



UNESCO International Centre for Engineering Education



Newsletter

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From the Director

For those UICEE members who may be superstitious, I am pleased to remind you that the 13th year of operation of the UICEE is over, and that we have just commenced the 14th year of our existence, full of energy and expectations for a dynamic and successful year to come.

The UICEE Global Network of Engineering Education consists of members representing many geographic regions and hence a multitude of cultures, which mostly predetermine the way how we all behave and interact with each other. With the ever prevailing globalisation, which is driven by one particular culture, we all assume that the behaviours, customs, habits, etc, which come from this particular culture, are the international norm, and we all have to comply with.

Our experience in interacting with individuals and institutions, based in different cultures, indicates that when dealing with one particular issue or matter, there may be a rainbow of behaviours, reactions and responses. For example, in the Western culture, signing an agreement between two parties does not only have a legal binding and implications, but is also an expression of the honourable behaviour by the signatory parties. Unfortunately, in some countries, placing a signature on a contract does not necessarily mean that the parties are serious about fulfilling the obligations coming from such an agreement. Hence, doing business between cultures is also an activity that carries a lot of risk and, unfortunately, the UICEE has been affected by this cultural difference on a few occasions.

Is there any solution to this problem? It is my strong conviction that before making any attempt to undertake activities, business ventures, etc, between cultures, one has to first

build a strong friendly relationship with the other party, which may then help in breaking down cultural differences and form a bridge between the cultures. In so doing, the UICEE has been able to survive and function over the last 13 years.

New UICEE-AAC Chairman



The picture shows Prof. Harold P. Sjursen, the newly installed Chairman of the UICEE-AAC, giving his opening welcome at the 10th UICEE Annual Conference.

We are delighted to inform UICEE members that during the UICEE Academic Advisory Committee Meeting, held on Monday, 19 March 2007, Prof. Harold P. Sjursen, Associate Provost at the Polytechnic University, Brooklyn, New York, United States of America, was installed as new Chairman of the UICEE Academic Advisory Committee. He took over from Prof. Emeritus Colin U. Chisholm, a long-standing partner and supporter of the UICEE, who served in this position for one year between March 2006 and March 2007, after the sudden resignation of Prof. Emeritus Peter LePoer Darvall.

Harold P. Sjursen is Professor of Philosophy and the Associate Provost for International Education and Research at the Polytechnic University in Brooklyn, New York, USA. He is the Director of the *UICEE Center for Liberal Arts in Engineering Education*, a satellite centre of the UICEE, and the Center for Philosophy and Technology Studies at the Polytechnic University. His current research and publishing focuses on the ethical problems posed by technology in the global context. He is completing a book titled *From Tradition to Technology: the Ontological Ethics of Hans Jonas*. He was the Honorary Chairman of the UICEE-organised 5th Global Congress on Engineering Education, held at the Polytechnic University in July 2006, where he was





UICEE Partners







also awarded the UICEE Silver Badge of Honour.

Staff, students and associates of the UICEE cordially welcome Prof. Sjursen to this position and look forward to our close collaboration for the benefit of the entire global community of engineering education.

10th UICEE Conference

Initially planned to take place at the East China University of Science and Technology (ECUST), Shanghai, People's Republic of China, the 10th UICEE Annual Conference on Engineering Education was instead held at Menam Riverside Hotel in Bangkok, Thailand, between 19 and 23 March 2007.

The change of venue, due to unforeseen circumstances beyond our control, created some organisational problems, which the highly experienced staff members of the UICEE were able to overcome in a collected and efficient manner. Also, the academic programme of the Conference was not affected very much by this change, as the majority of international participants decided to support this UICEE activity by attending this 10th jubilee UICEE Annual Conference. We are, indeed, grateful to all those colleagues, who have shown their loyalty to the UICEE, for their continued support of, and the appreciation for, the efforts in organising international events for the benefit of the international community of engineering education.

The important objectives of the Conference were to create a forum for partners, members, associates, students and supporters of the UICEE from all over the world, and continue discussions on issues and matters of importance to engineering education. To debate the activities of the UICEE and to foster friendships already established were also important objectives of the Conference. Therefore, the Conference's main theme, *Reinforcing Partnerships in Engineering Education*, was chosen to promote and foster personal interaction between academics from different institutions who are involved in engineering and technology education. It is believed that the Conference has further enhanced the UICEE's collaborative links so successfully established over the last decade or so, and set the stage for more innovative and collaborative projects. One of the examples was the effort to carry out a project on the



The photo shows Prof. D. Viswanathan giving his engaging Opening Address at the Conference.

international rating of academic institutions, with the UICEE joining forces with the Russian Association for Engineering Education (RAEE) in this endeavour. However, due to the magnitude of the project and the lack of the necessary resources within the UICEE, a decision was made not to undertake this project at the present time.

The Conference was officially opened by Prof. Harold P. Sjursen, Associate Provost at the Polytechnic University, Brooklyn, New York, USA, one of the Honorary Co-Chairmen of this Conference and the new Chairman of the UICEE Academic Advisory Committee. In his Opening Address, Prof. Sjursen concentrated on the most prevailing and burning issues concern-

ing engineering education, and endeavoured to point out the challenges that the UICEE is likely to face in its activities this year in order to retain its position as a leading global force in engineering education.

The picture presented on the first page shows Prof. H.P. Sjursen addressing the Opening Ceremony of the 10th jubilee UICEE Annual Conference.

The top photo this page shows Prof. Doraiswamy Viswanathan, Vice-Chancellor of Anna University, Chennai, India, a Partner institution of the UICEE, delivering his comprehensive Opening Address on the current status of Indian engineering education.

A volume of Conference Proceedings, consisting of highly informative papers in which the authors present and discuss their research activities and achievements carried out in order to improve the status and quality of engineering education in their academic institutions, as well as globally,

was published and distributed during the Conference. The Proceedings include three opening addresses, six keynote addresses, nine lead papers and 40 regular papers, written by authors representing 24 countries worldwide. It is believed that the papers cover a wide range of aspects of engineering education and training, and have been arranged in thematic chapters. Readers will also find three discussion papers concerning the RAEE/UICEE project on international rating at the UICEE Special Session section in this volume of Proceedings.

On Thursday, 22 March 2007, the Gala Conference Dinner was held at Menam Riverside Hotel, which gathered participants and guests in an elegant and friendly atmosphere. Several activities were conducted during the Dinner. Indeed, we were very



The photo shows Prof. K. Kiattikomol giving his insightful address in Bangkok, Thailand.

fortunate to ensure the presence of Prof. Kraiwood Kiattikomol, President of King Mongkut's University of Technology Thonburi (KMUTT), Bangkok, Thailand, which is a Contributing Member of the UICEE, who was the Guest Speaker and delivered an enlightening address.

The bottom photo on the previous page shows Prof. K. Kiattikomol presenting his after-dinner address.

On the occasion of the Conference Gala Dinner of the 10th UICEE Annual Conference, the UICEE Director was proud to present the UICEE Gold 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.* This was awarded to Prof. Stanisław A. Mitkowski of the AGH University of Science and Technology in Kraków, Poland. The top photo shows the proud awardee with the UICEE Director. It should be noted that Prof. Mitkowski is an outstanding Polish engineering educator with close to 40 years of academic experience. In his career, he has held a number of important positions, including that of Vice-Rector (Science) of the AGH between 1990 and 1996, and Head of the Department of Theoretical Electrotechnics since 1993. Prof. Mitkowski is also the Director of the Institute of Polytechnics at the Higher Education Professional School in Tarnów, Poland. Apart from his prime appointments, he is an Honorary Professor of the National Mining Academy of Ukraine, Dnepropetrovsk, Ukraine, and holds an important membership of the Polish Accreditation Commission. He is also a long-term supporter of the UICEE and contributor to its publications.

Staff and students of the UICEE are proud to



The photo shows (l-r) Prof. S.A. Mitkowski proudly accepting his Gold Badge of Honour from the UICEE Director.

New York, USA, the newly installed Chairman of the UICEE Academic Advisory Committee.

Under the agreement, it is envisaged that a *Baltic State Centre for Engineering Education (BSCEE)* will be established at the VGTU as a satellite centre of the UICEE.

The bottom picture on this page shows the moment of exchange of the Communiqué between the two parties; Prof. Z.J. Pudlowski, Prof. H.P. Sjørnsen and Prof. R. Ginevičius.

UICEE Best Paper Awards were awarded to those papers that were considered to offer the most significant contribution to the field of engineering and technology education, and were delivered at the 10th UICEE Annual

Conference. The papers were selected by registered Conference participants on the basis of the greatest frequency of recognition in a popular vote in five selected award categories: Diamond, Platinum, Gold, Silver and Bronze. However, the low voting response rate of the Conference participants reduced this to the last three categories.

The UICEE Gold Best Paper Award was conferred on Ms D.Q. Nguyen and Prof. Z.J. Pudlowski of Monash University, Melbourne, Australia, for their paper titled *The evolution of*



The photo shows (l-r) the UICEE Director, Prof. H.P. Sjørnsen and Prof. R. Ginevičius exchanging the partnership agreement.

baccalaureate environmental engineering education: the past, present and future status.

It should be noted that the UICEE Director did not accept this award. The UICEE Silver Best Paper Award went to Ms J. Sando and Mr R. Seidel of the University of Adelaide, Adelaide, Australia, for their paper entitled *The Volunteer Learning Support Scheme for International Students (VLSSIS)*. The UICEE Bronze Best Paper Award was accorded to A/Prof.

Ö. Göl and Prof. A.F. Nafalski from the University of South Australia in Adelaide, Australia, for their Opening Address called *Collaborative learning in engineering education*.

The top photo shows Ms Dianne Nguyen delivering her award paper during the Conference. Also pictured is Prof. Alexander I. Chuchalin, Vice-Rector of Tomsk Polytechnic University, Tomsk, Russia, chairing the session. It should be noted that Ms Nguyen has won numerous Best Paper Awards at UICEE conferences, including two Diamond awards.

It is envisaged that expanded and revised versions of these very interesting award papers will be included in a forthcoming issue of the UICEE's *Global Journal of Engineering Education*. Staff, students and associates of the UICEE wish to congratulate the distinguished awardees on their noteworthy achievements.

Also of note is that the UICEE Academic Advisory Meeting was held on the day immediately before the Conference, whereas the formal UICEE Annual Meeting preceding the Official Closing Ceremony saw the presentation of the work and achievements of the UICEE in 2006, and discussions on future plans and activities. The entire Conference was concluded with a river cruise at which the successful Best Paper Awards were announced.

Visit to India

Early in December 2006, the UICEE Director travelled to India with the objective to strengthen the existing ties and develop new contacts.

The first part of his trip



The photo shows Ms D.Q. Nguyen (r) delivering her paper alongside the session chairman, Prof. A.I. Chuchalin (l).

was followed by a fruitful discussion. The institution carries out teaching and research activities in engineering, technology and the liberal arts, and has an amalgamation of various disciplines that build bridges between these three areas of education. The bottom picture shows students engaged in textile and weaving work at the Institute.

On the same day in the afternoon, the Director paid an official visit to Anand Engineering College in Keetham (near Agra). He met with various senior members of the College, including its Director, Prof. Bhagwan Das Gupta, and gave an informative address on the role and achievements of the UICEE, which was followed by a comprehensive debate on issues and matters concerning engineering and technology education. The top photo on the next page shows Mrs Dorota Pudlowski, the UICEE Director and Prof. B.D. Gupta during the presentation.

In the evening, the Director invited several senior academics representing the two institutions to a working dinner where they discussed many issues of common interest and concern.

The immediate outcome of this successful visit is the joint organisation of the 5th Asia-Pacific Forum on Engineering and Technology Education, to be hosted by Anand Engineering College between 27 and 30 November 2007. Further information on the Forum can be found elsewhere in this Issue, as well as on the UICEE Web site.

The next leg of the visit was to Anna University in Chennai, a Partner institution of the UICEE, where the Director met and invited Prof. Doraiswamy Viswanathan, Vice-Chancellor, to attend the then



The photo shows students working with textiles at Dayalbagh Educational Institute.

forthcoming 10th UICEE Annual Conference and present one of the Opening Addresses there. Many important issues of common interest were raised and discussed during the meeting.

Along these lines, the organisation of the 1st South Asia Seminar on Engineering and Technology Education, to be hosted by Anna University in Chennai, India, possibly immediately after the 5th Asia-Pacific Forum, was discussed during the meeting. The bottom photo on this page shows Prof. Viswanathan engaged in discussion with the UICEE Director and Dr Ramaswamy Jayavel, Director of the Research Centre for Nanoscience and Technology at Anna University.



The photo shows (l-r) Mrs D. Pudlowski, the UICEE Director and Prof. B.D. Gupta at Anand Engineering College.

enrolling Faculty to transfer her candidacy, as of 1 January 2007, to enable her to pursue this research as a PhD candidate.

During her brief candidacy, Mrs Danilova was also able to publish three peer-refereed research papers. This was another important evidence of her strong commitment to the research undertaken. Based on her achievements so far, Mrs Danilova was successful in receiving both a *Monash International Postgraduate Research Scholarship* (MIPRS) to meet her international course fees and a *Monash Graduate Scholarship* (MGS) to cover her living expenses. It should be pointed out that the UICEE has also provided her a modest scholarship to top up the MGS under the *UICEE Women in Engineering Education* scheme.

Staff, students and associates of the UICEE wish to congratulate Mrs Danilova on this tremendous achievement and wish her success in her research.

The top photo on the next page shows Mrs Elena A. Danilova in her work environment at the UICEE.

New PhD Candidate

Our readers may recollect a news item from the UICEE Newsletter, published last July (Vol.13, No.2), that earlier in June 2006, Mrs Elena A. Danilova, formerly a lecturer in English for Specific Purposes (ESP) at Tomsk Polytechnic University (TPU), Tomsk, Russia, a Partner institution of the UICEE, started her studies and work at the UICEE. She commenced her studies as a full-time post-graduate Masters student by research at the Faculty of Arts via the Monash Asia Institute (MAI), with the UICEE Director having the role of her main supervisor.

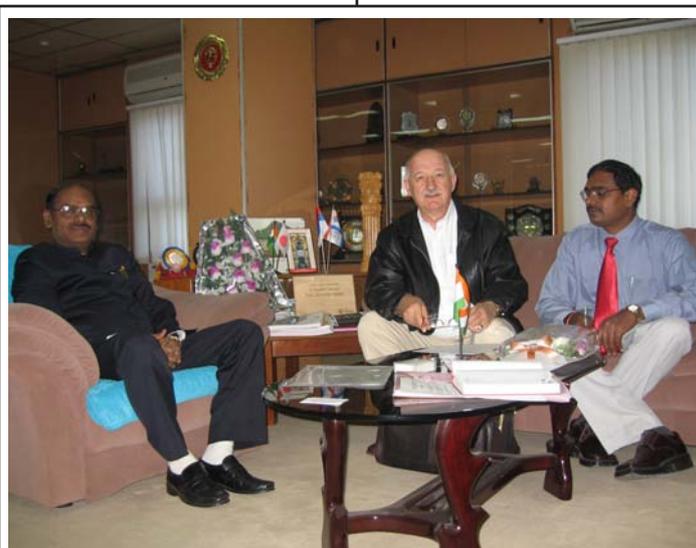
After close to five months of her studies, she presented a progress report concerning her research at a Confirmation Seminar, held on Friday, 27 October 2006, to a Confirmation Committee and an audience of close to 20 MAI students and interested persons. Despite the complexity of her topic, as well as the research methodology devised for this project, the presentation aired several important issues and matters needing a comprehensive research enquiry. The Confirmation Committee was very much impressed by her progress, so much so that it made a recommendation to the

Visitor from Tomsk

Early in January this year, the UICEE hosted A/Prof. Sergey A. Gorisev, Head of the e-Learning Technologies Laboratory, based at Tomsk Polytechnic University (TPU), Tomsk, Russia, an institution that is a Partner member of the UICEE. The brief visit allowed the

carrying out of numerous discussions focused on several issues concerning the possible cooperation in research and development in engineering and technology education, with the objective to formulate potential joint research projects and ventures. In particular, the use of modern courseware in the teaching/learning process in engineering education and the joint development of such programmes were high on the agenda.

One of the possible projects identified for



The photo shows (l-r) Prof. D. Viswanathan, the UICEE Director and Dr R. Jayavel engaged in discussion.

immediate collaboration was to experiment with the book titled *Basic Electrical Engineering – Laboratory and Tutorial Procedures*, as well as the associated textbook titled *Basic Electrical Engineering, a Concise Theoretical Course (Fragment)*, both authored by the UICEE Director, in order to prepare multimedia assisted courseware to be used for the teaching/learning process in the primary undertaking of electrical engineering. It was decided that, at this early stage, this research and development would be undertaken as a pilot project, where researchers would experiment with the material to check its suitability for conversion to multimedia assisted courseware.

It should be emphasised that this joint research and development project, if undertaken, would not be driven by any commercial aims and objectives. If successful, such a teaching/learning system achieved may be used by stationary, as well as external students in a distance education mode throughout the world via the Internet.

The bottom picture on this page shows A/Prof. S.A. Gorisev and Prof. Z.J. Pudlowski during discussions on issues of common interest in engineering and technology education.



The photo shows Mrs E.A. Danilova at the UICEE.

of future collaborations in engineering and technology education. Potential areas for joint projects were identified and discussed. It is envisaged that future talks will be carried out in order to move forward some of the ideas discussed.

The second part of this meeting was dedicated to the visit by Ms Nguyen and Mrs Danilova to the academic units of the KMUTT of their respective research interests. Ms Nguyen visited the Department of Environmental

Engineering, guided by A/Prof. Dr Jin Anotai, where she had the chance to become familiar with some of the research and technology facilities there. She was also briefed on the undergraduate and postgraduate environmental engineering programmes offered at the KMUTT, as well as funded research activities. She also discussed some potential areas for collaboration with the UICEE.

Mrs Danilova visited the Department of Language Studies within the School of Liberal Arts, where she had a meeting with Mrs Suvalee Chinkumtornwong, Head of the Department. She also met Mrs Chada Kongchan, Head of the Self Access Learning Centre. She was briefed on the teaching/learning methods at the KMUTT for developing language and communication skills, especially in relation to the teaching/learning activities within the area of English for Specific Purposes (ESP). She also discussed issues of common interest and endeavoured to identify potential areas of collaboration between the two parties.

Visit to KMUTT

On Friday, 16 March 2007, preceding the 10th UICEE Annual Conference, a delegation from the UICEE, consisting of its Director, Prof. Zenon J. Pudlowski, Ms Dianne Q. Nguyen and Mrs Elena A. Danilova, paid an official visit to King Mongkut's University of Technology Thonburi (KMUTT) in Bangkok, Thailand, a Contributing member of the UICEE. They were received by a delegation from the KMUTT, notably Prof. Kraiwood Kiattikomol, President, Prof. Bundit Thipakorn, Vice-President, and Mr Somchai Congmuang of the Faculty of Engineering, among others.

Discussions concentrated on the opportunity



The photo shows (l-r) the UICEE Director engaged in discussions with A/Prof. S.A. Gorisev.

Global Journal Update

A Special Edition of the *Global Journal of Engineering Education* (GJEE), Vol.10, No.3, entitled *German Network of Engineering Education VII*, consisting of articles written entirely in the German language, has been distributed to members. This Edition includes 12 highly informative papers concerning a wide range of ideas and topics, which provide the reader with a wonderful compendium of information on current engineering and technology education in

Germany. The emergence of this Edition marks the 7th year of existence of this German language publication with Prof. Norbert Grünwald, Rector of Hochschule Wismar - University of Technology, Business and Design, Wismar, Germany, as the Guest Editor.

It should be pointed out that the entire Volume 10 of the GJEE (2006) consists of three Issues, which includes 35 papers over 338 pages, and that the GJEE is the world's only journal dedicated to engineering education available on the Internet free of charge, accessible via the UICEE Web site.

2006 Annual Report

The Annual Report of the UICEE for 2006 is now available on the UICEE Web site under *Reports*. This Report details the various dynamic achievements over the past year for the UICEE in the 13th year of its successful operation, including collaborative ventures and the participation of UICEE Partner members.

World Transactions Update

The UICEE has now finished collecting article submissions for the next issue of the *World Transactions on Engineering and Technology Education* (WTE&TE), Vol.6, No.1. This Issue looks quite promising with many papers collected. It should be noted that all published papers in the WTE&TE are peer refereed so as to ensure the quality of the published materials.

The next Call for Papers for Vol.6, No.2 has a deadline of 30 September 2007. UICEE members are encouraged to take up this opportunity and publish their material in the *World Transactions*. The electronic kit for authors will be sent on request from Mr Marc J. Riemer of the UICEE on: uicee@eng.monash.edu.au

Further details can be found at the UICEE Web site under *World Transactions on Engineering and Technology Education*, including the first three volumes of the WTE&TE available in full for free access. The abstracts of later issues have also been posted. This enhances the UICEE's distribution of refereed published information on engineering and technology education, providing wider availability of such education materials for every educator and student, as well as other interested parties, around the world.

Upcoming UICEE Conferences

The 11th *Baltic Region Seminar on Engineering Education*, under the theme of the *Attractiveness of Engineering Education*, is scheduled to be run at Tallinn University of Technology (TUT) in Tallinn, Estonia, from 18-20 June 2007. Paper proposals are already coming in for this momentous event. The needs of industry and the Baltic Region are of particular interest, especially as they relate to matters concerning the methods and effectiveness of training in further and continuing engineering and technology education. The implementation of special collaborative programmes, novel methods and innovative approaches to education are of particular relevance to the Seminar. More details of this upcoming Seminar can be found on the UICEE's Web site under *Conferences and Meetings*.

The 5th *Asia-Pacific Forum on Engineering and*

Technology Education is scheduled to be held in Agra, India, from 27-30 November 2007. Anand Engineering College (AEC), Keetham, Agra, India, is the host and co-sponsor of this Forum, with Anna University, Chennai, India, a Partner institutional member of the UICEE, as the Principal Co-Sponsor. It is envisaged that the 1st *South Asia Seminar on Engineering and Technology Education* will be held at Anna University immediately after the Forum. Forum participants have a wonderful opportunity to visit this unique and beautiful



The photo shows the Taj Mahal – one of the many interesting, civil and architectural sites that participants of the 5th Asia-Pacific Forum will have the opportunity to inspect while in India.

country. The photo on this page shows one of the many impressive attractions in India.

The 2nd *North African Region Seminar on Engineering and Technology Education* is set to be held at the University *Mohamed Boudiaf* in M'Sila, Algeria, from 2-4 June 2007. The University of Science and Technology *Houari Boumediene* (USTHB), a Partner member of the UICEE, and specifically the *North Africa Centre for Engineering and Technology Education* (NACETE), the UICEE satellite centre there, are the sponsors and organisers of this Seminar. This initiative is being driven by Prof. Khedidja Allia, Director of the NACETE. It should be noted that this is the fourth conference on engineering education facilitated by the UICEE in this region. Preparations for this Seminar are in full swing with papers coming in. Further details of this upcoming Seminar have been posted on the UICEE's Web site under *Conferences and Meetings*.

Unfortunately, we must advise of two associated events

that were planned to be held at institutional members of the UICEE. The 4th *Balkan Conference on Engineering Education*, initially meant to be held in Sibiu, Romania, at *Lucian Blaga* University of Sibiu (LBUS), has been held off until next year because of the busy schedule at the University at that time of year. The 5th *Russian Seminar on Engineering Education*, with Taganrog State University of Radio Engineering (TSURE) intended as the host, has been cancelled due to matters beyond the institution's control. The higher education in this part of Russia is undergoing significant reforms with the amalgamation of several academic institutions into one larger structure called Southern Federal University to be based in Rostov-on-Don. The TSURE will form a part of this University.

It is hoped that these two meetings will eventuate in the near future.

Farewell to Czeslaw Sajdak

It is my sad duty to inform UICEE members that after a relatively short but severe illness, Prof. Dr Hab. Ing. Czesław K. Sajdak, a senior academic of Silesian University of Technology (SUT), Gliwice, Poland, which is a Partner institution of the UICEE, passed away peacefully in Katowice in the morning hours of Tuesday, 3 April 2007 at the age of 57.

Prof. Sajdak, an electrical engineer, received his higher and postgraduate education at Silesian University of Technology and gradually progressed to the rank of a full professor, being involved in teaching and research in electro-

technology. In his exceptional career, he served as the Dean of the Faculty Materials Engineering and Metallurgy, which is based in the SUT's Katowice Campus. Most recently, he was the Head of the Department of Electrotechnology, a member of the University Senate and a member of the Electrotechnology Section of the Electrotechnics Committee at the Polish Academy of Sciences. For his outstanding achievements both as an academic teacher and researcher, he received numerous prestigious State, Ministry and University distinctions and awards.

Prof. Sajdak was a good friend and very strong supporter of the UICEE, and was recently involved with the UICEE as an international referee and a member of the Editorial Advisory Board of the UICEE-published *World Transactions on Engineering & Technology Education* (WTE&TE), where his views and advice were particularly welcomed.

He was a remarkable and amicable person both as an academic colleague and friend, and was particularly respected and loved by his peers, for his truthfulness, sophisticated humour, honesty and warmth. His early departure from this world is a great loss to the University, Faculty, his colleagues and friends, and, indeed, to the UICEE. It has created a vacuum that will be extremely difficult to fill.

On behalf of the UICEE members, staff, students and, indeed, myself, I would like to offer our sincere condolences to his wife Gabriela, family, friends and staff at Silesian University of Technology.

Farewell Czesław, God bless your soul, we will remember you forever and will miss you greatly, your friends at the UICEE.