

The PolyU recently hosted a major regional conference which aims to strengthen the partnership between industry and academia. In fact, many now see such partnership as a means to revive sagging economies in the long run. As the cover story will tell, among them are, notably, Prof. Poon Chung-kwong, the PolyU President (left in cover photo), and Mr. Joseph Rowley, President of the World Association for Co-operative Education.

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A "switch-on" ceremony marks the opening of the Asia Pacific Conference on Co-operation Education. From left: Mr. Tzang, Mr. Rowley, Mr. Wong, Mr. Zhu, Prof. Liu Huanbin (President of the South China University of Technology), Prof. Fan Bouyuan (Vice-President of the China Association for Co-operative Education, and Prof. Poon.

Reviving the economy through co-op education

By Linda Yeung

One way companies struggling through the Asian financial crisis could adopt to ride out the storm is by improving their workforce. But how? One useful means is to work together with education institutions which groom the staff they need. And this is an area where the concept of co-operative education comes into play.

It is not an entirely new concept; back in 1991, The Hong Kong Polytechnic University hosted a world conference on behalf of the World Association for Co-operative Education (WACE), an international body which has since 1983 championed for practice-oriented education on a global level. Its mandate is to promote and advocate partnerships between business, industrial sectors and academic institutions to enable students to integrate academic knowledge and practical work experience related to their field of study.

The same idea of integrating work and knowledge was emphasized again at this year's Asia Pacific Conference on Co-operative Education, held at the PolyU in late August. The event was

participated by more than 200 delegates from 20 countries and territories, among whom were academics, educationalists, government officials and business and industrial representatives.

In the run-up to the millennium, educational alliances between governments, businesses, professional organizations and educational institutions could help companies buck negative economic trends.

Forming such alliances has also long been the goal of WACE, now with 750 members around the world and which also provides grassroots assistance to developing and industrialized countries that hope to launch co-operative education linkages.

And the PolyU shares its beliefs. Over the years it has maintained strong ties with the community with its expanding range of consultancy, professional training and applied research services.

In some of the PolyU's programmes,



At the WACE Council meeting, Representatives discuss the development of WACE in different countries.



The President Prof. Poon (right) presents to Mr. Rowley a souvenir during the opening ceremony of the co-op education conference.

such as hotel management and engineering, a sandwich mode is adopted, under which students are required to undergo practical training between classroom lectures as part of their study.

Also notable is the PolyU's continual partnership with the business and industrial sectors in providing student placement programmes. Through its unique 'Preferred Graduate' Development Programme, the University provides internships for its students to put their theoretical knowledge into daily operation in the workplace during the summer holidays.

PolyU Vice President Mr. Alexander Tzang summed up the importance of outside classroom experience: "Training should not remain static. It should respond to a changing environment. If students can be equipped with the skills demanded to understand the real working environment, their productivity at work will be enhanced."

The University has, of course, manifested its belief in the importance of work-based learning through hosting the latest



Mr. Tzang extends a warm welcome to the conference delegates.

conference on co-op education.

Speaking at the opening ceremony of the Conference, PolyU President Prof. Poon Chung-kwong reiterated the importance of co-operation between various sectors in the society.

He said: "The Polytechnic University is particularly suited to organize this esteemed event as, since the institution's inception [in 1972], it has been a strong advocate of the belief that the education sector, the private sector and the Government must maintain close links and work closely for the continuously development of the community.

"We are also committed to combine work and study on education while promoting the co-operative education movement worldwide."

The officiating guest at the ceremony, Mr. Joseph W.P. Wong, Hong Kong's Secretary for Education and Manpower, urged that industry could render more financial support for the education and research efforts of local institutions. "Institutions in Hong Kong now receive

only about one per cent of the research funding from private sources, compared with seven per cent in the US and the UK," he said.

Former WACE president Prof. Murray Gillin, whose two-year term just expired before the Conference commenced, commented that the PolyU is a leader in co-op education in the Region, saying: "I am not aware of any other university that has as long, strong, committed past as the PolyU."

He expressed confidence that the trend of co-op education will continue to prosper: "Knowledge comes not by knowing, but by doing.

"From an economic perspective, companies have to make avenue out of the investment they make in education." At the Swinburne University of Technology



Prof. Gillin

What is 'Co-operative Education'?

Co-operative Education combines learning in the classroom with learning on the job. Students put their academic knowledge into action through relevant (and, usually, paid) work experiences with real-world employers, then bring their on-job challenges and insights back to class for further analysis and reflection.

Co-op is:

- a highly effective educational strategy.
- a mutually beneficial partnership between education and industry.
- an economical means of developing a nation's human resources.
- a sound strategy for helping students, businesses, and governments succeed in a global economy.
- a strong foundation for a student's lifelong learning.
- a highly adaptable model of education.

— World Association for Co-operative Education

in Melbourne, where he has been a pro-chancellor prior to his recent retirement, graduates of its co-op education programmes have had the lowest unemployment rate.”

His successor at WACE, Irish industrialist Mr. Joseph Rowley, is equally convinced of the value of similar programmes. Like Prof. Gillin, he is serving the group on a part-time, voluntary basis. But despite his own business involvement, he said he is prepared to travel extensively in the next two years to promote the cause of WACE in the developing world.

“Institutions in Hong Kong now receive only about one per cent of the research funding from private sources, compared with seven per cent in the US and the UK...”

“I’ll be coming to Asia, where there are already different models in operation,” he said while here during the Conference. “Co-op education is a way of making economic recovery happen quickly, because the more educated the workforce, the more successful it can be.”

As Chairman of the Dublin-based AGB Scientific Ltd., Ireland’s largest supplier of scientific instrumentation and services, he is one shining example of a visionary entrepreneur. His company has maintained a long-standing and productive partnership with Dublin City University and other educational institutions that utilize co-op education programmes. He believes firmly in the mutual benefits that such programmes



Mr. Franks

can bring to both employers and students.

“We’ve hired many co-op students,” he said. “It’s a top way to recruit people. It’s good for the students as well because they can familiarize themselves with the workplace, and bring that experience into their college and studies. They are enriched.”

Naturally, having prior work experience provide students with better ideas on what career path to take later on.

The August conference offered an opportunity for people like Mr. Rowley to exchange views and examine issues with others sharing similar interest and concern in the Region. Not least of all, it also allowed for an exchange of knowledge about the development of co-op education in some Asian nations such as Japan, Indonesia and Malaysia where the concept has not yet taken root.

Chief Executive Officer of the Boston-based WACE, Mr. Peter Franks, agreed on the need to raise the awareness of the industry side as well. Hence he expected the next conference, scheduled for next July in Washington D.C, to be possibly the biggest meeting ever, to include even more industry representatives. A key message that WACE has persistently tried to impress upon company owners is that hiring co-op students is much more than a cost-cutting exercise.

“Companies can gain immediate help and make better judgment on what students to hire when they graduate. If the students are staying with the company, they get people already trained, who have a better sense of how to operate in a work environment, how to make things happen and get things done,” said Mr. Franks.

At present, a variety of co-op education models are flourishing in different parts of the world. Students in Commonwealth countries, for example, are often placed for a full year in a job, in a field specific to their studies.

In the US, an estimated 50,000 employers — public, private and non-profit

— are hiring co-op education students, utilizing a variety of models, some of which call for a three-month or six-month work term.

“Co-op education is a way of making economic recovery happen quickly, because the more educated the workforce, the more successful it can be.”

In China, against a background of rapid economic reforms, the past decade has seen rapid development in work-study programmes. After more than ten years of explorations and experiments, more than a hundred academic institutions and several hundred enterprises are now involved in implementing those programmes, undertaken by not just undergraduates and



Dr. Zhang at the WACE Council meeting.

graduate students but also junior college students.

Indeed, China’s heavy emphasis on the development of science and technology creates a favourable environment for collaboration between universities and industries. As revealed by Director General of the Shanghai Municipal Government’s Education Commission, Dr. Zhang Weijiang, co-op education has become much wider in scope than before; rather than being strictly learning-oriented, new models have emerged which are geared towards promoting scientific researches and product-development, and which could also help facilitate reforms in the business and industrial sectors.

Asian Pacific Co-operative Education Conference held

The Asia Pacific Conference on Co-operative Education, hosted by the PolyU, opened on August 24. The forum attracted to the campus more than 200 educationists and scholars, government officials and members of the business and industrial sectors from 20 countries and territories.

The theme of the five-day Conference was "The Industry and Academic Symbiosis — A Global Partnership", a very relevant topic to the current global as well as local economic and political climate.

Officiating at the opening ceremony of the Conference, held in the Grand Ballroom of the Harbour Plaza Hotel, was Mr. Joseph Wong Wing-ping, Secretary for Education and Manpower. Other Guests-of-Honour at the gala ceremony were Mr. Joseph Rowley, President, World Association for Co-operative Education; Mr. Zhu Chuanli, Deputy Director of the Higher Education Department, China's Ministry of Education; Prof. Liu Huanbin, President, South China University of Technology; and Mr. Fan Boyuan, Vice-President, China Association for Co-operative Education.

The event, co-organized by the China Association for Co-operative Education, comprises a three-day programme in Hong Kong, followed by a two-day excursion to Guangzhou organized by the South China University of Technology.

Under the auspices of the World Association for Co-operative Education (WACE), the regional conference is held biennially for educationists and employers to discuss the integration of academic knowledge and practical work experience.

To address the development of co-operative education, six eminent

speakers were invited to deliver keynote presentations during the Conference:

- Dr. David B. Lowry, Vice-President, Office of Social and Development Programs, Freeport McMoRan Copper and Gold Company, U.S.;
- Dr. Zhang Weijiang, Director General, Education Commission of Shanghai Municipal People's Government, China;
- Dr. Ng Tat-lun, Deputy Chairman, Vocational Training Council and Managing Director, Operations, Global Lighting Products, Eveready Battery Company, Inc., Hong Kong SAR;
- Prof. Brian Low, Deputy Vice-Chancellor and Vice-President (Academic), University of Technology, Australia;
- Prof. Abadallah A. Sfeir, Dean, School of Engineering and Architecture, Lebanese American University, and General Secretary (1992-97), International Association for the Exchange of Students for Technical Experience (IAESTE), Lebanon;
- Dr. Maurits van Rooijen, Director, International Education University of Westminster, UK. (See related story on the keynote presentations from page 21 to 23.)

Lion dance at the welcome banquet: Mr. Wong officiating at the eye-dotting ceremony.



He acknowledged: "For universities and colleges, their graduates are significantly improved in their practical ability as well as their theoretical knowledge."

One model of co-op education being experimented at Tsinghua University in Beijing and Shanghai Jiaotong University, for example, involve joint researches by faculty members, graduate students and industrialists. Such researches are seen to be of value to the country's future economic reconstruction.

But potential difficulties do lie ahead in promoting co-op education on a wider scale, as Deputy Director of the Ministry of Education's Higher Education Department Mr. Zhu Chuanli admitted. Although the Chinese Government is in support of the idea, free market competitions have increased pressure on many enterprises to cut costs and reduce personnel; many are hence unwilling to take on co-op students. Traditional, conservative thinking is another obstacle, as many colleges and universities

remain solely concerned about passing on knowledge. Likewise, most enterprises have paid little attention to the training of qualified personnel, according to Mr. Zhu.

In any case, with the work of WACE and universities like the PolyU which act as strong advocates of co-operation with outside bodies, time should see positive changes in the attitudes of members of the academia and other sectors across the Region.

Linda Yeung is a special correspondent of Profile.

工商學界致力合作教育 有助亞洲走出經濟困境

經過亞洲金融風暴的洗禮，不少企業機構均會意識到，要克服目前困境，便必須要提高僱員的素質。教育機構專門培訓各界需要的人才，工商界與它們聯手合作，便是一個可取的方法，這亦正是合作教育的基本理念之一。

其實合作教育的概念並非始自今天，早在一九八三年成立的世界合作教育協會一直倡議實用為主的教育方法，積極鼓吹工商界與學界建立夥伴關係，幫助學員把知識與實際經驗融匯貫通。今年八月，協會第二次在香港召開亞太區合作教育會議，並再度由香港理工大學主辦（上次主辦年份為一九九一年），吸引來自二十個國家與地區共二百多位代表參與。

現時協會共有七百五十個會員機構分處於世界各地，協會一直鼓勵政府、工商界與教育界攜手合作，與香港理工大學的教研方針不謀而合。

理工大學與工商界一直保持緊密聯繫，為社會各界提供顧問、專業培訓與應用研究等服務。理大的課程以實用性強見稱，部分課程更採用廠校交替制，讓學員有一年時間在外實習。此外，大學亦透過「首選畢業生培育計劃」，每年為僱主提供優秀學生在暑期工作。

理大副校長曾慶忠先生強調：「培訓人才不可以一成不變，學員必須能掌握面對實際工作環境的技巧，才可以在日後盡展所長，增進機構的生產力。」

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理工大學主辦最近的亞太區合作教育會議便是將這種理念付諸實行。理大校長潘宗光教授在會議開幕典禮上重申，理大會堅守信念，把實際工作經驗融於教學過程中，並協力在世界各地推廣合作教育。

在開幕典禮上，政府教育及人力統籌局局長王永平先生更呼籲工商界在財政上支持本地大學，支持院校的教研工作。他說在英國和美國，大學有百分之七的研究經

費來自私營機構捐贈，但香港卻只有百分之一，兩者相距甚遠。

是次合作教育會議由理大與中國產學研合作教育協會合辦。會議首三日在香港舉行，與會者隨後赴廣州考察，並參與由華南理工大學主辦的第二節會議。

剛卸任的世界合作教育協會前任會長格禮文教授總結在任兩年的經驗，盛讚香港理工大學是亞太區內促進合作教育的先鋒。他說：「論投入合作教育的時間與熱誠，在亞太區內可說無出其右了。」格禮



The conference in session at the PolyU.
亞太區合作教育會議召開。

文教授深信，合作教育會繼續蓬勃發展：「從經濟角度看，大機構希望在教育方面的投資取得回報。」由他從事教育工作多年觀察經驗所得，合作教育課程的畢業生不愁工作出路。

格老的繼任人路利先生為愛爾蘭最大的科學儀器公司 AGB Scientific Ltd. 主席，他相信合作教育有助經濟快速復原，因為勞動人口受教育愈多，工作效能愈大。路利先生的公司與都柏林市大學保持長久合作的良好關係，因為他相信合作教育課程無論對僱主和學員均有益處。

協會行政總裁范思平先生認為，公司聘用修讀過合作教育課程的畢業生並非只為削減成本。他說：「公司可以得到即時的好幫手，亦更容易決定該聘用哪些畢業

生。已在公司實習過的畢業生如選擇留在公司，公司便可得到一批肯定能投入工作的生力軍。」

目前合作教育在世界各地有多種不同的模式運作。英聯邦國家較多採用一年制實習模式，在美國則估計有近五萬名僱主以各種形式聘用合作教育課程的學員，有些為期只三至六個月。

隨著中國日益改革開放，近十年來有愈來愈多學術機構與私人企業參與合作教育，培育本科生、研究生以至中學生。由於國家政府著重「科教興國」，為大學與工商界發展合作關係締造了有利的環境。

據上海市教育委員會國際協作部主任張偉江教授表示，合作教育在中國的發展不再侷限於為學生提供實習，嶄新的合作模式著重發展科研與產品設計，幫助工商界進行改革。他說：「現時的大學畢業生和中學畢業生的理論基礎固然好，實際處事的能力也有大大提升。」

在北京清華大學與上海交通大學，合作教育採用研究模式，由教員、研究生與工業家攜手合作。可以預見，類似的研究結果對國家未來的經濟發展影響甚大。

另一方面，中國教育部高等教育司副司長朱傳禮先生指出，在中國推行更大規模的合作教育仍存在一定困難。雖然中國政府支持合作教育這理念，但是自由市場競爭所構成的壓力，令企業對控制成本和聘用人手更加審慎。此外，仍有很多學校和大學只著眼於傳授知識，要改變這傳統觀念並非一朝一夕可以做到。

無論如何，只要世界合作教育協會的工作能持續下去，如理工大學一樣的教育機構能繼續促進學界與外界加緊合作，合作教育在學界和整個亞太區當會有更大的發展。

Into the 21st Century: New face for campus

Beyond the bamboo scaffoldings that now rise from various spots over the podium, it is certainly an interesting exercise to try to imagine the new look of the PolyU campus by the turn of the century.

Phase VI Development

At the heart of the campus, an "intelligent" 19-storey Tower Block in a largely red-brick colour with window walls will become a new focal point. It will take over the site of the now demolished, 41-year-old, whitish Main Building — once home of the Hong Kong Technical College, predecessor of the Institution.

Director of Estates Mr. Ernest Chiu, who oversees this Phase VI of the campus development, said: "Our architects have designed a contemporary and dynamic outlook to the building with interlocking geometrical forms." He further assured that design cues and architectural languages from existing buildings would be applied so that the building could blend well with the campus.

This \$399m University Grants Committee funded project (at 1995 fourth quarter price, including demolition of the Main Building) commenced early this year, and is scheduled to be completed by August 2000.

The new Tower Block and its two-storey block annex will help ease the present space shortage, providing a total gross floor area (GFA) of 25,120m² for academic, administrative and communal use.

The Tower Block will accommodate the Senate Room suite, Offices of the President, central administrative offices, academic departments, Staff Club, computer cluster and teaching rooms for executive teaching programmes. Below the podium level, the accommodation is designated for lecture theatres, general teaching rooms and carpark.



Artist's impression and usage of the Tower Block.

The two-storey block annex will accommodate general teaching rooms, lecture theatres and exhibition area of about 200m².

Jockey Club Auditorium

Another major project is the Jockey Club Auditorium, now nearing completion. This new facility is set to enhance the quality of student life by providing a venue for cultural

activities, international conferences and exchange activities, exhibitions and other functions.

Incurring an overall cost of \$138m (at end-1997 price), this privately funded project is named after the Jockey Club which has generously donated a sum of \$66.26m. The remaining balance is funded by private sources.

Occupying the site which previously

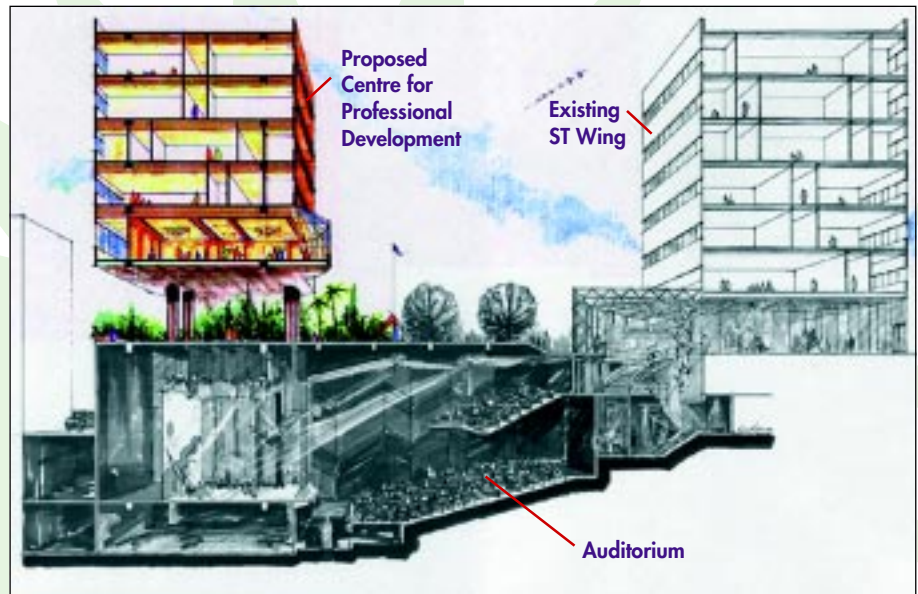
stood the Keswick Hall, the Auditorium will be of 4,859m² in GFA with 691 seats in its Main Auditorium and 321 in its balcony. Equipped with high standard seatings, lighting and AV systems, the facility could be hired by outside users as well.

The Superstructure Contract of the Auditorium has commenced in April last year and is scheduled for completion in mid-1999.

Student Hostels

Right at the heels of these projects is the construction of the Student Hostels, to be located in the Hunghom Bay Reclamation area within 15 minutes' walking distance from the University. Despite the financial constraints faced by the University, it is expected that the project will start soon in mid-1999, so that a total of 3,004 places will be available to students by August 2001.

The overall cost of the hostels project was estimated at \$678m at 1996 fourth quarter price and projected to rise to some \$928m. While the Government will cover three quarters of the building costs, the remaining 25 per cent or about \$250 million have to be borne by the University through private funds.



Sectional perspective view of the Auditorium and the proposed Centre for Professional Development.

Future plans

Looking further through the crystal ball is the Phase VII Development, which involves redeveloping the two-storey low block to the west of GH Wing into a 14- or 15-storey building to accommodate academic and research activities, ideally by 2003/04.

A Residential Centre in the vicinity of the Student Hostels has also been proposed to cater for visiting scholars and exchange students. The Centre is also to bring

educational benefits to the university's hotel and tourism students.

These two projects, however, remain conceptual at this stage and preliminary proposals submitted to UGC have yet to be approved in principle in 1999.

Another project, the Centre for Professional Development, was originally integrated with the building of the Auditorium. The project has, however, been suspended due to a lack of private funds. Designed as a five-storey multi-purpose building straddling across the stage of the Auditorium, the Centre was originally to form the future QR Wing and to house all self-financed centres of the University.

No more a congested campus?

According to latest reviews, the PolyU will still be falling short of at least 12,444m² in space when the Phase VI project is completed in 2000. Despite this, as the upgrading of the campus infrastructure gathers speed — including IT network, teaching and laboratory facilities, and lifts and lobbies — one can be sure that the future PolyU campus will be a more user-friendly place than before. ❖



Outlook of the planned student hostels in Hung Hom Reclamation Bay.



PolyU President re-appointed

The Council of the University has unanimously resolved to re-appoint Prof. Poon Chung-kiung as President of the PolyU for another term of six years from January 1, 1999.

In making the announcement, Council Chairman Dr. Sir Gordon Y.S. Wu paid tribute to Prof. Poon's dedicated service and his contribution to the University's development and strategic planning and also congratulated him for the re-appointment. He expressed confidence that the University will continue to grow under Prof. Poon's leadership. ❖

President speaks on HKSAR's first 12 months in Canada

From August 16–21, the President, Prof. Poon Chung-kiung, attended the Association of Commonwealth Universities (ACU) General Conference in Ottawa, Canada. Prior to the Conference, a two-day ACU Council meeting was held, during which Prof. Poon, as a Council member, reported to delegates how Hong Kong has fared since its reunification with China. The following are excerpts of his speech delivered on August 14.

“More than a year has gone by since July 1, 1997. Despite the difficulties that Hong Kong is facing at the moment, the past year has proved that our transition to Chinese sovereignty has been vastly successful.

Shortly after the celebrations for Hong Kong's reunification with China, we were hit by the Asian financial crisis. Indeed, a full recovery does not seem to be that near. Yet such financial turmoil has spurred Hong Kong to move forward into a period of adjustment at a faster pace than anticipated. Together with the fall in property prices and rentals, inflation and wages have shown a downward trend. In the long run, when these positive changes outweigh the short-term blows to the economy, Hong Kong will increase its competitiveness.

However painful this period of adjustment might be, I have every reason to believe that Hong Kong people will be able to ride out the storm. We have a well-regulated financial sector, an open market and the rule of law.

To be fair, one must not overlook the many achievements that Hong Kong has accomplished in the past twelve months. The Hong Kong Special Administrative Region's first Legislative Council elections were held in an open manner. On the election day, a record 1.5 million, i.e., over half of the registered voters, cast their votes. For a place like Hong Kong, where its people's participation in open election of the legislature only started in 1985, the elections marked a very important first step in the evolution of Hong Kong's democratic institutions.

As an educator, I am glad to see that the administration in Hong Kong regards the quality of Hong Kong people as a key to our future. Right now, a thorough review of our education structure, from pre-primary through to tertiary education, is already in progress. The issue of possibly switching from three to four years of tertiary education is also being studied.

Over the past year, we have continued to enjoy our precious academic freedom and retain our autonomy. Furthermore, members of Hong Kong's tertiary sector have agreed that we must retain the sector's unique characteristics on the one hand and strengthen its international dimension on the other.

We have concluded that English should remain the medium of instruction in our universities. We have continued to open our campuses to the best talent and ideas in the world by recruiting academic staff from different countries.

While mainland authorities have all along refrained from interfering with Hong Kong's internal affairs, the Central Government in Beijing has repeatedly pledged to maintain Hong Kong's prosperity and stability.

Hong Kong people are well known for their resilience and entrepreneurial spirit. The territory has weathered many storms in the past and now still retains all the necessary ingredients for success. I am fully confident that we are steadily and surely on our way forward; and if any of you have a chance to visit Hong Kong in the near future, I bet you too will agree with me.” ❖

PolyU & partners show off new

The International Strategic Technology Alliance (ISTA) held its third meeting on the PolyU campus from August 24–26. The Alliance is a network initiated by the PolyU to promote joint applied research and consultancy with member universities from the mainland of China, the UK and the US.

The three-day meeting provided an opportunity for members of the Alliance to discuss key issues such as ways to foster closer links among members, opportunities for collaboration and putting the research deliverables of ISTA members into business and industrial application.

“In the past three years, ISTA, through its incessant and painstaking efforts, has succeeded in integrating the expertise of different institutions and the industrial sector, and promoting commercialization of research products effectively on an international scale which benefit both the institutions and the community they serve,” said Mr. Alwin Wong, PolyU’s Head of Industrial Development (Technology Resources).

Prof. Poon Chung-kgwong, the University President, said: “The PolyU is planning to establish a Rapid Product Development Syndicate (RAPRODS), which will be supported by the University’s Faculty of Engineering, School of Design

and Industrial Centre. The RAPRODS will facilitate the development of ISTA projects and promote the technology and products of the Alliance on an international level.”

As the founder of ISTA, the PolyU has been playing a significant role in providing basic facilities, manpower and initial resources required to support the activities of the Alliance. It also helps identify needs of the international market and match these needs with the technology capability of the Alliance.

Concurrent with the meeting, ISTA held the PolyU–ISTA New Technology and Products Exhibition from August 25–28 to display 14 new technologies and products which have been developed by the PolyU and ISTA members in the last two years, and the commercialization of which have been or are in the process of being finalized. Government representatives, industrial and business partners of the PolyU were invited to view the exhibits on campus.

“We believe that this is the first time a university in Hong Kong has completed product commercialization of such a large scale and successfully transferred them to industry. They are the outcome of successful collaboration amongst the PolyU, mainland institutions and industry,” said Mr. Wong.



The technology exhibition attracts visitors from various industries.



Mr. Joseph Wong shows much interest in the research deliverables from the Fabric Colour Analysis System developed by the PolyU’s Institute of Textiles and Clothing.

technology and products



The PolyU hosts the third ISTA meeting on campus.

A wide range of new and readily transferable technology and products, including ECG System, X-ray Digital Imaging System, yarn production technology, fabric colour analysis system, high-valued feed additive, system for treating industrial wastewaters, were shown at the exhibition.

Results of ISTA consultancy and research services are marketed through the PolyU Technology and Consultancy Company Limited (PTeC), a not-for-profit consultancy company

set up by the PolyU to support the development of business and industry through its range of consultancy, contract research and product development and design services.

ISTA was initiated by the PolyU and founded with the support of the Ministry of Education of China. Currently, apart from the PolyU, the 16 members of the Alliance are: Tsinghua University, Peking University, The Chinese University of Science and Technology, Fudan University, The Harbin Institute of Technology, Nanjing University, The Remin University of China, Shanghai Jiaotong University, Sichuan Union University, The South China University of

Technology, Southeast University, Tongji University, Xian Jiaotong University, Zhejiang University, the University of Warwick and Purdue University. Meanwhile, the Alliance is actively looking for further collaboration with potential overseas members. ❖



The President presents a special token of appreciation to Dr. Lily Chiang, Executive Director of The Chen Hsong Group, a partner of the PolyU in the commercialization of medical equipment developed by ISTA members.



Dr. Cheung Chun-shun of the Department of Mechanical Engineering (right) explains his unique research on a Diesel Particulate Trap and Cleaning System.



Mr. Alexander Tzang, Vice-President, introduced the new technology and products on display to Mr. Joseph Wong, Secretary for Education and Manpower and members of the University Grants Committee and the Research Grants Council.

國際應用科技開發協作網年會召開 嶄新科技展網羅研究產業化成果

由香港理工大學與多所中國內地、英國和美國著名學府攜手成立的國際應用科技開發協作網，於八月二十四日至二十六日假理大校園舉行第三次會員大會。

該協作網成立目的，旨在利用各成員之應用研究成果及專業知識為工業界提供科技資源，將具有市場潛力的新科技項目產業化。是次會議讓協作網成員雲集本港，討論如何進一步加強成員間的相互合作，發掘未來協作網的活動和合作項目，及更有效推動成員的科技成果轉化計劃。

理大工業發展（科技資源）處總幹事黃亮先生表示：「過去三年協作網通過不斷努力，綜合了不同院校及業界的資源及人才，有效地將具有市場潛力的新科技項目商品化，使院校與社會工商界均能互相裨益。」

理大校長潘宗光教授表示：「理大已計劃在未來三年內，加強本校工程學院、設計學系和工業中心的資源，以成立一個快速產品開發中心，以便更有效支持協作網的工作，使我們開發科技和產品更能達到國際的水平。」

理大自創辦協作網以來，一直積極提供基本的設施、人手及資源，協助協作網推行活動。理大亦密切留意國際市場的需求，務求令協作網的科技資源能配合實際的市場需要。

協作網並於同月二十五至二十八日假理大校園舉辦一個新開發科技產品展，展示十四項全新科技及產品，並邀請政府官

員，教育科技界代表及理大的工商業夥伴一同參觀這些豐碩的科研成果。

黃先生續說：「是次展出的先進科技及產品為數不少，也可說是本地的大學首次能完成具有如此規模的工業研究商品化計劃。這些科技成果正是理大、中國內地校及工業界攜手合作的心血結晶。」

會上展品涉及多個科技領域，計有心電圖儀、X光數碼成像系統、先進紡紗技術、紡織物料色差分析系統、生產高增值飼料添加劑的新生產技術、三合一工業廢水處理系統等。

協作網成員的顧問服務及研究成果由理大科技及顧問有限公司協助推動。該非牟利公司提供一應俱全的專業服務，包括諮詢顧問、研究及產品開發及設計等服務，推動工商業的發展。

國際應用科技開發協作網由理大建議創立，並得到中國教育部的全力支持。現時，協作網成員除理大之外，尚有十六家大學：清華大學、北京大學、中國科學技術大學、復旦大學、哈爾濱工業大學、南京大學、中國人民大學、上海交通大學、四川聯合大學、華南理工大學、東南大學、同濟大學、西安交通大學、浙江大學、英國華威大學及美國普度大學。此外，協作網正積極邀請具潛力的海外著名學府加盟。



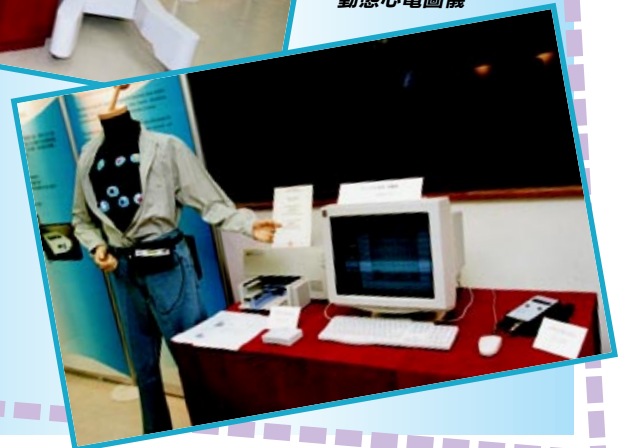
Torque-free Single Yarn Production Technology
無扭力單股紡紗技術



X-ray Digital Imaging System
X線數碼成像系統



Treatment system for industrial wastewaters
三合一工業廢水處理系統



A special Holter Electro-Cardiograph (ECG) recorder
動態心電圖儀

Forum attracts 50 Chinese business leaders

To provide a platform for leading Chinese entrepreneurs to meet and discuss their development strategies, the PolyU and the Zhejiang University jointly organized a CEO Forum on "Enterprise Competition and Development Strategy towards the 21st Century".

This "CEO Forward-looking Forum and Round-table Discussion", held on July 3 and 4 in Hangzhou, Zhejiang Province, attracted some 50 prominent mainland business leaders. Participation was by invitation and all participants were CEOs of leading enterprises in the Mainland.

Kicking off the event was a keynote speech by leading computer manufacturing industrialist, Dr. Stan Shih, Chairman and CEO of the Acer Group, who spoke on financial crisis and competition in today's business world.

Other distinguished speakers at the Forum, each of whose enterprises represent a gross annual output exceeding HK\$100 billion, included:

- Dr. Chow Yei-ching, Chairman, Chevalier



Dr. Shih

International Holdings Ltd.;

- Mr. Cheng Hui-ming, Managing Director, SEREF Capital (Singapore) Pte. Ltd.;
- Mr. Chuang Kuo-chin, General Manager, Far East Machinery Co. Ltd.;
- Mr. Huang Ming-ho, General Manager, Victor Taichung Machinery Works Corporation Ltd.;
- Dr. Casper Shih, Chairman, Global Chinese Competitiveness Foundation;
- Mr. Lin Hsin-i, Chairman, Taiwan Transportation Vehicle Manufacturers' Association (TTVMA);

- Mr. Hsu Chung-jen, Chairman, President Chain Store Corporation;
- Mr. Victor Cha, Managing Director, HKR Asia Pacific Pte. Ltd

The Forum focused on four special topics: quality management and market positioning; technology development strategy and application for enterprises; strategies for human resources management and development; and financial crisis, corporate development strategy and marketing strategy.

An opening ceremony for the event was held in a banquet on July 2, which was officiated at by Prof. Poon Chung-kwong, the PolyU President; Dr. Stan Shih; Prof. Pan Yun-he, President of Zhejiang University, and government representatives of the Zhejiang province.

The CEO Forum marks one of the co-operative initiatives launched following the last year's establishment of the Zhejiang University-PolyU International Executive Development Centre in Hangzhou as a training base for executives and professionals in China. ❖

理大浙大合辦企業首腦論壇

香港理工大學與浙江大學於七月三至四日，就「面向廿一世紀企業競爭與發展戰略」主辦傑出企業總裁前瞻論壇，為多位企業首腦提供一個交流探討企業發展策略的機會。

是次「傑出企業總裁前瞻論壇及圓桌會議」於浙江杭州浙江世界貿易中心大飯店舉行，並邀請了五十位來自中國內地的商界翹楚。

該會議由國際知名電腦業鉅子、宏碁集團主席施振榮博士先發表主題演講，探討金融危機與企業競爭的問題。是次身兼特邀論壇主席的施博士，是全球頂尖個人電腦製造商宏碁集團的創辦人之一，更曾獲世界銀行及國際貨幣基金組織評選為一

九九五年「新興市場的傑出企業首腦」獎。

是次為大會作專題演講者，另包括八位香港及台灣的知名企業首腦。他們管轄下的公司，全部年產值總和逾一千億港元。他們包括：旭日集團主席楊釗博士；其士集團主席周亦卿博士；新加坡商華開財務顧問股份有限公司總經理鄭慧明先生；遠東機械工業股份有限公司總經理莊國欽先生；台中精機廠總經理黃明和先生；全球華人競爭力基金會董事長石滋宜博士；台灣車輛工業同業工會理事長林信義先生；台灣統一超商公司總經理徐重仁先生；以及香港興業亞太有限公司董事總經理查懋成先生。

大會顧問理大副校長曾慶忠先生說：

「是次我們首次舉辦這論壇，正好提供一個難能可貴的機會，讓兩岸三地的企業總裁能分享他們寶貴的經驗及提昇其企業的競爭力。」

大會又特別探討了四項專題：即品質管理及市場定位；企業的科技發展戰略及應用；管理人才的運用策略；以及金融危機及企業發展策略和市場策略。

論壇的開幕晚宴於七月二日舉行，由理大校長潘宗光教授、施振榮博士、浙大校長潘雲鶴教授及浙江省政府代表主持。

是次論壇為理大與浙大繼去年在杭州合辦國際企業培訓中心後，攜手支持中國內地工商界發展的其中一項活動。 ❖

Conference to promote teaching and learning in higher education

To showcase best practices in teaching in Higher Education in Hong Kong, the PolyU is organizing the first conference in an annual series of activities dedicated to enhancing teaching and learning in higher education in Hong Kong.

Entitled "Quality in Teaching and Learning: A Celebration of Best Practices in Hong Kong Higher Education", the Conference will take place under the auspices of the Teaching and Learning Quality Process Review Consultative Committee of the Government's University Grants Committee (UGC).

"Response to the call for conference papers has been good with more than 100 papers being offered", said Dr. John Jones, the PolyU's Director of Educational Development and Chairman of the Conference Planning Committee.

Apart from the PolyU, the participating UGC-funded institutions are: City University of Hong Kong, Hong Kong Baptist University, Hong Kong Institute of Education, Lingnan College, The Chinese University of Hong Kong, The Hong Kong University of Science and Technology, and The University of Hong Kong. Each of these institutions will take its turn to organize the Conference in the future.

The Conference will be held from December 10-12 at the Hong Kong International Trade and Exhibition Centre in Kowloon Bay, with distinguished keynote speakers including Dr. Edgar Cheng, UGC Chairman; Dr. John Hinchcliff, President of Auckland Institute of Technology in New Zealand; and Prof. Cheng Kai Ming, Pro-Vice-Chancellor of The University of Hong Kong.

Besides, the Conference will feature presentations, symposia as well poster/computer-based displays, and all papers presented at the Conference will be published in a refereed conference proceedings. For details, visit the website at <http://ettu618.edu.polyu.edu.hk/QLT98> or email to: qtl_1998@polyu.edu.hk.

International honour for paper on quality management



Prof. Cheng (left) and his colleague and former PhD student Dr. Ngai posed together last year when Dr. Ngai received his doctoral degree from the PolyU.

In recognition of its authors' outstanding contribution to the body of knowledge, ANBAR Electronic Intelligence has recently given the Highest Quality Rating to a research paper written by PolyU Assistant Professor Dr. Eric Ngai Wai-ting of the Department of Computing and Prof. Edwin Cheng, PolyU Vice-President (Research and Postgraduate Studies) and Chair of Management.

Judged "excellent" and cited in the ANBAR's management "halls of fame" among a selection of works by the world's best management authors, the paper was entitled "Identifying potential barriers to total quality management using principal component analysis and correspondence analysis", published in *International Journal of Quality and Reliability Management*, (UK, Vol 14, No. 4, 1997).

The article demonstrates the usefulness of multivariate statistical techniques for quality management researchers, and details the methods used in both principal component and correspondence analysis, using a data set obtained by the authors concerning the potential barriers to total quality management implementation by Hong Kong companies.

The ANBAR Citation of Highest Quality Rating will be carried for five years at the ANBAR Hall of Excellence, which can be found on the Internet at URL: <http://www.anbar.co.uk/anbar/excellence/authors.htm>. ANBAR Electronic Intelligence is an on-line service that reviews the top journals in the world each month, ascribing quality ratings to their content.

New management structure in force

To achieve a simpler and more streamlined structure, the University senior management has recently been restructured. The new structure, which took effect from June 3, was the result of a review of responsibilities of the Vice-Presidents and their designations to better reflect their portfolios.

For the Vice-Presidents, some retain their original titles while others had their titles changed.

- Prof. Joshua Wong — Vice-President and Dean, Faculty of Communication
- Mr. Alexander Tzang — Vice-President (Institutional Advancement)
- Prof. Edwin John Hearn — Vice-President (Planning)
- Prof. Leung Tin-pui — Vice-President (Quality Assurance)
- Prof. Edwin Cheng — Vice-President (Research and Postgraduate Studies)

In addition, Deans of the PolyU's six faculties have been appointed or re-appointed for a term of two years:

- Prof. Yeung Kwok-wing — re-appointed as Dean, Faculty of Applied Science and Textiles, from July 1



Making up the top management: (from left) Prof. Leung Tin-pui, Prof. Joshua Wong, the President Prof. Poon Chung-kwong, Prof. John Hearn, Mr. Alexander Tzang and Prof. Edwin Cheng.

- Prof. Peter Walters — appointed as Dean, Faculty of Business and Information Systems, from July 1
- Prof. Joshua Wong — appointed as Dean, Faculty of Communication, from June 3 (in addition to his appointment as Vice-President)
- Prof. Michael Anson — re-appointed as Dean, Faculty of Construction and Land Use, from July 1
- Prof. M.S. Demokan — re-appointed as Dean, Faculty of Engineering, from July 1
- Prof. George Woo — re-appointed as

Dean, Faculty of Health and Social Studies, from July 1

Under the new structure, all Faculty Deans report directly to the President. And with effect from June 3, the newly established Chinese Language Centre, English Language Centre and General Education Centre are grouped under the Faculty of Communication. The three centres are led respectively by: Dr. Lee Hok-ming (Acting Head), Ms. Pamela Smith (Head) and Dr. Stephen Lau-Shek-lam (Acting Head). ❖

International award for annual report

The University recently won a bronze award for its Annual Report 1996/97 in the Cover Photo/Design category of the 12th ARC Awards Competition. All winning reports of the 1998 ARC Awards contest were displayed at a gala awards presentation ceremony on July 28 in New York City.

The ARC Awards is the world's largest competition for annual reports, organized by Mercomm, Inc. Considered by many as the "Academy Awards of Annual Reports", it is an international, annual event which recognized and honours organizations which have achieved excellence in their annual reports.

Mr. David Poon, PolyU's Head, Communications and Public Affairs, said this was the first time the PolyU joined this Competition. "Apart from the printing, our report has always been produced entirely in-house, and this is one tradition we are very proud of." The cover photos of the Report, taken by Mr. Joseph Fung, Associate Professor of the PolyU's School of Design, capture panorama views of the PolyU campus in the form of impressionist paintings.



At the ARC Awards gala ceremony in New York: Mr. Joseph Fung takes pride in the Annual Report.



Small group discussions on critical issues.



The workshop participants.

Management Workshop fosters commitment to the future

It was a rejuvenating exercise for the 100-plus senior staff members from various departments who attended the Management Workshop, held from September 3-5 in Shekou in the Mainland.

With the theme of "Committing to the future", a number of key issues facing the Institution and tertiary education were critically discussed and reviewed during this annual event organized for the fifth time by the Office of Communications and Public Affairs.

During the workshop, participants learnt of the progress and improvement in the management of the University, including the streamlining of administrative procedures and application of the latest information technology. The workshop also reviewed the University's overall performance during the Teaching and Learning Quality Process Review of the University Grants Committee (UGC), and prepared participants for the forthcoming UGC Management Review Exercise to be conducted in early 1999.

In the light of the current trends in tertiary education in Hong Kong, participants also exchanged their views on the University's marketing strategy and recruitment of high calibre students. The workshop also addressed issues involved in creating a congenial environment for staff and students, including the cultivation of staff morale, health and safety, and fostering a culture of achievement and commitment. The senior staff also shared their experience on good practices of teaching, research and departmental management.



From heated debate to happy ending?



Time for fun.

PolyU and University of Warwick honour graduates

The unique industry-led Integrated Engineering Business Management Programme (IEBMP), offered jointly by the PolyU and UK's University of Warwick, sent forth a total of 126 graduates on September 27. The Programme comprises three tiers: the Engineering Doctorate programme, Integrated Graduate Development Scheme (IGDS) and Integrated Manager Development Scheme (IMDS), this year with four, 103 and 19 graduates respectively.



Happy new academic year!

The PolyU embarked on a new and challenging academic year on September 14.

This year has witnessed the introduction of general education subjects in the University's curriculum: all incoming, full-time PolyU students of first-degree programmes funded by the University Grants Committee (UGC) are required to study two compulsory subjects of general education, while new students enrolled in UGC-funded sub-degree programmes must take one subject.

The total enrolment stood at 20,567 by headcount as of September 8, and the University is offering 107 UGC-funded and 21 self-financed programmes leading to various levels of award.

Two part-time programmes launched for the first time were the Master's degree/Postgraduate Diploma in Professional Accounting and the Master's degree/Postgraduate Diploma in Project Management. Besides, a new Bachelor's degree programme in Design was launched to replace the five Bachelor's degree programmes in Fashion Design, Graphic Design, Industrial Design, Interior Design and Photographic Design. The part-time mode of the Bachelor's degree programme in Manufacturing Engineering is also newly offered this year.

Furthermore, the two Post-experience Certificate programmes, one in Industrial Safety and the other in Advanced Safety, have been separated from the Post-experience Scheme in Engineering to form a new scheme — the Post-experience Scheme in Occupational Safety and Health. The previous Higher Certificate programme in Pre-primary Care and Education has been upgraded to Higher Diploma programme in Pre-primary Education.



A total of 43 new staff members joined the Induction Programme organized by the Personnel Office on September 2 to gain an overview of the PolyU's latest developments.

Commencement of the new programme MSc/PgD in Project Management on September 7.



At the opening ceremony of Students' Union's Orientation Week.

The University's Bachelor's degree programmes in Radiography, Occupational Therapy, Physiotherapy, and Languages with Business are offered as Honours degree programmes starting this year.

Meanwhile, the PolyU has, since the last academic year, gradually revamped its full-time programmes with the inclusion of compulsory subjects in English, Putonghua and written Chinese. Besides, the Chinese Language Centre and the English Language Centre were recently established to co-ordinate the compulsory Chinese and English courses for the full-time undergraduate and sub-degree students. On the other hand, a credit-based system for all the University's academic programmes at different levels has also been implemented.

Another new initiative introduced for all new full-time students this year is the PolyU Smart Card, a multi-functional card that integrates the utilities of a bank card and a PolyU student/staff card. This new service will be gradually extended to all staff and students. (See story on PolyU Smart Card on page 19.)

English Language Centre celebrates opening

To mark the official opening of the English Language Centre, a ribbon cutting ceremony was held on campus on July 2, officiated at by Prof. Joshua Wong, Vice-President and Dean of the Faculty of Communication.

The Centre will teach primarily the “mandatory” English programme to first-

and second-year students of all full-time degree and sub-degree programmes funded by the University Grants Committee. It also provides other service English teaching formerly offered by the Department of English.

With a strong team of some 70 full-time academic staff, the Centre is equipped with

sophisticated language enhancement facilities in its English Language Study Centre and Centre for Independent Language Learning, which were previously grouped under the Department of English.

Head of the Centre Ms. Pamela Smith said, “We aim to provide a supportive language learning environment that enables students to realize their academic potential and to achieve professional excellence.

“Through small-group work in our Study Centre we will ensure weaker students are not disadvantaged, and all students will be encouraged to make use of our Centre for Independent Language Learning and multimedia facilities to take responsibility for their own learning.”

In line with the Institution’s efforts to boost students’ communication and language skills, all full-time students were required to take mandatory English subjects since the University’s 1997/98 student intake.



“Cheers!” Ms. Pamela Smith (centre) and colleagues drink to the success of the English Language Centre.

First courses leading to Business English Certificate

The PolyU’s Centre for Professional and Business English (CPBE) is now running the first ever courses in Hong Kong that will prepare students for the Business English Certificate (BEC) offered by University of Cambridge Local Examinations Syndicate. Classes are currently studying at all the three levels provided for by the exam, which is due to be held in late October and early November.

Dr. Bruce Johns, Head of CPBE, reported that nearly all the participants were in fact returning to study at their alma mater, as the programme was offered exclusively through *Network*, the newsletter of The Federation of The Hong Kong Polytechnic University Alumni Associations. “We are now ready to extend the opportunity to all those wishing to upgrade their English skills,” said Dr. Johns.

CPBE is expecting an enthusiastic response, based partly on the success of BEC in the rest of China, where it has been widely adopted as a benchmark for language ability in the workplace and in tertiary institutions. One of the attractions of the Certificate, Dr. Johns said, was the chance to create a single qualification in Business English for Hong Kong and the Mainland — an important step forward in the move towards a more open labour market.

Another important feature of the exam is its focus on *proficiency*, involving all the four skills of writing, reading, speaking and listening, situated within a business context.

The next round of 60-hour courses will begin at the PolyU in January. Alternatively, the training can also be arranged at other times and be delivered on an in-house basis for groups of staff in the same workplace.

PolyU Smart Card offers convenience to students and staff

In September 9, the PolyU was joined by The Bank of East Asia and Visa International in celebrating the launch of the PolyU Smart Card in a special ceremony held on campus.

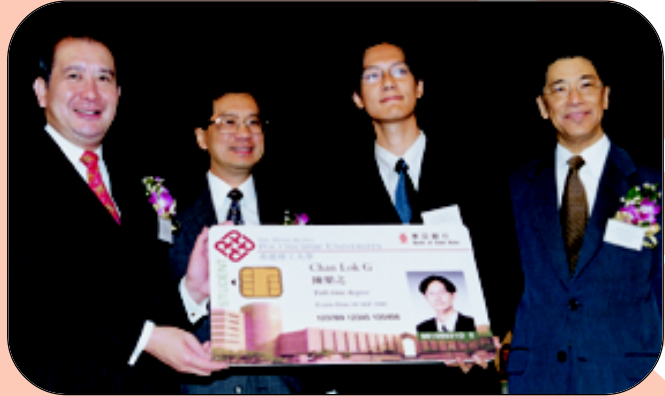
Starting this academic year, the PolyU's new intake of some 4,200 full-time students will be able to enjoy the convenient services provided by the new card.

Offered exclusively to the students and staff of the University, the PolyU Smart Card delivers the most comprehensive range of banking functions in a single card available today within the Asia Pacific region.

PolyU President Prof. Poon Chung-kwong said, "From now on, our freshmen can use the Smart Card not only for identification purpose, but also for small amount of money transactions on campus and other off-campus locations. This new service, which will be gradually extended to all staff and students, will surely bring immense convenience to the PolyU community."

"This exciting new service brings the advantages of the latest technology to our customers," said Dr. David K. P. Li, Chairman and Chief Executive of The Bank of East Asia, Limited. "We are very happy to be building our partnerships with Visa International and with The Hong Kong Polytechnic University.

In essence, the PolyU Smart Card is a 5-in-1 multi-functional card that integrates the utilities of a bank card and a PolyU student/staff card. The card contains a contact chip, a contact-less chip, and a magnetic stripe; in conjunction, they enable the card to deliver some of the most advanced electronic banking services, including Visa Cash, Visa Interlink, EPS, as well as Visa Plus ATM network and JETCO ATM access. Featuring the photograph, faculty/department, and staff/student number of the cardholder, the PolyU



Launching the PolyU Smart Card: (from left) Dr. David Li, Prof. Poon Chung-kwong, Student's Union President Chan Lok G and Mr. Raymond Chan.

Smart Card also performs the functions of in-campus identification and access control.

"People in Hong Kong are extremely receptive to using smart cards," said Mr. Raymond Chan, Executive Vice President and General Manager of Visa International, Greater China Region. "The launch of the PolyU Smart Card today reaffirms our step forward in the right direction."

Cardholders can activate the various electronic banking services by visiting The Bank of East Asia Houston Branch any time during regular bank opening hours.

The PolyU Smart Card offers a comprehensive range of electronic banking functions. The Visa Cash function is widely accepted at merchants in Hong Kong and abroad and on campus at the finance office, student affairs office, health service, book store and canteens.

The PolyU Smart Card can also be used to perform ATM and debit card transactions. Students and staff may access various in-campus facilities, such as the library and sports facilities, using the card as a form of in-campus identification. ❖

PolyU-Tsinghua training programme



This summer, the PolyU's Department of Building and Real Estate and Tsinghua University's Project Management Research and Training Centre jointly organized the Advanced Project Management Training Programme for some 50 mainland senior financial officials from various provinces, who oversee large-scale projects financed by the World Bank and other external sources. On August 31, following three weeks' training at Tsinghua in Beijing, the trainees started another two weeks' study at the PolyU. Picture shows Prof. Wang Qizheng of Tsinghua University speaking to programme participants on August 31. ❖

Meeting reviews global manufacturing research

The Department of Manufacturing Engineering (MFG) hosted the Ninth Annual Meeting of the Global Manufacturing Research Group (GMRG) at the PolyU from 4–6 June.

The GMRG is a multi-national community of researchers dedicated to the study and improvement of manufacturing practices world-wide. It aims to improve manufacturing practice through the development of theory and dissemination of research results. By sharing ideas, results, and concepts with research colleagues and manufacturing executives around the globe, the GMRG serves to strengthen the linkage between research and practice.

The GMRG has a tradition of holding its

annual meeting in a different country every year. This year, about 20 members of the GMRG from various countries gathered together at the PolyU to present their research results and hold discussion on production planning and control issues concerning global manufacturing.

A plant visit was then organized on 5 June 1998 to Group Sense International Ltd. at Dongguan, China. The members of the GMRG gained both theoretical and practical experience through this event.



Plant visit of the GMRG members to Group Sense International Ltd. in Dongguan in the Mainland.

For details about the GMRG, please contact Prof. Clay Whybark (e-mail: clay_whybark@unc.edu) or Prof. W.B. Lee (e-mail: mfwblee@polyu.edu.hk). ❖

First Pan-Pacific Rehab Conference held

To promote exchange of knowledge and practices in musculoskeletal rehabilitation in the Region, the Department of Rehabilitation Sciences took the lead in organizing The First Pan-Pacific Conference on Rehabilitation in partnership with the Sun Yet-sen University of Medical Sciences. The Conference was held in Guangzhou from August 29–31.

The keynote speakers at the Conference were Prof. Sandra J. Olney and Prof. Mark Percy, both well known researchers and scholars in rehabilitation and biomechanics. Prof. Percy is the Foundation Professor of Biomedical Engineering at the Queensland University of Technology in Brisbane, Australia. Prof. Olney is Professor and Director of the School of Rehabilitation Therapy and Associate Dean (Health Sciences) at Queen's University in Kingston, Canada.

Apart from plenary lectures, the Conference also covered paper and poster presentations covering the sciences in the assessment and treatment of limb and spinal disorders. About 200 researchers and clinicians from Hong Kong, the Mainland, Taiwan, Australia, Finland, the US and Canada attended the three-day conference. A total of 150 practitioners participated in the pre- and post-conference workshops in ergonomics, work rehabilitation, and treatment for low back pain held in both Hong Kong and Guangzhou. ❖



Prof. Olney, keynote speaker (sixth from left) and the conference organizing committee posing together in Guangzhou.

Experts share insights into co-op education

During the Asia Pacific Conference on Co-operative Education, held on the campuses of the PolyU and the South China University of Technology in Guangzhou from August 24–28, six eminent speakers were invited to deliver keynote presentations. The following is the gist of their presentations:

Culture, education and the multinational corporation: The challenge of preparing managers for the 'global age'



The speaker: Dr. David B. Lowry is Vice President, Office of Social and Developmental Programs at Freeport-McMoRan Copper and Gold Company in the US, which operates one of the largest mining complexes in the world in Indonesia. Though his main responsibilities are in developmental anthropology in west New Guinea where a mine is located, he also administers a scholarship and international training programme which provides educational opportunities for more than 70 Indonesian students in high schools and colleges in North America and Australia. Dr. Lowry is also President and Executive Director of the Freeport-McMoRan Foundation in New Orleans, Louisiana.

The presentation: The Asian financial crises of 1997–1998 and the attempts of the International Monetary Fund and World Bank to address these issues have forced a reassessment of the so-called post-modernist 'global age.' Where there was confidence before mid-1997 that the world was somehow moving toward a universal culture of economics and work, today there are severe doubts about the short-term viability of a global economic system in which liberal democracy and capitalism could be practiced in many areas of the world.

Dr. Lowry attempted to look at the implications of these developments for education, especially education for work within businesses which are multinational and/or global in nature. Are 'best business practices' universal, or are they particular to a culture? Does American 'down-sizing' and 'right-sizing' work in Asian cultures? Can Japanese work camaraderie be effective in a factory with American 'individualists'? These are questions which all international businesses must face; it is also an issue which educators must face, both educationally and financially. Dr. Lowry reviewed these questions against the multinational experiences of Freeport.

Co-operative education in China



The speaker: Dr. Zhang Weijiang is Director General, Education Commission of Shanghai Municipal People's Government, China. He has held his present position in Shanghai since April this year. Prior to this, he was Deputy Director-General of Education Commission of Shanghai Municipal People's Government, Vice President, Dean of the Graduate School, Chairman of the Department of Applied Mathematics, and Professor of Shanghai Jiaotong University from 1991–95. Besides, he is the Vice Chairman of the China Association for Co-operative Education and Vice Chairman of the Shanghai Association for Co-operative Education.

(cont'd on page 22)

The presentation: The presentation deals with higher education reform in China in terms of university–industry co-operation in both scientific research and students’ training. It also briefly outlines the trend towards the further development of the collaboration among institutions, industries and research institutes. The conventional scholastic university model which separates itself from the society is no longer adequate to meet the challenges arising in the fast economic development. The fast pace of change in the economy and society requires a fast pace of change in the world of higher learning. The scientific researches and the teaching and learning activities have to be considered and designed in the light of the needs from the economic development, i.e. the university teachers and researchers should find ways to involve themselves in the live projects set up by the industry, and the university graduates should be multi-skilled, having a combination of technological, economic and commercial knowledge as well as problem-solving, teamworking, and information technology skills.

Co-operative education has played an important role in this higher education reform in China. It has created a closer relationship between institutions, industries and students, provided the teachers with more chances to understand and serve the industry, and let the students be aware of the changing world of work, take responsibility for their own career and personal development and have the capability of managing the relationship between work and learning throughout their lifetime.

**Co-operative education:
the Hong Kong experience**



The speaker: Dr. Ng Tat-lun is Managing Director–Operations, Global Lighting Products of Eveready Battery Company Inc. in Hong Kong and Director of several companies and organizations including the Hong Kong Plastic Technology Centre located in the PolyU.

Dr. Ng is currently the Deputy Chairman of the Vocational Training Council and Vice-Chairman of the Occupational Safety and Health Council, as well as Chairman of the Production Management Committee of the Hong Kong Management Association. Dr. Ng was appointed a Justice of the Peace in 1992 and was honoured with an MBE in 1995.

The presentation: The past decades saw many drastic transformations in Hong Kong’s economic structure from one of an entrepot to one which focused on light manufacturing industry principally concerned with exports, and recently to the structure of a financial and service centre in the Region. Hong Kong lacks natural resources and its progress and success is largely dependent on the resourcefulness of its workforce. It is through extensive co-operation between the industry and the education/training institutions that Hong Kong has been assured of a continuous supply of highly capable workforce to meet its development needs. This presentation gave a brief account of the co-operative efforts by the education /training institutions and the industry in the area of education and training and of how co-operative education operates in Hong Kong.

New horizons in co-operative education



The speaker: Prof. Brian Low is Deputy Vice-Chancellor and Vice-President (Academic) at the University of Technology (UTS) in Sydney, Australia. He took up this appointment in July 1996. During 1990–1996 he held the position of Pro-Vice-Chancellor (Academic Support) at UTS. As Deputy Vice-Chancellor (Academic) at UTS he has overall responsibility for academic leadership and for strategic developments in flexible learning and work-based learning. UTS is the largest provider of co-operative education among Australian universities.

The presentation: A key characteristic of degree programmes at UTS and some other universities is their focus on the professional formation of students and this

can be seen most clearly in their emphasis on practice-based education. Various forms of practice-based education have existed for many years in many countries under generic titles such as co-operative education, clinical practicum, and more recently work-based learning.

The presentation described examples of the various forms of practice-based education and explored in some detail examples of work-based learning developed by UTS. Issues and challenges in work-based learning degree programmes both for universities and for industry were discussed.

Meeting new careers challenges through international study and training exchanges



The speaker: Prof. Abdallah A. Sfeir is Dean of the School of Engineering and Architecture at the Lebanese American University, Byblos, Lebanon. Prof. Sfeir spent most of his career in education in Lebanon, France and the US. He has been involved in international exchanges and traineeships and has been General Secretary of the International Association for the Exchange of Student for Technical Experience (IAESTE) from 1991 to 1998. IAESTE is an NGO that organizes the exchange of over 5,000 engineering students annually between its 65 members around the world.

The presentation: Careers are rapidly changing and future engineering professionals must face the double challenge of rapidly changing technologies along with an internationalized work market imposing greater geographical mobility. The implications are that graduates must have a self-sustainable knowledge base and a good preparation to live and compete in a world that extends beyond their natural surroundings.

The presentation surveyed how international educational and technical training exchanges contribute to making engineering programmes respond to these emerging needs. Based on actual case studies, inputs from employers, students and academics from different countries were analysed.

Differences and agreements between the three perspectives were outlined with particular consideration for cross-national borders.

Co-operative education: the european experience



The speaker: Dr. Maurits van Rooijen is Director, International Education of the University of Westminster in London, UK.

Dr. Rooijen was founding director of the Centre for European Studies at the Erasmus University Rotterdam. In 1993 he took up his present post and also became Managing Director of the University of Westminster (International) Ltd. Dr. Rooijen has extensive experience with transnational co-op education in Europe and beyond. He is chair of the working party for Universities and Industry/Business, Compostela Group of European Universities. He holds honorary appointments at the University of London, at the Guangdong University of Foreign Studies, Guangzhou, and is executive member of several international organizations.

The presentation: According to Dr. Rooijen, when speaking about Europe, one should appreciate its diversity, especially when it comes to educational systems. In most European countries industrial placements and co-op education have been limited to the vocational education sector. However, there is a clear trend towards co-op education in higher education as well, recognizing the need to smoothen graduates' transition to working life. Probably Britain, with its co-called sandwich courses and enterprise schemes, has been ahead in this respect.

Specifically European is the emphasis on transnational placements. European higher education tend to be quite international in content and this is reflected in trainee schemes. The European Union strongly stimulates transnational co-op education, not only within Europe, but also beyond. For example, the latest EU programme, which is to be launched next year, foresees in industrial placements for advanced students in the EU, China and Japan. ❖

Toward a greener Asia: Battery Energy Storage Systems

*The use of Battery Energy Storage Systems to support sustainable energy development in Asia is currently being studied by **Prof. Danny Sutanto**, Professor of the PolyU's Department of Electrical Engineering in collaboration with Dr. Walter R. Lachs, Visiting Fellow of the School of Electrical Engineering, The University of New South Wales, Australia. While such systems can bring many benefits, and many have predicted that electric vehicles will become increasingly popular, the electricity supply industry has yet to be prepared for the introduction of these systems. The following is the story from Prof. Sutanto.*

In many of the emerging economies in Asia, the demand for electricity is growing at least as fast as the growth rate of the economy. For the economic growth to continue, the rising demand for electricity has to be met. Whilst the estimates of the additional generation capacity required vary in detail, in principle, all agree that the capacity needed is substantial and that meeting the need will be difficult. Furthermore, most generation capacity has been coal-based and a significant amount of that is low technology and without flue gas desulphurisation. The effect on the environment is clear for all to see in many countries in Asia. The dilemma in Asia is therefore how to provide the three E's of sustainable energy development — support continuing Economic growth, provide Energy security and reliability and meet Environmental considerations.

Fortunately, there is at least a partial solution — the use of Battery Energy Storage System (BESS). The use of BESS to support sustainable energy

development in Asia is being investigated, in particular, in conjunction with the possible introduction of Electric Vehicle in the future. BESS allows the reduction of the peak demands while filling in the valley of load demand during the night, increasing the efficiency and load factor, and importantly reducing the need for generation expansion in the short term. Unlike power stations, battery energy storage systems (BESS) can, without problem, be placed in proximity to city consumers.

Practical advantages

There are many advantages for the entire power system offered by the introduction of BESS. This includes modularity of components, which besides readily allowing units of diverse ratings, greatly simplifies installation or augmentation.

1. Curtailing peak demands — When utilized in sufficient quantities to curtail the growth of the annual peak demand, any unexpected increases of demand could readily be absorbed by increasing, at short notice, the amount of energy storage capacity by augmenting existing BESS in as little as six months. This compares with the considerable delays now encountered in commissioning new power stations or acquiring additional lines. Most importantly, the energy storage could curtail daily peak demand — the time when blackout usually occurs in many developing countries.

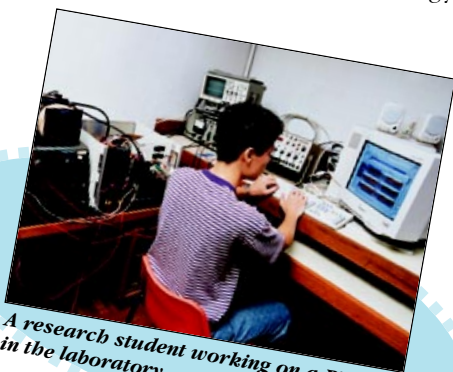
2. Improving security — The much faster responses of the BESS inverters, than the

traditional turbo-generator governors, would react to quickly control the effects of any disturbance

3. Improving reliability — With the tremendous advantages of locating BESS in distribution networks, back-up supply would be close at hand even if the BESS were not in the consumer's installation. This would make a major impact on consumer reliability as 90 per cent of interruptions to individual consumers are currently due to disturbances in the distribution networks.

4. Impact on generation — With sufficient quantities of BESS to curtail daily peak demands, peaking power stations do not have to be manned nor be run up. At light load periods, re-charging the energy storage allows base load generators to be run at higher, more efficient outputs and avoids the need to shut units down. When suitable inverter controls will be developed, energy storage would be able to take over frequency control from generators which would reduce mechanical wear at the power stations. Furthermore, with a sufficient amount of energy storage, it would no longer be necessary to carry much spinning reserve on the generators.

5. Electricity forecasting — At present demand forecasting is the area of greatest uncertainty, particularly the fast changes at peak periods. With sufficient energy storage to curtail the peak periods, the need for half hour to half hour demand forecasting would virtually be eliminated.



A research student working on a BESS in the laboratory.



Prof. Sutanto: Electric Vehicles can bring with it many advantages.

(Photo of vehicle taken with permission from The Hongkong Electric Co. Ltd.)



There would only be a need to forecast the following 24 hours energy demand, to allow the day by day scheduling of generation. By removing demand uncertainty, it would be possible to have uniform daily electricity generation costs, greatly simplifying consumer tariffs.

6. Utilizing spare batteries of electric vehicles

— A projection of 2.5 million electric vehicles (EV) worldwide has been made for 2005. Such quantities of EV will have a pronounced impact on the power systems. If the Electricity Supply Industry allows EV owners latitude to recharge EV batteries at any time, there will be increases of peak demand which will undermine the reliability of supply as well as adding to the cost of extending and operating the power system. On the other hand if the power systems make preparations to control the times and amounts of charging spare EV batteries, these problems could be averted. If, in addition, the utility access is gained to utilize the EV battery stored energy, very significant operational and cost savings could be gained. These benefits can only be gained if the Electricity Supply Industry is prepared to make up front expenditures to develop a service station infrastructure and provide sufficient spare EV batteries to lease to EV owners. Not only would this encourage community acceptance of EV, but power systems would gain a

Greenhouse Gas Emission credit for the reduction of petrol car emissions. The lowered air and noise pollution for city residents would be reflected in reducing health expenditure and community and political approbation for the Electricity Supply Industry.

7. *Additional facets* — Inverters associated with energy storage can allow an undreamed level of flexibility. There are many other aspects of power system operation which will be solved by developing the necessary inverter controls to fulfill the needed functions. Some possibilities are back-up power and “clean supplies” for consumers, interruptible loads, improved emergency responses, etc., which make the advent of energy storage for power systems such a promising avenue.

8. *Potential cost savings* — Sufficient quantities of BESS located at or near consumer installations in the metropolitan distribution networks offer a means of overcoming many of the present operating difficulties. Even though the BESS installations would need to be organized by the distribution bodies, there would be benefits to the grid company, the generating bodies and consumers. These advantages emphasize the need for a co-operative effort by all constituent parties to gain the maximum economies. An estimate has been made of capital

and operating costs, to cover the entire power system, of \$27,000–31,500 for each kW increase of peak demand. In comparison, the capital and operational costs of BESS (allowing for battery renewals) would be \$9,000/kW. If all parties associated with the Electricity Supply Industry would contribute towards the purchase of BESS, they could each reap a handsome dividend, not only in equipment and operational savings, but in an improved level of security for the entire power system.

A new BESS

The research team at the PolyU is currently implementing a novel interactive BESS for demonstration purposes. At the heart of the new BESS is a microprocessor enabling program interface coupled with communication port that permits adjustment to suit varying conditions. The microprocessor controls the running of the inbuilt inverter/charger and bank of sealed lead acid batteries. Rated at 5KVA the unit can synchronize and interact with the power supply. Some of the features are as follows:

- Provide high quality power with negligible harmonics.
- Control the input power from the network to programmed levels using the microprocessor on board.
- Can be used as an uninterruptible power supply (UPS) in situations where continuous quality supply is critical, e.g. medical, computing, communications, etc.
- Reduce flicker interference and peak load demand from the supply.
- Provide redundant fail safe power.
- Can defer, or cancel network refurbishment.
- Allows the easy integration of renewable resources such as solar, wind, tidal etc. into the network.
- Provide voltage support.
- Provide VAR support at the point of supply.

It is hoped that the study will demonstrate that BESS offers an important resource for improving power system control. ♦

Transcending the boundaries: Electronic engineering in the Information Era

*The PolyU's Department of Electronic Engineering has recently been renamed the "Department of Electronic and Information Engineering". In this article, Associate Professor of the Department **Dr. Michael Tse** examines the global developments in this trendy field of study and explains the significance that lies behind this change of name.*

One of the key motifs in the advancement of technology is the responsiveness to society's needs. Information technology (IT), in particular, has been developing at a phenomenal pace over the past two decades, and academic institutions will ever be trying to hit a moving target as they prepare people for such a dynamic profession.

The Department of Electronic Engineering at the PolyU, under the headship of Prof. Siu Wan-chi, has taken the initiative to extend its core emphasis from a traditional circuit oriented discipline to a computer and information oriented discipline. And on 11 June 1998 the University's Senate formally endorsed the retitling of the Department as the "Department of Electronic and Information Engineering" (EIE) with effect from the 1998/99 academic year. The new name reflects more appropriately the Department's current practice and future direction in the formulation of educational goals, the implementation of academic programmes, as well as the pursuit of high-level scholarly and applied research. The retitling has given a clear identification of the Department's role in actively promoting an IT culture within the University as well as in the community.

The following presents a view of the global trends in the development of electronic related technologies, and reviews some major steps taken by EIE in coping with these trends.

Global trends in electronic engineering

Much of the technology that structures and enhances our lives today, in ways we

largely take for granted, is of extremely recent origin. It is only a little more than three decades from the invention of the first junction transistor to the prevalent use of Very-Large-Scale-Integrated (VLSI) circuits and systems in trillions of units of information processing equipment found in today's homes and offices. The past two decades have seen a great number of exciting developments in electronic engineering and its related technologies. In the process of this development, electronic engineers have been increasingly involved in the creation, development, maintenance and support of the technologies directly related to the emerging field of information processing.

With but few exceptions, information-oriented applications are becoming the core areas of applications that are supported by electronic engineering. The intense development in these application areas have made the study of the associated technology a discipline in its own right — information engineering.

Information engineering and electronic engineering

The meaning of the term "information engineering" can be translated literally to the art of creating, managing and applying the science by which communication or the reception of knowledge and intelligence is made possible or improved for man and his environment. From the point of view of electronic engineers, moreover, the term "information engineering" refers to the art of creating, manipulating, applying and delivering the technology that enables the intelligent storage, retrieval, management

and applications of information which are useful to man. In the usual technical sense of the term, information engineering is connected with the specific types of technology that are associated with the use of computers or computational devices. The realm of information engineering therefore encompasses a variety of basic and applied studies, e.g., computer systems and networking, information theory, software engineering, signal processing, image and pattern recognition, satellite communication, management of large-scale networks (e.g., INTERNET), etc.

Information engineering alone does not contribute to any meaningful real-life applications. To apply effectively the principles of information engineering to real-life problems requires novel conjunction and judicious utilization of electronic technologies. Indeed, information engineering can be brought to bear only if the supporting electronic technologies are prudently developed to meet the needs. For instance, without fibre networks and high-speed photonic/electronic switching devices, data communication would not be possible at such a high speed and reliability, no matter how advanced the protocols, software, and computation techniques are developed in information engineering.

Information engineering and electronic engineering are therefore co-dependent disciplines; one may be considered as fueling the other. It is extremely common to see academic units and research centres, whose primary interest is information engineering, invest considerably in the development of electronic technologies. Thus, the design of most modern electrical and electronic engineering curricula deliberately combines information engineering subjects with conventional electronic engineering subjects.

The rapid and pervasive transformation of electronic engineering, from a traditional electronic and circuit oriented discipline to one that encompasses information processing and computer intelligence, is a central fact of the engineering profession. It calls for the strengthening of the engineers' skills for critical analysis and innovative design based on a broad foundation of knowledge and experience in both the traditional field of electronic engineering and the emerging field of information engineering.

Recent departmental developments

The rapid acceleration of the field of electronic engineering towards information-processing-intensive and massively networked applications sharply heightens the urgency of shifting our educational and research emphasis towards information engineering. Indeed, information engineering is rapidly becoming a core area of study in many electrical and electronic engineering curricula in the US, the UK, Japan, Australia and Europe.

Along with this shifting of emphasis towards information engineering, EIE has over the past few years taken proactive measures to enhance basic facilities, teaching resources and research capabilities in information engineering and its related technologies. However, traditional subjects in electronic engineering remain as major subjects of teaching and research in the Department.

In enhancing EIE's basic facilities and intellectual assets, the Department established the Digital Signal Processing Research Group, now the largest research group in the Department and headed by Prof. Siu Wan-chi. Also, the Computer and Intelligent Systems Teaching Section was restructured in 1995 to deliver a spectrum of subjects in information engineering. The Department now has a highly qualified faculty whose areas of expertise fall exactly

on information engineering or related disciplines. Besides, the Department has recently established two new laboratories: the Digital Signal Processing Laboratory and the Media and Networking Laboratory.

In implementing its teaching programmes, the Department has instituted core and elective courses, at undergraduate and postgraduate levels, to teach principles of information engineering. The change in emphasis of the curriculum design in favour of information engineering has become clearly visible with the introduction of new teaching programmes in 1997 under the University's new Credit Based System. Essentially, with the new programmes, students can focus on selected areas of



Prof. Siu Wan-chi (standing, right) and colleagues studying Digital Signal Processing.

study categorized under different study streams — e.g., telecommunication stream, information engineering stream, etc. — all of which have direct conjunctions with information engineering.

In the teaching of postgraduate programmes, EIE offers the largest number of Master of Science modules in the University, many of which fall in the discipline of information engineering, e.g., digital signal processing, broadband ISDN and satellite communications, etc.

In research, consistent with the shift of teaching emphasis towards information engineering, a considerable number of research projects are having strong connection with information engineering. In

the area of digital signal processing, specifically, the Department has an impressive research track record, having published over 300 journal and conference papers, among which many are related to the core technologies that enable information transmission, storage, manipulation and retrieval. The recent establishment of the Centre of Digital Signal Processing for Multimedia Applications, which is headed by Prof. Siu Wan-chi, further focuses research resources along this direction. With 13 core faculty members and 11 other faculty members who work in related areas, this centre has made some significant contributions to the development of fast algorithms, high-performance signal processor architecture, data compression techniques, video and audio coding, pattern and voice recognition, network management, multimedia applications, medical imaging, etc. In addition, the Department recognizes the important role of advanced communication systems in enabling reliable and efficient distribution of information. The recently founded Wireless Information Systems Research (WISR) Centre in particular is devoted to the development of wireless communication systems. This centre,

headed by Prof. Asrar Sheikh, has seven core faculty members who are active in a wide range of research topics including adaptive equalization, interference cancellation, frequency allocation, etc. The Department's other core research areas include power electronics and thin-film optoelectronics.

Looking ahead

The retitling of the Department and all its taught programmes reflects the Department's commitment and determination, not only to train the society's preferred engineers, but also to transcend traditional boundaries in keeping pace with the rapid advancement of the profession. ❖

New helmsmen outline their vision

Two enthusiastic scholars with a wealth of knowledge and experience have joined the PolyU during this summer. They are: Prof. Gerald Fryxell, who took up chair professorship and headship at the Department of Management; and Prof. Kevin Cullinane, who assumed duty as Head of the Department of Maritime Studies.

Commenting on the future development of the Department of Management, Prof. Fryxell stressed that the Department had to be more focused in building its distinctive competencies. "Advancements in information technology along with more traditional communication channels should be used to forge a closer partnership with our students and employers in order to align our curriculum more closely to their needs," he added.



Prof. Fryxell

Prof. Fryxell was a Fulbright Scholar at the Eastern and Southern African Management Institute in Arusha, Tanzania in 1989/90 and at the Academy of Economic Studies in Bucharest, Romania in 1993/94. He was an Associate Professor at the University of Tennessee at Knoxville before joining the PolyU.

Prof. Fryxell completed his higher education in the US where he obtained his MBA and PhD in Business Policy. His current research interests include Environmental Management Standard, Top Management Team Trust, Technology and Health Care ("Managed Care"), and International Joint Ventures.

At the Department of Maritime Studies, Prof. Cullinane is very optimistic about the future development of the discipline in Hong Kong.

"As the world's largest container port and one of its leading centres of maritime business, Hong Kong is a natural location for teaching and research in shipping and logistics. Our department, as the sole provider of tertiary education in this respect, has the potential to develop rapidly into Asia's centre of excellence in maritime education and research," he said.

He was a graduate from the University of Plymouth in the UK, where he obtained two Bachelor degrees, a Master degree, and a PhD degree in Shipping. Upon graduation, he had many opportunities with work with prestigious institutions and organizations in different countries. In 1993, he rejoined his alma mater as Director of Research and Head of the Centre for International Shipping and Transport, as well as Principal Lecturer at the Institute of Maritime Studies of the University before taking up his present position at the PolyU.

Prof. Cullinane is a prolific researcher. His research interests include maritime economics, mathematical modelling of shipping markets, international financial management and shipping finance. One of his current research projects being undertaken is freight mode choice in the Baltic Sea region. ❖



Prof. Cullinane

External appointments of staff

- **Prof. Edwin Cheng**, Vice-President (Research and Postgraduate Studies), has been appointed by the Government, on a personal basis, as a member of the Hong Kong Committee for Pacific Economic Co-operation for a term of two years from April 1, 1998. The Committee advises the Secretary for Trade and Industry on matters relating to Hong Kong's participation in the Pacific Economic Co-operation Council and co-ordinates Hong Kong's input to the Council.
- **Prof. Leung Tin-pui**, Vice-President (Quality Assurance), has been re-appointed by the Government as a member of the Town Planning Board for a term of two years effective April 1, 1998.
- **Mr. Barry Burton**, University Librarian, has been elected as Chairman of the Joint University Libraries Advisory Committee for the period from April 1998 to March 1999. ❖

Distinguished duo off to UK on HongkongBank scholarships

Two outstanding PolyU students, Mr. Shiu Ka-chi from the Department of Electrical Engineering and Miss Wong Shuk-yea from the Department of Chinese and Bilingual Studies, have recently been awarded the one-year study exchange scholarships donated by HongkongBank.

Both students have earned high commendation from their heads of departments in terms of academic excellence and participation in extra-curricular activities. They left for UK in September to take up the second year of their degree courses at City University in London and the University of Durham respectively.

The HongkongBank One Year Exchange Scholarship has been established by the Hongkong Bank Foundation to enable Hong Kong's undergraduate students to spend one year of their degree study at an overseas university. The recipients will return to their home university for their final year of study.

The value of the scholarship is up to a maximum of HK\$210,000, which will cover tuition fees and go towards room and board, return airfare, and part of other living and study expenses.



The scholarship recipients pose with Mr. John Strickland (Centre), Chairman of HongkongBank.

Young designers make their mark



Wong Kwok-tung (left), Joseph Chow (third from left) and Woo Kwok-ming (second from right) pose with the artists.

The original designs of nine PolyU students in fashion and clothing have received high praise from esteemed judges at the 1998 Young Designers Award (Image Creation), a gala event jointly organized by the Radio Television Hong Kong and the PolyU's Institute of Textiles and Clothing.

In the eyes of the judges, the students have truly expressed the spirit of "novelty" and "undauntedness" of young designers.

The overall championship went to Wong Kwok-tung, who presented his "contradiction" collection by a deliberation of the clean-cutting and simple style. Joseph Chow and Woo Kwok-ming received the Most Creative Design Award.

The fashion show featured modeling by nine popular local artists.



ITC



ITC



ITC



Students show talent and flair

The PolyU's Institute of Textiles and Clothing (ITC) and School of Design (SD) presented their fashion shows on June 22 and 25 respectively to display works by the two student groups, each with their own talents, experiences and career expectations.

In this year's fashion extravaganza, original designs by 25 ITC students from the degree course in Clothing Studies and Higher Diploma in Fashion and Textiles Studies were modeled by students from the North West Institute of Textile Science and Technology in Xian.

The 22 BA(Hons) Fashion design students from SD have each created a collection of six outfits which form part of their degree assessment. The students this year showed collections of womenswear and menswear for the contemporary consumers. The design inspirations are derived from themes as far apart as the search for spiritual purity in modern life to the naive appeal of a child's painting, as well as the mistreatment of clothes to sky flying. ❖

應屆紡織及設計畢業生時裝展

紡織及製衣學系及設計學系分別於六月下旬舉行畢業生時裝展，展示學生之設計才華。首先，二十五位服裝學學士與紡織及服裝學高級文憑課程的畢業同學，各自展出了自行設計及縫製一系列四款的作品，並由一批西安的西北紡織工學院學生，專程來港於時裝展上擔任模特兒，令時裝展生色不少。

設計系同學展出之作品題材非常廣泛，設計靈感有來自現代人對潔淨心靈的追求及天真孩童的塗鴉；另外又有對由於衣物處理失當，以及高空飛行所觸發的有趣演繹。 ❖

SD



SD

SD



Contest finds talents for writing

徵文比賽得獎作品選輯

The following articles are excerpts from an Essay Competition jointly organized by the Department of Chinese and Bilingual Studies and the Centre for Independent Chinese Language Learning.

理大中文及雙語學系與中文自學中心較早前在校內舉辦了一項徵文比賽，以下為得獎作品的精采片段。



從左至右：楊昆岡博士、李學銘博士、何杏楓博士、林勁楠同學、鄧遠婷同學、馮懿珊同學、林偉榮同學。

生死男女中的永恒宿命 ——評董啟章的《少年神農》

《少年神農》小說中，主要可分為兩部分，前半部是以遠古中華民族的起源和發展，再加入許多家傳戶曉的神話故事，故此文章充分可見作者豐富的想像力和完備的構思；而後半部則是將時空搬到我們熟悉的二十世紀，而且俯拾皆是極富生活化和現代感的筆觸。

開章開首的兩小段「起先，人們……一值少年」。和「後來，我說……一個少年」正正是故事的中樞脈絡，從而帶出生命中宿命的基調和悲劇。

正如上文所述，前半篇小說擬定為遠古中華民族的起源作為故事背景，牛首人身的神農，起初出於無聊而「嘗百草之滋味」，後來愛成習慣，繼而擁有了長生不老不死的異稟。

往後的日子，神農承受孩子先死去的痛苦、經歷了多次戰爭、遇上了他的愛人纍，逐漸自覺「不死的生命是重擔」，於是神農和纍四出尋覓至毒之毒。直至倉頡創造了文字那年。愛人纍開始老了。五十年後，纍老死，神農服下以前尋獲的至毒之毒，不但沒有死，反而牛首變成了俊俏的少年面孔，他只能孤獨無奈地繼續活下去。

而後半部分小說的時空則轉至現今社會(香港?)。兩位主角——神農和趙蕾，他們各自的生活方式截然不同，明顯地互有衝突，卻又走在一起，成了戀人。同居以後的磨擦：彼此對愛滋病的不同見解；所閱讀的文學作品；自然與科技的矛盾衝突；生活取向和價值觀——一個為自己的理想，一個為社會的現實，使兩人之間的感情更見裂縫。

書評組冠軍
應用物理學系
林偉榮

把夢談心

我來了。

你不要躲開我。自從你的潛意識裡下了那個自我毀滅的決定，我就知道是時候要和你好好談一談了。你毋須搖頭，不必欲言又止。一切我都明白，沒有人能比我更了解你……因為我是你的心靈。

……

天快亮了，讓我快快對你講完。你抬起頭來，把眼淚擦乾。來，看著我的眼睛，就如你每天清晨照鏡一樣。千古艱難惟一死，如果你有死的勇氣，難道卻沒有生的意志嗎？請你，親愛的人，告訴自己，從這一秒鐘起，你便是一個自信自愛的人，在這個前提下，一切才有成功的希望。我們每一個人，只有積極地面對現實，才更能體會成功的快樂，人生的喜悅。世上無難事，「擔當」二字而已。……

明天會更好，真的。 ◆

散文組冠軍
酒店及旅遊業管理學系
林勁楠

Outstanding alumni award open for nomination

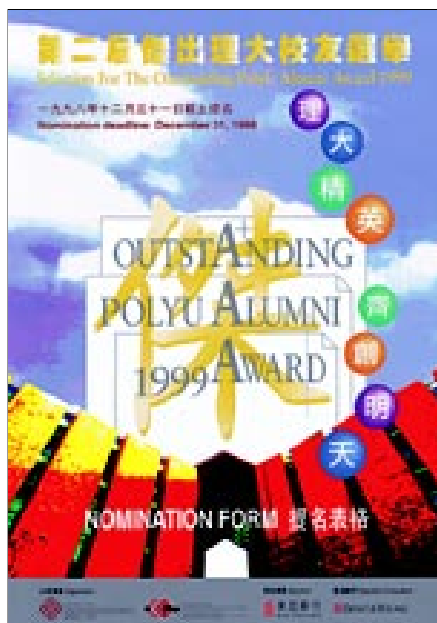
The PolyU and the Federation of PolyU Alumni Associations (FHKPUAA) will join hands again to organize the second "Outstanding PolyU Alumni Award (OPAA)" scheme to give public recognition to the cream of the cream among the 170,000-plus graduates of the University for their professional accomplishments and contributions to the community.

Nominations are open from mid-October until December 31. All graduates of the PolyU or its forerunners, the former Hong Kong Polytechnic and Hong Kong Technical College, are eligible to be nominated.

Introducing the Award, the PolyU President, Prof. Poon Chung-kwong, said: "The Institution has, over the years, sent forth more than 170,000 young men and women."

With their outstanding professionalism, commitment to the community and support to their alma mater, Prof. Poon added, many have set good examples for their fellow alumni and other young people to follow.

The eight-member Panel of Judges for the Award comprises: Mr. Chau Tak-hay, Secretary for Trade and Industry (Panel Chairman); Mr. Albert Lee Cheuk-lun, FHKPUAA Chairman; The Hon. Leung Chun-ying, Member of Executive Council and Managing Director of C. Y. Leung and Co. Ltd.; Dr. the Hon. David K. P. Li, Member of Legislative Council and Chairman and Chief Executive of The Bank



of East Asia, Ltd.; Dr. the Hon. M. W. Lui, Member of the Legislative Council and Managing Director of Keystone Electronics Co. Ltd.; Dr. Ng Tat-lun, Managing Director of Operations, Global Lighting Productions of Eveready Battery Co. Ltd.; the PolyU President Prof. Poon; and Mr. Tung Chee-chen, Chairman of the PolyU Court.

Preliminary screening will be conducted by the Honorary Selection Consultant, Ernst and Young Certified Public Accountants, in January 1999, and results announced in mid-February. Each winner will receive an "Outstanding Alumni Award" trophy and proposers of the award winners will receive souvenirs in appreciation of their nominations. This meaningful initiative is sponsored by The Bank of East Asia.

Nomination forms are available on PolyU campus from the Pao Yue-Kong Library, Book Shop, FHKPUAA Office, and Office of Communications and Public Affairs, and at the office of Ernst and Young Certified Public Accountants, at 15/F, Hutchison House, 10 Harcourt Road, Central, Hong Kong.

Launched in late 1996, the first selection of OPAA was a tremendous success and the six outstanding awardees are (in alphabetical order) are: Mr. Leung Chun-ying, Mr. Ng Sai-ho, Dr. Ng Tat-lun, Dr. Chris Wong Ho-ching, the late Dr. Samuel Wong Ping-wai, and Miss Vivienne Tam. ❖

Smiling faces in Vancouver



former staff and students of the Institution brought together by the 180-strong Hong Kong Polytechnic University (Western Canada) Association. More than 60 members joined the Association's barbecue picnic, while the President brought to members news about Hong Kong's economy and the PolyU during the dinner which followed. ❖



In early August, the President, Prof. Poon Chung-kwong and Mrs. Poon had a warm gathering in Vancouver, Canada, with