



# UNESCO International Centre for Engineering Education



## Newsletter

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### From the Director

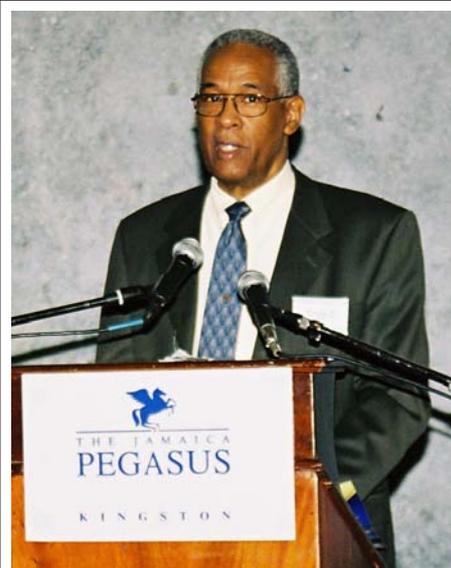
Discussions have been going on for some time in the *UICEE Global Network of Engineering Education* on the possibility of establishing a university of science and technology, with English as the main medium of instruction, in one of the two Asian superpowers, that is India or China. Our readers may recollect my remarks in the *UICEE Newsletter*, Vol.11, No.1, published a year ago, when I was trying to turn the attention of our readers to the fact that Asia in general, and the two most populous countries, in particular, will become the vital area of human activities to be carried out in the 21<sup>st</sup> Century.

I had an interesting meeting the other day with Mr Andrew Olszewski, who used to work in the UICEE as the Programme Director of the Urban Design and Education Programme, a project that was sponsored by the State Government of Victoria in Australia. Andrew is presently one of the Directors of UrbisJHD a large international urban planning, design and development company based in Melbourne. Andrew, as well as members of his group, are engaged in numerous international projects involving urban planning and sustainable development of many places in Asia, mostly in Mainland China. In our conversation, he expressed the view that the UICEE, as an international body, which consists of many outstanding academic partner institutions, should form a consortium of its partners, and endeavour to establish a global university of science and technology in one of the cities in China, as there is an extremely positive political and economic climate for such an initiative. He believes that there would be considerable support provided by the Chinese Local and State Governments, and also private

investment could become available, for such a commercial initiative.

It should be noted that China has become an engine of growth in the international market. The direct local experience would offer a significant advantage for both teaching staff and visiting students in understanding this vital market and accessing jobs and other opportunities.

The question that I posted to you a year ago, namely, *What is the present challenge and opportunity for us, and the UICEE in particular?*, is definitely a relevant one when it comes to defining our role and activities in Asia. Since there is a common view that, with the dynamic development and expansion of higher education structures in Asia, the flow of students from Asia to academic institutions in such countries as the USA, United Kingdom, Canada and Australia, will gradually diminish, should not we venture to Asia with our ideas and enterprises? I would be more than happy to receive your comments, suggestions, propositions, etc, concerning this matter.



The Conference Patron, Prof. Rae A. Davis, President, University of Technology, Jamaica (UTech), officially opening the 8<sup>th</sup> UICEE Annual Conference on Engineering Education in Kingston, Jamaica

### 8<sup>th</sup> UICEE Annual Conference

Kingston in Jamaica provided the exciting settings for the 8<sup>th</sup> UICEE Annual Conference on Engineering Education, held in the Jamaica Pegasus Hotel between 7 and 11 February 2005. After the Introductory Address delivered by the UICEE Director, the Conference was officially opened by the Conference Patron, Prof. Rae A. Davis, President, University of Technology, Jamaica (UTech), Kingston, Jamaica, which is a partner institution of the UICEE (see the photograph on this page). We were, indeed, very fortunate to have



Hon. Maxine Henry-Wilson, Minister of Education, Youth and Culture, Jamaica, and His Worship the Mayor, Councillor Desmond A. McKenzie JP, Mayor of Kingston and St. Andrew, as honorary guests, who welcomed over 100 delegates and accompanying persons at the Official Opening Ceremony. Also, Dr Gossett D.A. Oliver, Dean of the Faculty of Engineering and Computing at the UTech, delivered a brief welcome address on behalf of the Local Support Committee.

During the Opening Addresses Session, chaired by Prof. Constantin Oprean, Rector of *Lucian Blaga* University of Sibiu, Sibiu, Romania, Minister Henry-Wilson presented an interesting address titled: *Important and critical issues in engineering education in Jamaica*, which provided participants with excellent inside information concerning education in Jamaica, and engineering education in particular (see the photo on this page). Two other addresses were presented at the Opening Session. The first, delivered by Dr George R. Burns of the University of Glasgow, Glasgow, Scotland, UK, was entitled: *Graduate to professional engineer in a knowledge organisation: does the undergraduate curriculum provide the basic skills?*, and was co-authored by himself and Prof. Colin U. Chisholm of Glasgow Caledonian University, Glasgow, Scotland, UK. The second address called: *UICEE-driven European activities carried out at Hochschule Wismar*, co-authored by Prof. Norbert Grünwald, Rector of Hochschule Wismar - University of Technology, Business and Design, Wismar, Germany, and Prof. Zenon J. Pudlowski, UICEE Director, was delivered by Prof. Grünwald on behalf of the two authors. The so-called *Jamaican Session*, held in the afternoon, began with another opening address named: *A case for the legitimisation of various levels of engineering competences under the Professional Engineering Registration Board (PERB) Act, Jamaica 1981*, which was co-authored by Prof. Rae A. Davis and Dr Gossett D.A. Oliver of the UTech.

The meeting of the



The photo shows the Hon. Minister of Education, Youth and Culture, Jamaica, Maxine Henry-Wilson, delivering her Opening Address at the Kingston Conference.

UICEE Academic Advisory Committee, as well as the UICEE Annual Meeting, saw the presentation of the work and achievements of the UICEE in 2004, and discussions on future plans and activities.

At the Conference Gala Banquet, five international engineering educators were presented with UICEE Badges of Honour for their outstanding contributions to global engineering education and to the achievements of the UICEE, in particular. The UICEE Gold Badge of Honour was bestowed up Prof. Romuald Cwilewicz, a Vice-Rector of Gdynia Maritime University (GMU), a partner institution of the UICEE, and the Director of the *Centre for Maritime Engineering Education* (CMEE), a satellite centre of the UICEE, based at the GMU. The UICEE Silver Badges of Honour were presented to Prof. Rae A. Davis and Dr Gossett D.A. Oliver, both of the UTech; Prof. Eugeniusz Gurgul of the Technical University of Częstochowa

(TUCz), Częstochowa, Poland, a partner institution of the UICEE, Co-Director of the *Centre for Engineering Management & Agribusiness Education* (CEMAE), a satellite centre of the UICEE at the TUCz; and Assoc. Prof. Ian H. Marshall of the Department of Mechanical Engineering at Monash University, Melbourne, Australia. Staff, students and associates of the UICEE wish to congratulate the awardees on the receipt of their honours and wish them many more achievements. The picture on this page shows the proud awardees of the UICEE Badges of Honour.

It should be pointed out that the Conference was carried



The photo shows (l-r) A/Prof. Ian H. Marshall, Prof. Rae A. Davis, Prof. Romuald Cwilewicz, Prof. Eugeniusz Gurgul and Dr Gossett D.A. Oliver with their awards.

out in a very friendly atmosphere, permitting an excellent flow of information. There was an efficient climate established for personal interaction not only during the paper sessions but also during the numerous exciting social activities. Close to 80 paper presentations from 25 countries worldwide were made, and 76 excellent papers are included in the Conference Proceedings, which, it is envisaged, will become a valuable source of information on engineering education for some time to come.

## Best Paper Awards

At the Gala Conference Banquet of the 8<sup>th</sup> UICEE Annual Conference on Engineering Education, held in Kingston on 10 February 2005, the 2005 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 8<sup>th</sup> 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.

The 2005 UICEE Diamond (First Place) Award was presented to N.D. Okamoto, J. Rhee and N.J. Mourtos, all of San José State University, San José, USA, for their paper titled: *Educating students to understand the impact of engineering solutions in a global/societal context*.

Two equal 2005 UICEE Platinum (Second Place) Awards were presented on this occasion. The first Platinum award paper entitled: *Broadening the horizons of students: an elective seminar course on ethics and the philosophy of appropriate technology*, was awarded to J. Tharakan, M. Castro, J. Trimble, D. Schwartzman, B. Stephenson, T. Broome and C. Verharen, all of Howard University, Washington, DC, USA. The second Platinum Award was bestowed upon R. Cwilewicz and L. Tomczak, both of Gdynia Maritime University, Gdynia, Poland, for their paper called: *The latest developments in the application of 3-D graphical presentations in Computer-Based Training: interactive programs for maritime mechanical engineering students*.

The Award Committee also decided to present two equal 2005 UICEE Bronze (Fifth Place) Awards to G.R. Burns of the University of Glasgow and C.U. Chisholm of Glasgow Caledonian University, both institutions based in Glasgow, Scotland, UK, for their paper entitled: *Graduate to professional engineer in a knowledge organisation: does the undergraduate curriculum provide the basic skills?* The second Bronze Award went to E. Moesby of Aalborg University, Aalborg, Denmark, for his paper contribution called: *Personal skills and abilities in curriculum development planning for Project Oriented and Problem-Based Learning (POPBL)*.

Staff, students and associates of the UICEE wish to congratulate the distinguished awardees on their significant achievements.

## GJEE Special Edition

A Special Edition of the *Global Journal of Engineering Education* (GJEE), Vol.8, No.3, entitled *German Network of Engineering Education V*, consisting of articles written entirely in the German language, was released in December 2004, just before Christmas. This Edition includes 13 highly informative papers concerning a wide spectrum of ideas and topics, which provide the reader with an excellent compendium of information on engineering and technology education in Germany. The emergence of this Edition marks a fifth 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 8 of the GJEE (2004) consists of three issues, which include 38 papers over 346 pages, and that the GJEE is the world's only journal dedicated to engineering education available on the Internet free of charge.

## Asian Tour

Last November/December, the UICEE Director visited several countries in Asia. The itinerary included visits to such important Asian destinations as Taipei, (Taiwan), Hong Kong (China), Muscat (Oman), Mumbai and Pune (India), Bangkok (Thailand) and Singapore. The main objectives of this tour were to visit several Partner institutions located in Asia, determine potential venues for future UICEE-run conferences and participate in the formal opening of a UICEE satellite centre based in Pune at the Maharashtra Academy of Engineering and Educational Research (MAEER).

### Taipei, Taiwan

On 16 November 2004, the UICEE Director paid a brief visit to Chinese Culture University (CCU), a Partner institution of the UICEE based in Yangmingshan, Taipei, where he was received by Prof. Franklin Lee, Dean of the College of Engineering at the CCU. The discussions carried out there concerned a multitude of issues of common interest, including potential topics for future collaborations. Also high on the agenda was the possibility of organising a future UICEE annual conference, with the CCU being the host and providing the conference venue.

The University campus has been carved out of a section of a national park and is beautifully positioned in the mountains overlooking the Taipei metropolis. It would definitely provide a picturesque venue for such a conference.

### Hong Kong, China

Passing through Hong Kong, the UICEE Director decided to make a brief stopover in order to explore the possibilities of staging a future UICEE conference in Hong Kong. While there, he met with A/Prof. Philip Tsang of the Open University of Hong Kong and visited various University facilities. Together with his host, he also visited a major hotel in HK where they explored the possibility of organising a future UICEE international conference. The extensive discussions with A/Prof. Tsang involved numerous issues of interest, including some ideas for future scientific collaboration.

The UICEE Director had also some free time to visit various places of interest for potential conference participants, as well as tourist attractions, including the famous Hong Kong Convention Centre.

## Muscat, Oman

In Muscat, Oman, the UICEE Director visited the Caledonian College of Engineering (CCE) to discuss with Prof. Frank McIntosh, Principal and Dean of the CCE, the possibility of organising and staging the 9<sup>th</sup> UICEE Annual Conference on Engineering Education in Muscat in February 2006. The UICEE Director was introduced to the educational facilities at the CCE, and met various officials, including Mr A. Nizamuddin Ahmed, Chief Administrator and Registrar at the CCE, as well as Ms Tess Goodliffe, Head of Educational and Personal Development.

Together with Prof. McIntosh, the UICEE Director paid a visit to the Ministry of Higher Education, where he was received by His Excellency Dr Abdullah Mohammed Al-Sarmi, Under Secretary, who was accompanied by Dr Said bin Hamad Al Rubaie, Director General, and Ms Massarah Abdul Lattif, Expert – Minister's Office. The discussion included various issues of interest. The concept of organising a UICEE Annual Conference received warm support from the Under Secretary and his colleagues.

In a further attempt to elicit more support in Oman for the organisation of the 9<sup>th</sup> Annual Conference, Prof. McIntosh and Prof. Pudlowski paid a visit to the College of Engineering at the Sultan Qaboos University, which is a major academic higher education institution in Oman, where they were received by the Dean of the College, Dr Amer Ali-Rawas, who accepted an invitation to join the International Committee of the Conference.

Another visit involved a meeting with Mr Jim Scarth, Director of the British Council in Oman, who was enthusiastic about the prospect of the UICEE Conference to be held in Muscat, and promised substantial financial and other support for the Conference.

Brief negotiations and inspections of numerous hotels and local facilities took a substantial part of the Director's time when he visited Oman. The picture on the last page shows the Prof. Frank McIntosh and the UICEE Director, Prof. Zenon J. Pudlowski, in Muscat, Oman. Readers will find more information on this venture elsewhere in this issue.

## Pune, India

During his Asian tour, between 25 and 26 November 2004, in his mission to preach the gospel of engineering education, the UICEE Director visited the

Maharashtra Academy of Engineering and Educational Research (MAEER), a Partner institution of the UICEE based at Pune, India. He was the guest of honour of His Excellency Dr Vishwanath D. Karad, Executive President and Managing Trustee of the MAEER, and delivered a public lecture to a large audience of staff and students on the *Role of the UICEE in Promoting Higher Technical Education in the New World Order* at the UNESCO's Saint Dnyaneshwara & Saint Tukaram Endowment Lecture Series and, together with Dr Karad, inaugurated the activities of the *Centre for Information Technology and Multimedia*, a satellite centre of the UICEE, established at the MAEER's Women Engineering College.

The Centre is engaged in academic and research activities related to the work on engineering and technical education, particularly in the area of information technologies and multimedia,

and will facilitate the transfer of information in this area of academic endeavour between developed and developing countries worldwide.

A delegation of academics from the Technical University of Częstochowa (TUCz), a Partner institution of the UICEE, under the leadership of Prof. Janusz Szopa, Dean of the Faculty of Management, also attended the



Dr V.D. Karad (r), Prof. Z.J. Pudlowski (c) and Prof. J. Szopa (l) at the official launch of the *Centre for Information Technology and Multimedia* at the MAEER.

celebrations and used this excellent opportunity to explore the possibility of establishing collaborative contacts with the MAEER.

Prof. Mangesh Karad, MAEER's Executive Director and the MAEER representative on the UICEE Academic Advisory Committee, provided the international guests with the opportunity to visit numerous educational facilities at the MAEER, including a visit to MAEER's College of Engineering in Alandi, near Pune.

The picture shows His Excellency Dr Vishwanath D. Karad and Prof. Zenon J. Pudlowski, assisted by Prof. Janusz Szopa, during the official unveiling of the commemorative plaque placed on the wall of the *Centre for Information Technology and Multimedia* (CITM).

## Bangkok, Thailand

While in Bangkok, the UICEE Director finalised the negotiations with Mr Virat Praprueetdee, Director of Marketing, at the *Menam Riverside Hotel*, and an appropriate contract concerning the *modus operandi* of the 4<sup>th</sup> *Asia-Pacific Forum on Engineering & Technology Education*, to be organised at the Hotel between 26 and 29 September 2005, was officially signed. Readers will find a

separate item on the progress in the organisation of the 4<sup>th</sup> Asia-Pacific Forum elsewhere in this issue.

The UICEE Director was also invited to visit the Asian Institute of Technology (AIT), based in Pathumthani, Bangkok, where he held discussions with Prof. M.T. Tabucanon, Provost, Prof. H.N. Phien, Dean, and Prof. C. Polprasert, Head of School, on the possibility of future collaboration, especially in staging the Asia-Pacific Forum in Bangkok.

## Singapore

The last leg of this Asian tour included a brief visit to Singapore, where he explored the possibility of organising a major UICEE international conference. The Director met with Ms Annie Li, Executive, Suntec Singapore, International Convention & Exhibition Centre, Singapore, and Ms Doris Fernandez, Senior Officer, Singapore Tourism Board, Singapore. The discussions included the exchange of information on the operation of the two organisations, represented by the persons involved, and the logistic and financial support that would be provided by the two organisations in staging a future UICEE-run international conference.

The brief visit also provided the UICEE Director with some unforgettable experiences when exploring the beauty of some *national* districts of Singapore, which would definitely attract the most sophisticated tourists.

## Changhua Conference

Preparations are underway for the 2<sup>nd</sup> North-East Asia International Conference on Engineering & Technology Education, under the theme *Development Strategies and Challenges for Technology and Engineering Education in the Knowledge Economic Era*, to be held at the College of Technology at the National Changhua University of Education in Changhua, Central Taiwan, between 11 and 15 December 2005.

The main objective of this Conference is to bring together partners, members, associates, students and supporters of the UICEE, as well as other scholars from all over the world, to continue discussions on issues of importance in engineering, technology and vocational education; and to foster friendships already established in the UICEE network.

## New UICEE Partner

On 17 February 2005, in Liverpool, England, UK, Prof. Diane Meehan, Dean of the Faculty of Technology and Environment at Liverpool *John Moores* University (LJMU), and the UICEE Director, Prof. Z.J. Pudlowski, signed an Agreement on Partnership with the UICEE. The Agreement was witnessed by Dr Ian D. Jenkinson, Director of the School of Engineering at the LJMU. Present at the signing were Mr George F. Page of the LJMU, the main instigator of this Partnership, and Prof. Norbert Grünwald, Rector of Hochschule Wismar - University of Technology, Business & Design (HSW) and a Deputy Chairman of the UICEE Academic Advisory Committee, who represented the *UICEE Global Family of Engineering Educators*. Under the Agreement, the LJMU will establish a UICEE satellite centre to be known as the *English Centre for Engineering Education* (ECEE) within the LJMU.

We cordially welcome this new Partner to our family and look forward to our close collaboration with academics at the LJMU for the benefit of the LJMU, the UICEE network and the entire global community of engineering educators.

The photo shows the moment of exchanging the partnership Agreement. Pictured are (l-r) Dr I.D. Jenkinson, Mr G.F. Page, Prof. D. Meehan, UICEE Director and Prof. N. Grünwald.



The photo shows the moment of exchanging the partnership Agreement with the LJMU; pictured are: (l-r) Dr I.D. Jenkinson, Mr G.F. Page, Prof. D. Meehan, the UICEE Director and Prof. N. Grünwald from HSW.

## 2004 Annual Report

The Annual Report of the UICEE for 2004 will soon be available on the UICEE Web site under *Reports*. This will detail achievements over the past year for the UICEE, including the establishment of the UICEE European Headquarters in Wismar, Germany, and the strengthening and expanding network of UICEE satellite centres around the world.

## World Transactions

The deadline of 31 March 2005 for the next issue of the *World Transactions on Engineering and Technology Education* (WTE&TE), Vol.4, No.1, is fast approaching. UICEE members are encouraged to take up this opportunity to publish their work in the World Transactions.

The electronic kit for authors will be sent on request from Mr Marc Riemer of the UICEE on: [marc.riemer@eng.monash.edu.au](mailto:marc.riemer@eng.monash.edu.au)

Further details can be found at the UICEE Web site under *World Transactions on Engineering and Technology Education*.

Readers should also be aware that the first volume of the WTE&TE (2002) is now available for free access on the UICEE Web site. This augments the UICEE's dissemination of refereed published information on engineering and technology education and enhances the availability of such education materials for every educator and student, as well as other interested parties, around the world.

## 9<sup>th</sup> Baltic Seminar

Developments are in full swing for the forthcoming 9<sup>th</sup> Baltic Region Seminar on Engineering Education, to be held from 17-20 June 2005 in Gdynia, Poland. This will be held in conjunction with the celebrations of the 85<sup>th</sup> anniversary of maritime education in Poland, particularly Gdynia Maritime University (GMU), a Partner institution of the UICEE, which will also be celebrating 85 years of growth.

Over 30 paper proposals have already been received from 15 countries worldwide, with Poland being the biggest contributor so far. Those wishing to submit a paper proposal are encouraged to do so at their earliest convenience, as we can still accept late paper submissions.

The GMU is a specialised technical university whose mission is to educate and train highly competent and proficient marine officers for the world's merchant fleet and fully qualified shore-based personnel.

It should be noted that Gdynia has been chosen to be the host of the Seminar because of its proven hospitality and an excellent record of involvement in the organisation of many international conference and meetings in collaboration with the UICEE, as well as its regional accessibility.

Although new contributions are coming in, *UICEE Newsletter* readers should note that the closing date of 15 April 2005 for the receipt of full papers is looming closer. It should also be noted that this event will also focus on other important areas for engineering and technology education.

## 4<sup>th</sup> Asia-Pac Forum

Scheduled to be held between 26 and 29 September 2005, the 4<sup>th</sup> Asia-Pacific Forum on Engineering and Technology Education will be held in Bangkok, Thailand, at the *Menam Riverside Hotel*. An excellent accommodation package has been organised in a city that has much to offer and is a nexus for Central and Eastern Asia, as well as being an easy destination to get to for international guests. More



Prof. F. McIntosh and Prof. Z.J. Pudlowski inspecting locations in Oman for the next annual Conference.

information can be found on the UICEE Web site under *Conferences and Meetings*.

## 9<sup>th</sup> UICEE Conference

We are delighted to inform our Members that negotiations concerning the organisation of the 9<sup>th</sup> UICEE Annual Conference on Engineering Education have been completed, and we can now announce that it will be held in Muscat, Sultanate of Oman, between 11 and 15 February 2006, with Caledonian College of Engineering, a Partner institution of the UICEE, assuming the role of the Principal Co-sponsor and Co-organiser. The *Crowne Plaza Hotel*, a 4\* deluxe hotel, located in a prime position in Muscat, will provide the

Conference venue and will accommodate Conference participants at highly competitive prices (see the photograph of the Hotel on this page). The Conference is, indeed, very fortunate to have attracted support from such key institutions as the Ministry of Higher Education, Galfar Engineering and Contracting LLC and the British Council, acting as the Main Co-sponsors.

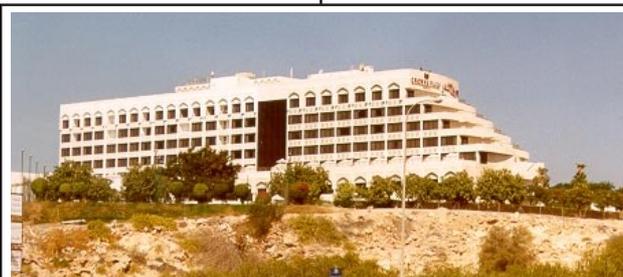
The prime objectives of the Conference, which will be run under the theme of *International Quality in Engineering Education*, are to bring together partners, members, associates, students and supporters of the UICEE from all over the world, and to continue discussions on issues of importance to engineering education. It is anticipated that this Conference will further enhance the UICEE's links and networks, and set the stage for more innovative and collaborative ventures.

It should be noted that Caledonian College of Engineering, formed in 1996, is the major specialist engineering University College in the Sultanate. The College offers a range of UK awarded Honours Degree programmes, fully recognised in the Sultanate of Oman and internationally. It is an excellent example of the partnership between Government funded and privately funded higher education. The CCE is also home to the *Gulf Centre for Engineering Education* (GCEE), a satellite centre of the UICEE.

The CCE has negotiated an excellent deal on behalf of Conference participants with the *Crowne Plaza Hotel*, and that Galfar Engineering and Contracting LLC, one of the biggest EPC companies in Oman, has agreed to sponsor 50% of the standard room rates, for the normal duration of the Conference.

However, the number of rooms under this deal is strictly limited, and they will be passed on to potential participants on the *first come - first get* basis.

Our readers will find the Conference Announcement on the UICEE homepage at <http://www.eng.monash.edu.au/uicee/meetings/9thUICEE.html>



The Crowne Plaza Hotel in Muscat, Oman.