

**Inspiring Greatness**

with A  
**Dynamic**  
**Organisation**



Making it great: Singapore Polytechnic Excellence Award winners.

# ACADEMIC EXCELLENCE

Reflecting a dynamic organisation, the year saw the various academic schools going through many changes and improvements. These included changes in curriculum, upgrading of facilities, and breakthroughs in R&D. In addition, the schools continued to work closely with the community to foster a spirit of learning.

## SCHOOL OF BUSINESS

### MEETING INDUSTRY NEEDS

Committed to providing an innovative and industry-relevant curriculum, the School of Business launched the Diploma in Tourism & Resort Management in 2006.

### REACHING OUT

The inaugural SB StoryFest 2006 was a fun-filled event with about 200 students from 15 secondary schools on campus to appreciate first-hand the creative works of young talent. These included Story Acts, Photo Stories, Print Advertisements and Television Commercials. The event on 21 January 2006 was organised by the Diploma in Media and Communication Outreach Team to promote creativity amongst secondary school students.

About 200 students from 63 secondary schools explored the world of media and communication through "Communication 101" on 14 February 2006. Besides playing hosts, second-year Diploma in Media & Communication students also conceptualised, planned and managed the event.

Also, the School of Business Open House held in early 2006 saw an overwhelming response.

To promote positive mindsets amongst youths towards the elderly, the Media & Communication Section was commissioned by the National Youth Achievement Award (NYAA) Council to produce a video. This video was shown at the launch of the Yuhua/National Youth Achievement Award Inter-Generational Project 2005.

For 20 students and lecturers from Singapore Polytechnic's School of Business, entrepreneurship was combined with charity when they set up stalls to sell food and other items at a bazaar to raise money for the Yellow Ribbon Fund - the only polytechnic to do so.

### REAL-WORLD EXPERIENCE

Learning was taken beyond the classroom in October 2005 when students went on study trips to learn about the business activities and cultures of India, Thailand and China.

In addition, the School organised an inaugural five-day study trip to Dubai. The trip provided students with a glimpse of the vast developments in areas such as tourism and resort management, retailing and logistics.



School of Business students visited Beijing, China as part of an Industrial Training Programme.

Locally, a survey on youths and their portable gadgets was carried out by Diploma in Media & Communication students in collaboration with advertising agency Foote Cone and Belding. The results were released at a media conference on 3 February 2006, attracting extensive media interest.

## SPlace

Learning was made real for retail management students from the Diploma in Business Administration course when they were tasked to handle merchandising, inventory management, personal selling, financial management, store display and customer service at a newly set up retail outlet in Bugis Street - SPlace.

## SCHOOL OF CHEMICAL & LIFE SCIENCES

### STAYING RELEVANT

On the academic front, courses offered by the School of Chemical & Life Sciences continued to enjoy first choice ranking in the 2006 Joint Admissions Exercise.

Keeping pace with industry's demands, a new module, Nanomaterials, was introduced in the Polymer Technology option of the Diploma in Chemical Process Technology course in Academic Year 2006.

In addition, the Diploma in Chemical Process Technology (Food Option) programme received accolades from a study mission organised by DTI Global Watch Missions. In their report on Functional Foods, the team from UK commented that they "had seen education at its best" and that the programme was "an excellent model for education and product delivery" and was "run like a commercial business for the mutual benefit of the school and industry".

### LEARNING IN WORLD-CLASS FACILITIES

The office and key biomedical science and biotechnology laboratories of the School moved into new and enhanced facilities with the completion of Teaching Block 11A.

### PRODUCING MODEL STUDENTS

Students demonstrated their resourcefulness and caring spirit with the organisation of the Chemical & Life Sciences Parents Day cum Food & Fun Fair 2005. The event gave staff and parents an opportunity to interact while providing a platform to raise funds for needy students. In all, \$14,494 was raised for the School of Chemical & Life Sciences Student Needy Fund.

### A YEAR OF INNOVATIONS

Innovations by the School during the year in review fascinated both the public and the industry. These included the two-ply noodle which won the Innovation Award 2005 from the Singapore Institute of Food Science and Technology, inulin-infused chocolates, healthy XO kaya and frozen ready-to-eat meals with special packaging. In addition, the Black Tulips grown in-house continued to attract strong public interest.



**Healthy XO Kaya – a low-cholesterol, low-sugar and low-fat kaya – was awarded the Healthier Choice label by the Health Promotion Board.**

## 15 Years of Optometry Education

In 2005, the School of Chemical & Life Sciences celebrated 15 years of Optometry Education in Singapore. The following events were held in conjunction with it:

- Healthy Body Healthy Eyes Community Active Day
- Eyeball Extravaganza Gala Dinner (right)
- 4th National Update for Optometrists and Opticians Conference



## SCHOOL OF DESIGN & THE ENVIRONMENT

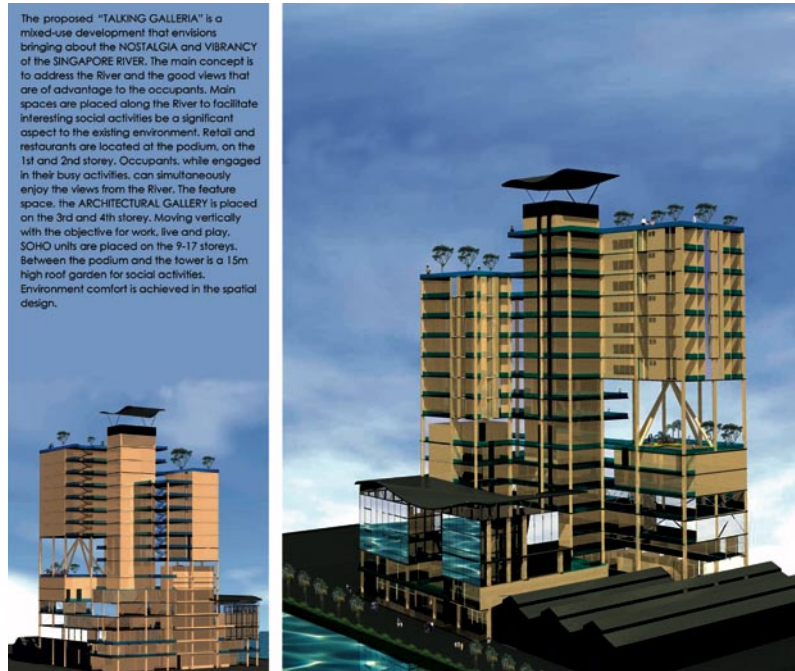
### GAINING GLOBAL EXPOSURE

To nurture a spirit of globalisation among students, Overseas Industrial Training Programmes and study trips to countries such as China, Germany and Australia were organised. Students gained from lectures, tutorials and industry exposure, as well as benefited from cultural excursions. In addition, a group of students made a trip to Japan in July to visit the Aichi Expo 2005.

### LINKING UP WITH LOCAL INSTITUTIONS

The School of Design & the Environment organised a one-week attachment for staff from Woodlands Secondary School and Fuchun Secondary School to learn more about indoor air quality. Also, a Memorandum of Understanding was signed with the Institute of Technical Education (ITE) Bedok and Tampines to provide for bridging and staff exchange programmes.

The proposed "TALKING GALLERY" is a mixed-use development that envisions bringing about the NOSTALGIA and VIBRANCY of the SINGAPORE RIVER. The main concept is to address the River and the good views that are of advantage to the occupants. Main spaces are placed along the River to facilitate interesting social activities be a significant aspect to the existing environment. Retail and restaurants are located at the podium, on the 1st and 2nd storey. Occupants, while engaged in their busy activities, can simultaneously enjoy the views from the River. The feature space, the ARCHITECTURAL GALLERY is placed on the 3rd and 4th storey. Moving vertically with the objective for work, live and play, SOHO units are placed on the 9-17 storeys. Between the podium and the tower is a 1.5m high roof garden for social activities. Environment comfort is achieved in the spatial design.



Final-year Diploma in Architecture student Ng Cheng Ngai won the international Bentley Empowered Award of Excellence 2005. Featured above was his winning entry.



Students from the School of Design & the Environment won the second prize in the Sembawang Shipyards Greenwave Environmental Competition 2005 for the project Development of a Reliable Continuous Water Monitoring System for Inland Waters.

### R&D ADVANCES

On the R&D front, the Staff Toteboard project Water Saving Closet and Regulated Flow Rate for Water Services System in Domestic Buildings was underway, while another Staff Toteboard project Mobile Industrial Network Integrating 3G over iEthernet for Mobile Experiments was completed. Other R&D projects included the AZ Navigational System, which commenced in March 2006.

## SCHOOL OF ELECTRICAL & ELECTRONIC ENGINEERING

### FOSTERING STRONG TIES WITH SCHOOLS

Building closer ties with secondary schools and the Institute of Technical Education was a high priority for the School of Electrical & Electronic Engineering. To promote engineering among secondary schools, several Memoranda of Cooperation were signed with the following secondary schools/institutions:

- Henderson Secondary School
- Chai Chee Secondary School
- Queensway Secondary School
- Fairfield Methodist Secondary School
- New Town Secondary School
- School of Engineering, ITE College East

As part of the School Teachers Enrichment Programme (STEP), Mr Wu Puwen from St Stephen's School was attached to the Broadband Communication Lab and VoIP Centre, while Ms Durrah Bte Ahmad from Cedar Primary School was attached to the Young Engineers Club.

### EXCELLING IN COMPETITIONS

Students swept many awards at both local and international competitions, showcasing the School's ability to produce outstanding students.

Robotics was a highlight for the School as students clinched three silver awards in the 2006 Singapore Robotic Games and a special prize for creative and innovative design. A silver medal was also won at the Federation of International Robosoccer Association (FIRA)'s Robotic Games 2005 in the MiroSot Large League category.



The 2005 National Junior Solar Sprint Competition saw Bukit Panjang Government High winning the top prize in the Fastest Car category and Paya Lebar Methodist Girls winning top prize in the Best Design Car category.

At international competitions, the School won first prize in the Shoot Challenge and bagged third prize in the Small Size Robot League at RoboCup 2005 held in Osaka, Japan.

Another success for the School was having its Toteboard project Visual-based Traffic Violation Monitoring and Control System selected as the top project for Singapore Polytechnic in the Polytechnics-Land Transport Authority Projects Competition. The group received an award of \$500.

## Spirit of Globalisation

A seminar on overseas work and study was held for current students, graduating students and recent alumni. The seminar sought to establish a spirit of globalisation among students.

## SCHOOL OF MEDIA & INFO-COMMUNICATIONS TECHNOLOGY

### CREATING AN INDUSTRY RELEVANT CURRICULUM

In response to the increasing use of the Internet for communication as well as the booming games industry, the School of Media & Info-Communications Technology launched two new diploma courses: Diploma in Infocomm Security Management and Diploma in Games Design & Development.

The Diploma in Multimedia Technology course was enhanced and given a new name, Diploma in Digital Media, to better reflect its coverage of both the technology and artistic aspects of digital media. The course supported the Media Development Authority's aim to develop Singapore into a global media city.

### STUDENT SHOWCASE



Students' works were presented and workshops conducted at events such as Science Month (an event jointly organised by A\*Star and the Singapore Science Centre), Animaxtion Festival 2006 (above) and Spinovex 2006.



On 13 September 2005, staff from the School of Media & Info-Communications Technology enjoyed a time of team building at their annual ICT Day.

Three animation pieces by Diploma in Multimedia Technology (DMMT) students were selected for screening on MediaCorp's Arts Central programme LiveWire in August 2005. Works by DMMT students were also featured in various competitions and programmes such as NTU's ImageReel '05, Arts Central's Project Pilot and TvMobile's Local Talent Showcase.

During the year, Diploma in Creative Media Design students held a photography exhibition at the Singapore Polytechnic Main Library. The exhibits portrayed people in their unique cultural environment with emphasis on how they viewed themselves and others.

The School was actively involved in various exhibitions throughout the year. One was put up at the World Cyber Games 2005 to promote its courses and showcase students' outstanding project work in animation, computer games and mobile games.

## Enhancement of Facilities

To enhance learning, several new facilities were introduced. These included the setting up of new recording studios and an integrated resource centre for the loan of audio and visual equipment and mobile computing equipment. Servers were also consolidated into one central room to facilitate smoother operations.

## SCHOOL OF MECHANICAL & MANUFACTURING ENGINEERING

### PLACING LEARNING AT THE FOREFRONT

New modules such as Product Design and Development were incorporated into existing diploma programmes to ensure the curriculum remained relevant. The General Elective Module (GEM), Introduction to Tissue Engineering, was also launched by the School of Mechanical & Manufacturing Engineering during the year in review.

To prepare students for the real world, visits were organised to aircraft industries and aircraft training schools. The Aircraft Maintenance Practices Workshop was upgraded to ensure learning resources stayed up-to-date.

In the spirit of learning, staff from the School of Mechanical & Manufacturing Engineering attended courses in Training Instructors Using Inventor, Creativity, Innovation & Enterprise and Nanotechnology.

### WINNING STUDENTS

A final-year student project designed to reduce noise levels generated by metal cutting machines clinched an Innovation Award at the Occupational Health Best Practices Awards 2005 organised by the Ministry of Manpower.

Students also brought honour to the School by sweeping the top three prizes in the Education Category of the Autodesk Asia Pacific Design Competition 2005.

### STRENGTHENING TIES WITH SECONDARY SCHOOLS

Staff members See Toh Chee Wai and Ms Ng Siew Lan assisted in the development of three Advanced Elective Modules (Visual Thinking, Design Communication and Creative Modelling) for Teck Whye Secondary School.

Er Seow Hong and Selva Raj acted as consultants for a feasibility study of Yuan Ching Secondary School's award winning project on the Reversible Osmosis Plant Using Hydrostatic Sea-water Pressure.



**A new secondary school category was added to the Pro/E & Toy Design Competition 2006. The category was officially launched on 18 January 2006 in the presence of 169 students from 31 schools.**

## Innovative Learning

eLearning was a hot topic for the year. Developments included the launching of a new initiative aimed at getting students to engage in learning through the Blackboard Learning Management System.

Talks were also held with various software developers to discuss the possibility of enhancing eLearning and including eTutoring as an option in the School of Mechanical & Manufacturing Engineering.



## SINGAPORE MARITIME ACADEMY

### INNOVATIVE LEARNING

To promote experiential learning, students from the Singapore Maritime Academy went on board the SuperStar Virgo. They learned the etiquette of fine dining, safety procedures and were brought on a tour of the engine room and bridge.

Workshops were another avenue for students to gain in-depth knowledge in maritime matters. The Academy hosted the SMF-MPA (Singapore Maritime Foundation – Maritime and Port Authority of Singapore) workshop on Regulatory Developments at the International Maritime Organisation. About 200 staff and final-year students attended the workshop held on 6 May 2005.

Knowledge enhancement was done via staff attachments with various maritime companies. These included going on board a motor tanker belonging to IMC Shipping Pte Ltd and pilotage training with PSA.

### RESPONDING TO INDUSTRY TRENDS

To meet demand in the maritime industry for steam engine qualifications, controls and ancillary equipment in the boiler house were upgraded to those of a shipboard steam system.

Other upgrades included the installation of a control room platform and the setting up of a Liquefied Natural Gas (LNG) steam simulation system.

### PROMOTING THE MARITIME INDUSTRY

As part of an European Union-ASEAN project group set up by the Seafarers' International Research Centre at Cardiff University, staff of the Academy provided support in human resource and curricula development in maritime education and training. Participants of the project included colleges in Singapore, Spain and the Philippines.

Other efforts to promote the maritime industry included a collaboration with Tanjong Katong Secondary School on a project titled: The Maritime Industry – A Bird's Eye View from Students and Teachers. Different aspects of the maritime industry such as job scope, prospects and work environment were discussed. As part of the project, some of the students involved sailed onboard a container ship to Hong Kong.



Over 300 alumni and industry guests attended the biennial SMA-SPAN (SP Alumni Network) Nite held on 8 July 2005 at the Amara Hotel. Ticket sales proceeds of close to \$17,000 was donated to the Singapore Maritime Academy Student Needy Fund.

## Another Lloyd's List Award

The Singapore Maritime Academy received a Youth Development award at the 7th Lloyd's List Maritime Asia Awards ceremony held on 29 September 2005. This was the Academy's fourth award from Lloyd's, having previously won awards in the Best Seafarer Training Institute and Youth Development categories.