



UNESCO International Centre for Engineering Education



Newsletter

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From the Director

July 18, 2002 has come as a special day for the Chairman of the UICEE Academic Advisory Committee, Prof. Peter LePoer Darvall, as he has been appointed the Vice-Chancellor of Monash University, a university that has always been close to his heart.

As far as *our gospel* is concerned, Peter has established himself as a world expert and leader in global engineering education, and has been President of the International Liaison Group for Engineering Education (ILG-EE) since 1995. He was also the President of the Australasian Association for Engineering Education (AAEE) between 1991 and 1995. He is presently Chairman of the Academic Advisory Committee of the UNESCO International Centre for Engineering Education (UICEE). Also, he has served on the boards of several international journals and committees on engineering education.

His vision, enthusiasm, leadership and actions contributed significantly to the establishment of the UICEE here at Monash University, the world's first and only such centre in engineering education within the United Nations Educational, Scientific and Cultural Organization (UNESCO), presently with a UICEE European Branch and Headquarters at Aalborg University, Aalborg, Denmark, as well as 12 satellite centres (sub-centres) in countries around the world.

I have known Peter for more than 12 years now and have always admired his stand, wit, knowledge, experience, humour, plus many other exceptional characteristics, and can unreservedly state that he is a person of great stature, integrity, principles and high morals, while at the same time he is accessible and accepting of different views, opinions and beliefs.

On behalf of staff, students, members and associates of the UICEE, and indeed myself, I wish Prof. Darvall all the best in his new endeavour. A short biography of Prof. Darvall can be found in the next column.

New VC of Monash Uni

Monash University Council appointed Prof. Peter LePoer Darvall, Deputy Vice-Chancellor and Chairman of the Academic Advisory Committee of the UICEE, as the new Vice-Chancellor of Monash University at its Special Meeting on 18 July 2002. Prof. Peter Darvall is well known to many UICEE members and Conference participants for his unswerving dedication to engineering education.

Prof. Peter Darvall was previously the Dean of Engineering at Monash University between 1988 and 1994, and Deputy Vice-Chancellor of Monash University between 1993 and 2002.



The new Vice-Chancellor of Monash University, Prof. Peter LePoer Darvall.

He graduated in engineering from the University of Melbourne in 1963 and gained higher degrees at Ohio State University and Princeton University and a DipEd from Monash University. He joined Monash as a lecturer in civil engineering in 1970 after experience with Maunsell and Partners, with Freeman, Fox and Partners, as a surveyor for a glaciological expedition in Alaska, and as a site engineer for an archaeological expedition in Egypt. He has held visiting appointments at UNAM in Mexico, the University of California at Berkeley and the University of Wisconsin, USA.

He has authored and co-authored books on mechanics and structures, and reinforced and pre-stressed concrete.

His many research papers have covered a variety of areas, but in recent years, he has concentrated on softening in concrete structures and high strength concrete, and more recently on engineering education.

Prof. Darvall was for many years a member of the Monash University Council and was National President of the Federation of Australian University Staff Associations (FAUSA), 1979-1981. He was President of the AAEE from 1991-1995, and is currently Chairman and a Trustee of the International Liaison Group for Engineering Education (ILG-EE).

UICEE Partners



UNESCO DG Visits Melbourne

The Director-General of UNESCO, Mr Koichiro Matsuura, paid a brief visit to Australia on his way from the Philippines to Bangladesh on the invitation of the Federal Government of Australia. Whilst in Australia, Mr Matsuura visited the Victorian Curriculum and Assessment Authority (VCAA) in Melbourne on Tuesday, 7 May 2002. Ms Susan Pascoe, Chief Executive Officer of the VCAA was the host of the Director-General. At a special luncheon staged by the VCAA in honour of the Director-General of UNESCO, invited guests, representing key education organisations in Victoria, had the opportunity to discuss with Mr Matsuura issues of common interest and concern. In his address, Mr Matsuura reiterated the importance of education and the role of Australian education establishments in supporting developing countries in their effort to improve their education systems.

The Director-General was unable to visit the UNESCO International Centre for Engineering Education (UICEE) at Monash University on this occasion due to lack of time. However, the UICEE Director, Prof. Zenon J. Pudlowski, was invited to address briefly Mr Matsuura at the luncheon and present him with a few recent UICEE publications. In his address, the UICEE Director thanked Mr Matsuura for his continued support of the UICEE and invited him to visit the UICEE during his next trip to Australia.

The picture shows the Director-General of UNESCO, Mr Koichiro Matsuura (r), accepting UICEE publications, including a copy of the inaugural issue of the UICEE's *World Transactions on Engineering & Technology Education*, presented to him by the UICEE Director.

UICEE-EHQ Official Launch

The Vice-Rector of Aalborg University (AAU), Aalborg, Denmark, Prof. Jørgen Østergaard, greeted the guests at the opening of the official ceremony of the launch of the UNESCO International Centre for Engineering Education European Branch and its Headquarters (UICEE-EHQ), which was held at Aalborg University on 27 June 2002.

The official launch of the UICEE-EHQ was done by the Danish Minister of Education, Her Excellency Ulla Tørnæs, who delivered a brief but insightful occasional address on the role of UNESCO and Danish contributions to its operation in the 21st Century. The Minister's occasional address

can be found elsewhere in this Newsletter.

Prof. Hans Peter Jensen, Director, Institute of Food Safety and Nutrition, Soeborg, Denmark, former Rector of the Technical University of Denmark (DTU) and former Chairman of the UNESCO International Committee on Engineering Education (ICEE), addressed a large gathering of Danish and international guests.

During the ceremony, the Minister cut the ribbon to symbolise the official opening of the Branch. There was also a champagne toast proposed for the opening of this operation. Invited guests had the opportunity to attend a gala dinner held at the Knights Hall at Aalborg Castle, where the event was celebrated with excellent Danish food and imported wine.

We look forward to the active operation of this UICEE

Branch in Europe. The picture on the next page shows the Minister of Education, Her Excellency Ulla Tørnæs, cutting the symbolic ribbon.

UICEE Deputy Director

The UICEE is pleased to announce the appointment of the UICEE Deputy Director, Assoc. Prof. Annette Kolmos of Aalborg University (AAU), Aalborg, Denmark. Dr Kolmos' responsibility will be the day-to-day operation of the UICEE's European Branch and its European Headquarters, located in the Faculty of Engineering and Science at AAU.

The appointment was finalised by signing an official appointment letter by Assoc. Prof. Kolmos in front of Prof. Finn Kjærdsdam, Dean of the Faculty, and the UICEE Director on 12 June 2002.

Dr Kolmos is involved in research and teaching in the area of educational development and teaching methods and has been involved in several initiatives and projects. Her particular strength is the advancement of strategies in the research and development of staff improvement and the progression of specific courses for both basic and advanced education. She will commence her active duties after the European summer break.

3rd Global Congress

The extremely successful 3rd Global Congress on Engineering Education was held at the Glasgow Caledonian University (GCU), Glasgow, Scotland, UK, from 30 June to 5 July 2002. Although slightly smaller in attendance than expected, it allowed the presentation of



The photo shows the Director-General of UNESCO, Mr Koichiro Matsuura (r) receiving UICEE publications, including a copy of the inaugural issue of the UICEE's *World Transactions on Engineering & Technology Education*, from the UICEE Director.

over 100 papers and permitted a high level of interaction between participants, which hopefully will eventuate with many international activities and projects.

One of the aims of this Congress was to celebrate the life-long achievements of Prof. Colin U. Chisholm who, immediately after the Congress, stepped down as the Dean of the Faculty of Science and Technology at the GCU.

The Congress can be characterised as an academically exceptionally fruitful event with the majority of papers being of a very high academic standard.

Further, the host institution provided participants with traditional Scottish hospitality and ensured that there was a high level of organisation of the event.

Also, participants were treated to the charm and hospitality of Glasgow, which provided various opportunities for excursions and social functions, and particularly for networking, making new acquaintances and catching up with established friends.

A hardbound volume of Proceedings has been produced for the Congress, comprising papers that will provide readers with a significant source of information on a wide spectrum of issues and topics in engineering and technology education.

The UICEE wishes to express its sincere gratitude to the University and its Vice-Chancellor and Principal, Dr Ian Johnston, for all the support received.

15th ILG-EE Meeting

The 15th General Meeting of the *International Liaison Group for Engineering Education* (ILG-EE), held on Wednesday, 2 July 2002, was run in conjunction with the 3rd *Global Congress on Engineering Education* in Glasgow, Scotland, UK.

Various pertinent and important issues to global engineering education



The photo shows the Danish Minister of Education, Her Excellency Ulla Tørnæs, cutting the symbolic ribbon to launch the UICEE-EHQ.

were discussed, including future conferences, such as the 6th *UICEE Annual Conference on Engineering Education*, to be held in Cairns, Australia, in February 2003. Also, high on the agenda was the preparation for the 6th *Baltic Region Seminar on Engineering Education*, to be held in Wismar/Warnemünde, Germany, from 23-25 September 2002, which will be held in tandem with the 2nd *German Seminar on Engineering Education*.

One important resolution of the meeting was the establishment of the ILG-EE Best Paper Award presented at UICEE-run and ILG-EE co-sponsored conferences. On this occasion, the inaugural award was given to the same paper that won the Diamond best paper award at the Congress: Prof. Sir Graham Hills and Prof. David Tedford from the University of Abertay Dundee, Dundee, Scotland, UK, for their keynote address on innovation in engineering education.

This ILG-EE award will sponsor one registration fee for a UICEE conference supported by the ILG-EE (excluding accommodation costs). The value of this award is about \$A850. This free registration is not transferable and can be claimed by either of the successful authors in the period of two years.

UCPBL Board Meeting

A meeting of the Academic Board of the UICEE Centre for Problem-Based Learning (UCPBL) was held on 27 June 2002 at Aalborg University, preceding

the official launch of the UICEE European Headquarters. The UCPBL is a satellite centre of the UICEE.

The meeting was chaired by Prof. Finn Kjærdsdam, Dean of the Faculty of Engineering and Science at Aalborg University. Prof. Kjærdsdam presented the recently appointed Director of the Centre, A/Prof. Flemming K.



The photo shows the Aalborg University's UICEE-EHQ team toasting the Branch's official launch (l-r): Prof. Stig Enemark; A/Prof. Flemming K. Fink; the UICEE Director, Prof. Zenon J. Pudlowski; Prof. Finn Kjærdsdam; Prof. Lars D. Andersen and A/Prof. Egon Moesby.

Fink, and the two Deputy Directors: Prof. Stig Enemark and A/Prof. Egon Moesby. The Directors presented the current status of the Centre and its future activities. The discussion concentrated on the impact of Problem-Based Learning (PBL) on the quality of engineering education and how this method of education would be introduced to a wider population of students worldwide.

The meeting was attended by two academics of the Instituto Tecnológico Y de Estudios Superiores de Monterrey - *Tec de Monterrey*, Monterrey, Mexico, Dr Fernando J. James and Dr Maria Elena Morin G. Aalborg University has a long-standing collaboration with *Tec de Monterrey*. It is anticipated that this collaboration will eventuate in a partnership between *Tec de Monterrey* and the UICEE.

The UICEE has already endeavoured to initiate some activities relevant to Central and South America with the staging of the *1st Latin American & Caribbean Forum on Engineering and Technology Education* in Puebla, Mexico, in 1998. It is envisaged that this new relationship will result in the continuation of our activities in the region.

Best Paper Awards

Numerous exceptional papers were presented at the *3rd Global Congress on Engineering Education*, and participants were invited to select the top papers for the UICEE best paper awards.

The Diamond award (1st grade) was bestowed on Prof. Sir Graham Hills and Prof. David Tedford of the University of Abertay Dundee, Dundee, Scotland, UK, for their keynote address on innovation in engineering education and the uneasy relationship between science, technology and engineering.

The Platinum award (2nd grade) was conferred upon Prof. Małgorzata S. Żywno from Ryerson University, Toronto, Canada, for her keynote address



The photo shows the proud recipients of the UICEE Badge of Honour awards at the 3rd Global Congress (l-r): Prof. C-Y. Chao, Dr S. Ramakrishnan, Prof. M.S. Żywno, Prof. F. Kjærdsdam, Prof. R. Sosnowski and Prof. C. Oprean.

on the relationship between hypermedia instruction and different cognitive levels of learning.

Two papers received the Gold award (3rd grade): Prof. Stanislaus (Silas) Lwakabamba, Rector of Kigali Institute of Science, Technology and Management (KIST), Kigali, Rwanda, for his keynote address on effective engineering training at KIST; and Dr Tim D. Short, Mr John A. Garside and Prof. Ernest A. Appleton of the University of Durham, Durham, England, UK, for their keynote address on student-industry interaction.

There were also two Silver paper awards presented: Ms Lisa S. Anderson and Prof. Kimberley A. Gilbride of Ryerson University, Toronto, Canada, for their lead paper on the success and impact of pre-university outreach programmes at Ryerson; and Prof. Peter Edwards and Mr Paul M. Edwards from Bournemouth University, Bournemouth, England, UK, for their paper on the use of Java applets to deepen undergraduates' understanding of engineering mathematics. Due to the additional paper awards given at the Gold and Silver levels, there was no Bronze award.

Badges of Honour

Participants at the *3rd Global Congress on Engineering Education* witnessed the presentation of Gold and Silver Badges of Honour 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.*

Prof. Finn Kjærdsdam was the proud recipient of the UICEE's prestigious Gold Badge of Honour award.

Five Silver Badges of Honour awards were presented. These were conferred upon: Prof. Remigiusz Sosnowski,



The photo shows Prof. Finn Kjærdsdam receiving the UICEE Gold Badge award from the UICEE Director.

Silesian University of Technology, Gliwice, Poland; Prof. Chih-Yang (Frank) Chao, National Changhua University of Education, Changhua, Taiwan; Prof. Constantin Oprean, *Lucian Blaga* University of Sibiu, Sibiu, Romania; Prof. Małgorzata S. Żywno, Ryerson University, Toronto, Canada and Dr Swaminathan Ramakrishnan, Anna University, Chennai, India.



The photo shows the sealing of the partnership agreement (l-r): Prof. C.U. Chisholm, Prof. S. Lwakabamba and the UICEE Director.

ence via e-mail should be directed to Mr Marc Riemer on: marc.riemer@eng.monash.edu.au

New Partner: KIST

The 3rd Global Congress on Engineering Education witnessed the signing of a Memorandum of Agreement between Kigali Institute of Science, Tech-

nology and Management (KIST), Kigali, Rwanda and the UICEE. This is a tremendous achievement and a real breakthrough in the UICEE's commission to assist developing countries, and countries in Africa, in particular. KIST is the first African Partner institution of the UICEE and illustrates the widening spread and global representation of UICEE Partner members across the continents of this planet.

The relationship between the two parties was instigated by Prof. Colin U. Chisholm, Dean of the Faculty of Science and Technology, Glasgow Caledonian University, Glasgow, Scotland, UK.

The picture shows Prof. S. Lwakabamba affirming the agreement with Prof. C.U. Chisholm and the UICEE Director.

World Transactions

The inaugural issue of the UICEE's *World Transactions on Engineering and Technology Education* presented a range of papers from across the spectrum of engineering education and from around the world, including 30 very interesting and insightful representations from many countries worldwide, thereby contributing to the publication of engineering education papers globally. This is essential for academic life and the continued growth and evolution in humankind's knowledge and development across nations and continents. This first issue was released in March 2002.

This new journal has no definite engineering or technology themes, but rather the overarching principle of the globalised expansion of engineering and technology education that is not confined to borders or regions. It is open to every facet of engineering and technological education.

A call for papers is made for the next issue of the *World Transactions on Engineering and Technology Education*, Vol.1, No.2, with the deadline being **30 September 2002**. Additional information can be found at the UICEE's homepage.

Interested persons should submit their original, previously unpublished papers to the UICEE to be considered for inclusion in the *World Transactions*. Fees are based on cost recovery for editorial and publishing work, and every submitted paper will cost \$A450; this includes one copy of the *World Transactions* per paper submission by airmail postage to anywhere in the world.

The electronic kit for authors will be supplied on request. Further correspond-

Honorary Awards for the UICEE Director

The UICEE Director was deeply honoured to receive the title of Honorary Professor of the Tomsk Polytechnic University (TPU), Tomsk, Russia. The

award was accorded by the University Academic Board of the TPU on 1 April 2002, but actually presented at the 3rd Global Congress by Prof. Yuri P. Pokholkov, TPU Rector.

The picture shows Prof. Zenon J. Pudlowski receiving the award from the Prof. Yuri P. Pokholkov. The awardee wears the ceremonial gown in collecting the leather-bound diploma and the specially made medallion.

A few days earlier, the UICEE Director was delighted and honoured to receive the title of External Professor from Aalborg University, Aalborg,



The picture shows (l-r) Prof. Yuri P. Pokholkov, Rector of the TPU, presenting the honorary award to the UICEE Director.

Denmark. This was presented by Prof. Finn Kjærdsdam, Dean of the Faculty of Engineering and Science, on behalf of Prof. Sven Caspersen, Rector of Aalborg University, at a meeting of the Academic Board of the UICEE Centre for Problem-Based Learning (UCPBL), a satellite centre of the UICEE, on 27 June 2002.

Next Issue of the GJEE

The next issue of the UICEE's *Global Journal of Engineering Education*, Vol.6, No.2, will focus on engineering education in Denmark. This Scandinavian nation at the western edge of the Baltic Sea has a strong history in science and engineering and, indeed, engineering education and is a world leader in Problem-Based Learning (PBL) tuition.

Guest Editors of this issue will be Prof. Finn Kjærdsdam, Dean of the Faculty of Engineering and Science, Aalborg University, Aalborg, Denmark, and Assoc. Prof. Flemming K. Fink, Director of the UICEE Centre for Problem-Based Learning (UCPBL), a satellite centre of the UICEE based at Aalborg University.

It is envisaged that this issue will be in circulation in August 2002.

UICEE Annual Conference

The 6th Annual Conference of the UNESCO International Centre for Engineering Education, under the theme *Educating for the Right Environment*, will be held in Cairns, Queensland, Australia, between 10 and 14 February 2003.

The prime objectives of the Conference are to bring together partners, members, associates, students and supporters of the UICEE from all over the world and to continue discussion on issues of importance to engineering education; to examine the natural, built and educational environments so that future engineering education programmes are structured in a way that facilitates environmental preservation for generations to come.

This Conference will also mark the beginning of the celebrations of the 10th year of operations of the UICEE. Moreover, those many members and followers of the UICEE born in 1943 are especially invited to get together in order to celebrate yearlong festivities related to their 60th birthday, including the opportunity to present their life achievements

in engineering and technology education.

Cairns in North Queensland, Australia, is one of the prime tourist destinations in the Pacific Rim and is widely regarded as the pearl of the South Pacific. Cairns provides visitors with an unforgettable experience and the opportunity of encountering an environment that is unique in every respect. With access to the Great Barrier Reef, the world's most beautiful rainforest, the mountains, the ocean and other tourist destinations, it provides a unique, spectacular and picturesque environment. The number of rooms under this deal is strictly limited. Therefore, potential participants should register with full payment at their earliest convenience to avoid disappointment.

The Conference promises to be quite a momentous event and has already drawn considerable interest. Further information can be found at the UICEE Web site under *Conferences and Meetings*.



The photo shows Dr Ian Johnston, Vice-Chancellor and Principal of Glasgow Caledonian University, opening the 3rd Global Congress on Engineering Education.

Meeting in Poland

On the way from Cracow, Poland, to Wismar, Germany, the UICEE Director stopped for a breakfast meeting with the Rector, Prof. Bolesław Pochopiń; Rector Elect, Prof. Wojciech Zieliński and Prof. Krzysztof Kluszczyński of Silesian University of Technology (SUT) in Gliwice, Poland. The meeting served to further reinforce the partnership between the UICEE and the SUT and helped to define future plans and activities.

High on the agenda was the discussion on the operation and activities of the Centre for Education in Mechatronics (CEM), a satellite centre of the UICEE at the SUT. Prof. K. Kluszczyński, Foundation Director of the Centre, elaborated on its immediate plans and activities.

The UICEE Director was invited to spend a few days at the SUT in September 2002 and the invitation was received and accepted with great pleasure.

Elections & Promotions

Prof. E. Balagurusamy was recently appointed the new Vice-Chancellor of Anna University, Chennai, India, and he replaced Prof. Adinarayana Kalanidhi in this role. Prof. Balagurusamy is known as an institution builder and has worked as an advisor to the Government in helping to expand computer education into rural areas. He has authored over 25 books, many of which are prescribed texts.

He has also received many distinguished awards and honours and is known for his philosophy of *skill-based teaching begins with those skilled in teaching*. Anna University is a Partner institution of the UICEE and has established a satellite centre called the South Asia Centre on Engineering Education (SACEE). The UICEE looks forward to continuing its strong and proud association with Anna University.

The UICEE congratulates Prof. Norbert Grünwald on being elected Rector of Hochschule Wismar – University of Technology, Business and Design, Wismar, Germany. Prof. Grünwald has worked extremely hard in his efforts to promote engineering education at his Hochschule, nationally and internationally, and was instrumental in establishing the UICEE satellite centre based at Hochschule Wismar: the Gottlob Frege Centre for Engineering Science and Design (GFC). This Partner institution of the UICEE will soon be hosting the 6th Baltic Region Seminar on Engineering Education. Prof. Grünwald's exemplary efforts in the UICEE Global Network of Engineering Educators saw him rewarded with the Gold Badge of Honour during the 2nd Global Congress in July 2000.

Prof. Colin U. Chisholm has retired from his Deanship at the Faculty of Science and Technology at Glasgow Caledonian University. However, Prof. Chisholm will still pursue his interest in engineering education by holding several key positions, including the directorship of the Scottish Centre for Work-Based Learning (SCWBL), a satellite centre of the UICEE.

Earlier in the year, in May, elections for the new Rector and Vice-Rector were held at the Gdynia Maritime University (GMU), Gdynia, Poland. It is to our delight that Prof. Józef Lisowski was elected Rector of the GMU and Prof. Romuald Cwilewicz, Director of the Centre for Maritime Engineering Education (CMEE), a satellite centre of the UICEE, was elected Vice-Rector of the GMU.

Also in May, elections were held at Silesian University of Technology (SUT), Gliwice, Poland, a Partner institution of the UICEE. We are pleased to inform our readers that Prof. Wojciech Zieliński, a member of the UICEE, was elected Rector of this prestigious academic establishment in Poland.

With the resignation of Prof. Derek O. Northwood as Dean of the Faculty of Engineering and Applied Science at Ryerson University, Toronto, Canada, Prof. Stalin Boctor, formerly Associate Dean of the Faculty and Member of the Academic Board of the Ryerson Centre for Engineering Education (RCEE), was appointed the new Dean.

We wish to congratulate all of the appointees and wish them all the success in their new roles and we look forward to our further collaboration.

Danish Minister's Speech

The following is the speech from the official launch of the UICEE European Headquarters given by Her Excellency Ulla Tørnæs, Minister of Education of the Kingdom of Denmark.

Dear Guests, Ladies and Gentlemen

It is a great pleasure for me to be able to participate in the opening of the European Headquarters of the UNESCO International Centre for Engineering Education here at Aalborg University.

The liberal Danish Government, which took office in November last year, decided to transfer the responsibility for universities from the Ministry of Education to the new Ministry of Science, Technology and Innovation.

On behalf of my colleague, Mr Helge Sander, I am glad to say that he shares my belief in international cooperation as a tool for quality improvement, not only within the educational systems, but also in the field of science and technology.

I attach great importance to the fact that educational systems throughout the world are able to benefit from the growing international cooperation across the borders. Borders can be

national, cultural, political, personal and others. Diminishing, even eliminating educational borders has been, and still is, a key priority of the Danish government, as well as many other decision makers throughout the world.

The engineering educations have, for many years, shown a good example of how people are able to cooperate despite the fact that they may be sitting in different parts of the world. At the same time, they are actors in a variety of different educational systems.

Working as an engineer is, in many ways, to be in a global profession. And, of course, this is reflected in the educational structures.

Universities and other educational institutions must play a key role in the enhancement of the quality of our educational systems. At the same time, the political system must provide a sufficient framework for this.

I am glad to see that Aalborg University, since the year 2000, has developed a special Scholarship Scheme in cooperation with the organisations on the labour market and the



The photo shows Prof. Colin U. Chisholm delivering an opening address at the 3rd Global Congress on Engineering Education.

Danish Ministry of Science, Technology and Innovation.

Through this Scheme three Danish universities offer foreign engineering students a special course, which gives them a full Masters Degree in Engineering. This is arranged and financed jointly by the university and a Danish company. Through this you set an example of both university-industry cooperation and also cross-border cooperation without which our educations cannot survive.

As I mentioned before, the future of educational systems depends on a growing understanding of other *cultures* in a broad sense. In this field UNESCO sets out a good landmark by instituting the European headquarters of its international engineering education centre here in Aalborg.

UNESCO's contribution to world peace and development is well known. The more we learn about other cultures, the more we learn to understand their conditions – and the more we learn about ourselves to the benefit of both sides, I think.

UNESCO's recently adopted declaration on cultural diversity is an important step towards achieving this goal. With its medium-term strategy for the years 2002-2007, UNESCO has in this field

adopted a strategic goal of *promoting principles and ethical norms to guide scientific and technological development and social transformation.*

I know that many of you, who are present here today, are familiar with Aalborg University as an engaged partner in many international projects. At the same time, a university is part of a national educational structure. This should give its students an education, qualifying them to work on the labour market, not only in their home country, but also across borders and in other countries as well. This is the case here in Aalborg, I am glad to say.

By setting up a European Headquarters of the International Centre for Engineering Education here at Aalborg University, UNESCO also shows that it has its eyes on an institution with a long tradition for international cooperation.

I know that the creation of an international educational environment has been one of its key priorities, and that you have Masters students from Africa, China, Pakistan, Lithuania and several other countries. This is another move in the right direction.

UNESCO's global mission for the years 2002-2007 in education, science, culture and communication is expressed as follows:

- To promote education for all without distinction of race, sex, language and religion.
- To promote principles and ethical norms to guide scientific and technological development and social transformation.
- To safeguard cultural diversity and encourage dialogue among cultures and civilisations.
- To promote the free flow of ideas and universal access to information.



The photo shows the Danish Minister of Education, Her Excellency Ulla Tørnæs (c), toasting the opening of the European Branch and Headquarters of the UICEE with Prof. Finn Kjærdsdam (r) and the UICEE Director.

Only through this can we foster the development of a peaceful and more stable global society, built on the respect of human rights and democratic values.

I think that we can all contribute to this and that we all have a common interest in seeing concrete and long-lasting progress.

In science and research the Danish National Commission of UNESCO is focusing on the following key areas:

- Discussions and analysis of problems concerning ethics and science, for example bioethics, scientific integrity, access to knowledge and copyright problems.
- The challenges of globalisation in science's, among others, exploitation of natural resources and patenting problems.
- Promotion of the free and critical exchange of knowledge about scientific work.

Denmark is taking an active part in the international division of labour between educational institutions. Our traditions need new challenges to be met by universities, such as here in Aalborg.

I trust that the UNESCO International Centre for Engineering Education will create many different ways of synergies and thus produce *added value* both in Denmark and internationally.

I wish you all success in your future work.

Thank you.