



# Newsletter

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## From the Director

This European spring and summer have already seen, and will continue to see, a number of activities in engineering education taking place at various locations throughout Europe. Readers will find more information on these matters in this issue.

I was in Europe in May, when I attended the UICEE co-sponsored *90th Anniversary Jubilee Seminar in Engineering Education* held by the University of Wismar, Hochschule Wismar, in Germany. On the way to Wismar I stopped off in Berlin to visit a couple of institutions that are linked with the UICEE.

I was last in Berlin in 1990, not long after the collapse of the East German regime, and what I witnessed this time fuelled my imagination. The whole city is under redevelopment, a joint process of the Federal Government, which is establishing offices there, and private industry. After 50 years of partition, Berlin seeks to regain its former glory as one of the key European cities, and the city skyline has, in consequence, sprouted a forest of cranes!

The most impressive and indeed shocking experience for me was my visit to the *German Science Park*. I was taken there and guided by my friend Prof. Alfred Iwainisky, Director of the *Institut für Informatik in Entwurf und Fertigung*, and President of *Gesellschaft zur Förderung angewandter Informatik*, both organisations located in the Science Park in Adlershof. Many universities endeavour to establish Science Parks, and may rave about the success of setting up a site that employs a couple of hundred people in one or two buildings. I was astounded by the magnitude of the Berlin operation, which comprises over 300 buildings accommodating over 240 private companies on a site comparable to a small city.

In the same vein, German higher education appears to be moving into the twenty first century at full-steam with many new and exciting developments. The Germans are modernising their engineering education system to fulfil the needs of members of the European Union and the world beyond. I suspect that this enormous investment in education, science and technology will pay off for Germany

in the not too distant future. I would encourage my fellow engineering educators to make themselves familiar with these achievements.

## Honorary Doctorate

On 8 July, the UICEE Director, A/Prof. Zenon J. Pudlowski, received the degree of Honorary Doctorate of Technology from Glasgow Caledonian University (GCU), Glasgow, Scotland.

The degree was awarded in recognition of the Director's achievements in engineering and engineering education, and was proposed by Prof. Colin U. Chisholm, Dean, Faculty of Science and Technology, GCU. In accepting the Honorary Doctorate, the Director observed that it was recognition not only of his own research and development in engineering education, *but also of those academics who have been involved in engineering education on a global scale.*

This award follows the earlier Honorary Doctorate received by the Director from the Donetsk State Technical University (Don STU) presented in May 1996.

The picture shows A/Prof. Zenon J. Pudlowski examining his certificate, overseen by Prof. Colin Chisholm (photo by Renzo Mazzolini).



## Global Congress

Preparations for the *Global Congress on Engineering Education*, to be held from 6-11 September at the University of Mining and Metallurgy, Cracow, Poland, have now entered the final stages. It is anticipated that about 200 participants will take part in this first international meeting in what is expected to be an on-going series of Global Congresses leading engineering education into

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the next millennium.

The Congress program has been structured to incorporate a number of plenary sessions, paper sessions, with close to 140 papers to be presented, and panel discussions. Several distinguished persons, who represent academia, professional associations and government, will present keynote addresses and lead useful discussions. Particular emphasis is being placed on globalisation of engineering education to stress the importance and relevance of collaboration between universities worldwide.

Staff members and associates of the Centre cordially invite you to attend this important gathering of engineering and technology educators.

## Post-Congress Events

September in Europe will see a number of events on engineering education taking place as an immediate follow-up to the *Global Congress on Engineering Education*.

The first will be the *Second International Conference on Quality Assurance within Engineering Higher Education* (EQAS'98), to be held at Zakopane, Poland, from 13-16 September.

The *100th Anniversary Jubilee Conference on Engineering Education*, under the theme *Sharing experience to increase internationalisation in engineering education*, will follow from 17-19 September at the Fachhochschule Mannheim, Mannheim, Germany.

The *1st Balkan Region Conference on Engineering Education*, under the theme *Regional co-operation in engineering education*, takes place from 20-23 September at the Technical University of Sofia, Sofia, Bulgaria, and is closely followed by the *2nd Baltic Region Seminar on Engineering Education*, from 26-28 September, at Riga Technical University, Riga, Latvia.

The Centre is proud to be instigator or sponsor of these events which raise the profile of engineering education. We would encourage our members and readers to take full advantage of the educational and networking opportunities presented by these meetings through attendance.

## Caledonian Centre

We are delighted to inform our members, associates and sympathisers that a *Caledonian Centre for Engineering Education*, a sub-centre of the UICEE, has been established within the Faculty of Science and Technology of the Glasgow Caledonian University, Glasgow, Scotland.

The new Centre will initially operate as a network within the Faculty, with close links to the Department of Learning and Educational Development. It is envisaged that collabo-

ration between the two centres will commence with an exciting project focusing on the development of a global curriculum.

The UICEE wishes to congratulate Dr George Burns on his appointment as co-ordinator of the Caledonian Centre in this initial period, and looks forward to a fruitful collaboration.

## UNESCO Committee

A third meeting of the UNESCO International Committee was held at UNESCO headquarters in Paris between 2 and 3 March 1998. The meeting was attended by Dr Adnan Badran, Deputy Director-General of UNESCO, Dr Mauricio Iaccarino, Assistant Director General for Sciences, and Dr Boris Berkovski, Director of the Engineering and Technology Division, UNESCO.

The group discussed a range of issues and activities to be carried out under the auspices of UNESCO, in particular the *International Congress of Higher Education* to be held at UNESCO headquarters between 5 and 9 October 1998.

A pleasant interlude during the meeting was Dr Badran's receipt of the UICEE Gold Badge of Honour, awarded for *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*. The 18-carat gold badge was awarded to Dr Badran during the *1st Asia-Pacific Forum on Engineering and Technology Education*, held at Monash University, Melbourne, Australia, in July 1997, but could not be presented at that time due to Dr Badran's inability to attend.

The picture shows the UICEE Director presenting Dr A. Badran with the award, witnessed by Dr M. Iaccarino.



## Ministry of Education

During his March trip to Europe the UICEE Director visited Cracow, Poland, to carry out preparations for the *Global Congress on Engineering Education*, which is to be held at the University of Mining and Metallurgy, Cracow, from 6-11 September 1998.

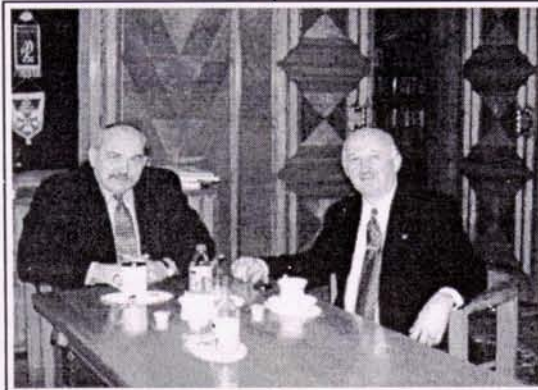
He also took the opportunity to visit the Ministry of National Education of the Republic of Poland in Warsaw, on 12 March 1998, where he had the pleasure of meeting Prof. Mirosław Handke, Minister for National Education and former Rector of the University of Mining and Metallurgy. The Director also briefly met Prof. Wilibald Winkler, the Deputy Minister and former Rector of the Technical University of Silesia.

It is our pleasure to announce that Minister Handke, who is Honorary Chairman of the Global Congress, will be

able to open the Congress on 6 September and will present an address concerning the recent *Reform of National Education in Poland*. The Minister has provided some financial support for the Congress, for which we express our thanks.

Prof. Handke also expressed interest in the operation of an English language-based University in Poland. Monash University, or a consortium led by Monash, has been verbally invited, through the UICEE Director, to establish a university with the support of the Polish Ministry of National Education. Any party interested in collaborating on this venture should contact the UICEE Director.

The picture shows the Minister for National Education, Prof. Mirosław Handke (l), receiving the UICEE Director in his office.



## Seminar in Wismar

As one of the activities in celebration of the 90<sup>th</sup> anniversary of engineering education in Wismar, an extremely successful Seminar, entitled *90<sup>th</sup> Anniversary Jubilee Seminar on Engineering Education*, was carried out at the Hochschule Wismar, Germany, between 6 and 9 May 1998.

The paramount objective of this important meeting was to set up a *German Network for Engineering Education* to operate in collaboration with the UICEE. The Seminar was attended by 60 delegates from 15 countries, and close to 40 paper presentations were made. A special issue of the UICEE's *Global Journal of Engineering Education* (GJEE), presenting selected papers, will be published in July/August in commemoration of this event.

During the Seminar, four UICEE Silver Badges of Honour were awarded to academics in recognition of outstanding contributions to engineering education. The first went to Prof. Klaus Detert of the University Gesamthochschule-Siegen, a member of the ILG-EE and active member of the UICEE. The second award went to Prof. Józef Lisowski, former Rector of the Gdynia Maritime Academy (GMA), Gdynia, Poland, and Honorary Chairman of the extremely successful *3<sup>rd</sup> East-West Congress on Engineering Education*, held at the GMA in September 1996.

Two other awards were given to academics of the host institution. The recipients were: Prof. Burckhard Simmen, Rector and Seminar Patron; and Prof. Norbert Grünwald, Vice-Dean of the Faculty of Mechanical Engineering, and the Seminar General Chairman.



It should be mentioned that the Seminar was extremely well organised due to the exceptional skills of Prof. Grünwald and his team, and the Centre, as a partner in this enterprise, wishes to congratulate the host institution, as well as Prof. Grünwald and his team, for this exceptional effort.

The Seminar and indeed the activities of the UICEE have generated enormous enthusiasm among German engineering educators, including a number of Rectors of German academic institutions who attended the meeting. It has become apparent that with the recent globalisation of engineering education and the changes to the system of German tertiary education, there is a strong interest amongst German academics in taking part in the advancement of engineering education.

It is hoped that the *German Network for Engineering Education* will attract many German institutions and individuals.

The picture shows Prof. Norbert Grünwald, with the UICEE Silver Badge of Honour emblazoned on his lapel, addressing the Seminar.

## Membership Drive

In a bid to attract more members, a new UICEE Membership Brochure has been in circulation since May 1998. The brochure provides a comprehensive overview of the Centre's aims, objectives and activities, and details the range of benefits of membership. The entire UICEE membership, as at 1 January 1998, is also presented.

All are encouraged and invited to become members of the UICEE and to take advantage of the many benefits of membership.

The assistance of UICEE members is sought to encourage other engineering educators to join the Centre; the greater the support of the Centre, the more effective it can be.

Additional copies of the Membership Brochure can be obtained from the Centre; the brochure with membership form is also available through the Internet at <http://www.eng.monash.edu.au/uicee>

## Ten years of printing

This year marks the tenth year of professional printing service to engineering education of *El Faro Printing*, of Newtown, Sydney, owned and directed by Mr Agustin Pérez.

The UICEE Director, an academic at the University of

Sydney in 1988 when he found Mr Pérez, was able, through his gentle persuasion (sic!), to attract him to the cause of engineering education. Since that time Mr Pérez has contributed significantly to the achievements of Australian and international engineering education by printing books, journals, newsletters, brochures and other material, almost always with short notice and at the cheapest prices in Australia. Since its inception in 1994, the UICEE has also benefited from this collaboration.

We, at the UICEE, wish to express our sincere gratitude to Mr Pérez and his staff, and look forward to another ten years of association for the future of engineering education.

The picture shows Mr A. Pérez in his printing room cradling the *Proceedings of the 1<sup>st</sup> UICEE Annual Conference on Engineering Education*.

## UICEE Publications

The following publications are available on request from the Centre:

*Proceedings of the Global Congress on Engineering Education*, edited by Zenon J. Pudlowski. In this volume of Proceedings, particular emphasis is placed on globalisation of engineering education. Close to 140 papers present and discuss research and development activities in engineering education carried out throughout the world. As a pre-Congress offer, the hardcover Proceedings can now be ordered for \$A100, which includes p&p; after the Congress the Proceedings will cost \$A120 + p&p (\$A20 overseas and \$A10 within Australia).

*Proceedings of the 1st UICEE Annual Conference on Engineering Education* edited by Peter LeP. Darvall and Zenon J. Pudlowski. With authors hailing from 18 countries worldwide, the 10 keynote, 10 lead and 44 regular papers in the Proceedings discuss research and development activities in, and the effectiveness of new approaches to, engineering and technology education throughout the world. Cost of volume: \$A100.

*Proceedings of the 1st Asia-Pacific Forum on Engineering and Technology Education*, edited by Zenon J. Pudlowski. With the establishment of the Asia-Pacific Higher Education Network - Engineering Education subnetwork it was essential to create a forum for engineering educators to discuss issues of innovation in engineering and technology education, with a particular focus on the development and delivery of engineering education in the region. These Proceedings collect the papers presented at the inaugural Forum. Cost of Volume: \$A100.

*Proceedings of the 3rd East-West Congress on Engineering Education*, edited by Zenon J. Pudlowski. The Congress brought together engineering educators from East and West in order to continue the dialogue about common

international problems in engineering education in an age of rapidly changing technology, and about the restructuring of academia in the context of the new economic conditions prevailing in countries of the former socialist block. Cost of volume: \$A100.

*Computers in Electrical Engineering Education – Research, Development and Application*, edited by Zenon J. Pudlowski *et al.* This monograph presents recent achievements in developmental research on the application of computers and computer technology to engineering education. Cost of volume: \$A50.

*The Application of Computer-Assisted Training Programs in Engineering Education*, edited by Zenon J. Pudlowski and Roger G. Hadgraft. Originating from a UICEE training course for academic teachers from the Asia-Pacific, this monograph will be of value to anyone interested in the most recent innovations in computer-aided teaching and learning, including the Internet and Electronic Library. Cost of volume: \$A70.

*ALLTED – A Computer-Aided Engineering System for Electronic Circuit Design*, by A.I. Petrenko, V.V. Ladogubets, V.V. Tchkalov and Z.J. Pudlowski. ALLTED is

an educational tool which has been developed for the simulation, analysis and design of such diverse devices as drives, control systems and dynamic systems composed of electronic, hydraulic, pneumatic, mechanical, electrical, electromagnetic, and other physical phenomena elements. Cost of volume: \$A70.

Note: In order to obtain copies of any of these volumes, please draw a cheque in favour of Monash University – UICEE, adding \$A10 to the cost of each volume ordered for postage within Australia and \$A20 for overseas postage, and send to UICEE at the address below.



## New UICEE Events

The following is a list of forthcoming UICEE organised and sponsored events. Calls for papers are in circulation and extra copies can be obtained from the UICEE. Information regarding these meetings is also available through the Internet at <http://www.eng.monash.edu.au/uicee>

- Auckland, New Zealand, 10-13 February 1999 - *2nd UICEE Annual Conference on Engineering Education*, under the theme *Networking in Engineering Education*. Organised by: UICEE.
- Sydney, Australia, 4-7 July 1999 - *2nd Asia-Pacific Forum on Engineering and Technology Education*. Organised by: UICEE.

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