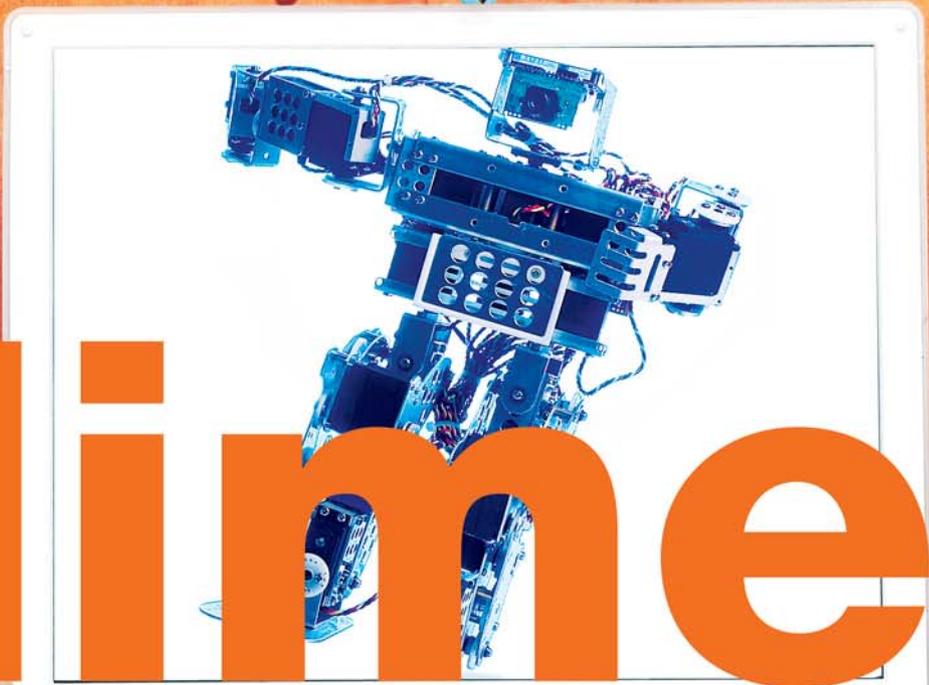


Nigel Dilip Singh Gill  
School of Business



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Singapore Polytechnic is an established and dynamic institution that constantly reinvents itself to remain relevant in today's high-tech learning environment. In the year in review, it adopted several measures to enhance its brand of education. These included offering new courses, introducing new training facilities and strengthening industry links.



# SIONAL

# MULTI-DIMENSIONAL



Launch of full-time Diploma in Human Resource Management with Psychology course – a first.

## IT'S ALL ACADEMIC

New courses and constant upgrades ensure that Singapore Polytechnic students keep up-to-date with the demands of industry, giving them the confidence to apply essential skills needed as soon as they enter the workforce.

## NEW COURSE OFFERINGS

In line with Singapore Polytechnic's commitment to delivering a diverse range of courses, plenty of new offerings were added to the mix in the year.

The School of Business was the first polytechnic business school to offer a full-time Diploma in Human

Resource Management with Psychology (DHRMP). Singapore Human Resources Institute is prepared to work with the School of Business to accredit the DHRMP

course under its current Accreditation Programme for HR Training Providers. As a value-add to the graduates, they will be accorded the status of Human Resource Associate under the Singapore HR Accreditation Scheme.

To address the needs of the industry, a new Training and Research Centre for Islamic Finance was established by the School of Business with Glohex Groups Pte Ltd in association with Singapore Business Federation on 13 June 2007. With the opening of this centre, Singapore Polytechnic's business students have the opportunity to take up Islamic Finance elective modules. It also serves as a centre for research and innovation for the Islamic banking and finance industry in Singapore, concentrating on the structuring of Islamic finance instruments.



New Training and Research Centre for Islamic Finance presents new opportunities for students.



New course in Clean Energy.

Firms are constantly seeking to employ business executives with a good understanding of global affairs and a sound knowledge of international business and trade practices. The International Business and Trade option was added to the Diploma in Business Administration in response to this growing demand.

Also launched was the Diploma in Resort Facilities Services and Management offered by the School of Mechanical and Manufacturing Engineering. The School added two

options to its Diploma in Mechanical Engineering: the Biomanufacturing option, and the Sports and Rehabilitation option.

Another new course to run in 2008 is the Diploma in Clean Energy at the School of Electrical and Electronic Engineering.

However, it was not just new courses that were added in the year. Singapore Polytechnic also started a new school: the School of Communication, Arts and Social Sciences which was set

up on 1 February 2008, offering courses in the arts and social sciences and communication modules. The School launched the first multi-disciplinary diploma that integrates the arts and social sciences in Singapore – the Diploma in Applied Drama and Psychology – the first-of-its kind in Asia. This diploma combines the theory and practice of Applied Drama and Psychology with a strong foundation in business principles and communication skills.

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The School of Media and Info-Communications Technology also added two options to existing courses. The Computer Generated Effects option in the Diploma in Digital Media course equips students with skills to meet the demand for creative talents in visual effects. Addressing different skill sets, the Hospitality and Tourism option in the Diploma in Information Technology course equips

students with a strong foundation in IT, with the necessary domain knowledge in the hospitality industry.

Three post-diploma programmes: Specialist Diploma in Cervical Cytology, Specialist Diploma in Haematology, and Specialist Diploma in Biotechnology were launched at the School of Chemical and Life Sciences. The School also won

approval to introduce two new degree programmes: BSc (Hons) Food Technology and BSc (Hons) Optometry. Programmes are scheduled to start in 2008-2009.

Singapore Polytechnic constantly looks to revamp courses to keep them relevant to industry. As such, changes were made to the Diploma in Civil and Structural Engineering course over at



School of Chemical and Life Sciences introduces more courses for students, including a Specialist Diploma in Biotechnology.

the School of the Built Environment. The course was restructured and renamed Diploma in Civil Engineering and Management.

## TECHNOLOGY TO BOOST LEARNING

The Department of Educational and Staff Development harnessed technology in a big way in the year in review. It spearheaded the implementation of the institutional e-learning strategy to embed e-learning into teaching and learning, in an initiative that leverages the Blackboard Learning Management System and the notebook PC.

Another e-learning initiative was the launch of the Department's first Specialist Diploma in e-Learning Design and Development in April 2007. This provides participants a foundation in educational theories and practices in instructional design, and the competency to select appropriate technologies for the development and deployment of e-learning solutions.

The Department also facilitated Singapore Polytechnic's fourth and fifth e-Learning Week in May 2007 and October/November 2007. It continued to support technology-enabled learning throughout the Polytechnic by providing technical expertise, quality facilities and rich



Students take technology onboard; adding a new dimension to their studies.

media services such as video, audio, graphics and animation in presentation and training materials, video packages and web-based modules. These included the development of on-line learning packages for the School of Mechanical and Manufacturing Engineering and the streaming of video-recorded lectures for the Department of Mathematics and Science. It also revamped the Ministry of Manpower's online Foreign Domestic Worker-Employee Orientation Programme (FDW-EOP) to provide a more engaging and interactive learning experience.

The Department of Computer and Information Systems embarked on several major initiatives to improve the capacity, reliability and availability of Singapore Polytechnic's IT infrastructure. These initiatives also enhanced the Polytechnic's quality and resiliency of information and communication systems and services. The enhancements included:

- Upgrading of the wireless network infrastructure
- Piloting of Enterprise Content Management System
- Rollout of Biography System
- Rollout of Staff Identity Management System
- Piloting of Student Portal

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- Enhancements of Student Administration System
- Implementation of Events@SP database
- Replacement and upgrade of end-of-life Netbackup media servers, Wintel servers and storage system
- Network and system security reviews

## TECHNOLOGY AND INNOVATION CENTRES (TICs)

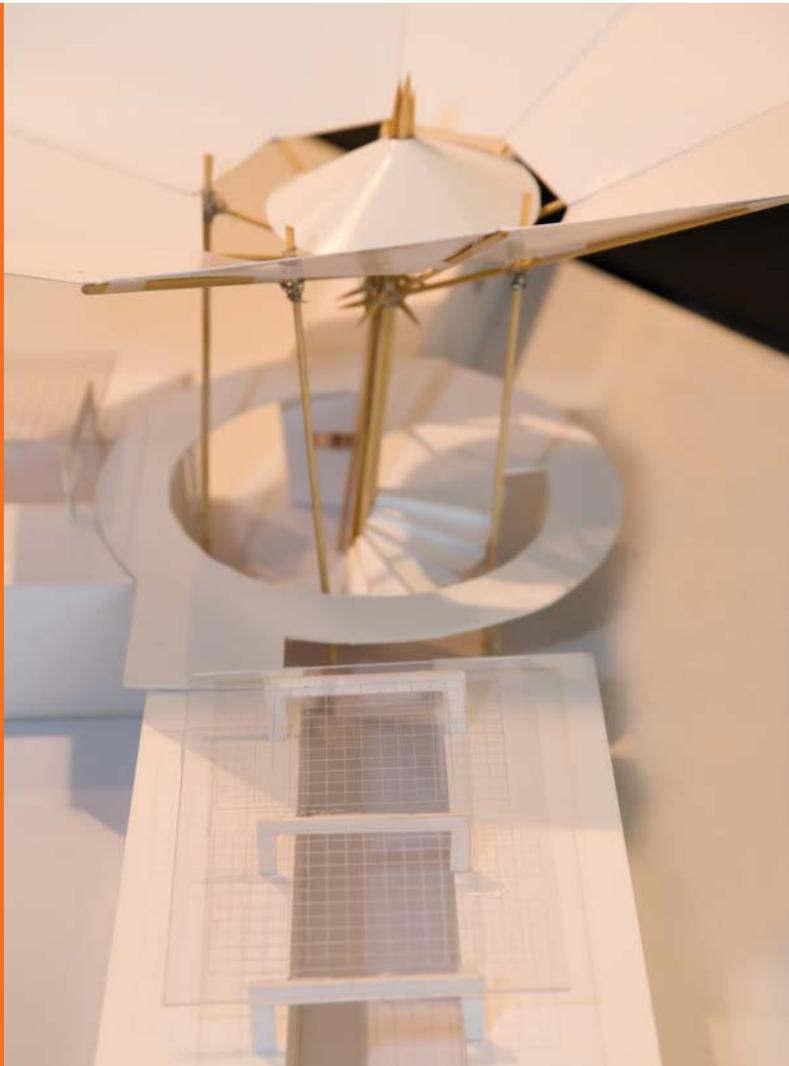
Singapore Polytechnic has opened Technology and Innovation Centres (TICs) to act as one-stop resource centres for the industry. The aim of establishing TICs is to identify applied research projects, to facilitate technology transfer and help industry

move up the value chain. They also help staff to develop capabilities in new technologies and academic schools to improve existing courses or to develop new ones. The centres also provide opportunities for final-year students to work with researchers and staff and promote multi-disciplinary and cross functional R&D projects. Existing TICs include Food Innovation & Resource Centre (FIRC), Centre for Applications in Environmental Technology (CAET), Centre for Biomedical & Life Sciences (CBLS), Centre for Experience Design (CXD), Interactive & Digital Media Centre (IDMC) and Centre for Advanced Robotics & Intelligent Control (ARICC).

## INNOVILLAGE@SP

A new initiative taken during the year was InnoVillage@SP which, when ready, will provide a multi-disciplinary environment for researchers, industrialists and academics to come together to create an academia-R&D-industry ecosystem for research, innovation and enterprise.

Driven by its four main thrusts of Applied and Translational R&D; Academic Entrepreneurship and Incubation of Technopreneur Ventures; Testbed and Showcasing of Emergent Technologies, Products and Services; and Capability Development of Academia and



Model of InnoVillage@SP.

Industry, InnoVillage@SP aims to be a community of practice where stakeholders can share and exchange ideas, information and experiences for mutual benefit.

This 2,000 sq m facility is poised to be one of the busiest nodes of activity on campus. The facility is planned along three main corridors: Academic Corridor, R&D Corridor and Industry Corridor, which will converge at the Central Exchange, where ideas can be formed, exchanged and tested during meetings, coffee breaks and recreational activities.

InnoVillage@SP will also be a centre for Clean Energy Research and Testbedding (CERT), a programme initiated by EDB, and of which Singapore Polytechnic is a leading partner. It will house the Singapore Solar Data Centre, where energy generated from solar installations at iconic buildings in Singapore will be displayed using digital interactive media in an interactive, immersive and experiential environment.

## FORGING INDUSTRY LINKS

The School of Media and Info-Communications Technology signed several important Memoranda of Co-operation (MOC) with key industry partners in the year. On 12 December 2007, it signed an MOC with Infinite Frameworks Pte Ltd. As a result, students will be able to work on actual



Four outstanding Singapore Polytechnic students receiving the prestigious Keele University Scholarship.

projects in full-fledged post production facilities in 3D animation, games development and visual effects and many other aspects of the film industry.

Another agreement was signed with the Hospitality, Financial and Technology Professionals Asia Chapter to jointly launch a Certificate of Performance in Hospitality Information Technology programme for IT and hospitality professionals on 18 January 2008. The School also affirmed its partnership with Symantec by renewing the SMIT-Symantec Collaboration. The MOC was signed on 21 November 2007.

The inaugural batch of Diploma in Music and Audio Technology (DMAT) students will graduate from the School of Media and Info-Communications Technology in May 2008. Among

them, four outstanding candidates were awarded the prestigious Keele University Scholarship to pursue degree programmes in the United Kingdom, even while they are in their final year of study. The MOC allows DMAT graduates to be admitted directly into the second year of study in Keele's three-year BSc (Hons) Music and Music Technology programme.

An additional MOC was signed by the School with the Business Administration Department of Chung Ang University, Korea on 24 August 2007 to create more opportunities for advanced standing.

The School teamed up with the School of Electrical and Electronic Engineering, the Department of Mathematics and Science and the Infocomm Development Authority (IDA), with

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support from various parties, to organise the 23rd National Software Competition (NSC) and National Infocomm Scholarship (NIS) Awards 2007. The competition is an annual premier IT contest organised for students from secondary schools, junior colleges, as well as centralised institutes in Singapore. The NSC Prize Presentation cum NIS Awards 2007 was held on 15 September 2007. Thirty-nine NIS Awards were given out.

In addition, staff of the School of Communication, Arts and Social Sciences met with various organisations to discuss possible collaboration. These included The Singapore Repertory Theatre, The Necessary Stage, Council for Third Age, Social Service Training Institute, Applied Theatre Consultants Ltd (New Zealand), Health Promotion Board, Singapore Drama Educators' Association and Don Bosco Hotel and Technical School (Cambodia).

Over at the School of Design, students became involved in many collaborative projects with the industry. Examples include first-year students of the Diploma in Creative Media Design completing a collaborative project with IKEA, illustrating chairs to be exhibited at the store's Alexandra branch. Second-year Diploma in Interior Design students joined the HQ Supply and Logistic Unit of the Singapore Armed Forces (SAF) for experience design of the SAF Cookhouse. In a joint project with NTUC Club, third-year Interior Design students designed the nEbO Experience.

The Design School signed an agreement with 10TACLE Studios Asia Pte Ltd to conduct game play testing sessions in Singapore Polytechnic. The agreement also involved collaboration in research and development, seminars and industrial attachments for the Diploma in Games Design and Development students.

Retail Management students from the School of Business had the opportunity to work with successful retailers from Bugis Street and used the experience to promote retailing as a career choice at the Retail Carnival 2007. The School also developed new marketing campaigns for SHARE, a monthly donation



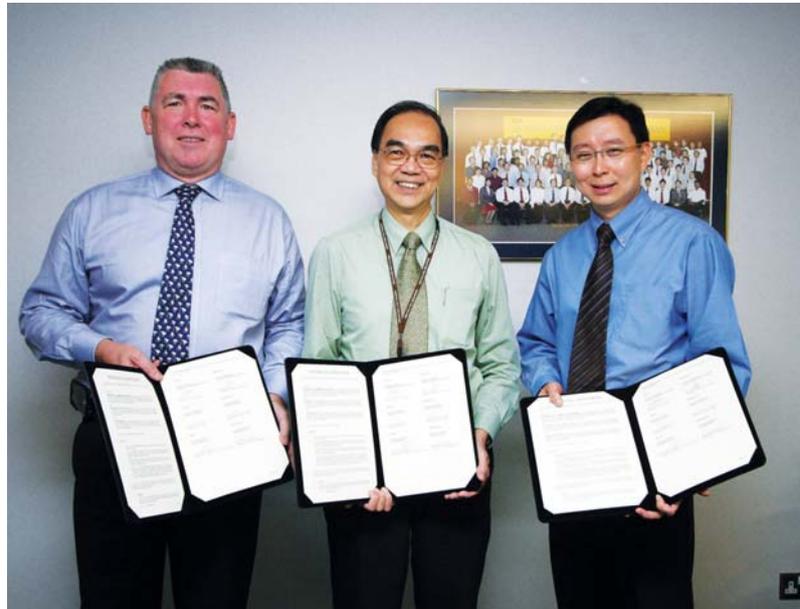
Retail Management students working with successful retailers at the Retail Carnival 2007.

programme of the Community Chest, as part of its Marketing Plan Competition.

Reaching out to industry partners, Dr Yang Zhi Zong from the School of Electrical and Electronic Engineering organised the Instrumentation and Control Conversion course with the Workforce Development Agency (WDA). The course was 50% subsidised by WDA and endorsed by the Instrumentation and Control Society (ICS). Siemens, Invensys, Yokogawa and Emerson were just some of the companies that participated.

A\*STAR's Institute for Infocomm Research gave two talks at the School of Electrical and Electronic Engineering's Technology Day in February 2008. This gave academic staff invaluable exposure to the industry and the most up-to-date technological developments. Also gaining industry insight were two Information Communication Technology students from the School of Electrical and Electronic Engineering who were given the proud honour by Cisco Systems to be student ambassadors in the IPTV World Forum Asia.

In further collaborations with industry, the Singapore Maritime Academy (SMA) entered into tripartite collaborations with Singapore Telecommunications Ltd (SingTel) and



Singapore Maritime Academy collaborates with Singapore Telecommunications Ltd (SingTel) and Globe Wireless LLC to set up the Maritime Satellite Communication Centre.

Globe Wireless LLC to set up a \$0.5m Maritime Satellite Communication Centre at SMA called "SatCom@SMA". The facility simulates satellite communication between on-board vessels and a shipping company's offices and offers a suite of maritime communication applications for learning.

The Department of Industry Services facilitated the Industrial Training Programme for students to gain practical experience with companies. This year, students from the Diplomas in Bioengineering, Digital Media, Games Design and Development and Infocomm Security Management joined in the programme for the first time. All diploma students liable for

attachment were successfully assigned to companies. Of these, 428 students were sent for overseas attachment in 13 countries to increase their global exposure.

## CONTINUING EDUCATION PROGRAMMES

For the financial year 2007/2008, a total of 46,649 participants attended 1,077 continuing education programmes offered by the Continuing Education Centre (CEC). The programmes included 470 short courses, 286 tailor-made courses, one seminar/workshop, 47 e-learning courses and 273 examinations.

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The Centre continued to draw upon support from all the academic schools and departments in the Polytechnic. Collaboration with external experts and training providers were also employed to offer a wider range of training courses to companies and individuals. The Centre took part in the Singapore Workforce Development Agency (WDA)'s Singapore Workforce Skills Qualification (WSQ) framework and was actively involved in the Retail, Workplace Safety and Health, and Manufacturing sectors.

## CELEBRATING SUCCESSES

Competition drives students at Singapore Polytechnic, and they did not disappoint in the year in review, stamping Singapore's mark of excellence on the local and global stage. School of Business students represented Singapore in the Asian Management Games in Kolkata, India in September 2007. In a competition that was primarily meant for management professionals, the team claimed an impressive sixth place before moving on to the Global Management Challenge in Bucharest, Romania in mid-April 2008.

School of Media and Info-Communications Technology (SMIT) students took part in and excelled at several international competitions

	Number of Courses	Number of Participants
Short Courses	470	8,001
Tailor-made Courses	286	7,143
Seminars/Workshops	1	103
E-Learning Courses	47	24,252
Exams	273	7,150
<b>Total</b>	<b>1,077</b>	<b>46,649</b>

during the year. One competition that attracted teams from countries such as Korea, Malaysia, Switzerland, UAE, USA and Vietnam was the Hack-in-the-Box Competition, held in Malaysia in September 2007. Teams had to defend their servers while attacking competing teams' servers. The team from the School, the only student team competing, was awarded a special mention for having the Best Defence Strategy. Two of the School's groups also squared up against the US Army in the Syscan Defend-the-Flag competition in July 2007. Impressively, one of the teams shared top place with the army and the other gained a respectable third spot.

The School also won the first prize in the Tertiary Student Category during the Singapore League of the Asia Pacific ICT Alliance (APICTA) Awards, beating the competition from other local institutes. Establishing Singapore Polytechnic's technical design prowess, Digital Media student Lim Wei Yi had the honour of designing

and building the website for the 4th ASEAN PARA Games while SMIT team JonShonRonVon won the Microsoft Imagine Cup 2007. They then won the chance to represent Singapore at the Imagine Cup Worldwide Finals held in Korea in August 2007. Students from the School participated in numerous local competitions and workshops to hone their skills further.

In another fierce battle of talents, 500 students applied for the Lucas Film Jedi Master Apprenticeship Programme. Singapore Polytechnic graduates Janson Chew Yan Sheng and Mathew Mok Wei Cong were among the 13 who were shortlisted.

At the School of Chemical and Life Sciences, eight students took part in the 7th Scholastic Environment Fund Oratory Competition 2007 held on 2 June 2007. The two teams won gold awards in the Gold Standard Category and were ranked in the Top 3 Scores.



SMIT team JonShonRonVon with the Microsoft Imagine Cup 2007.

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Among the many students honoured with awards in the year, repeat winner, architecture student Cliff Tan Anlong from the School of the Built Environment, stood out from the crowd. He picked up the Lee Kuan Yew Award, the Excellence Award for Model Student and took first place in the Hunter Douglas contest. The School of the Built Environment also clinched the second and third prizes in the Introducing and Demonstrating Earthquake Engineering Research in Schools (IDEERS) 2007 competition. The two teams competed against 93 teams from eight countries across the Asia Pacific Region in the Undergraduate Category of the contest held in Taiwan.

Over at the School of Mechanical and Manufacturing Engineering, two students were awarded prizes in the prestigious PTC Worldwide Design Challenge 2007. Muhammad Syah Rudin Bin Hussain claimed the Grand Prize in Asia Pacific for his Kerb Climbing Wheelchair design while student Bryan Lim Wee Tian won the creative achievement award for his The New V-Cutter design.

In another knockout performance, eight groups of School of Mechanical and Manufacturing Engineering students bagged all the top three awards and the Judges' Special-Mention Awards, as well as two Merit Awards out of a total of 12 Awards

in the Cabaret Mechanical Theatre Competition 2007 (Polytechnic Category) organised by the Singapore Science Centre.

Students at the School of Electrical and Electronic Engineering did the School proud in international competitions, too. A team of 16 staff members and students participated in the RoboCup 2007 competition held in Atlanta, USA in July 2007. The team came in fourth in the Humanoid Teen Size League (Robo-Erectus Senior) and was in the top eight in the Humanoid Kid Size League. The School also won two golds, three silvers and three bronzes in the Singapore Robotic Games, held from 8 to 10 January 2008.



Mechanical and Manufacturing Engineering students top the Cabaret Mechanical Theatre Competition 2007.

The School of Design was another active competitor in numerous competitions in the year. These included the World Cyber Games Singapore 2007 in August, ZoCard Design Competition for Declaration of Religious Harmony 2007, where two students took first and second prize, and the Crowbar Awards 2007, which garnered nine wins for the School.

Timothy Goh Su Hwee put Singapore Polytechnic firmly on the map by winning the gold medal in the IT-PC & Network Support Trade and also



Timothy Goh (centre) wins a gold medal and The Best of Nation Award at the WorldSkills Competition 2007.

received the Best of Nation Award at the WorldSkills Competition 2007, held in November in Japan. The Best of Nation Award is given to the best scorer of the participating country. Fellow team member, Muhammad Sufyan Bin Zainalabidin won the gold medal in Mechanical Engineering Drawing and Design CADD, the best performance ever by Singapore in this trade.

The fourth Singapore Polytechnic Microsoft Office Specialist Challenge was organised by the Department of Mathematics and Science during the year. Outstanding students were shortlisted to represent Singapore Polytechnic in the national finals.

In addition to celebrating well-deserved awards, Singapore Polytechnic celebrates milestones of

successes. In the year, Singapore Maritime Academy celebrated its 50th Anniversary as a leading institution in maritime education and training by organising a series of events which culminated with the 50th Anniversary Gala Dinner in October 2007.