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Newsletter

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From the Director

Recent international events have proved that nothing is stable and permanent in this world. The human species have always been aggressive and do not easily live together in harmony. On the other hand, the world is a beautiful place that can still offer everyone food, water, shelter and, moreover, plenty of opportunities. It is a pity that we cannot find a *modus operandi* for solving crucial global problems in order to be able to live together; that we as a species cannot share the resources in a just and noble way, and that we create war and misery for our fellow global citizens. Moreover, it is sad to see that many of the international organisations so painstakingly established in order to promote and facilitate peace, stability and harmonious development, set up with an enormous cost to the global community, are finding themselves powerless in such difficult situations and, in some instances, due to weighty bureaucracy, are regarded by some as almost completely irrelevant.

The UICEE has always been, and I hope always will be, an organisation which follows gladly the UNESCO's *raison d'être ...to contribute to peace and security by promoting collaboration among nations through education, science and culture...*, and I believe that the UICEE is at the forefront of this endeavour, with its large *Global Family of Engineering Educators*, which is spreading throughout the entire world, and a wide range of international collaborative ventures.

I strongly believe that we academics have a difficult,

but special, role to play in the process of globalisation of engineering education. We must ensure the dialogue and cooperation of all peoples, regardless of race, gender, language and religion, for the benefit of humankind. We have a duty to debate and argue for innovations, new inventions and developments, keeping in mind the paramount philosophy of making the world a better place for everyone. In this process, we should strongly condemn and reject all forms of terrorism, extremism, chauvinism, domination, colonialism, imperialism and hegemony as potential sources of human suffering and tragedy.

Let us work together for a brighter and better future for all human beings.



The photo shows (l-r) Ms Larisa A. Romanina, Prof. Sergei V. Mischenko and Prof. Zenon J. Pudlowski at the official opening of the 2nd Russian Seminar on Engineering Education in Tambov.

2nd Russian Seminar

An extremely successful 2nd Russian Seminar on Engineering Education was held at the Tambov State Technical University (TSTU) between 7 and 8 September 2001 in Tambov, Russia. The Seminar was dedicated to the memory

of Prof. Dr Boris S. Mitin, the late Rector of the Moscow State Aviation Technology University (MATI), Foundation President of the Russian Association for Engineering Education (RAEE) and an active member of the UICEE.

The Seminar attracted over 100 participants, including over a couple of dozen senior academics (rectors and vice-rectors) who represented key Russian technical universities, as well as several international visitors.

The Seminar was opened officially by the Rector of the TSTU, Prof. Dr Sergei V. Mischenko, and was welcomed by the Deputy Governor of the Tambov Province, Ms Larisa A. Romanina.

UICEE Partners



DTU

The Seminar academic programme followed on from the 1st Russian Seminar held last year in Tomsk, Russia, with over 40 papers published in both Russian and English languages in a finely bound volume of Proceedings.

5th Baltic Seminar

Last September, Gdynia Maritime Academy hosted the 5th Baltic Region Seminar on Engineering Education in the historic coastal city of Gdynia in Poland. This built on previous Baltic region seminars and served to expand the network of colleagues from regional and international institutions. The Seminar was officially opened by the then Minister of National Education of the Republic of Poland, Senator RP, Prof. Edmund K. Wittbrodt.

The Seminar was conducted in the aftermath of the terrorist attacks in the USA and it was greatly affected by this tragic event. This prevented many participants from taking part in the Seminar. Despite this, 39 papers from participants, representing 13 countries worldwide, have been included in the volume of Proceedings finalised after the Seminar. The refereed papers cover a wide variety of topics pertinent to various fields in engineering education. This volume is available for purchase to those who did not attend but are interested in the continuing debates and new ideas in engineering education. Details can be found on the UICEE Web-site.

It has been decided that the 6th Baltic Region Seminar on Engineering Education will be held in Wismar/Warnemünde in late September 2002 at the Hochschule Wismar – University of Technology, Business & Design.

Badges of Honour: Gdynia

Two academics at the 5th Baltic Seminar were presented with the UICEE's Silver Badge of Honour 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.* They were: Rector of the Gdynia Maritime Academy (GMA), Prof. Piotr Przybyłowski and the Vice-Rector for Science Affairs, Prof. Janusz Mindykowski.

These two awardees from the GMA have contributed significantly to the development of engineering education at the GMA, in Poland and globally.

H.P. Jensen Leaves DTU

We wish to inform our members, with sadness, that one of the key members of the UICEE global network, Prof. Hans Peter Jensen, is leaving his position as Rector of the Technical University of Denmark (DTU). Prof. Jensen has been Rector of the DTU for 15 years and throughout his term he has made an enormous contribution to international engineering education by means of his active input to many agencies and organisations, including UNESCO.

Prof. Jensen is one of a handful of members of the UICEE who has received both the UICEE Silver (1997) and Gold (2000) Badges of Honour for distinguished and outstanding contributions to engineering education. He has been

extremely supportive in establishing the UICEE, and has vigorously pursued its further expansion and international activities.

Prof. Jensen has taken up the position of Director of the Institute of Food Safety and Nutrition, based in the Danish Ministry of Food, Agriculture and Fishery.

We would like to express our sincere gratitude for all the

support that we have received so far and would like to wish him all the best in his new professional endeavour. Also, we hope that he will remain an active member of the UICEE.

New Rector of DTU

The UICEE welcomes and congratulates Prof. Lars Pallesen on his appointment as Rector of the Technical University of Denmark (DTU), a partner institution of the UICEE. Prof. Pallesen began his appointment on 1 November 2001 and arrives at the DTU with a wealth of experience in transformational management.

In his first interview, Prof. Pallesen expressed his desire to *...make the Technical University of Denmark so popular that more competent people, students as well as employees, would like to work here.* Indeed, the UICEE and the entire UICEE global network intends to assist him in realising his objectives.

In wishing Prof. Pallesen all the best in his new and challenging position, we hope that the DTU will strengthen even further its involvement in the activities of the UICEE for the benefit of the DTU and the entire *UICEE Global Family of Engineering Educators.*



The opening ceremony of the 5th Baltic Seminar featured (l-r), Prof. R. Cwilewicz, Prof. E.K. Wittbrodt, Prof. Z.J. Pudlowski and Prof. Marek Szymoński, Vice-Rector of the GMA.

Gdynia Maritime Centre

Participants at the official banquet of the 5th *Baltic Region Seminar on Engineering Education*, which was run amidst the beautiful scenery of Rzucewo Castle, bore witness to the signing of the Memorandum of Agreement between the Gdynia Maritime Academy (GMA) and the UICEE on partnership between the two organisations. Under the partnership agreement, a *Centre for Maritime Engineering Education*, a satellite centre of the UICEE, is being established at the GMA, with Prof. Dr Romuald Cwilewicz as its Foundation Director.

Both parties had identified earlier the urgent need for the establishment of a centre that would carry out research and development activities specifically dedicated to maritime engineering education. Such a centre would also cater for the continuing education needs of maritime personnel.

In establishing this initiative, the global leading role of the GMA was taken into account and its long commitment to engineering education. The GMA is famous internationally for its research and teaching programmes, highly qualified and reputable staff and scores of graduates, who are each year being injected into international shipping companies.

The foundation of this satellite centre further opens up the establishment of a network of so-called topical satellite centres that will operate within one specific area of academic endeavour.

World Transactions

The UICEE is in the process of collecting papers for the launch of the *World Transactions on Engineering & Technology Education*. Many colleagues have expressed their interest in publishing a paper in this UICEE inaugural periodical.

The current international situation has unfortunately generated a climate that curbs and disrupts attendance at international conferences. This, in turn, impedes the discussion and interaction between international academics and contributes to the retardation of knowledge expansion and exchange.

However, the need to publish remains, not just for recognition of individual and institutional work achieved, but more importantly for the exchange of ideas and the advancement of engineering education globally. The

progress of knowledge for all humankind should not be confined to borders, nor indeed regions, and it is certainly not bound by particular modes of dissemination.

It is because of the current situation that the deadline has been extended to 31 December 2001 for the submission of papers to the *World Transactions*. It is envisaged that the *Transactions* will be released in January/February 2002. However, potential contributors are kindly asked to indicate their interest urgently so that we can supply them with the kit for authors. Standard formatting details and submission forms, including copyright details, will be supplied on request; please e-mail Mr Marc Riemer on: marc.riemer@eng.monash.edu.au

Potential contributors will find an announcement concerning the UICEE's *World Transactions on Engineering and Technology Education* at the following Internet address: <http://www.eng.monash.edu.au/uicee/hotnews/TechnologyEducation.html>



The signing of the MoA by the UICEE Director, Prof. Z.J. Pudlowski, and Rector of the GMA, Prof. P. Przybyłowski (l-r). Witnessing GMA staff are (l-r): Dr S. Kluj, Dr S. Le Huu, Prof. J. Lisowski, Prof. J. Mindykowski, Dr L. Tomczak, Prof. R. Cwilewicz and Mr T. Hajduk.

New GJEE Initiatives

The latest issue of the UICEE's *Global Journal of Engineering Education (GJEE)*, Vol.5, No.2, is a Special Edition that focuses on engineering and technology education at Taiwan's National Changhua University of Education (NCUE). Prof. David W-S. Tai of the NCUE is Guest Editor of this Edition. The publication of this Edition has been fully sponsored from

Taiwan and represents important research and development activities at one of Taiwan's leading universities.

The next issue of the GJEE, Vol.5, No.3, will be published entirely in the German language. Prof. Norbert Grünwald, Dean of the Faculty of Mechanical/Processes and Environmental Engineering at Hochschule Wismar - University of Technology, Business and Design in Wismar, Germany, is Guest Editor of this issue.

Articles in this special issue have been developed mostly from the inaugural workshop on Mathematics in Engineering Education, held at Hochschule Wismar. The Gottlob Frege Centre for Engineering Science and Design, a satellite centre of the UICEE, has initiated this Mathematics Network.

By publishing in German, this issue targets engineers and educators for whom German may be the first or second language. This empowers those whose English skills may not be so strong, and reinforces the international nature of engineering education in the UICEE's global community.

This builds on the achievements generated by the first German issue of the GJEE, Vol.4, No.2, and establishes itself as a regular feature in the UICEE publication. German remains one of the dominant languages internationally and, as such, does not confine itself to one nation with regard to its impact.

Aalborg Agreement

On 12 September 2001, the Dean of the Faculty of Engineering and Science at Aalborg University, in Aalborg, Denmark, Prof. Finn Kjærdsdam, and the UICEE Director, Prof. Zenon J. Pudlowski, signed a Memorandum of Agreement on partnership between the two organisations, laying the foundations for the development of a *Problem-Based Centre for Engineering Education* (PBLCEE). This expands the burgeoning network of satellite centres that are topical in nature and extends the UICEE's mission to further the globalisation of engineering education.

Aalborg University is an excellent academic institution that is at the forefront of academic and research activities in Europe in the fields of engineering, natural sciences, social sciences and humanities, with 12,000 students and over 25 years of history. It will provide an excellent base for a Partner institution incorporating a UICEE satellite centre with the theme of problem-based learning in engineering education.



A happy moment when Prof. F. Kjærdsdam of Aalborg University (r) exchanged the MoA with Prof. Z.J. Pudlowski (UICEE).

Frege Centre Update

The UICEE's German satellite centre, the Gottlob Frege Centre for Engineering Science and Design (GFC) based at Hochschule Wismar - University of Technology, Business & Design (HSW), has instigated some important initiatives since being launched in November 2000. The GFC seeks to reinforce the importance of mathematics in the skills base of the next generation of professional engineers.

The German network has been expanded with other universities, including announcing the aims and tasks of the GFC to the German Union of Mathematicians (DMV) plus contacts with other groups across Germany that deal with the improvement of mathematical education.

The GFC has actively participated in the *1st German Seminar on Engineering Education* in Mannheim and introduced the scope and function of the GFC to participants

at the UICEE's *5th Baltic Region Seminar on Engineering Education* in Gdynia. Furthermore, four Polish guest students from the UICEE Supporter Member, the Higher Professional State School in Tarnów, Poland, are being tutored at the HSW with the potential for further study in the fields of automation, simulation and mathematics for their diploma theses.

An online-course on mathematics has begun to be drafted up using WebCT in cooperation with students at the HSW. Also, the project called *Learning Region* is progressing well; this supports mathematical teaching as a main stream that closely connects and adapts the different stages of education in a lasting manner.

Asia-Pacific Dialogue

The Monash Asia Institute (MAI) and the UICEE, both based at Monash University, Melbourne, Australia, have joined forces to collaborate on a new project, tentatively called *Cultures and Technologies: An Asia-Pacific Dialogue*. It is envisaged that this will result in an international conference to be held in Asia in November 2002.

Hosted by the Monash Asia Institute, which is under the directorship of Assoc. Prof. Marika Vicziany, a retreat from 24 to 26 July 2001 was organised

to facilitate the exchange of expert opinions and support from other Monash colleagues, as well as several distinguished international guests representing collaborating institutions in Asia and the Pacific.

The international participants included: Prof. Alexander I. Chuchalin, 1st Vice-Rector, Tomsk Polytechnic University, Tomsk, Russia; Prof. Kraiwood Kiattikomol, Senior Vice-Rector, King Mongkut's University of Technology Thonburi, Bangkok, Thailand; Prof. David W-S. Tai, Dean, School of Industrial Technology, National Changhua University of Education, Changhua, Taiwan; Prof. Franklin F-M. Lee, Dean, College of Engineering, Chinese Culture University, Taipei, Taiwan; Prof. Yang Liwei, Shanghai Academy of Economics, Shanghai, China; and Mr Somchai Congmuang, Manager, Faculty of Engineering, King Mongkut's University of Technology Thonburi, Bangkok, Thailand.

Monash University dignitaries attending the retreat included Deputy Vice-Chancellor and Chairman of the UICEE Academic Advisory Committee, Prof. Peter LeP. Darvall; the Dean of Arts, Prof. Homer LeGrand and the Dean of Engineering, Prof. Michael L. Brisk.

To celebrate the excellent relationship established between the MAI and the UICEE, the UICEE Director, Prof. Zenon J. Pudlowski, donated a set of books on contemporary Chinese artists to the MAI. The publication of these works was done in Thailand and was supported by the Chinese and Thai Governments. Prof. Pudlowski received these books in recognition of the excellent organisation of the 4th UICEE Annual Conference on Engineering Education, which was held at Menam Riverside Hotel in Bangkok, last February. Prof. Pudlowski said *...As much as I would have loved to keep this publication in my collection, I do believe that these rare books will be better utilised by the Monash Asia Institute.* The Interim Director of the Monash Asia Institute, Assoc. Prof. Marika Vicziany said *... the collection would be highly valued in its own right but especially as a symbol of cross-faculty research collaboration at Monash.*

Several other presentations were made at the gala dinner organised during the Queenscliff retreat on 24 July 2001. This included the presentation to Prof. Fong-Ming (Franklin) Lee of the Chinese Culture University, Taipei, Taiwan, the UICEE Platinum Award (second grade) for the paper he presented at the 3rd Asia-Pacific Forum on Engineering and Technology Education, held in Changhua, Taiwan, in July 2001. The paper was titled: *The impact of materials science and engineering on engineering education and environmental issues in Taiwan.*

Prof. Micheal L. Brisk, Dean of the Faculty of Engineering at Monash University, presented the award on behalf of the UICEE.

Badges of Honour: TSTU

Two academics of the Tambov State Technical University (TSTU) were awarded the Silver Badge of Honour 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 recipients were: the University Rector, Prof. Sergei V. Mischenko and the University Vice-Rector for Educational Activities, Prof. Nikolay P. Puchkov.

It has to be mentioned that the two awardees have instigated the TSTU's contributing membership within the UICEE and have initiated a number of activities in engineering education for the benefit of Russia and the UICEE Global Network of Engineering Educators.

Seminar in Tomsk

The Central Asia Centre for Engineering Education (CACEE), a satellite centre of the UICEE based at the Tomsk Polytechnic University (TPU) in Tomsk, Russia, conducted a Seminar devoted to Nikolay V. Gutowski's research and academic activities during his years of rectorship (1921-1930), called *The Development of Engineering Education*. This was held within the framework of the 1st Congress of the TPU Alumni (3-4 September 2001), at which almost 200 alumni attended from around Russia, the Commonwealth of Independent States (CIS), Poland and Germany. Prof. Alexander I. Chuchalin, First Vice-Rector of the TPU and Director of the CACEE, presented a comprehensive lecture that addressed the educational and research activities of N.V. Gutowski.

One of the remarkable events, which took place during the Seminar, was the opening of the exposition devoted to N.V. Gutowski in the University Museum. The exposition showed N.V. Gutowski's works devoted to the development of the industry in Siberia and also different works on steel and metal studies. The development of relationships between Russia and Poland in the cultural domain was reflected by many photographs and materials. The TPU Library displayed old publications in the Russian and Polish languages issued in Warsaw, containing both engineering works and fiction.

Among them was the 1st volume of the *Bulletin of the Warsaw University*, published in 1899, which elaborated on medical and geological problems.

Seminar events included the unveiling of a memorial plaque devoted to N.V. Gutowski. Prof. Andrzej Stelmachowski, former Speaker of the Senate of the Republic of Poland and current Chairman of the *Polish Community (Wspólnota Polska)* presented an address at the ceremony. The highlight of the activities was the official launch of the CACEE, which is a satellite centre of the UICEE. Seminar participants were also present at the launch.

UICEE Annual Conference

Although the 5th UICEE Annual Conference on Engineering Education, to be held from 6 to 9 February 2002 in Chennai, India, is shaping up to be quite a successful event, with broad representation internationally, not all UICEE Network institutions have responded to the call in the way that was anticipated. Close to 100 diverse paper proposals have been submitted so far.



Delighted and proud awardees of the UICEE Silver Badge of Honour at the 2nd Russian Seminar are (l-r) Prof. Sergei V. Mischenko and Prof. Nikolay P. Puchkov.

Since there will be a meeting of the UICEE Academic Advisory Committee, as well as a meeting of Partner Members, key UICEE members are strongly encouraged to attend this international event.

ILG-EE Meeting

The 5th Baltic Seminar at the Gdynia Maritime Academy in Gdynia, Poland, provided the venue for the 14th Annual Meeting of the International Liaison Group for Engineering Education (ILG-EE), which was held on 19 September 2001.

Several issues of importance and relevance to global engineering education were discussed, including future conferences, such as next year's 3rd Global Congress on Engineering Education, to be held at Glasgow Caledonian University in Glasgow, Scotland, UK. Also, high on the agenda was the preparation for the 6th Baltic Region Seminar on Engineering Education, to be held in Wismar/Warnemünde, Germany.

Also deliberated on was the growing German Network of Engineering Education and the 2nd German Seminar on Engineering Education, to be held in conjunction with the 6th Baltic Seminar.



A cordial moment between visiting academic Prof. G. Zywno from Ryerson (l-r) with the GCU's Prof. C.U. Chisholm in Glasgow, Scotland, UK.

GCU entitled *Technology-assisted instruction in control education at Ryerson*, on 6 September 2001.

The GCU and Ryerson have many similarities in their background and in the constituencies they serve; both received the University Charter in the early 1990s, and share a strong commitment to excellence in undergraduate education. Collaboration between staff from both Centres has so far resulted in several publications presented at international engineering conferences.

In April 2001, Dr Bryan K. Temple, Coordinator of the CCEE, visited Ryerson, with reciprocal visits to follow. Future

plans for expanding collaboration between the CCEE and the RCEE include a possibility of staff and student exchange programmes.

Further information on the CCEE visit can be found at: www.fst.gcal.ac.uk/cceex/index.html

India Update

Following the Memorandum of Understanding (MoU) signed between Anna University, Chennai, India, and the Tomsk Polytechnic University (TPU), Tomsk, Russia, two TPU academics visited Anna University for a month-long stay during September/October, namely: Dr Galina V. Kashkan and Dr Nadyeshda V. Sepaylova. The first interacted with the Chemis-

try and Chemical Engineering Departments, whereas the latter was actively engaged with the Electrical Engineering Department. This facilitated guest lectures to senior students and discussions with research scholars and faculty members. The two were also introduced to the academic partner colleges of Anna University for the exchange of information.

Another MoU has been signed with Hochschule Wismar - University of Technology, Business & Design (HSW), Wismar, Germany, to promote academic cooperation, staff/student mobility, research collaboration, workshops, training and education programmes and other activities for their mutual benefit. Such MoU have reinforced the UICEE network of Partner Members, which, amongst other institutions, includes Anna University, the TPU and HSW.

Prof. V. Guruswamy, Honorary Director of Anna University's UICEE satellite centre, the South Asia Centre for Engineering Education (SACEE), represented Anna University at the 3rd Asia-Pacific Forum on Engineering and Technology Education, held recently in Changhua, Taiwan.

Anna University, as the host of the forthcoming 5th UICEE Annual Conference on Engineering Education in early February 2002, has undertaken several requisite logistical arrangements for the Conference, on behalf of the UICEE.

CCEE's Global Links

Recently, a visit to Glasgow Caledonian University (GCU) was made by Prof. Gosha Zywno of the Department of Electrical and Computer Engineering at Ryerson University in Toronto, Canada, who is also a research associate of Ryerson Centre for Engineering Education (RCEE). This is an example of the increasing collaboration between the GCU's Caledonian Centre for Engineering Education (CCEE) and the UICEE global network of engineering educators.

The CCEE and RCEE are two UICEE satellite centres, which share strong interests in applications of progressive pedagogies in engineering education. The CCEE is established as an internationally respected leader in workplace learning, whereas the RCEE offers expertise in integrating new technologies into the process of effective learning.

As part of the UICEE collaborative network, Prof. Zywno has undertaken her PhD research at the GCU, under the advice and supervision of Prof. Colin U. Chisholm, Dean of the Faculty of Science and Technology. During her six-week stay, she met and shared information with several members of the GCU community. She also presented a seminar at the