



UNESCO International Centre for Engineering Education



Newsletter

Volume 9, Issue 3

November 2002

From the Director

In the period between July and November 2002, the UICEE has conducted numerous activities and ventures, including the extremely successful *6th Baltic Region Seminar on Engineering Education*, held in Wismar, Germany, between 23 and 25 September. During this time, the UICEE experienced an unprecedented growth in terms of new partnerships. Five new Agreements have been signed, resulting in a significant growth of the UICEE global network to the total of 17 Partnerships being established between the UICEE and other international academic institutions from around the world. These new partnerships are reported on elsewhere in this issue of the Newsletter.

Growth, an extremely important, significant and handsome concept for any human activity, is the condition that, in our case, characterises the UICEE's need to expand to maintain relevance in the community. With continued growth our UICEE global family of engineering education will have a better chance to positively influence the global process of engineering education and, even more importantly, how decision makers perceive and facilitate this process. It is my strong belief that both national and international professional organisations and associations, which have been set up to influence this process, have totally failed in this regard. The best evidence is the ever-diminishing financial support for engineering education provided by governments, and this trend is prevailing on a worldwide basis. Hence, visionary

managements of academic institutions now tend, more than ever, to establish linkages with other institutions in order to achieve things together, reduce costs by running joint ventures, and have a greater impact on the state of affairs when acting together.

The beauty of our growth is that the UICEE network not only increases the number of Partners; it also facilitates the growth of bilateral linkages between individual Partner Institutions, thereby creating a large and complex global mesh. This last aspect is extremely important for the advancement of international engineering education.

In conclusion, on behalf of the existing UICEE members and, indeed, myself, I wish to welcome new Partner Institutions and wish them all the success in their endeavours to further develop engineering and technology education for the benefit of their own institutions, the UICEE and the global network of engineering and technology education.



The photo shows the launch of the balloon during the festivities of Hochschule Wismar's anniversary celebrations, carrying aloft the current Rector, Prof. Norbert Grünwald, and the past Rector, Prof. Burckhard Simmen. (Photo by Marco Jüttner of HSW)

10th Year Anniversary of Hochschule Wismar

Hochschule Wismar - University of Technology, Business and Design (HSW), Wismar, Germany, celebrated the 10th Anniversary of its rejuvenation during the week of 22-28 September 2002. Part of its festivities included the *6th Baltic Region Seminar on Engineering Education*. The week involved several seminars, such as the *2nd Workshop on*



UICEE Partners
Hochschule Wismar
University of Technology,
Business and Design



Mathematics for Engineers, organised by the UICEE satellite centre at HSW, the *Gottlob Frege Centre for Engineering Science and Design* (GFC), and the *3rd Symposium on Automation*, poster displays and exhibitions, an Open Festival Day, plus other formal and informal activities.

A hot-air balloon was also launched with the theme of Hochschule Wismar – *Ganz oben (at the top)*, lifting up the current Rector, Prof. Norbert Grünwald, and the past Rector, Prof. Burckhard Simmen to new heights in engineering education.

The picture on the front page shows the launch of the balloon.

6th Baltic Seminar

The highly successful *6th Baltic Region Seminar on Engineering Education* was held at Hochschule Wismar - University of Technology, Business and Design (HSW), Wismar, Germany, between 23 and 25 September 2002. The Seminar focused upon various important themes that concern not just the Baltic region, but also the world. There were over 70 participants from 21 countries from around the world, including Africa, Asia, Australia, North America and, of course, Europe, representing a diverse mix of developed nations and those in economic transition. Over 60 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.

Also included in the activities of the Seminar was a special session at HSW's Marine Simulation Centre in nearby Warnemünde and a Cocktail Party onboard the Polish tallship, *Dar Młodzieży*.

The Seminar was part of the festivities for the 10th Anniversary celebrations of the reestablishment of Hochschule Wismar, and



The picture shows Dr Rosemarie Wilcken, Lady Mayor (Bürgermeisterin) of the Hanseatic Town Wismar (l), and Prof. Burckhard Simmen (r), former Rector of HSW, engrossed at Opening Ceremony of the 6th Baltic Region Seminar on Engineering Education.

was held in conjunction with the *2nd German Seminar on Engineering Education*. HSW provided the venue and organisational support for the German Seminar.

The final volume of Proceedings of papers presented at the Seminar is available from the UICEE.

The picture shows Dr Rosemarie Wilcken, Lady Mayor (Bürgermeisterin) of the Hanseatic Town Wismar, and Prof. Burckhard Simmen, former Rector of HSW, at the Opening Ceremony of the 6th Baltic Region Seminar.

Visit by Polish tallship

The grand Polish tallship, *Dar Młodzieży*, entered the port of Wismar to contribute to the festivities of the *6th Baltic Region Seminar on Engineering Education*.

This 3-masted training vessel of the Gdynia Maritime University (GMU), Gdynia, Poland, contributes to the training of GMU students, and has a complement of up to 40 regular crew (and four teachers), plus up to 120 students. The ship has sailed around the world, including Japan, Australia, Canada, the USA and Cape Horn. The ship's main mast is just under 50m high and the ship is over 100m long with a sail area of 3,015sqm.

This majestic vessel was docked in Wismar from 22-26 September 2002 and was welcomed by several distinguished guests, including Dr Rosemarie Wilcken, Lady Mayor

(Bürgermeisterin) and Dr Gerd Zielenkiewitz, President of the City Council, both of the Hanseatic Town Wismar; Prof. Romuald Cwilewicz, Vice-Rector, GMU; A/Prof. Henryk Śniegocki, Vice-Rector, GMU; Prof. Norbert Grünwald, Rector, Hochschule Wismar (HSW); Prof. Burckhard Simmen, HSW's past Rector; the UICEE Director, plus various other Seminar participants and Wismar townsfolk. A brass band, the *Wendorfer Blasmusiker*, was also on hand, along with the traditional welcome of salt and bread.

The ship and crew provided spectacular service



The photo shows the Polish tallship, *Dar Młodzieży*, arriving in the German port of Wismar with engaged onlookers.

and fine Polish cuisine for the UICEE Cocktail Party of the 6th Baltic Region Seminar. Also, commemorative gifts were exchanged between the ship's captain, Capt. Leszek Wiktorowicz, and distinguished Seminar participants, including Prof. Grünwald, Prof. Simmen and the UICEE Director.

The ship also took along several honoured guests for its voyage back to Gdynia, Poland. *Dar Młodzieży* translates to *The Gift of Youth*.

Badges of Honour

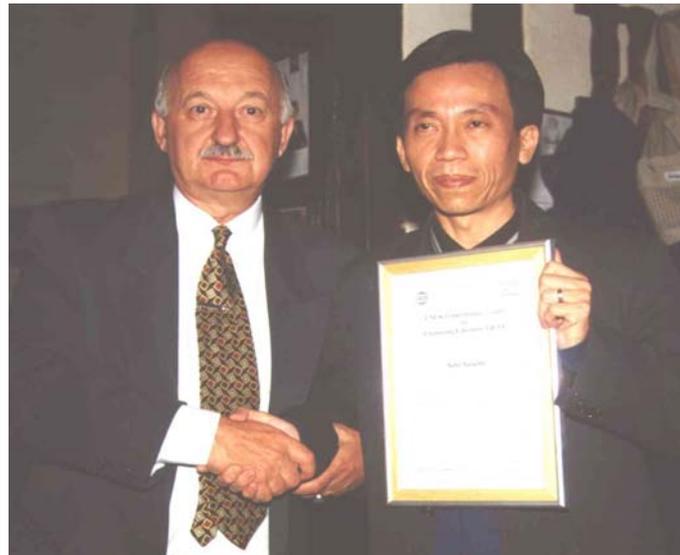
The UICEE Director was proud to award two Silver Badges of Honour on the occasion of the 6th Baltic Region Seminar on Engineering Education. These awards are given to particular engineering educators to recognise their ...*distinguished contributions to engineering education, outstanding achievements in the globalisation of engineering education through the activities of the Centre, and, in particular, for remarkable service to the UICEE.* These awards were presented during the Gala Dinner at the restaurant *Zum Weinberg*, which has a history that dates back to 1354/1355.

The recipients of the awards were Dr Sani Susanto of Parahyangan Catholic University, Bandung, Indonesia, and A/Prof. Flemming K. Fink of Aalborg University, Aalborg, Denmark.

The photos show Dr S. Susanto and A/Prof. F.K. Fink receiving the UICEE awards from the UICEE Director.

Best Paper Award

As at previous UICEE-run conferences, participants at the 6th Baltic Region Seminar were asked to nominate their choice for the Best Paper Award. Despite the wide spread of votes, due to the high calibre of many of the



The photo shows the Dr S. Susanto (r) accepting the Silver Badge of Honour award from the UICEE Director .

papers, only one paper achieved the required minimum votes set by the Voting Committee with several others coming very close.

The Diamond Award (first grade) went to H. Roth, O. Rösch, J. Kuhle, A. Prusak and A. Hernán González from University of Siegen, Siegen, Germany, and G. Georgiev, G. Lehov and S. Stefanova, from Rousse University, Rousse, Bulgaria, for their collaborative paper entitled *Remote laboratories for experiments in mechatronics*. It is envisaged that an expanded version of this paper will

appear in the UICEE's *Global Journal of Engineering Education* in the near future.

Partnerships Signed in Wismar

Participants at the 6th Baltic Region Seminar on Engineering Education witnessed the signing of three new Memoranda of Agreement (MoA) on Partnership.

Algiers

The first Partnership signed was with the University of Science & Technology *Houari Boumediene* (USTHB), Algiers, Algeria, which expands the UICEE's presence in Africa.

Under the agreement, a satellite centre will be established shortly, called the *North African Centre for Engineering and Technology Education* (NACETE).

This prime Algerian university is advancing its adoption of modern technology to improve education opportunities, as well as focusing on teacher and student training and communication infrastructure.

The photo shows Prof. Khedidja Allia, from the Faculty of Process and Mechanical Engineering at the USTHB and the



The photo shows a delighted A/Prof. F.K. Fink (r) receiving the Silver Badge of Honour award from the UICEE Director .

NACETE's Director, exchanging the signed Memorandum with the UICEE Director and Prof. N. Grünwald witnessing the handover.

Sibiu

The second official signing of a new Memorandum of Agreement on Partnership was between the UICEE and the *Lucian Blaga* University of Sibiu (LBUS), Sibiu, Romania. This Partnership augments the UICEE's international network, particularly within Central Europe.

This Agreement facilitates greater interaction for the Romanian University with international educational institutions from around the globe and also exemplifies the LBUS' efforts to internationalise its activities and participate in global educational networks.

It is envisaged that a *Balkan Region Centre for Engineering Education* (BRCEE) will be established at the LBUS with Prof. Constantin Oprean, Vice-Rector of the LBUS, as its Director.

The photo shows the friendly union between the signatories, Prof. Oprean, Prof. Grünwald and the UICEE Director.

Muscat

The third Agreement signed that night was with the Caledonian College of Engineering, Muscat, the Sultanate of Oman. Prof. Colin U. Chisholm, from the Glasgow Caledonian University (GCU), signed the document on behalf of Prof. Frank McIntosh, Principal of the Caledonian College of Engineering, with Prof. Norbert Grünwald, Rector of Hochschule Wismar, Wismar, Germany, acting as witness.



A happy moment in the exchange of MoA between Prof. Khedidja Allia (USTHB) (l), Prof. Norbert Grünwald (HSW) (r) and Prof. Zenon J. Pudlowski (UICEE) (c).

This accord amplifies the UICEE's international network of engineering educators by establishing a presence in the Gulf region and enhancing the global nature of the UICEE's operations. This also serves to magnify opportunities for collaboration between Partner institutions.

The Caledonian College of Engineering is the first Omani private engineering college to achieve the distinction of receiving university status.

Under the Agreement, a *Gulf Centre for Engineering Education* (GCEE) will soon be established at the College in Muscat.

The photo on the next page shows Prof. Chisholm, Prof. Grünwald and the UICEE Director toasting the signing of the Agreement and its future success.

Next Issue of the GJEE

The next issue of the *Global Journal of Engineering Education* (GJEE), Vol.6, No.3, will be a Special Issue that once more focuses on German engineering education and will be published entirely in the German language. Prof. Norbert Grünwald, Rector of Hochschule Wismar, Wismar, Germany, will be the Guest Editor of this issue in what has become a regular event for the GJEE. This internationalises the GJEE and improves access to new concepts and research for those engineering educators for

whom English is not the first language.

MSc in Materials Science

International collaboration between three UICEE Partner institutions has led to initial developments for the foundation of a trilateral MSc Programme in Materials Science.



The photo shows Prof. Constantin Oprean (LBUS) (l) sealing the MoA with Prof. Norbert Grünwald (HSW) (r) and Prof. Zenon J. Pudlowski (UICEE) (c).

The universities involved are: Glasgow Caledonian University (GCU), Glasgow, Scotland, UK; Hochschule Wismar - University of Technology, Business and Design (HSW), Wismar, Germany, and Tomsk Polytechnic University (TPU), Tomsk, Russia.

It is envisaged that every semester of the three-semester long course will be undertaken at a different university with different course content at each university, including project work at the TPU. It is expected that there will also be obligatory lessons in the local language of each host institution.

The first meeting, held in Wismar in mid-September, established the content of the modules. There were also discussions on further collaborative research between the three universities.

Students from Tarnow in Germany

Hochschule Wismar – University of Technology, Business and Design (HSW), Wismar, Germany, is currently hosting several postgraduate students from the Higher Professional State School, Tarnów, Poland, which is currently a Supporter Member of the UICEE.

This collaborative venture demonstrates the burgeoning web or network of UICEE member institutions, and how participation within this network ultimately enhances and strengthens the engineering education activities at those institutions. The end result is the provision of education that benefits not just the institutions, but also, and even more importantly, the students.



The photo shows Prof. Chisholm (c), Prof. Grünwald (r) and the UICEE Director toasting the signing of the MoA with Caledonian College of Engineering in Oman and its future success.

Fruitful discussions concerning future collaboration and the operation of the *Centre for Education in Mechatronics (CEM)*, a UICEE satellite centre based at the SUT, were carried out over a breakfast with the previous and current Senior Management of the University. The SUT was represented by its current Rector, Prof. Wojciech Zieliński; the former Rector, Prof. Bolesław Pochopień; the present Vice-Rectors, Prof. Marian Dolipski, Vice-Rector for Research and Industrial Cooperation, Prof. Ryszard K. Wilk, Vice-Rector for Education, and Prof. Wojciech Cholewa, Vice-Rector for Organisation and Development; the previous Vice-Rector, Prof. Remigiusz Sosnowski, representative of the UICEE network, as well as Prof. Krzysztof Kluszczyński, Director of the CEM.

The new SUT Management, which commenced its duties on 1 September 2002, is extremely keen on the partnership between the SUT and the UICEE.

In recognition of his extraordinary achievements, Prof. Bolesław Pochopień was presented with the Silver

Badge of Honour at the working breakfast on 12 September 2002. The photo shows Prof. B. Pochopień proudly receiving the award from the UICEE Director.

After the meeting, the UICEE Director visited several University laboratories, teaching and research units, including the Department of Mechatronics, which is headed by Prof. Kluszczyński. There, various staff and postgraduate students presented their research projects.



The photo shows Prof. Bolesław Pochopień, former Rector of the SUT, proudly accepting the Silver Badge of Honour Award from the UICEE Director.

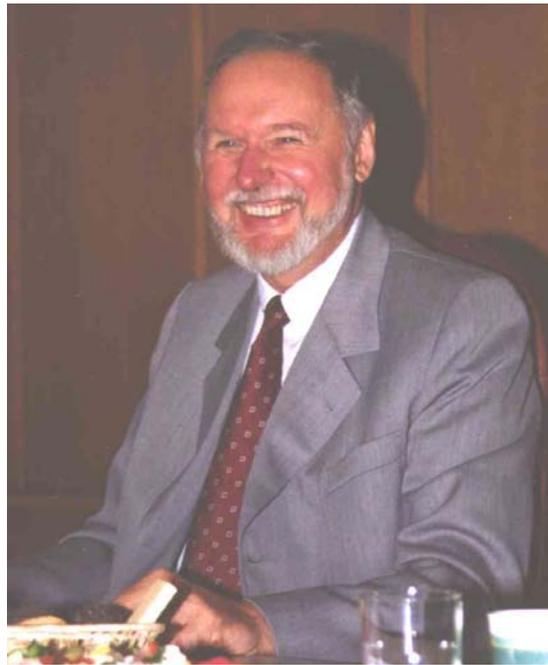
Visit to the SUT

The UICEE Director paid a brief visit to the Silesian University of Technology (SUT), Gliwice, Poland, in response to a kind invitation from the University Senior Management.

UICEE Annual Conference

The 6th UICEE Annual Conference on Engineering Education, to be held in February 2003 in Cairns, northern Australia, is shaping up to be quite a memorable event. Papers are currently being collected and, as they arrive, are being sent to international peers for formal refereeing. So far, we have received close to 80 full paper submissions from around the world with others still to come.

All of the necessary local preparations have been accomplished and we look forward to yet another successful UICEE conference. It is anticipated that the Preliminary Conference Program will be in circulation in early December 2002.



The current Rector of the SUT, Prof. Wojciech Zieliński, in a jovial mood during the breakfast meeting with the UICEE Director.

Also, a presentation was made on the role of the University as a local hub of the Institute of Electrical and Electronics Engineers (IEEE).

After the seminar, Prof. Puzankov, assisted by University staff, officially opened the Centre. The picture shows Prof. D.V. Puzankov cutting the ribbon as a symbol of the inauguration of the Centre.

Linkages between Partners in Europe

Initially, the UICEE was at the hub of a network wherein member institutions were like the spokes of a wheel. However,

with expanding institutional membership, linkages have formed between member universities and institutions, creating a solid network that is increasingly intricate, reinforces itself, evolves and grows with each new member.

Given this tremendous development for global engineering education, the UICEE has drafted a document that should be used between Partner Institutions in formalising agreements between them. This will serve to standardise agreements and ensure consistency.

Requests for a copy of the agreement or comments can be made to the UICEE Director (the e-mail address can be found on the last page of this Newsletter).

RUCTA

The Research Unit on Cultures and Technologies in Asia (RUCTA), established in December 2001 by the Monash Asia Institute (MAI), under the leadership of its Director, Prof. Marika A. Vicziany, and the UNESCO International Centre for Engineering Education (UICEE), brings together expertise on Asia in five Faculties of Monash University: Arts, Business and Economics, Engineering, Law and Information Technology.

Having secured seed funding from the Monash Special Research Fund for 2002, RUCTA

Satellite Centre in St Petersburg

A new satellite centre, dubbed the *Centre for Electrical and Electronics Engineering Education* (CEEEE), has been established at the St Petersburg State Electrotechnical University "LETI", St Petersburg, Russia, a Partner Institution of the UICEE.

On this occasion, the UICEE Director visited the University in mid-September 2002. On the day of the official launch of the Centre, staff and students of the University, as well as Prof. Yuri P. Pokholkov, Rector, and Prof. Alexander I. Chuchalin, 1st Vice-Rector, both from Tomsk Polytechnic University (TPU), Tomsk, Russia, as well as Prof. Vladimir V. Evstigneev, Rector, and Prof. Vladimir D. Gontcharov, 1st Vice-Rector, both of the Altai State Technical University, Barnaul, Russia, plus other distinguished guests, attended a special seminar at which the presentation of the Centre was made by Prof. Dmitry V. Puzankov, Rector, and A/Prof. Sergei O. Shaposhnikov, Vice-Rector for International Affairs, who elaborated on the function, organisation and activities of the CEEEEE.



Pictured here is Prof. Dmitry V. Puzankov, Rector of LETI, assisted by Ms Anna Budrina (l) and Ms Elena Ponomaryova (r), opening the CEEEEE.

aims to establish itself as an independent research group.

Drawing on their global networks and partnerships, including FAO, UNESCO, various think tanks and international companies, the MAI and UICEE have agreed to work together for their mutual benefit and, even more importantly, the benefit of others in this joint research initiative.

Cross-faculty collaboration is realised with the involvement of six research centres located within the Monash Asia Institute, plus seven others, including the UICEE.



The picture shows the happy exchange of the Agreement signed. From left to right are: Prof. Z.J. Pudlowski, Prof. J.H. Chang, Prof. T-M. Lin and Prof. F-M. Lee.

the RUCTA project (Research Unit on Cultures and Technologies), so successfully developed last year by the Monash Asia Institute (MAI) and the UICEE (readers will find the most recent news item on RUCTA elsewhere in this Newsletter).

At the gala ceremony held in the beautifully appointed University auditorium, the University Chairman of the Board of Regents, Prof. Jen Hu Chang, the University President, Prof. Tsai-Mei Lin, and other

important guests and dignitaries, spoke about the importance of UNESCO in the global development of peace, stability and prosperity, and the role that the CCU plays in this process. Prof. Lee, in his speech, stated that *I believe that the true world peace depends upon the genuine cooperation or collaboration among all nations in education, science and cultures, not on politics, diplomacy or military supremacy.*

The photo displays the happy exchange of the Agreement signed. From left to right are: Prof. Z.J. Pudlowski, Prof. J.H. Chang, Prof. T-M. Lin and Prof. F-M. Lee.

A day earlier (21 November), the UICEE Director signed an agreement on Partnership with Prof. David W.S. Tai, Dean of the College of Technology at the National Changhua University of Education (NCUE), Changhua, Taiwan. The signing was witnessed by Prof. Tze-Li Kang, President of the University.

The purpose of this agreement is to upgrade the NCUE's status within the UICEE from a Supporter Member to a full Partner, thereby strengthening the existing relationship between the NCUE and the UICEE.

Under the agreement, the College of Technology will establish a *North East Asia Centre for Technology and Vocational Education (NEACTIVE)*, a satellite centre of the UICEE, hence expanding the expertise of the UICEE

Taiwanese Connections

November 2002 has seen two new partnership agreements being signed by the UICEE Director during his brief visit to Taiwan, between 20 and 23 November 2002.

The first partnership concerns the Chinese Culture University (CCU), based at Yang Ming Shan, Taipei, which recently decided to upgrade its membership status within the UICEE from a Sponsor to a full Partner.

It has to be noted that the CCU has been the first academic institution in Taiwan to join the UICEE. The College of Engineering, under the leadership of the Dean, Prof. Fong-Ming (Franklin) Lee, is extremely keen to develop activities relevant to the global scene of engineering and technology education. It is envisaged that under the agreement the CCU will establish a broad-based university centre, so-called the *Centre for Cultures and Technologies in Asia (CCTA)*, with the strong involvement of other University-based Colleges.

It is anticipated that the CCTA will collaborate strongly and, even more importantly, will become an agent of



The picture shows the exchange of the Agreements. Standing are, from left to right, Prof. Z.J. Pudlowski, Prof. T-L. Kang, and Prof. D.W.S. Tai.

global network in this important academic endeavour.

UICEE members may recollect that last year, the UICEE held its 3rd *Asia-Pacific Forum on Engineering and Technology Education* at the NCUE, and that later a special issue of the *Global Journal of Engineering Education* (GJEE) (Vol.5, No.2) was published with Prof. D.W.S. Tai as the Guest Editor. That issue was entirely dedicated to the research and development activities carried out at the NCUE.

Also, on this occasion, discussions were held concerning a further expansion of the already existing collaborative ventures between the NCUE and the UICEE, including the possibility of organising two highly specialised conferences at the NCUE in 2003, as well as the publication of another special issue of the GJEE in the later stage of 2003.

The photo on the previous page shows the exchange of the Agreements between Prof. T-L. Kang, Prof. D.W.S. Tai and Prof. Z.J. Pudlowski.

Visit to Bangkok

The recent Asian travel itinerary of the UICEE Director also included a brief visit to the King Mongkut's University of Technology Thonburi (KMUTT) in Bangkok, Thailand, on 18 November 2002.

The purpose of this visit was to discuss the *modus operandi* of the *South East Asia Centre for Engineering and Technology Education* (SEACETE), yet to be launched officially at the KMUTT. Until such time, the University's

Graduates and International Office are keeping the *flame and spirit* of the Centre.

At the meeting, the UICEE Director was briefed by both Prof. Kraiwood Kiattikomol, Senior Vice-President for Academic Affairs, and Mr Somchai Congmuang, Secretary of the Faculty of Engineering, on the Centre's proposed structure, activities and academic liaison with other institutions in the region. In return, the UICEE Director informed the meeting about the recent activities and expansion of the UICEE. However, discussions concentrated on the main topics concerning the future existence, role, operation and activities of the SEACETE.

High on the agenda was also the logistic support to be provided by the KMUTT to the joint organisation of the 4th *Asia-Pacific Forum on Engineering and Technology Education*, which will be held at Menam Riverside Hotel in

Bangkok in July 2003. Whilst in Bangkok, the UICEE Director also conducted several working sessions with Mr Virat Prapruetdee, Director of Sales at the Menam Riverside Hotel, discussing organisational details concerning the forthcoming 4th Asia-Pacific Forum.

The photo shows (l-r) Dr Teraporn Chairoondekul, Director of Graduates and International Office, KMUTT; Mr Virat Prapruetdee, Director of Sales, Menam Riverside Hotel; Prof. Zenon J. Pudlowski; Ms Sasima Juwasophi, International Cooperation Officer, KMUTT; A/Prof. Kraiwood Kiattikomol, Senior Vice-President for Academic Affairs, KMUTT, and Mr Somchai Congmuang, Secretary of the Faculty of Engineering, KMUTT.

UICEE EHQ

Due to various organisational difficulties and limited resources required to support the two centres, that is the UICEE Centre for Problem-Based Learning (UCPBL) and the UICEE European Headquarters (UICEE EHQ) at Aalborg University, both parties, that is Aalborg University and the UNESCO International

Centre for Engineering Education (UICEE), have decided to terminate the agreement on the establishment of the UICEE EHQ at Aalborg University as of 1 November 2002 and close the operation of the UICEE EHQ.

VG TU Publica- tion

We are pleased to inform our readers and UICEE Members that two distinguished professors of the Vilnius Gediminas Technical University (VG TU), Vilnius, Lithuania, that is Prof. Edmundas K. Zavadskas and Prof. Algirdas V. Valiulis, published in 2002 a book entitled *A Time of Challenge and University's Growth*.

The book deals with study, research, as well as international and internal developments at the VG TU. According to the book's authors, the content of this publication and the discussions carried out therein, coincide with the UICEE attitude and uphold its values. It should be mentioned that the VG TU is a longstanding Contributing Member of the UICEE.



Pictured are (l-r) Dr T. Chairoondekul, Mr V. Prapruetdee, Prof. Z.J. Pudlowski, Ms S. Juwasophi, A/Prof. K. Kiattikomol and Mr S. Congmuang.