From the Director

In my column, From the Director, of the UICEE Newsletter, Vol.9, No.1, published in March 2002, I elaborated on the 60th birthday celebrations of our distinguished Chairman of the UICEE Academic Advisory Committee, Prof. Peter LePoer Darvall. At that time, there was no indication that Prof. Darvall would become the Vice-Chancellor of Monash University, and that he would subsequently become an Emeritus Professor of this University in slightly less than two years. Nevertheless, this provides an excellent example of how things can change so rapidly in academia these days. One could paraphrase the saying that one year in the university life is a long time. However, it is obviously much too early to tally and analyse all of the wide-ranging and impressive achievements of Prof. Darvall as an academic and university leader, as well as a knowledgeable contributor to the profession at large and a powerful force for engineering education in particular, because it is hoped that he will continue his contribution to academia, if only on a smaller scale.

As a serendipitous result, and what is a significant moment for the UICEE, we are delighted to inform members of the UICEE Global Family of Engineering Educators, as well our sympathisers and readers, that Prof. Darvall has kindly decided to continue as the UICEE Chairman and also as the Chairman of the International Liaison Group for Engineering Education (ILG-EE), based in the UICEE, for some time to come. Furthermore, he, as the most immediate retired Vice-Chancellor of Monash University, has accepted our cordial invitation to have his office in the premises of the UICEE. This will permit him to have a more hands-on approach to the UICEE’s activities, including greater interaction with the humble UICEE Director and staff.

I believe that there are exciting and challenging, yet perhaps uncertain, times ahead for all of us and that Prof. Darvall will continue to carry the banner of global engineering education extremely high, as he has already done thus far, and that we all will assist him in this important and far-reaching task! In the meantime, on behalf of the UICEE staff members, associates and sympathisers, and indeed myself, I wish him happy active retirement, good health, prosperity, and inspiration, which can be resonated within the UICEE.

New Vice-Chancellor

The UICEE is delighted to introduce Monash University’s new Vice-Chancellor and President, Professor Richard Larkins AO. In assuming the mantle of Vice-Chancellor, Professor Larkins declared that he considered Monash to be the best placed of any Australian university to become a great international university, really able to make a difference to some of the global problems.

Prof. Larkins has a distinguished career in the fields of scientific research and academic management. From 1998 to 2003, he was Dean of Medicine, Dentistry and Health Sciences at the University of Melbourne and held the James Stewart Chair of Medicine at the Royal Melbourne Hospital from 1984 to 1997.

His research and clinical work were in diabetes and endocrinology. In 1982, he was awarded the Eric Susman Prize for medical research. From 1982 to 1984, he was President of the Endocrine Society of Australia.
More recently, Professor Larkins was Chair of the National Health and Medical Research Council of Australia from 1997-2000, President of the Royal Australasian College of Physicians from 2000-2002, a member of the Prime Minister’s Science, Engineering and Innovation Council from 1977-2000, a member of the National Aboriginal and Torres Strait Islander Health Council from 1997 to 2000, and Chairman of the Accreditation Committee of the Australian Medical Council from 1991 to 1995.

Prof. Larkins was made an Officer of the Order of Australia (AO) in 2002 for service to medicine and health, as part of the Queen’s Birthday Honours, recognising his work as an advocate for increased investment in research, a contributor to health policy reform and an initiator of innovative medical programmes and training opportunities for medical officers in the Oceania region.

In a tour of the various Australian and international Monash campuses, Prof. Larkins recognised that Monash University derived much of its strength from the diversity of its campuses, stating that Monash’s multiple campuses have added a level of complexity that provide wonderful opportunities to engage with multiple communities both in Australia and internationally. He went on to say that each Monash campus should develop one or more areas of international excellence and, in concert with local communities, devise particularly relevant programmes of education and applied research to meet community needs.

Staff and associates of the Centre wish Prof. Larkins success in his new position as Vice-Chancellor, and look forward to benefiting from his vast experience in the scientific research and management arenas.

Baltic Seminar

The highly successful 7th Baltic Region Seminar on Engineering Education was held at St Petersburg Electrotechnical University, LETI, St Petersburg, Russia, a Partner institution of the UICEE, between 4 and 6 September 2003. This coincided with the 300th anniversary of the city’s foundation by Peter the Great.

The Seminar focused upon various important themes that concerned not just the Baltic region, but also the world. There were over 60 participants from 20 countries worldwide, including Africa, Asia, Australia, North America and, of course, Europe, representing a diverse mix of developed nations and those in economic transition. Over 50 papers were presented that covered a wide range of important engineering education issues, which generated excellent topics for formal discussions, as well as the social outings and dinners. Indeed, St Petersburg provided a picturesque and culturally rich background to the Seminar and its activities.

On the occasion of the Gala Banquet at the 7th Baltic Seminar, the UICEE Director was pleased to accord Prof. Vadim P. Popov, a Vice-Rector of Taganrog State University of Radio Engineering, Taganrog, Russia, a Contributing member of the UICEE, with the UICEE Silver Badge of Honour to recognise his distinguished contributions to engineering education. The photo shows Prof. V.P. Popov receiving his award from the UICEE Director.

Copies of the volume of Seminar Proceedings are now available for purchase from the UICEE, and cover a rich diversity of papers. This is demonstrated in the 54 collected papers taken from the Seminar.

2nd Balkan Conference

The 2nd Balkan Region Conference on Engineering Education was a successful venture that was organised and run between 16 and 19 September 2003 by the Lucian Blaga University of Sibiu, Sibiu, Romania, a Partner institution of the UICEE. Close to 30 international delegates attended, representing ten countries, with about the same number of Romanian delegates.

The highlight of the proceedings was the official opening of the Balkan Region Centre for Engineering Education (BRCEE) on 16 September 2003. The Centre is being directed by Prof. Constantin Oprean, Vice-Rector of the University, with the aid of two Vice-Directors, Assoc. Prof. Claudiu V. Kifor and Assoc. Prof. Nicolaie Georgescu.
The Conference can be characterised by an excellent academic programme, as well as a rich social programme, which included a field excursion to the ASTRA Outdoors Folk Museum in Dumbrava Forest, as well as a visit to the medieval town of Sighisoara. Sibiu itself incorporates a medieval town, which provided participants and their guests with the opportunity to explore its charm, beauty and historical impact on the whole region.

The photo shows the opening of the BRCEE by the Vice Rector, Prof. C. Oprean, and the UICEE Director, Prof. Z.J. Pudlowski, officially inaugurating the Balkan Region Centre for Engineering Education (BRCEE) by cutting a ribbon.

The second photo shows the Conference organisers in a more informal atmosphere, relaxing in Sighisoara, which is attributed as the birthplace of Count Vlad the Impaler, sometimes considered as the origin for the Dracula legend.

A volume of Proceedings was produced collecting the 59 submitted papers.

**Partner in Częstochowa**

Thursday, 25 September 2003, saw the official opening of a new partnership agreement between the Faculty of Management at the Technical University of Częstochowa, Częstochowa, Poland, and the UICEE.

The signing ceremony took place in the office of the Rector of the University, Prof. Henryk Dyja, with several other distinguished academics in attendance, such as Prof. Stanisław Mikołajewski, University of Mining and Metallurgy, Krakow, and Higher Professional State School, Tarnów, both in Poland, as well as Prof. Krzysztof Kluszczyński of the Silesian University of Technology, Gliwice, Poland, and Director of the Centre for Education in Mechatronics (CEM), a satellite centre of the UICEE.

It is envisaged that under the Agreement, a Centre for Engineering Management and Agribusiness Education (CEMAE) will be established in the Faculty of Management at the University.

The Centre, acting as a satellite centre of the UICEE, will work together with the UICEE to further the globalisation of engineering and technology education, with the particular mission to promote education in engineering management and agribusiness.

The photo shows Prof. H. Dyja, Prof. J. Szopa and the UICEE Director signing the Agreement, which was witnessed by the Vice Rector of the University, Prof. Maria Nowicka-Skowron, and Prof. Eugeniusz Gurgul, both from the same University, as well as Prof. K. Kluszczyński, and Prof. S. Mikołajewski.

**1st North African Seminar**

The University of Science & Technology Houari Boumediene, Algiers, Algeria, a partner institution of the UICEE, and specifically its satellite centre of the UICEE, the North Africa Centre for Engineering & Technology Education (NACETE), organised and played host to the 1st North African Region Seminar on Engineering and Technology.

The signing of the Partnership Agreement between the Technical University of Częstochowa and the UICEE. Seated are (l-r) Prof. J. Szopa, Prof. H. Dyja and Prof. Z.J. Pudlowski. Standing are (l-r) Prof. S. Mikołajewski, Prof. M. Nowicka-Skowron, Prof. E. Gurgul and Prof. K. Kluszczyński.

Internet: http://www.eng.monash.edu.au/uicee
This Seminar was held from 23 to 25 September 2003.

The Seminar’s participants contributed to the production of a short report on engineering and technology education, which was a reflection of the interesting debate concerning numerous topics vital for engineering and technology education.

The report also includes some recommendations, which were made by Seminar participants. This incorporated five major tasks and objectives.

The first group of recommendations involved establishing a taskforce within the NACETE to gather specialists and educators from various industries, government ministries and non-governmental organisations.

The second recommendation concerns the increased use of computers and relevant software and programs to form the basis for every engineering education programme.

The third recommendation expresses the urgent need to implement a competitive philosophy in Algerian universities and the introduction of assessment and evaluation mechanisms in engineering education, as well as accreditation.

The fourth recommendation concerns the Conceive-Design-Implement-Operate (CDIO) initiative, which was found to be of relevance to a new common engineering education vision for Africa.

The last group of recommendations is to increase the time volume of human science, particularly engineering and societal courses, and lists some specific objectives to achieve this.

It is hoped that these recommendations will be taken on board by the relevant organisations.

The photo shows the Rector of the University, Prof. Benal Benzaghou, and the NACETE Director, Prof. Khedidja Allia, during the 1st North African Region Seminar.

Additionally, the UICEE Director paid a number of visits to several University units, including the Mechatronics Laboratory, which is under the supervision of Prof. Winfried Schauer in the Faculty of Electrotechnics and Informatics.

Prof. Schauer is well known in Germany for his strong achievements in control engineering and mechatronics, where he has designed, developed and implemented various highly specialised laboratories. These laboratories consist of distinct and complex teaching and research stands and equipment designed by himself, with the aid of his collaborators and students.

Prof. Schauer collaborates strongly with Siemens, ELABO and other firms that specialise in developing sophisticated teaching equipment for control, automation, robotics and mechatronics in particular.

The picture on the next page shows Prof. W. Schauer demonstrating one of his laboratory stands, which has been designed and developed by him. Also on the bench is a comprehensive manual for students, developed by Prof. Schauer in collaboration with ELABO to assist students in the experimental procedure.

International Academics Visit Wismar

Immediately after the St Petersburg Seminar, the UICEE Director visited Hochschule Wismar (HSW), Wismar, Germany, a Partner member of the UICEE. While there, the UICEE Director had the opportunity to discuss with Prof. Norbert Grünwald, Rector of the University and a Co-Director of the UICEE satellite centre based at HSW, the Gottlob Frege Centre for Engineering Science and Design (GFC), many issues of importance to the UICEE network.

After the 7th Baltic Region Seminar on Engineering Education, which was held in St Petersburg, Russia, in early September 2003, several academics decided to pay a brief visit to Hochschule Wismar (HSW) – University of Technology, Business and Design in Wismar, Germany, where its Rector, Prof. Norbert Grünwald, played host to these visits.

In their journey to Europe, Mr Balawant P. Tale, Director of the Maharashtra State Board of Technical Education (MSBTE), Mumbai, India, and Mr Suresh P. Yavalkar, Secretary of the MSBTE, inspected fellow UICEE Partner institutions and satellite centres.

This permitted discussions between the UICEE Partner members on potential future collaborative ventures and joint projects that can span regions and cultures in efforts to advance engineering education globally.

Also, Prof. Marika Vicziany, Director of the Monash Asia Institute at Monash University, Melbourne, Australia, a resourceful collaborator of the UICEE, paid a brief visit to Hochschule Wismar.
At that same time, other international visitors also included Mr Arun S. Patil of the UICEE and Mr George F. Page, a UICEE member from the Liverpool John Moores University, Liverpool, England, UK, whose individual projects brought them to Wismar for further research and feedback.

Prof. Menq-Jiun Wu, also sometimes known as Prof. Wuski, also attended Hochschule Wismar at this time. Prof. Wu’s research project in Wismar extended his stay in Wismar to all of September.

October and November have seen other visits to HSW by academics representing UICEE Partner institutions, such as the Tomsk Polytechnic University (TPU), Tomsk, Russia, and the Kigali Institute of Science, Technology and Management (KIST), Kigali, Rwanda, as well as from Auckland University of Technology, Auckland, New Zealand, a Supporter member institution of the UICEE.

Visit to ELABO by UICEE Director

The UICEE Director visited ELABO TrainingsSysteme GmbH in Kinding, in Bayern, Germany, while he was in Germany. The visit was arranged by Prof. Winfried Schauer from the Faculty of Electrotechnics and Informatics at Hochschule Wismar, Wismar, Germany, a Partner institution of the UICEE.

ELABO is a world’s leader specialising in safety technology, including sensors, actuators, bus systems, as well as high technology laboratory teaching equipment. The most impressive are those products and laboratory stands that are based on in-house sophisticated designs, as well as other teaching equipment, laboratory experimental equipment suitable for higher engineering education, including mechatronics and robotics gear.

The company is only a few years old and is a family business run by Mr Udo and Mrs Barbara Urban, along with the aid of Mr Sven Urban, who is Export Manager and in charge of Business Relations Development.

The picture shows Prof. Schauer at a laboratory stand designed and developed by him.

GJEE Update

Preparations are underway for the next issue of the Global Journal of Engineering Education (GJEE), Vol.7, No.3, which will feature a Special Issue in the German language. This will be the fourth such issue of the GJEE, where Prof. Norbert Grünwald, Rector of Hochschule Wismar, is once again Guest Editor of what has now become a regular and highly valuable feature of the GJEE.

It is envisaged that the subsequent issue, Vol.8, No.1, will reflect on the achievements and network established by the UICEE since its inception in 1994.

World Transactions

The latest issue of the UICEE’s World Transactions on Engineering and Technology Education, Vol.2, No.3, is at the printers and caps off a successful year for this latest journal of the UICEE.

Readers should be aware that a call for papers for Vol.3, No.1 of the World Transactions has already been made.
with the closing date set for 31 March 2004. The electronic kit for authors can be obtained from Mr Marc Riemer via marc.riemer@eng.monash.edu.au

Readers are invited to browse the UICEE’s World Transactions at:

Conference in Changhua

Taiwan is one of the most beautiful and exciting places on Earth, which provided an ideal venue for the 1st North-East Asia International Conference on Engineering and Technology Education. The Conference was held at the National Changhua University of Education (NCUE), Changhua, a Partner institution of the UICEE, between 10 and 13 November 2003.

The Conference was skilfully staged by Prof. David W.S. Tai, Dean of the College of Technology at the NCUE, and his dedicated and amicable staff and students. It basically served as the first opportunity for international academics to travel to Taiwan after the SARS epidemic, which has deeply affected this peaceful, friendly and hospitable society. Hence, there was a smaller than expected number of visitors. Nevertheless, the Conference organisers were able to create a warm climate for the exchange of information, not only through formal paper presentations and discussions, but also through facilitated personal contacts.

Close to 60 papers were presented and are included in a volume of Conference Proceedings. The Conference was summarised in an open forum where many important issues were aired and debated with several overseas specialists, who were keynote speakers at the Conference, providing their strong input. It was decided that the next conference in this stream would be organised in November 2005 at a venue yet to be identified and decided.

A field trip to Taipei provided overseas participants with an excellent opportunity to become familiar with the island’s history and rich culture, as well as view new achievements, including the spectacular Taipei 101, the tallest building in the world, which was opened in November 2003.

Furthermore, on the occasion of the Conference, a Cooperation Agreement between Hochschule Wismar – University of Technology, Business and Design (HSW), Wismar, Germany, and the NCUE, both Partner institutions of the UICEE, was signed by Prof. Norbert Grünwald, Rector of HSW and Prof. Charles Tze-Li Kang, President of the NCUE. This networking between Partner institutions reinforces the collaborative nature of the UICEE network, particularly at the Partner institutional level.

Gold Badge Award

At the beautiful setting provided by the 1st North-East Asia International Conference on Engineering and Technology Education, Prof. David W.S. Tai, Dean of the College of Technology at the National Changhua University of Education (NCUE), Changhua, Taiwan, and the Conference Chairman, was presented with the UICEE Gold Badge of Honour. This was bestowed upon him for his distinguished contributions to engineering education, outstanding achievements in the globalisation of engineering education through the activities of the Centre, and, in particular, for remarkable service to the UICEE.

This was an extremely important moment for the UICEE Global Family of Engineering Educators, as it was the first time that the UICEE offered its Gold Badge of Honour to an academic representing engineering education in Asia. UICEE members, staff, students and associates wish to thank Prof. Tai for his contribution to the UICEE global effort and congratulate him on this special occasion.

Siemens Goes East

Close to 20 senior Polish academics, representing a cross section of Polish technical universities and such disciplines as electronics, automation, control and mechatronics, visited Hochschule Wismar – University of Technology, Business and Design (HSW), Wismar, Germany, a Partner institution of the UICEE, as well as a plant of the German multinational company, Siemens, in Erlangen, Germany, between 24 and 29 October 2003. The visit was the first step of what is shaping up as a long-term programme, and was initiated by Prof. Winfried Schauer of HSW. The immediate objective of the visit was to establish a working relationship between Siemens and Polish academics under the supervision of Prof. Schauer.

The visit was facilitated by the UICEE, with strong input from Prof. Krzysztof Kluszczyński, Director of the Centre for Education in Mechatronics (CEM), a satellite centre of the UICEE at the Silesian University of Technology, Gliwice, Poland.

The visitors had the opportunity to become familiar with
Creativity for Engineers

At the 1st North-East Asia International Conference on Engineering & Technology, held recently in Changhua, Taiwan, the UICEE Director had the pleasure to meet Prof. Sam Stern, Dean of the Faculty of Education at the Oregon State University, Corvallis, USA, and was presented with a complimentary copy of the book titled: Corporate Creativity: How Innovation and Improvement Actually Happen, co-authored by Alan G. Robinson and Sam Stern.

The book is the outcome of many years of research on the nature of corporate creativity, which, apart from documenting and discussing numerous interesting cases, is an excellent guide on how to promote, generate and manage creativity in industrial organisations.

The book can be considered as being highly relevant to the process of educating future engineers and, in particular, to the issue of how engineers would become creators and innovators. Indeed, the book is a highly recommended compendium of information on creativity for every engineering educator.

It should be noted that Prof. Sam Stern has a formal education in both engineering (electronics) and education, a rather unique combination, and which is so vital for the progress of engineering education.

Visit to KMUTT

When passing through Bangkok, Prof. Norbert Grünwald, Rector of Hochschule Wismar (HSW) and the UICEE Director, paid a brief visit to King Mongkut’s University of Technology Thonburi (KMUTT), Bangkok, Thailand, a Partner institution of the UICEE, on Monday, 17 November 2003. Mr Somchai Congmuang, Secretary of the Faculty of Engineering, prepared the visit, and Dr Krissanapong Kiritikara, President of the KMUTT, and other senior members of the University Management, received the visitors.

The visit had two major objectives. The first was to discuss possible academic collaboration between HSW and the KMUTT, and to lay the foundations for the possible signing of a bilateral agreement on collaboration between the two institutions, within the framework of the UICEE. A wide range of issues related to this matter was raised and debated during the meeting. The Heads of the two institutions agreed that their representatives should work on a draft Memorandum of Agreement, which is likely to be signed at the near future.

The second objective was to discuss the modus operandi between the KMUTT and the UICEE on the organisation of the forthcoming 4th Global Congress on Engineering Education, which is scheduled for Bangkok, Thailand, between 5 and 9 July 2004. The two parties discussed areas of responsibilities and a range of potential activities related to the scientific and social programme of the Congress. 2004 is the year of the celebrations of the 200th year anniversary of the birth of King Rama IV, King Mongkut, Patron of the KMUTT. Hence, a decision was
made to coincide these celebrations with the Global Congress. It is thus envisaged that a half-day session including some special events will be held at the University in conjunction with the Congress.

Considering the fact that Assoc. Prof. Kraiwood Kiattikomol has recently stepped down as the Senior Vice-President and taken up the position of Dean of the School of Architecture and Design, the new Senior Vice-President, Assoc. Prof. Somchai Chanchaona, was designated to be the representative of the KMUTT at the UICEE. On this occasion, the UICEE Director thanked Prof. Kiattikomol for his outstanding contribution to the work and welfare of the UICEE. Prof. Chanchaona took up his duties on various UICEE committees, effective on 17 November 2003. On behalf of the UICEE members, staff, students and associates, we welcome Prof. Chanchaona to the UICEE and look forward to our close collaboration.

UICEE Polish Network

With the growing number of UICEE member institutions in Poland, including three Partners, namely: Silesian University of Technology (SUT), Gliwice; Gdynia Maritime University (GMU), Gdynia; and the Technical University of Częstochowa, Częstochowa, a decision was made to create a UICEE Polish Network (UPN). The paramount objectives of this network are to establish collaborative ventures between the Polish members, to coordinate existing activities, and to recruit more members to the UICEE, among other targets.

Prof. Bolesław Pochopień, the former Rector of the SUT, has kindly accepted the position of the Coordinator of the Network, with Prof. Stanisław Mitkowski, Head of the Department of Electrotechnics at the University of Mining & Metallurgy, Krakow, Poland, to act as the Co-coordinator.

We wish to thank these two distinguished Polish colleagues for their willingness to contribute their precious time to this new activity.

It is envisaged that other UICEE national networks will be established in countries where the UICEE has a significant number of institutional members.

7th UICEE Conference

Organisation of the 7th UICEE Annual Conference on Engineering Education, to be held in Mumbai, India, between 9 and 13 February 2004, is well underway. Papers are currently coming in and are being processed by the UICEE.

The 2004 Annual Conference of the UICEE is a joint venture with the Monash Asia Institute (MAI), based in Monash University, Melbourne, Australia, which will hold its 1st Annual Conference in tandem with the UICEE Annual Conference.

It is envisaged that there will be a strong level of cross-participation and that India will provide a significant input to these Conferences, with numerous issues of importance to Indian higher education being aired and discussed.

UICEE members may still like to propose a very late paper for presentation in India.

4th Global Congress

The 4th Global Congress on Engineering Education, to be held at the Menam Riverside Hotel in Bangkok, Thailand, between 5 and 9 July 2004, already has various papers proposals coming in.

This Congress is being run in cooperation with King Mongkut’s University of Technology Thonburi (KMUTT), Bangkok, Thailand, a Partner institution of the UICEE. It is hoped that the Congress will stimulate discussion on issues of importance for Asia, and Southeast Asia in particular, as this is the most economically advancing region of the world, where engineering, and hence engineering education, play a vital role.

Excellent arrangements have been made with the Hotel to facilitate attendance of Congress delegates and their spouses at absolutely competitive prices.

Bangkok obviously, and, indeed, Thailand as a whole, offer tremendous opportunities for holidays and tourist attractions. Members and readers of the Newsletter are encouraged to submit a paper proposal at their earliest convenience.

Conference on Ecological Engineering Education

A new stream of UICEE Conferences concerning environmental engineering has been developed, to be organised by the UICEE Partner institutions in sequence: one in Europe and the second in Asia, under the joint title of 1st Euro-Asian International Conference on Ecological Aspects and Issues in Engineering Education.

The first such Conference is being organised and hosted by Silesian University of Technology (SUT), Gliwice, Poland, under the theme of Cultivation of an Ecological Attitude in Society through Education, between 1 and 3 June 2004. The Conference is scheduled to commence in Katowice, the capital city of the Polish industrial heartland in Silesia, and will progress to the mountainside picturesque town of Wisła.

It should be mentioned that the SUT is the host and sponsor of the first Conference in this series, which should be considered a sister conference to that held in Siberia.

The Siberian Conference will run from 7 June to 12 June 2004 and has the specific theme of Environmental Engineering Education in Siberia - Important Issues and Challenges, and will be carried out at two of the prime educational institutions in the region, that is, at Tomsk Polytechnic University, Tomsk, and Altai State Technical University, Barnaul.

It should be noted that the Siberian Conference is being run in collaboration with the Russian Association for Engineering Education (RAEE).