Muhammad Bin Hashim • Muhammad Haizan Bin Abdul Salam • Muhammad Himli Bin Bonawi • Muhammad Khari Bin Abdul Manan • Muhammad Taufiq Bin Mohamed Dali • Muhammad Mahadi B Abdul Razak • Muico Benjamin Jr Lim • Mun-Tan Soh Ngoh • Muralithasan S/O Uthaya Kumaran • Murugesan Latha • Mustafah Bin Jumari • Mustafah Bin Sakaran • Mustapha Bin Mohd • Muthiah S/O Rethinam • N Morgaya K Nagappan • Nadiyah Binte Sulaiman • Nah Boon Kheng • Nasser Bin Shamsudin • Naw Marree Po Oo @ Naw Marree Po Oo • Nazareno Johnel Gonzales • Neil Aaron Munas • Neo Chee Seng • Neo Chin Chye • Neo Hwee Tee • Neo Lian Chuan • Neo Peck Kuan Angela • Neo Puay Cheng • Neo Sor Yew @ Liang Suyou • Neo-Teo Beng Teng • Ng Ah Gek • Ng Ah Huan • Ng Bee Hoon • Ng Bee Wah • Ng Bee Yan • Ng Bok Ling Jacqueline • Ng Boon Hua • Ng Boon Yin • Ng Buck Hwa • Ng Caroline • Ng Cheng Huat • Ng Cheng Kiat • Ng Chiew Lee Janice • Ng Chik Hong • Ng Chooi Kheng • Ng Choy Mei • Ng Gek Heng • Ng Geok Leng • Ng Heok Joe • Ng Hong Peng • Ng Hoong Eng • Ng Huay Yam • Ng Huey Yun • Ng Hwee Noi • Ng Ka Wei • Ng Kai Li • Ng Kim Boon • Ng Koang Heng • Ng Kok Guan Edwin • Ng Kok Hoen • Ng Kok Kee • Ng Koon Leng Joyce • Ng Kuo-Peng Mark • Ng Lay Gueat • Ng Lay Kuan • Ng Lay Tsu • Ng Lee Kwan • Ng Leng Chuan • Ng Li Gek • Ng Liang Sing • Ng Mei Yan • Ng Meng Huei • Ng Ming Er • Ng Ngai Meng • Ng Nguang Hoon • Ng Pei Chin Stella • Ng Pei Lin • Ng Poh Sing • Ng Sew Eng • Ng Shoo Ming • Ng Siak Kiang • Ng Sian Erh Angelia • Ng Sie Tick • Ng Siew Chin • Ng Swee Teck • Ng Tat Hwee • Ng Tik Tiu • Ng Vai Keng • Ng Weay Chong Zaki • Ng Wee Loon (Huang Weilin) • Ng Wei Chee • Ng Wei Kia • Ng Woon Sheng • Ng Yi Ting Delphine • Ng Yue Chin • Ngatimah Bte Atmor • Ng-Chua Hui Hong • Ngeow Hui Mei • Ng-Fong Mei Hoe • Ng-Tan Yong Yee • Nicodemus Chan • Nicole Lee Xun Yu • Nimisha Toh Zhu Ning • Nini Irianti Lau • Noel Culannay Sinco • Noor Ashikin Binte Sarman • Noor Aslina Binte Niti • Noor Asyikin Binte Mustaffa • Noor Azlan Bin Paini • Noor Hasimah Bte Ahmadi • Noor Iza Bte Zakaria • Noor Shamilah Bte Sarmani • Noorashikin Binte Mohammad Yahya Attia • Noore Ainie Bte Ali • Noorelrawati Bte Safari • Noorliza Binte Zainal • Noorlydia Binte Abdul Karim • Noorra Binte Mohd Salleh • Nor Aini Binte Yusopeh Lamat • Noraidah Bte Hasan • Nor'Aini Bte Arshad • Noraini Bte Mohd Hanifah Rasfee • Norashid Bin Darni • Norashykin Binte Haslir • Norati Bte Hanif • Nordin Tavhidin • Norhayati Binte Abdul Rahman • Norishah Bte Nordin • Norlida Bte Kasmuri • Norliza Bte Mohamed Hassan • Norma Binti Osman • Norman Dominique Tse Y-Yin • Nova Theresianto • Nur Adhana Binte Adam • Nur Affizah Binte Salehudin • Nur Afni Binte Zakaria • Nur Ain Bte Mohd Shahrur • Nur Aishah Binte Abdul Rahman • Nur Azura Binte Johana • Nur Maisarah Binte Shaïd • Nur Raudhah Bte Abdul Karim • Nur Shafina Binte Mohamad Sharom • Nur Shaqeila Binte Jaafar • Nurhafizah Bte Mohd Sahir • Nurshahidah Binte Roslie • Nurul Farah Athirah Bt Mohd Nurirwan • Nurul Izzati Binti Maamor • Nurulaini Binte Ariffin • Nyein Nyein Ei@Le Hlain Kyi • Oh Ah Lan Ellen • Oh Heng Teck • Oh Chee Kiat • Oh Chin Kiong • Oh Pei Hoon • Oh Tong Chai • Oh Wei Siang • Omar Bin Osman • Ong Beng Choo Josephine • Ong Beng Leong • Ong Beng Thong • Ong Boo Teck • Ong Chai Kim • Ong Chang Kee • Ong Chao Xiang • Ong Chin Poh Ronald • Ong Eng Sai Vincent • Ong Eu Huat • Ong Gim Hui • Ong Hui Cheng • Ong Hui Joo Pauline • Ong Hui Leng • Ong Hwee Leng • Ong Jia Hwee • Ong Joon Luan • Ong Kheng Bee • Ong Khong Lian • Ong Kian Beng • Ong Kian Lee • Ong Kian Soon • Ong Kok Hui Kent • Ong Lay Hong • Ong Li Ping • Ong Lye Hock Peter • Ong Mei Mei • Ong Oon Jin • Ong Pei Ling • Ong Poh Kheng • Ong See Hai • Ong Siew Geoh • Ong Siok Bie • Ong Sok Cheng • Ong Soo Choo • Ong Soon Tong • Ong Thien Chye • Ong Tiau Leng • Ong Toh Heng • Ong Tuan Heng • Ong Tze Tze • Ong Wee Ling • Ong Yong Chok • Ong Yong Mei • Ong Yu Lee • Oo Chee Kian • Ooi Kim Bok • Osman Bin Abdul Wahab • Othman Bin Abdul Rahim • Othman Bin Mohamed • Othman Bin Mohamed Ali • Othman Bin Mohamed Sood • Ouh Chun Keat • Ow Siew Hoong • Ow Yong Hoi Hoong • P M A Saifuddin • Pai Ter Siang • Pan Seng Kie • Pang Chay Boon Lara • Pang Chia Chiat • Pang Kim Yin • Pang Sher Yoon • Pang Teng Hui • Pang Tyng Fa • Pang Yean See • Pang Yuen Lai • Pannirselvam S/O R • Papoo D/O Vengadasalam • Parameswary Mohan • Parlin Julita • Patemah Bte Rasmah • Peck Yi Wei Terence • Pedida Arthur Liwanan • Peh Bee Ling • Peh Lian Peng • Peh Mei Lin • Pei Sze Chong • Pek Ting Li @ Lim Ting Li • Perambrath Madhu • Pestana Venetia Frances • Phang Lung Wei • Phay Boon Suah • Phay William • Phee Han Teck • Pheh Soon Cheng • Pher Yok Chin • Phillip Solomon See • Phillips Jill Elaine • Phoo Wei Shan • Phua Boon Hwee • Phua Chang Hong • Phua Chen Wei • Phua Chip Chuan • Phua Kang Hua • Phua Kian Chye • Phua Li Siang Aileen • Phua Siew Kiang • Phua Sin Tian • Pimjaya Kaur • Png Seok Hoon • Png Tian Gek Emily • Png-Tan Cheng Wan • Poh Foong Gek • Poh Hwee Geok • Poh Kheng Guan • Poh Kok Xuan • Poh Lay Lain (Fu Lilian) • Poh Lian Kok • Poh Tian Seng • Poitte Harold Francois Gerard • Ponmani Priya Arul Gnanapragasi • Poo Jia Jian • Poon Wai Kit • Poon Yin Wah • Prakash S/O A Divakaran • Priti Bathla • Prokopenko Sergiy • Puah Beng Kiat • Puah Boon Seng • Puah Hock Leng • Pukari B Hq Embran • Qian Hong Xia • Quah Ah Seng • Quah Chor Leng • Quah Ei Leng James • Quah Soon Ai Winnie • Quak Kim Lee Jay • Queek Lor Fern • Quek Ching Xuan • Quek Gen See • Quek Hock Choon Tony • Quek Kim Hua Herman • Quek Mui Ling Vivien • Quek Sze-Wen Darren • Quek Yee Khuan • Quek Yong Siu • Quek-Ho Mun Yee • R Pongothey • R Shahul Hameed • R Vijayakumar • R. Kokilavani • Radhakrishnan Nagapriya • Rafael Voltaire Alzate • Rafika Ramli • Rahim Bin Haji Ahmad • Rahimah Binte Abdul Rahman • Rahimah Bte Abbas • Rahimah Bte Rahmat • Rahimah Bte Sarbani • Rahman Bin Mijan • Rahmat Bin Arshad • Raja Razak Bin Wan Deraman • Rajeev Saxena • Rajesh R Mohan • Rajwant Kaur • Ramachandran Anbuselvan • Ramachandran Parthasarathy • Ramadhan Bin Abdullah • Ramasamy S/O Subramaniam • Ramasamy Subramaniam • Ramirez Ramirez Alejandro Arturo • Ramlah Binte Rasul • Ramlah Bte Ahmad • Ramlan Bin Haji Mokhtar • Ramnah Bte Yusoff • Ranjan Balachandra • Ranjit Kaur • Rashmi Mohan Hegde • Ratna Suffian Bin Ishak • Ratnaswamy Vijayakumar • Ravindran Kuppamah • Raymond Yeo Hock Ling • Razia Sultanah • Remy Bin Mahzam • Resurreccion Grace Villar Angel • Richard Ding Chit Wee • Robert Chua Yong Hwee • Rogers • Rohaizan Bin Sarip • Rohkamah Bt Haji Mohsen



• Rokiah Bte Ali • Roslan Bin Hashim • Roslee Bin Baba • Rosmaya Binte Othman • Rosmini Binte Masood • Rosnah Bte Awang • Rosni Bte Ahmad • Roy Lam Fook Loy • Rozi Bte Aris • Roziyah Binte Othman • Roziyah Bte Yaacob • Ruhaizah Bte Mohd Fazal • Ruhazat Bin Adnan • Rukmani Devi D/O Tiru Selvam • S Rajasekaran • Saadiah Bte Mohd A Bawany • Saadon Bin Abu Sabariah Binte Mohamed Osman • Sabtu Bin Selamat • Saedah Bte Abdullah • Saenon Bte Wahab • Safaruan Bin Hashim • Safarudin Bin Jaafar • Safiah Binte Buang • Safiah Bte Marsunib • Safiah Bte Rasman • Saifudin Bin Abdul Rahman • Sakhardande Aparna Govind • Salbiah Bte Sulaiman • Saleh Bin Abdul Razak • Salim Bin Buang • Salimah Bte Abdullah • Salleh Bin Abu Yamin • Sam Chew Liang • Samri Bin Sulaiman • Samsul B Kasan • Samuel Sim Seow Nguan • Sanasee Phillips Roy • Sangeetha D/O Pragasan • Sanjyogita D/O Shri Rammani • Sanmugam Kamalam • Saparuan Bin Shafii • Sarah Bte Klang • Sathasivam Manokara • Sayidatina Khan • Sayidatun Nur Binte Syed Hamid • Sazali Bin Osman • Seah Cheng Guan • Seah Cheng Hee • Seah Kiang Guan • Seah Kui Peng • Seah Pei Ling (She Peiling) • Sebastian Matthew • See Ghim Yam • See Hwee Bim • See Hwee Jia • See Lian Eng • See May Lin Joyce • See Toh Seet Tang • Seeralan S/O Nagamuthu • Seet Cher Hng • Seet Hoe Luen • Seet Keng Mui • Seet Weng Tuck • Seetoh-Lau Jiak Lee • Sek Soon Heng • Selva Rajoo S/O Thangayah • Selvom D/O Samydas • Sem Kai Lin • Seng Boon Lim • Seng Chuun Lien • Seng Juay Poh • Seo Chye Sin • Seok Shyang • Seow Gek Leng • Seow Kin Siong • Seow Lee San Stephanie • Seow Sin Yong • Seow Wee Kiat • Seow Yew Guan • Ser Bok Leng • Serene Ding Su Lin • Shaharuddin Bin Ismail • Shalini Vejjayaratnam • Shalyn Gwen Tan Swee Hoong • Shamaiah Kala • Shamshi Bin Inware • Sharifah Zainon Binte Syed Sheikh • Shasi Kumar S/O Arumugam • Sheikh Fawazi Bin Mohamed Shaik • Sheikh Mohamad Faisal Bin Abd Malek Bafana • Sheila Chin Shan Li • Shelley Hirst • Shen Wei • Shen Yi Ru Edwin • Shi Soi Fah • Shirley Yue Pui Leng • Shokoy Ahmed S/O Md Ashraf • Shong Lai Hock • Shu How Ching • Shuner Villanueva Leong • Sia Chee Meng • Sia Geok Soon • Siah Lin Fook • Sie Keong Seng • Siew Chee Chon • Sim April • Sim Boh Ngoh • Sim Boon Heng • Sim Choon Sian • Sim Chui Ling • Sim Gim Hoe • Sim Hock Lee • Sim Hong Cheng • Sim Lee Huang • Sim Li Yan • Sim Swee Kee • Sim Wei Choon • Sim Yan Ling Cynthia • Sim-Lim Gim Hiah • Sin Yu Xing Rachel • Sinen Bin Bakiri • Siow San San Susan • Sithambaram Ramathas • Siti Aminah Bte Md Sahr • Siti Fauziah Bte Mohamed Sani • Siti Hawa Bte Ahmed • Siti Khairani Bte Basir • Siti Nur'Ain Bte Abdul Samat • Siti Nuraisah Begum Binte Abdul Aziz • Siti Paridah Bte Hj Siraj • Siti Rafidah Bte Alwi • Siti Suhana Binte Khairoman • Siti Sulastri Bte Ahmad • Siti Zainah Bte Mashadi • Siti Zainuriah Sapari • Siti Fatimah Binte Mohamed Sa'Ad • Sivanathan S/O Ramanatham • Sng Bee Suan Sophia • Sng Yam Hui Jenny • Soh Cheow Hin • Soh Eng Hin • Soh Kim Choo • Soh Kwong Hui John • Soh Thiam Hui • Soh Wah Liong • Soh Wei Sian • Song Keng Hock • Soo Ee Ling • Soo Eng Mei • Soo Wee Kiang • Soon Choon Chye • Soon Lee Kim • Soon Swee Kuan • Soong Chee Wai • Soong Si Young • Soong Sow Mui • Soon-Lee Siew Lian • Sri Durga Devi D/O Muniandy • Stephen Bok Chee Sai • Stephenson Rajah Abraham • Steven Wang Chin Huang • Su Anqi • Sua Yu Wei • Subramani S/O Shunmugham • Subramaniam Vivaokandan • Suen Eng Kai • Suguna D/O Sirinivasan • Suhaimi Bin Mohamed Sepet • Suja Thomas Panicker • Sujatha Rajeswaran • Sukhaimi Bin Suja • Sum Peiling Karen • Sum Yew Meng • Sumarni Bte Selamat • Sumathi D/O Rajendran • Sun Fong Yeng Yvonne • Supangat Bin Pipit • Supiah Binte Riduan • Suppiah Nagammal • Suriati Bte Samat • Surinah Bte Rus • Suryani Binte Abdul Patah • Suzlina Bte Mohamed • Syabanun Binte Zainudin • Syed Muammar Shah Bin Abdul Mutalib • Syed Mustaffa Kamal Din B Din • Tahir-Ungku Suhailah Adam • Tai Jiun Pink • Taib Bin Ali • Tam Hok Shing • Tam June Seng • Tam Lai Han Terrez • Tammilmani S/O Manickam • Tan Ah Chew • Tan Ai Ling • Tan Bee Hong • Tan Bee Kim • Tan Bee Leng • Tan Bee Ngoh • Tan Beng Guat Derek • Tan Beng Ho • Tan Beng Huat • Tan Beng Huat Kenny • Tan Boo Hock • Tan Boon Ann • Tan Boon Keen • Tan Boon Siong • Tan Boon Wee William • Tan Buck Soon • Tan Chai Khim • Tan Chee Keong • Tan Chee Tak • Tan Cheng Huay • Tan Chew Beng • Tan Chiew Sze • Tan Chin Wee • Tan Chong Sin • Tan Choon Chiat • Tan Choon Leng • Tan Choon Song • Tan Chor Heng • Tan Chuan Tat • Tan Chui Leong Claudia • Tan Chun Hong • Tan Chun Ting Theresa • Tan Eng Chong • Tan Eng Ho Derrick • Tan Eng Mok • Tan Eng Soon • Tan Eng Teck Daniel • Tan Eu-Heng Roy • Tan Foh Ming • Tan Gek Eng • Tan Gek Khim • Tan Geok Hong Christine • Tan Guan Chuan • Tan Hang Ngee • Tan Haw Kheng Henry • Tan Hock Chuan • Tan Hock Chye Peter • Tan Hock Leng Ronnie • Tan Hoe Sang James • Tan Hong Leng • Tan Hui Ching • Tan Hui Hiang • Tan Hui Ling Eileen • Tan Hui Ping • Tan Hwee Gee Benjamin • Tan Hwee Koon • Tan Hwei Fang • Tan Jee Tong • Tan Jian Hong Kevin • Tan Jing Hwa • Tan Jong Sai • Tan Juat Fong • Tan Juay Yong • Tan Kah Huat • Tan Kah Kiat • Tan Kar Seng • Tan Kay Beng • Tan Kay Teck • Tan Keng Huat • Tan Kheng Heng • Tan Khim Lee • Tan Kim Chye • Tan Kim Heng • Tan Kim Liew • Tan Kok Chye • Tan Kwang Hwee Andrew • Tan Kwee Khuang • Tan Lee Hiang • Tan Leng Choo Rachel • Tan Li Khim Kimberly • Tan Liang Ti • Tan Lily • Tan Ling Ling Angeline • Tan Lui Kang • Tan May Fung • Tan May Ling Susan • Tan Mei Ching Eleanor • Tan Mei Ling • Tan Mei Ling Audrey • Tan Meng Khoon Edwin • Tan Nguan Eng • Tan Pei Pei • Tan Pei Yeng • Tan Pek Lan Margaret • Tan Peng Chye • Tan Peng Peng • Tan Peng San • Tan Peng Yaw • Tan Peter Daniel • Tan Pic Cheng • Tan Poh Geok • Tan Poh Thiam • Tan See Lai Juliana • Tan Seng Fong • Tan Ser Kiang Raymond • Tan Shen Chin • Tan Shu-Yi Pearl • Tan Sian Lee • Tan Siang Guan • Tan Sie Sie • Tan Siew Choo • Tan Siew Khim • Tan Sing Min • Tan Sing Poh • Tan Sock Hoon • Tan Sok Poo • Tan Song Seng • Tan Soo Ping • Tan Soon Hoe • Tan Soon Quang Chris • Tan Su Chin • Tan Swee Cheng • Tan Sze Chiaie • Tan Tee Tee • Tan Thea Siang • Tan Thiam Siew • Tan Thiam Yan • Tan Tian Leng • Tan Tze Yong • Tan Wai Meng • Tan Wan Nin • Tan Wee Chuan • Tan Wee Hin • Tan Wei Leng • Tan Wei Li Gavin • Tan Wei Ling • Tan Weng Hun Terence • Tan Xinhui Dylan • Tan Yee May • Tan Yeng Hua • Tan Yeow Theng • Tan Yew Chai • Tan Yi Yang Kelvin • Tan Yih Jiang • Tan York Suan • Tan-Chia Hwee Sim Hyacinth • Tang Ah Buay • Tang Chee Wai • Tang Chiu Yee • Tang Jong Mun Kevin • Tang Kian Chaw • Tang Kian Phung • Tang Kok Kew Karen • Tang Mei Huey • Tang Mei Khay Selina • Tang Weng Soon Vincent • Tang-Ng Khee Hong • Tan-Pang Nget Foong • Tanty Suryani • Tan-Yeo Swee Hong • Tao Chong Meng • Tay Ah Hong • Tay Ai Noi • Tay Chin Huat • Tay Choon Chiat • Tay Choon Huat • Tay Choon Peng • Tay Choon Yen • Tay Hong Chuan • Tay Hwee Lan • Tay Kar Ai • Tay Khee Wee • Tay Kim Serh • Tay Kwee Huat • Tay Lay Eng • Tay Lee Choo • Tay Lee Sun • Tay Leijine • Tay Leng Leng • Tay Lye Hee Philip • Tay Mui Pheng • Tay Nyang Hwee • Tay Shing Shih • Tay Shirley • Tay Sing Leong • Tay Suat Hoon • Tay Teng Koon • Tay Tin Hui • Tay Wan Song • Tay Yu Hong Victoria • Taye Shi Min Charmaine • Tay-Leong Lai Wan Genista • Tay-Wee Lian Koon Lily • Taziah Bte Abdul Manaf • Tee Kwai Seng • Tee Wai Mun • Teh Hock Pine • Teh Ngee Keong • Teh Siew Fui • Teng Chin Peng • Teng Kwang Soon • Teo Bok Huat • Teo Boon Kin Lawrence • Teo Chea Wan • Teo Cheng Chuan • Teo Cher Ngoh • Teo Choon Meng • Teo Choon Peow • Teo Eng Loe • Teo Eng Wan • Teo Geok Kuang • Teo Guan Kok • Teo Hock Bee • Teo Hock Wee • Teo Hui Huang Justin • Teo Joo Hang • Teo Kae Ling • Teo Keng Mwi • Teo Lee Hia • Teo Lee Jer • Teo Lily • Teo Ruishan Marissa • Teo Siew Khim • Teo Soon Guan • Teo Szu Chen • Teo Yifang Evonne • Teoh Cheng Ping • Tew Susan • Tham Kwok Meng • Tham Lai Yee • Tham Mei Fung Jasmine • Tham Mei Yoong • Tham Moon Peng • Tham Sau Lan • Tham Wei Leng • Tham Yim Leng • hamrin Bin Mohamed Yunos • Thavaseelan S/O K Velu • Thekkumpuram Lonappan Babu • Thia Wang Ling Christopher • Thiruchelvan S/O Nagamuthu • Thng Xue Qi • Thomas Phng Chiang Soon • Thomas Tan Yiook Tuan • Thong Wah On Leonard • Thoppe Sivaraman Srinathan • Thygarajan Sugantharaj • Tiew Chee Chiang Derrick • Tin Hwong Chay • Ting Poh Hua • Ting Song Lang • Tisang Sze Cheng • Tng Sok Huang • To Joon Sien • Toh Ah Poh • Toh Chia Wee • Toh Choon Tee • Toh E Sheng • Toh Eng Hwa Jean • Toh Hong Hat • Toh Hy-Cin • Toh Kem Hock • Toh Lee Chin • Toh Mui Choo • Toh Nam Hor • Toh Ngee Kin Alvin • Toh Wee Teck • Toh Wei Hon • Toh Yen Mei • Tok Yew Chuan • Tong Boon Eng • Tong Chi Kong • Tong Hock Sheong • Tong It Hong • Tong Mee San • Tong Yock Jin • Too Chai Koon • Toong Teck Sheeng • Turiah Binte Pangat • Tye Han Loong • U Min Ye Htut • Umadevi D/O Ayanari • Usha Nair D/O C Pillai • Ushaneethi D/O Raman Perumal • V 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