

**Newsletter N° 68**  
**October 2004**

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## CIGR NEWS

### News from the President

This year I was able to attend several conferences and make presentations on the aims and structure of CIGR as well as the recent achievements of our organization. First I attended the meeting of the Turkish Chamber of Agricultural Engineers on the occasion of its 50<sup>th</sup> anniversary in Ankara, from January 12 to 16, 2004. I was invited to a special session on "Agricultural Engineering Education in the European Union and the World", where further contributions were delivered by Leopold Maerz, Bent Bennedsen, and Demetres Briassoulis. The meeting was well attended, and the location offered an opportunity to deepen relations to various Turkish colleagues. The academic situation in Turkey is characterized by a relatively large number of Agricultural Engineering faculties (more than twenty). Concentration processes as experienced by the countries of the European Union can be expected, but this topic was discussed in the internal Turkish sessions, which I could not attend due to other commitments.



Prof. Dr.-Ing. A. Munack

The second stay abroad was in Krakow and Zakopane (Poland). In Krakow I had the opportunity to visit parts of the Agricultural University and the Jagiellonian University. I met with the rector and vice-rector of the former for intensive discussions about funding, distribution of resources and other related topics. In Zakopane, I gave a presentation about CIGR on the occasion of the meeting of the Committee for Agricultural Engineering of the Polish Academy of Sciences, which was followed by a lively discussion. At the same location, I participated in the annual meeting on "Scientific-Technological as well as Organizational Progress in Agriculture" of the Polish AgEng institutes. The meeting offered opportunities to establish further contacts with colleagues from Eastern Europe. However, the budgets of the universities and research institutes in these countries are extremely low – they need our support today much more than in times of the communist regimes!

After these two non-CIGR events, I attended the CIGR Section IV Conference "Electricity and Energy, Especially the Renewable Energy Sources, in Agriculture, in Rural Development and Habitation Management" that took place from May 17-22, 2004 in Budapest. Attendance at the conference suffered due to the immediately preceding integration of Hungary into the European Union. Several Chinese colleagues could not attend, for instance, since the necessary (new) paper work for obtaining visas was unclear (both to them and the staff at the embassy). However, the scientific and accompanying programmes were excellently organized, thanks to our colleague and CIGR Honorary Vice-President, Prof. Dr. Zoltán Sibalszky.

The CIGR Section IV also held its Section Board meeting on the occasion of the conference. Some new tasks for the CIGR Technical Sections were discussed intensively. It is necessary to establish efficient ways of conducting the

reviewing process for papers related to the Sections' topics which are submitted to the CIGR E-journal. A new Section Board secretary also had to be found. Both tasks were solved in a relatively short time after a constructive discussion, so that the CIGR Presidium is looking forward to an efficient handling of the Section's tasks in the future.

The next CIGR event I attended was the Fifth International Scientific Conference on "Microprocessor Systems in Agriculture", held in Plock, Poland, from May 25 to 26. Although the conference programme filled less than two days, the conference was very well attended. About 300 persons attended the opening session; among them many students. While I made a presentation on CIGR, Prof. Nick Sigrimis, Chair of CIGR Technical Section VII, gave an overview of IT advances in agriculture and the environment. This underscored the fact that two CIGR Sections, namely Section III and Section VII, should be involved in the sponsorship of future conferences of this series. The conference was excellently organized by Dr. Bogdan Jasinski from the Institute of Mechanical Engineering (in Plock) of the Warsaw University of Technology.

Further conference-related activities during my period as President of CIGR will be the AgEng2004 Conference in Leuven, which is the main event of our European regional society, EurAgEng; the Olympics of Agricultural Engineering, as our Chinese colleagues have named their large international conference in Beijing; and the VI Latin American Congress of Agricultural Engineering in San José, Costa Rica.

On March 26-28, the CIGR Presidium met in Braunschweig, Germany. The main topics that were discussed dealt with the:

- General Secretariat of CIGR: The GS will be hosted by the University of Tsukuba, Japan, from the beginning of 2006 for a term of four years.
- Secretary General: Professor Takaaki Maekawa, from the University of Tsukuba, has agreed to become new Secretary General commencing in 2006 for a term of four years.
- Ballots: Ballots must be prepared prior to the General Assembly in Beijing regarding the votes by the CIGR General Assembly members on the two topics cited above, and regarding Professor Irenilza de Alencar Nääs, nominated as Incoming President 2005/06 of CIGR.
- Club of Bologna: See explanatory paragraph below.
- Newsletter: The President signed a memorandum of understanding with CSAE, the Chinese Society of Agricultural Engineering, agreeing on the translation of the newsletter into Chinese. An Arabic version of the newsletter will also be available soon.
- E-journal: An agreement prepared by Honorary President Stout to include the Ejournal in the Cornell free library system was signed by the President and the Secretary General.

Recently I spent a great deal of my time on activities related to the future of the Club of Bologna. The Club is, of course, not a part of CIGR, but it performs its activities under the auspices of our organization. All recent CIGR



The group of the Presidium meeting after their dinner on March 26

Presidents have had close relations to the Club of Bologna. Therefore, I felt strongly committed to assist the Club in its recent struggle. In Newsletter No. 65, I had reported on some turbulence that occurred during the closing session of the last Club meeting and thereafter. After the exchange of a considerable number of e-mails, a number of meetings with different persons at different locations, and with the extensive support of Prof. Karl Renius from Munich, Germany, a situation has now been achieved that can be regarded as solution for the survival of the Club. UNACOMA has guaranteed to maintain the central aims of

the Club and to give further financial and service support. Because the Club currently has no president, an Interim Presidency Board (consisting of Prof. Karl Renius, Dr. Alessandro Laurenzi from UNACOMA, and myself) is carrying out all the preparations for the next Club of Bologna members' meeting on November 12/13, 2004, and the Management Committee meetings before and after the Club meeting. Let us be confident in expecting a prosperous future for the Club's activities!

Although the largest CIGR event in 2004 has not yet taken place, preparations for the 2006 CIGR World Congress in Bonn (Sept. 3-7) are already under way. The International Programme Committee met and set guidelines for the event, and the Organizing Committee met several times. The event will be a combination of the CIGR World Congress, the EurAgEng AgEng2006 Conference, the 64<sup>th</sup> VDI-MEG International Conference Agricultural Engineering, and an FAO workshop. Furthermore, a pre-conference workshop on "Automation Technology for Off-Road Vehicles" will take place on the two days before the Congress. For further information, please visit the website [www.2006cigr.org](http://www.2006cigr.org).

Now let's all get ready and start looking forward to the 2004 CIGR "Olympics of Agricultural Engineering". Everyone is encouraged to do his or her best to make it a really great event!

*Axel Munack*

*CIGR President 2003/04*

**2004 CIGR International Conference  
"The Olympics of AgEng"  
10 to 14 October 2004 in Beijing, China**

**Update**

Date	Morning	Afternoon	Evening
Saturday 09 October		<b>CIGR Presidium Meeting 14:00-19:00</b>	
Sunday 10 October	<b>CIGR Executive Board Meeting 8:30-12:30</b>	<b>CIGR Technical Board Meeting 14:00-17:00</b>	<b>Section I Board Meeting 19:00-21:00</b>
Monday 11 October	<b>Opening Ceremony Keynote Speeches 9:00-12:00</b>	Visit to Second China Ag Trade Fair	<b>Reception</b>
Tuesday 12 October	Parallel Sessions	Parallel Sessions	<b>Section III &amp; VI Board Meetings 17:30-19:00</b>
Wednesday 13 October	Parallel Sessions	Parallel Sessions	<b>CIGR General Assembly 17:30-19:00</b>
Thursday 14 October	Parallel Sessions	Technical Tours	<b>19:00-21:00 Banquet</b>

## Paper Submissions

The organisers of the CIGR International Conference in Beijing report that after an extended deadline for full paper submission (July 31, 2004), a total of 923 full papers had been submitted by August 15, 2004.

The figures for the individual sessions are: Session I: Land and Water Management, sponsored by CIGR Section I: 188; Session II: Bioproduct Processing and Food Safety, in conjunction with the First International Conference of CIGR Section VI: 239; Session III: Information Technology for Agriculture, in conjunction with the First Technical

symposium of CIGR Section VIII: 202; Session IV: Conservation Tillage and Small Sustainable Farming, sponsored by CIGR: 110; Session V: Modern Agricultural Equipment and Facilities, sponsored by CIGR Technical Section III: 175. Another nine full papers are reported for the Forum on Ag&BioSysEng Discipline and Education Development and Strategy.

Roughly three-fifths of these papers have been submitted by prospective participants from China and the remaining two-fifths by participants from virtually all over the globe.

## NEWS FROM SECTIONS AND WORKING GROUPS

### Report on the 5th International Conference “Microprocessor Systems in Agriculture” May 25-26, 2004, Plock, Poland

The 5th International Conference “Microprocessor Systems in Agriculture” was held from 25 to 26 May 2004 in Plock, Poland. The Institute of Mechanical Engineering of Warsaw University of Technology was the main organizer of this event. Co-organizers, among others, were CIGR Sections III and VII and the Institute of Production Engineering and Building Research of the Federal Research Centre (FAL) Braunschweig-Völkenrode, Germany. The purpose of this conference was to provide a forum for the presentation and discussion of the state of art in Information Technology (IT) for agriculture and related areas. Apart from updating knowledge in the field of microprocessor systems, the Conference was expected to create new ideas and possibilities of international scientific co-operation.

The Opening Session of the conference was held on May 25.

Welcome addresses and congratulations were extended by the Vice-Rector of Warsaw University of Technology Prof. J. Zielinski and CIGR President Prof. A. Munack. The scientific opening speech was held by Dr. Bogdan Jasinski (chairman of Scientific Committee) who presented “The Status and Prospects of the Development of Microprocessor Systems in Agriculture”, emphasizing that EU accession will boost agricultural technology in new member countries (such as Poland) to meet West European demands. The Plenary Session was started by a keynote speech on “IT Advances in Agriculture and the Environment—An Overview” by Prof. N. Sigrimis, chair of CIGR Section VII. Then seven influential presentations were made, among them: “E-Reengineering the Rural Area in Poland: the Claim for Electronic Revolution” by Prof. A. Straszak (Polish Academy of Sciences), “Programmable Logical Devices in Measurements and Control Systems” by Prof. M. Zielinski (N. Copernicus University in Torun), “Microprocessor Unit



Dr. Bogdan Jasinski

for Monitoring Performance of Agricultural Tractor Based on MS Visual C++” by Prof. A. Al-Janobi (King Saud University).

During the Technical Session on May 26, 20 papers were orally presented. The first presentation on “Development of a Sensor for Determination of Biodiesel, Fossil Diesel Fuel and their Blends” was held by Prof. A. Munack. A closing talk on “Business Opportunities for Researches as Opened by EU Programs” was carried out on the initiative of Prof. N. Sigrimis. About 150 participants attended the conference.

Proceedings, containing 33 papers (in English) by 65 authors from 17 foreign and 10 domestic centers, have been published as a book (ISBN 83-915188-8-4) which is available at the Institute of Mechanical Engineering in Plock.

The general evaluation was that the conference was successful in terms of organization and the level of active participation in all conference programs. Experiences shared by foreign delegates notably enriched the discussions. I would like to express my sincere gratitude to CIGR President Prof. A. Munack, to the chair of CIGR Section VII Prof. N. Sigrimis, and to the organizers and other individuals for their vital contributions to the success of the 5th International Conference “Microprocessor Systems in Agriculture”. I am looking forward to meeting these and new people in 2007 at the next conference in this series in Plock, Poland.

*Dr. Bogdan Jasinski  
Chairman of Scientific Committee  
Board Member of CIGR Section III*

### Minutes of the Technical Board Meeting of CIGR Section IV

The Technical Board Meeting of CIGR Section IV “Rural Electrification and Other Energy Sources” was started at 10:00 a.m. and concluded at 12:00 on 18 May 2004 in room 309 of the House of Technics in Budapest, Hungary. The participants of the meeting were:

Prof. Dr. Kamaruddin Abdullah (Chair); Prof. Dr. Ramdani Abdellah, Prof. Dr. R. Cengiz Akdeniz, Prof. Dr. R. Cengiz Akdeniz, Prof. Dr. Mikio Umeda, Prof. Dr. Abdel Ghaly, Prof. Dr. Janusz Piechocki (Members); Prof. Dr. Zoltan Sibalszky (Honorary President of Section IV); Prof. Dr.

Axel Munack (Honorary Guest)

In the meeting the following issues were discussed:

(1) Possibilities of conducting joint conferences with other sections of CIGR, as proposed by Prof. Sigrimis: Sections' conferences should be named *symposium* or *workshop*. In the case of international CIGR conferences or congresses, sections' activities are embedded in those events.

(2) E-Journal review and submission from Section IV:  
a. Prof. Dr. Abdel E. Ghaly agrees to design a Standard format for the CIGR E-Journal. The draft will be commented on by Section IV Board Members within one month and sent to the chairman before submission to the President of CIGR.

b. Section IV agrees to assign Prof. Dr. Mikio Umeda, Prof. Dr. Janusz Piechocki and Prof. Dr. R. Cengiz Akdeniz to serve as Editorial Board Members of the E-Journal review. In addition, these three Board Members will establish a list of potential reviewers divided by subjects.

c. Section IV requests the President of CIGR to issue a letter of appreciation to reviewers.

(3) Proposal attending of Prof. Dr. Luis S. Pereira on Section activities:

Materials from Prof. Luis Santos Pereira should be studied or examined by members of the Board for further comment or response if any. The chairman had previously forwarded the same materials via e-mail.

(4) Section IV: organization and activities.

The meeting agrees to terminate the assignments of the following members of the Board:

Prof. Dr. Adolfo Jul de Francisco Garcia (Spain)

Prof. Dr. Fabrizio Mazetto (Italy)

Prof. Dr. T.A. Gemtos (Greece)

Prof. Dr. Hartwig Irps (Germany), former Executive Secretary of Section IV, due to voluntary withdrawal.

New members of the Board are recommended and proposed as substitutes:

Prof. Dr. T. Tomson (Estonia)

Prof. Dr. Russel (Mexico)

Prof. Dr. Riva (Italy)

The Executive Secretary will send letters to AgEng representatives from Sweden or Denmark or Finland asking them to represent their countries as members of the Board.

(5) Future conferences:

The "9th International Congress on Mechanization and Energy in Agriculture & 27th International Conference of CIGR Section IV: The Efficient Use of Energy and Renewable Energy Sources", to be held in Izmir, Turkey in 2005, will be organized by Prof. Dr. R. Cengiz Akdeniz.

(6) Date and location of the next Section Board Meeting:

a. The next Board meeting will take place in October 2005 in Izmir, Turkey.

b. For the Bonn Meeting Prof. Dr. Abdel Ghaly will represent Section IV.

c. Prof. Dr. Janusz Piechocki will organize the 28th Conference of Section IV in Poland. The date will be announced later.

d. For the 2004 CIGR International Conference in Beijing, China, Section IV will be represented by either Prof. Dr. Abdel Ghaly or Prof. Dr. George Papadakis in the Technical Board Meeting.

(7) Prof. Dr. R. Cengiz Akdeniz was elected as a new Executive Secretary for the Technical Board of CIGR Section IV to replace Dr. Hartwig Irps.

### **Report on AFITA/WCCA 2004 9-12 August 2004, Bangkok, Thailand**

The 4th International Conference of the Asian Federation of Information Technology in Agriculture (AFITA) and the 2nd World Congress of Computers in Agriculture and Natural Resources (WCCA) were held as a joint international conference in Bangkok, Thailand.

The objectives of this joint event, co-sponsored, among others, by CIGR, were:

- To exchange the experience and information concerning Information Technology in Agriculture
- To present and share the latest trends in Information Technology and applications for agricultural development
- To expand network connectivity to relevant agencies for sustainable food production on the basis of Information Technology sharing

Her Royal Highness Princess Maha Chakri Sirindhorn of Thailand graciously presided over the Grand Opening Ceremony on Monday, August 9, 2004 at the Four Seasons Hotel. The technical programme consisted of Pre-conference workshops, plenary sessions, concurrent topical sessions and posters dealing with the following areas of interest:

- Rural development and policy
- Adoption and extension
- Decision support systems, farm management, modeling
- E-AgBusiness and production chain management
- Information resources and databases
- Grid and web services
- Field data acquisition and recording
- GIS and precision farming
- Education and distance learning
- Library science and knowledge representation
- Aquatic resource management
- Wireless and sensor networks

348 participants from 39 countries in every continent were registered to attend the Conference, with 70 percent of participants coming from abroad. 120 papers, 20 posters and 10 exhibitions were presented at the conference. In the poster session there were 20 posters in nine different categories. Furthermore, participants were offered nine exhibition booths hosted by both public and private sector from the host country, and from abroad.

The AFITA/WCCA 2004 conference provided forums for agriculture related professionals to exchange information on applications and developments in the use of IT. This event was also an opportunity for fostering the collaboration between Asia and the world. Participants identified some critical issues for governments and other stakeholders to address in order to improve the impact of information and communication technology in agriculture. The issues and outputs of the conference are supported by the case studies, tools, methodologies and models represented in the papers and presentations during the conference.

*Impacts on Country Level:*

- Conclusions on experiences and information concerning IT in the areas of food safety, food security, and learning processes in agriculture.
- Expansion of network connectivity between farmers and relevant agencies to encourage the use of IT as a tool for sustainable agricultural development.
- Sharing experience from successful projects serving as models for Thai agriculture related professionals and farmers in terms of management strategies, policies and learning processes.
- New opportunities for community members to exchange and discuss their experience with others and to make impacts in rural agricultural communities of Thailand.
- Introduction of the latest trends in IT from other countries to Thailand.

#### *Impacts on International Level*

- Identification of appropriate strategies of dealing with major challenges of agricultural and natural resources in the areas of food safety, food security, and learning processes in agriculture in the future.

- Initiation of international reflection and expansion of international networking of agricultural and natural resources.
- Development of a document from the best practice cases of the Conference as an input in a world strategies statement of the UNESCO world report in Tunis 2005.
- Expansion of network connectivity to research and development agencies for sustainable food productivity on the basis of IT sharing.

As a further result of the conference, we have planned to follow up our work by holding periodical Working Group meetings.

The Organizing Committee would like to express its appreciation to all committee members, co-organizers, sponsors and all the participants, especially the Organizing Working Group who dedicated long hours of work to preparing the conference. Without such contributions, it is impossible to have such a successful conference.

## CIGR – SPONSORED ACTIVITIES

A chronological list of events in the field of agricultural engineering can also be found in our Events Calendar which can be consulted on CIGR's Website:

<http://www.cigr.org/>

### **2004 CIGR International Conference "The Olympics of AgEng"**

This international CIGR conference will be held from **11 to 14 October 2004** in the International Meeting Centre of **Beijing, PR China**. With the sponsorship of CIGR, the Chinese Society for Agricultural Machinery (CSAM), the Chinese Society of Agricultural Engineering (CSAE), and co-sponsored, among others, by AAAE, EurAgEng, CSAE and AOC, the conference is organised by the Chinese Agricultural University (CAU), the Chinese Academy of Agricultural Mechanisation Sciences (CAAMS), and the Chinese Academy of Agricultural Engineering (CAAE). The conference language will be English.

Human beings are facing the new challenge of the growing of knowledge-based economy that affects our daily lives. Agricultural engineering knowledge and technologies have spread throughout the world with the development of information technology and multi-disciplinary activities.

As we move into the new millennium, advanced engineering technologies are being rapidly applied in agriculture, food and bio-systems. The need for increased cooperation and face-to-face exchanges among engineers, scientists, and commercial companies in the global village is evident. The 2004 CIGR International Conference aims to provide opportunities for researchers, scholars, managers and other professionals to exchange the latest information, and to provide a discussion forum on how to promote scientific and technological innovations on agricultural engineering into the new millennium.

The product shows, poster sessions and other academic activities of this conference will deal with subjects such as:

- Modern agricultural equipment and facilities (plant and animal production)
- Soil, water and environment
- Post harvest technology and biomass engineering
- Information technology for agriculture.

Agricultural engineers, institutions and companies are invited to participate in this congress and to submit a paper to the academic committee. Papers presented at the meeting will be available to the meeting participants on CD-ROM, and abstracts will be published officially for the participants.

Further information is available on the internet at <http://www.2004cigr.org/> or from the Conference Secretary Dr. Renjie Dong, PO Box 184#, China Agricultural University, No. 17 Qinghuadonglu Haidian district, Beijing 100083, PR CHINA. Email: [2004cigr@bjaeu.edu.cn](mailto:2004cigr@bjaeu.edu.cn) or [2004info@bjaeu.edu.cn](mailto:2004info@bjaeu.edu.cn) or [info@2004cigr.org](mailto:info@2004cigr.org)

### **1<sup>st</sup> CIGR Section VI International Conference on "Bioproducts Processing and Food Safety"**

CIGR Section VI deals with the engineering principles and technologies in post-harvest and processing of agro-food products. It is intended to follow the trends, promote the advancement and enhance the dissemination and the transfer of technology in post-harvest and processing at a global scale. Its missions are

- To bring together all those that are working in post-

harvest and processing;

- To stimulate international experiences, exchange and co-operation, for the advancement of knowledge in this area, world-wide
- To define the areas that are in need of research and /or of transfer of technology
- To advance in knowledge for the assurance of safety of all products for human consumption.

In order to better fulfil its missions, CIGR Section VI is organizing the 1st Technical Symposium of CIGR Section VI on food and bioproduct processing and food safety in **Beijing, P.R. China from 11 to 14 October 2004**, as part of the 2004 CIGR International Conference. This symposium will feature a series of presentations and discussion in plenary, scientific and poster sessions, and informal gatherings to highlight most recent developments in food and bioproducts processing and food safety. Selected papers presented at this symposium will be published in a special issue of *Journal of Food Engineering*, an international leading and SCI cited academic journal published by Elsevier. The full Proceedings of the Symposium will be published in CD-ROM and provided to all participants at the registration desk during the Symposium.

The symposium is jointly organised by National University of Ireland, Dublin, CIGR Section VI (Postharvest Technology and Process Engineering) and China National Packaging & Food Machinery Corporation (CPFMC) and sponsored by the International Association for Engineering and Food (IAEF), the Institute of Food Technologists (IFT) and the Chinese Academy of Agricultural Mechanization (CAAMS).

The topics to be covered include

- Physical properties
- Sensors and sensing technology
- Process modelling, simulation and control
- Thermal processing, chilling and freezing
- Dehydration processes
- Separation processes
- Preservation and storage
- Packaging
- Emerging processing technologies
- Product quality and safety
- Biotechnology
- Waste treatment and management
- Processing equipment

For further information, please consult the symposium web page at <http://www.2004cigr.org/en/processing> or contact Assoc. Prof. Lanfang Zhang, PO. Box 8, Chinese Academy of Agricultural Mechanization Sciences (CAAMS), No.1 Beishatan, Deshengmen Wai, Beijing 100083, P.R. China. Tel: 010-64882509, 010-64849687, 010-64882523; Fax: 010-64883508, 010-64849687; Email: [info@2004cigr.org](mailto:info@2004cigr.org)

### 1<sup>st</sup> CIGR Section VII Technical Symposium on "Information Technology for Agriculture"

A further Technical Symposium to be held as part of the 2004 CIGR International Conference in Beijing from **11 to 14 October 2004** will be organized by CIGR Section VII. Session III of the CIGR 2004 Conference will present papers reporting on progress in the development and applications of IT in food and agriculture productions,

cations of IT in food and agriculture productions, natural resources and environmental management, and rural development. In addition to the plenary session of the entire conference, Session III activities consist of two and a half days of invited speeches, oral and poster presentations, technical exhibition, and selective technical tours in Beijing. The goal of session III is to provide a forum for interaction, discussion, and information exchange among scientists and engineers from developed and developing countries on the role of ICT in agricultural modernization and sustainability.

Main Topics:

- Strategic issues related to the research, use, deployment, and adoption of IT in agriculture
- Information technology in agriculture, food production, resource and environmental management
- Spatial information technology (GPS, GIS, RS) for agriculture; precision agriculture and precision livestock farming
- Advanced sensing technology, instrumentation, robotics and automation systems for agriculture
- Biosensors & bioinformatics
- Information technology for food quality, safety, and traceability
- Machine vision and spectroscopy
- Modeling and simulation of agricultural & biosystems
- Expert systems, decision-support systems, and applied software development for agriculture
- Communications, networking, and wireless technologies
- Web-based technology and information services for agriculture

The conference language will be English. A full version of the technical papers accepted by the conference on CD-ROM and a bound volume of full abstracts will be available to the participants on registration desk before the conference.

For further information, look up <http://www.2004cigr.org> or <http://pa.cau.edu.cn/conferences/cigr.htm> or contact the Session III secretariat: [2004CIGR\\_IT@cau.edu.cn](mailto:2004CIGR_IT@cau.edu.cn)

### CIGR Section I International Conference Envirowater 2004: "Land and Water Management: Decision Tools and Practice"

The 2004 CIGR International Conference, which will be held in the **Beijing** International Meeting Center, **P. R. China**, from **11-14 October 2004**, is a forum on agricultural engineering in the new millennium. As a main part of the 2004 CIGR International Conference, the 7<sup>th</sup> Inter-Regional Conference on Environment and Water, entitled "Land and Water Management: Decision Tools and Practice" will be held on the same occasion in association with CIGR Section I: Land and Water Engineering.

The conference is organised by the China Agricultural University (CAU) and the National Center of Efficient Irrigation Engineering and Technology Research (NCEI) of the P. R. China. The Organizing Committee is chaired by the Incoming President of CIGR, Prof. Luis Santos Pereira from the University of Lisbon, Portugal.

The conference is sponsored by CIGR Section I, and, among others, the Chinese Society of Agricultural Engi-

neering (CSAE), the International Commission on Irrigation and Drainage (ICID), and the Food and Agriculture Organization (FAO).

Rapid population growth and the continuous development of economic activities produce an increased demand for water. Many countries especially China are therefore facing greater and severe shortages both in water and land resources, as well as soil erosion and land desertification. Various environmental and ecological issues have been highlighted in recent decades. To improve land and water planning and management, policies, measures and practices must be identified which provide for the sustainable use of water and land resources and appropriately control the environmental risks associated with those uses. Scientists, engineers and managers from many countries have produced a variety of modern technologies and decision tools and practices that may contribute to the improvement of land and water management. These technologies include information systems, remote sensing, geo-referencing, knowledge based systems and a variety of models and decision support systems. As one of the largest developing countries, and with the largest population in the world, China has also made great progress and gained enormous experience in land and water management which can be mobilised for coping with its recent economic and social growth. However, because each country has its own characteristics and approaches, there is a strong need for cooperation and to share experiences among engineers, scientists, managers, and other decision and policy makers. This need is made even more evident by the challenges posed by globalization.

The 7<sup>th</sup> Inter-Regional Conference on Environment and Water aims at promoting exchanges and collaboration on land and water management and offers opportunities for researchers, scholars, managers and other professionals to share the latest information and findings, thus providing a discussion forum on environment and water issues approached from the global perspective. The topics of the conference include all scientific issues and technologies for improving strategies for the use and management of land and water in order to achieve improved productivity, sustainable development in using natural resources, environment conservation and enhancement, and the minimization of risks to people and their society:

#### I. Water Saving and Water Productivity

- Models, data, and model validation and calibration
- Modeling irrigation systems
- Information tools for irrigation scheduling and delivery scheduling

#### II: Land Use Planning and Management

- RS, GPS, and monitoring
- Information systems and GIS tools
- DSS for land use planning

#### III. Soil Erosion and Conservation

- Models and data gathering
- Planning for extreme events
- Maintenance and modernization of soil conservation structures

#### IV. Water Conservation and Soil Management

- Soil physical properties and data bases
- Soil tillage and land forming

- Water harvesting
  - V. Salinity, Water Treatment and Reuse, and Contamination Control
  - Monitoring to avoid land degradation and water contamination
  - Modeling salinity and contamination dynamics
  - Tools and practices for reuse of drainage and waste water
- The conference language will be English.

Full versions of the technical papers accepted for the conference will be available to the participants both on CD-ROM and in officially published proceedings.

For further information visit the conference website at <http://www.2004cigr.org/envirowater2004> or contact the Conference Secretariat: Chinese-Israeli International Center for Training in Agriculture (CICTA); P. O. Box 151, China Agricultural University (CAU), East Campus; Qinghua Donglu 17, Beijing 100083, P. R. China. Tel: + 86 10 62337154 or 62337148, Fax: +86 10 62337138 E-mail: [Ciicta@public.bta.net.cn](mailto:Ciicta@public.bta.net.cn)

### **5<sup>th</sup> International CIGR Symposium on “Concrete for a Sustainable Agriculture: Agro-, Aqua- and Community Applications”**

The Polytechnical University of Madrid (UPM), the Spanish Institute of Cement and Its Applications (IECA), and the Institute for the Promotion of Certified Reinforcement (IPAC) have the honour to invite you to participate in the 5<sup>th</sup> International Symposium “Concrete for a Sustainable Agriculture”, which will be held from **5 to 8 June 2005** in **San Lorenzo de El Escorial, Spain** under the auspices of CIGR Section II.

The following themes will be dealt with:

- Innovative concrete structures and infrastructures in agriculture, horticulture and livestock farming
- Durability and quality aspects on concrete in agriculture
- Concrete in relation to general animal welfare and energy savings
- Concrete for water management and environmental protection
- Use of precast concrete elements in livestock and rural buildings
- Other relevant topics

For further information please contact the Secretariat or the Committee co-chairs Miguel A. Garcimartin and Elvira Sanchez Espinosa at: Departamento de Construcción y Vías Rurales, E.T.S. Ingenieros Agrónomos, Ciudad Universitaria, 28040 Madrid. Tel.: +34 913 365 762 & +34 913 365 420, Fax: +34 913 365 766.

[http://www.cvr.etsia.upm.es/cigr\\_concrete\\_symposium.htm](http://www.cvr.etsia.upm.es/cigr_concrete_symposium.htm)  
E-mail: [secretariat@cvr.etsia.upm.es](mailto:secretariat@cvr.etsia.upm.es)

### **EFITA/WCCA2005**

Organised by EFITA and co-sponsored, among others, by CIGR, FAO, and ASAE, the 5<sup>th</sup> Conference of the European Federation for Information Technology in Agriculture, Food and Environment (EFITA) and the 3<sup>rd</sup> World Congress on Computers in Agriculture and Natural Resources (WCCA) will be held as a joint conference in the Universidade de Trás-os-Montes e Alto Douro, **Vila Real, Portugal**

on **July 25-28, 2005**. The conference language will be English.

This conference will provide a forum for agriculture related professionals to exchange information on applications and developments in the use of Information Technology. Contributions from various countries will allow a broadened perspective for all attending, and the Organising Committee particularly encourages participation from the New Member States of the EU and from the associated Candidate Countries.

To participate as authors of a paper to be included in the proceedings and to be presented orally or as a poster session, submit an extended abstract for consideration to [efita.wcca2005@utad.pt](mailto:efita.wcca2005@utad.pt). All submissions (4 pages max.) should be in Adobe Acrobat (.pdf) and MS Word (.doc) format according to a template that can be downloaded from the conference website. To facilitate the reviewing process, authors are required to choose one or more of the following topics:

- Aquatic resource management
- Adoption and extension
- Dairy and animal production systems
- Decision support systems and modelling: farm management
- Decision support systems and modelling: environment and scientific
- Education/training and distance learning/professional accreditation
- E-AgBusiness and production chain management
- Field data acquisition and recording
- Food safety control/tracking-tracing
- GIS and precision agriculture

- Grid Applications
- Information systems and databases
- Instrumentation and control
- Internet services
- Library science and knowledge representation
- Rural and environmental development and policy
- Wireless and sensor networks

The organizing committee accepts applications for half or full day workshops. Persons wishing to organize a Workshop should submit a proposal to [efita.wcca2005@utad.pt](mailto:efita.wcca2005@utad.pt). Proposals should clearly indicate the topic, background knowledge expected of the participants, objectives and Organising and Program Committees.

Dates and deadlines:

Abstract submission:	January 11, 2005
Third announcement:	February 15, 2005
Announcement of paper acceptance:	February 28, 2005
Camera-ready full papers:	May 2, 2005
Early registration:	June 1, 2005

The conference fee will be 350/400 €(before/after June 1, 2005). This covers workshop and conference sessions, all conference materials, welcome reception, four lunches, coffee breaks and a banquet. Participants wishing to hold a presentation must register by June 1, 2005. Only papers for which the registration fee is paid by that date will be published in the proceedings.

Additional information is available from the conference secretariat or from the conference website: EFITA/WCCA 2005, Edif. Engenharias II, Universidade de Trás-os-Montes e Alto Douro, 5000-911 Villa Real, Portugal. <http://www.agriculturadigital.org/efitaandwcca2005/> Fax: +351 259 350480. E-mail: [efita.wcca2005@utad.pt](mailto:efita.wcca2005@utad.pt)

## ACTIVITIES BY CIGR REGIONAL SOCIETIES

### 12<sup>th</sup> Annual Conference of the MSAE, Egypt

The Misr Society of Agricultural Engineering (MSAE), in cooperation with the Agricultural Engineering Dept. of Alexandria University will organise the 12<sup>th</sup> MSAE Conference on **4 and 5 October 2004** in **Alexandria, Egypt**.

Under the theme "New Technologies in Agricultural Engineering Related to Research, Application and Training", the conference will deal with the following topics:

- Rural planning, buildings, and environment in agricultural communities
- Mechanization appropriate for agricultural enterprises; manufacturing, importing, and marketing agricultural equipment and tractors
- Traditional and renewable energies
- Process engineering and handling of agricultural materials
- Engineering in agricultural irrigation and drainage
- Economic and social impacts and the role of small and large agricultural projects in development and environmental conservation
- Development of educational and training programs; innovation in agricultural engineering.
- Biological engineering and technology

The conference will consist of research papers, articles, and

general lectures, posters, and workshops. In addition to field demos and trips, there will be a display of modern agricultural machinery, equipment, and technologies. The conference fees are 500 EP (Egyptian Pounds) for organizations, including up to 6 participants, 100 EP for individuals supported by organizations. Special rates apply for MSAE members unsupported by organizations. If contacted in time, the organisers can offer boarding and lodging facilities at reduced rates in some Alexandria hotels or at university hostels.

For further information please contact Dr. Ezzat A. Abd El Ghaffar, Prof. and Head of the Agricultural Engineering Department; College of Agriculture, Alexandria University, El Shatby, Alexandria, Misr (Egypt) or: Dr. Nabil El Awady, President, MSAE; Sc. Chair of the Conference: <http://www.geocities.com/awady37/Clipboard.html>, email: [awady37@yahoo.com](mailto:awady37@yahoo.com).

### VI Latin American Congress of Agricultural Engineering

Organised by the Latin American and Caribbean Association of Agricultural Engineers (ALIA) and the Costa Rican Association of Agricultural Engineers (ACIA), this event will take place from **22 to 24 November 2004** in **San José**,

**Costa Rica.** It is the sixth in a series of congresses initiated in 1994 by ALIA and held at intervals of two years.

The purpose of the event is to bring together professionals in agricultural engineering and related fields and to gauge the potential of agricultural engineering to contribute to the growth and development of Latin America and to improve production systems and the quality of life of those who depend on agriculture.

The subjects to be discussed include:

- Agricultural mechanization
- Soil and water
- Food engineering and postharvest processing
- Constructions, environment & use of energy in agriculture
- Biological engineering systems
- Computer science and automation in agriculture
- Teaching and research in agricultural engineering

For further information, please contact the Costa Rican Association of Agricultural Engineers (ACIA), P.O. Box 2346-1000, San José, Costa Rica. Tel.: 506 253 5428, Fax: 506 224 9598. E-mail: [congresoalia@costarricense.cr](mailto:congresoalia@costarricense.cr). <http://www.clia2004.org/>

### **XXXI CIOSTA - CIGR V Congress "Increasing Work Efficiency in Agriculture, Horticulture and Forestry"**

This congress, sponsored by CIGR, CIOSTA, EurAgEng and VDI-MEG, will be held from **September 19 to 21, 2005** at the **University of Hohenheim, Germany**. The congress language will be English. The scientific programme will include plenary sessions, parallel oral sessions

and poster sessions on the following topics:

- Methods and modelling
- Process engineering and controlling
- Calculation and planning
- Farm management
- Ergonomics and work place design
- Work safety, prevention and risk analysis

On the basis of the submitted abstract, the scientific committee will decide whether the contribution is accepted as oral presentation or poster. Oral presentations will be limited to 20 minutes each, plus 10 minutes of discussion. The oral presentations will be supplemented by an exhibition of posters. Both will be published in the proceedings of the congress. Abstracts (2 pages / 400 words max. including graphs and figures) assigned to one of the above topics must state in a comprehensible way the scope, methods and results of the proposed presentation as well as the title of the presentation, the authors' names and full work addresses including e-mail, an indication whether oral or poster presentation is preferred. Please mail abstracts to [ciosta@uni-hohenheim.de](mailto:ciosta@uni-hohenheim.de)

Dates and deadlines:

Abstracts:	January 10, 2005
Notification of acceptance:	mid-March, 2005
Submission of camera-ready manuscripts:	July 1, 2005

The congress fee will be around 320 Euro (provisional estimate), privileges are intended. A technical tour will be organised on demand.

For further information please look up <http://www.uni-hohenheim.de/ciosta-cigr> and contact the co-ordinator: Dr. Monika Krause E-mail: [ciosta@uni-hohenheim.de](mailto:ciosta@uni-hohenheim.de) Tel. +49 711 459 3231 (Tuesdays only), Fax: +49 711 459 4307

## **CIGR CO-SPONSORED ACTIVITIES**

### **International Conference "Environmentally Friendly Spray Application Techniques"**

This conference will be held from **4 to 6 October 2004** in **Warsaw, Poland**, as a scheduled activity of the Research Centre of Excellence in Sustainable Pomology – PomoCentre, a 5<sup>th</sup> EC Framework Programme project (project no QLAM-2001-00402). The conference is intended to present ideas and results of research and identify relevant scientific problems, necessary research and development, standardization requirements and efficient systems for technology transfer to sustainable food production.

Topics:

- Novel spray application technology
- Performance of sprayers
- Testing and adjustment of sprayers
- Filling and cleaning of sprayers
- Nozzles, atomisation, adjuvants, spray quality
- Precision spraying, target detection, selective application
- Spray drift, buffer zones
- Dose rates determination (spacious crops)
- Non-chemical plant protection techniques
- Decision support systems in plant protection
- Risk assessment and management in plant protection

- Environmental and health consequences of plant protection
- Methodology of research on spray application

Important Dates and Deadlines:

Submission of full papers:	7 October 2004
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The conference will be held in English. The conference fees are €220.

For further information, please contact convenor Grzegorz Doruchowski ([gdoru@insad.pl](mailto:gdoru@insad.pl)) or secretary Konopacki ([pkonopac@insad.pl](mailto:pkonopac@insad.pl)): Research Institute of Pomology and Floriculture, Pomologiczna 18, 96-100 Skierniewice, POLAND. Phone: +48 46 833 20 21 Fax: +48 46 833 32 28. The website <http://www.pomocentre.insad.pl/> offers further information as well as online registration features.

### **International Conference on Postharvest Technology & Quality Management in Arid Tropics**

This conference will be held at Sultan Qaboos University, **Sultanate of Oman**, from **24 to 26 January 2005**. The first International Conference on postharvest technology in the region, it will provide an international forum to discuss the latest technological developments and scientific innova-

tions for reducing losses, maintaining product quality and adding value to food and agribusiness supply chains, and enhancing the competitiveness of agricultural and seafood products in the Gulf Region and Oman in particular.

The major themes of the conference include:

- Pre-harvest factors affecting postharvest quality and losses
- Postharvest handling systems and ergonomics
- Optimal refrigerated and controlled atmosphere storage systems
- Drying and packaging technology
- Postharvest treatments to maintain quality
- Focus on seafood postharvest
- Quality and supply chain innovation
- Food traceability and safety management
- Postharvest economics, market access & other emerging issues
- Education and training in postharvest technology & quality management

For further information, contact: Assoc. Prof. Linus U. Opara & Assoc Prof. Shyam S. Sablani, Department of Bioresource and Agricultural Engineering, College of Agricultural and Marine Sciences, Sultan Qaboos University, P.O. Box 34, Al-Khod, Sultanate of Oman. Fax: +968 513 418 Tel: +968 515 238. Email: linus@squ.edu.om and shyam@squ.edu.om.

### 33<sup>rd</sup> International Symposium

#### "Actual Tasks on Agricultural Engineering"

Co-sponsored, among others, by CIGR, this symposium will be held from **21 to 25 February 2005** in **Opatija, Croatia**. "Actual Tasks on Agricultural Engineering" have been held for 32 years now, gaining in international standing in recent years thanks to the co-sponsoring by CIGR, EurAgEng, and AESEE. The official languages of the symposium will be English and Croatian.

The aim of the Symposium is to present the latest scientific results on all aspects of research, design and development work in the various disciplines of agricultural engineering. Papers dealing with the following topics, or with other aspects of agricultural engineering, are invited:

- Farm mechanisation
- Power and machinery
- Ergonomics
- Energy in agriculture
- Soil and water
- Pre-harvest technology

- Crop harvesting
- Post-harvest technology
- Livestock buildings and equipment

The proceedings are indexed and abstracted in leading international databases. The registration fee of 100 € (minus 20 % for CIGR, EurAgEng, and AAAE members) covers proceedings and farewell banquet.

Key dates

Notification of paper acceptance 1 October 2004

Submission of full papers 1 December 2004

Registration deadline 15 December 2004

For further information, look up <http://www.agr.hr/aed> and contact the Symposium Secretariat: Faculty of Agriculture Agricultural Engineering Department, Svetosimunska 25, HR-10000 Zagreb, Croatia. Tel.: +385 1 2393819 Fax: +385 1 2315300 E-mail: skosutic@agr.hr

### CIACH 2005: The Agricultural Engineering Specialization in a Globalized World

Co-sponsored by CIGR and organised by the Agricultural Engineering School of the University of Concepción and the National Agricultural Research Institute, the 5th International Congress of Agricultural Engineering will be held from **September 7 to 9, 2005**, at the University of Concepción, **Chillán Campus, Chile**. The main topics to be covered in oral or poster presentations are:

- Computer aids and automation in agriculture
- Agricultural mechanization
- Energy in agriculture
- Water resources in agriculture
- Food engineering
- Post-harvesting processing
- Civil work for agricultural use
- Sustainable agriculture and environment
- Biological system engineering
- Teaching on agricultural engineering

Important dates:

Abstracts: March 31, 2005

Notification of acceptance: April 30, 2005

Extended papers: July 31, 2005

The conference fees are US \$ 140/160 (before/after July 30, 2005) and US \$ 50 for students. Further information: "V Congreso Internacional de Ingeniería Agrícola", Av. Vicente Méndez 595, Casilla 537, Chillán, Chile. Tel.: + 56 42 208709 Fax: +56 42 275303 Email: ciach@udec.cl <http://www.udec.cl/ciach>

## OTHER ACTIVITIES

### International Scientific Conference on "Forest Engineering: New Techniques, Technologies and the Environment"

The main purpose of this conference, which will be held from **5 to 10 October 2004** in **Lviv, Ukraine**, is to provide a forum for the presentation of the latest achievements in applied research and current developments in the field of

forest engineering. It will also foster an exchange of accumulated knowledge and technology transfer of practical experience in the field in the use of environmentally sound techniques of sustainable forest utilisation. The Conference is dedicated to the 130<sup>th</sup> anniversary of forestry education in Ukraine.

The subjects of discussion will be:

- Technical equipment and technological processes:

forest harvesting, timber transportation, forest roads, site preparation and regeneration, ergonomics, environmental protection and ecological safety.

- The use of computer technologies in forest engineering: organizational and technical planning of forest operations, transport and handling of primary forest products, computer-assisted design and planning of forest harvesting units, landings and roads, the use of GIS and hand-held technology such as GPS in sustainable forest management and harvesting systems.

The working languages of the conference are Ukrainian and English. The registration fees (incl. transportation from airport, conference materials, publication of conference proceedings, welcoming ceremonies, field trips, farewell banquet, lunches and meals during the Conference) will be 100-200 € depending on the level of participation.

For detailed information, please contact the Conference Organizing Committee: Ukrainian State University of Forestry and Wood Technology, 105 General Chuprynka St., 79057 Lviv, Ukraine. Email: styran@forest.lviv.ua Tel.: + 380 322 390 669. Fax: +380 322 378 905. <http://ifec.lvivport.com/>

### **Third World Congress of Professionals in Agronomy / First Panamerican Congress of Agronomists**

This congress will be held from **6 to 9 October 2004** at the Convention Centre in **Fortaleza City**, state of Ceará, **Brazil**.

The main subjects are:

- Higher education in agronomy
- Professional practice
- Research and technology transfer
- Current and future technical matters
- Sustainable rural development
- International business and cooperation

More information: <http://www.cmpa.org.br/eng/default.htm>

### **62<sup>nd</sup> VDI-MEG International Conference Agricultural Engineering**

This conference, organised by VDI-MEG in co-operation with EurAgEng, will be held on **7 and 8 October 2004** at the Technical University **Dresden, Germany**.

Main Topics of the Conference

- Tractors: concepts, interfaces to implements, tyres, chassis, use and economics
- Powertrain: new concepts, simulation, electrical powertrain, hybrid powertrain
- Automation technology: electronics, sensor technology, actuator, mechatronics
- Fertilizing and plant protection: integrated and ecological
- Farm-audit: technique, information management, outdoor operation, indoor operation
- Precision farming: environment protection, product quality, consumer protection
- Root crop: cultivation, harvest, post harvest
- Industrial product development
- Young engineers for Europe: forage harvesting, tillage, modelling and simulation

Papers for presentations are expected from the industry, from universities and research institutes and from practical farming.

The conference languages will be German and English (no simultaneous translation provided). Authors get a reduction of 50% on the regular conference fee.

The final program with registration form will be available approx. 10 weeks prior to the conference. For further information, contact: VDI Verein Deutscher Ingenieure, Max-Eyth-Gesellschaft Agrartechnik im VDI, Postfach 10 11 39, D-40002 Düsseldorf, Germany. Tel: +49 211 62 14 522, Fax: +49 211 62 14 163 E-Mail: [meg@vdi.de](mailto:meg@vdi.de) <http://www.vdi.de/tagung-landtechnik>

### **Conference on Automation Technology for Off-Road Equipment ATOE 2004**

The Conference on Automation Technology for Off-road Equipment will be held from **7 to 8 October 2004** at Kyoto University in **Kyoto City, Japan**, just before the 2004 CIGR International Conference in Beijing, China. The purpose of the conference is to promote the advancement of automation of off-road equipment in the 21st Century through scientific exchange and industrial participation. There will be two keynote lectures, a special lecture and oral presentations. In addition, the conference provides opportunities for discussion and exchange of information on various aspects of automation technology.

Conference themes include:

- Sensors: Navigation and control sensors, sensor fusion, sensors for safety/obstacle detection, machine function sensing
- Controls: Steering control, vehicle control, control strategies for off-road operation
- Vehicle modeling: Vehicle kinematic and dynamic modeling, implement modeling
- Telematics in vehicle automation: Wireless networking in off-road applications
- Software support for vehicle automation: Production planning, scheduling and control, job-site management, mission planning
- Information technology: Cooperative robots and multi-agent systems, prognostics, intelligent systems
- Hardware for vehicle Automation: Computer hardware, user interfaces, haptic devices, controller-area networks
- Applications: Automation of off-road equipment, industrial products and applications

Further information is available at <http://www.asae.org/meetings/atoe04/index.html> or from Prof. Mikio Umeda, Lab. Field Robotics, Graduate School of Agriculture, Kyoto University, JAPAN, Phone:+81 75 753 6166 Fax:+81 75 753 6167 E-mail: [umeda@elam.kais.kyoto-u.ac.jp](mailto:umeda@elam.kais.kyoto-u.ac.jp) or [iida@elam.kais.kyoto-u.ac.jp](mailto:iida@elam.kais.kyoto-u.ac.jp)

### **2<sup>nd</sup> Central European Meeting and 5<sup>th</sup> Croatian Congress of Food Technologists, Biotechnologists and Nutritionists**

The objective of this congress, which will be held from **17 to 20 October 2004** in **Opatija, Croatia**, is to provide a

multidisciplinary forum in the fields of food science and technology, human nutrition and biotechnological applications in food production.

- Food products and technologies
- Advances in food engineering
- Food packaging
- Food safety and quality
- Food microbiology
- Biotechnology and bioengineering
- Food, nutrition and health
- Food and consumers
- Water and waste water

The official language of the congress will be English. All sessions will be conducted in English and all presentation papers will be printed in English. Registration fees are €400 and €120 for certified students. Members of CIGR, EurAgEng and PBN are entitled to €50 reduction in fees.

Dates and deadlines:

Paper submission 30 November 2004

For further information, please contact the Congress Secretariat: Food Technologists, Biotechnologists and Nutritionists Society; P.O. Box 625; HR-10000 Zagreb; Croatia. Fax: + 385 (0) 1 48 26251 E-mail: pbncongress@pbf.hr <http://www.pbf.hr/pbncongress>

### **6<sup>th</sup> International Symposium on Plant Responses to Air Pollution and Global Changes: from Molecular Biology to Plant Production and Ecosystem**

The 6<sup>th</sup> APGC Symposium will be held from **19 to 22 October 2004** at the International Congress Center Epocal Tsukuba, **Tsukuba, Ibaraki, Japan**.

I. Impacts of Air Pollution and Global Change

- Molecular biology
- Plant metabolism
- Ecophysiological effects
- Plant production effects
- FACE: Free Air CO<sub>2</sub> Enrichment
- Controlled-environment research
- Natural CO<sub>2</sub>-springs
- Terrestrial ecological effects and forest decline
- Eco-modelling and prediction of global change
- Ultraviolet-B radiation

II. Monitoring and Remediation

- Greenhouse gases and other trace gases
- Flux measurement
- Phytomonitoring
- Phytoremediation
- CELSS
- Nondestructive instrumentation and image sensing
- Remote sensing and GIS

III. Current Asian Environmental Problems

- Air pollution and acid rain
  - Global change
- Other global environmental problems
- Further information is available on the internet at <http://apgc2004.en.a.u-tokyo.ac.jp/> or from professor Kenji Omasa, Chairman of the International Organizing Committee, [aura@mail.ecc.u-tokyo.ac.jp](mailto:aura@mail.ecc.u-tokyo.ac.jp)

### **CONAT 2004 International Automotive Congress**

This congress dealing with "Automotive and Future Technologies" will be held in **Brasov, Romania** from **20 to 22 October 2004**. CONAT International Congresses are a chain of scientific congresses initiated by Transilvania University in 1965. They intend to facilitate a profitable exchange of information among specialists in automotive engineering and a discussion of new challenges facing the automotive industry.

The themes of the congress are:

- Innovative technologies for automotives
- Automotive and environment
- Advanced transport systems
- Automotive systems
- Manufacturing and logistics
- Engineering training

For further information look up <http://conat.unitbv.ro/> or contact the organising committee: Automotive Dpt, SAE Brasov Group, Transilvania University of Brasov Bd. Eroilor 29, RO-500036 Brasov, Romania. Tel. +40268413000 int. 173 Fax: +40268474761 E-mail: [conat2004@unitbv.ro](mailto:conat2004@unitbv.ro)

### **Agroenviron 2004: "The Role of Multi-Purpose Agriculture in Sustaining Global Environment"**

Organised by the University of **Udine, Italy**, the fourth international symposium of the Agroenviron series will be held from **20 to 24 October 2004**. The organisers of this event hope that the series will continue in the future and provide an instrument for involving more and more scientists, engineers, planners, institutions, and countries in agro-environmental issues for sustaining the environment of this globe. The symposium will give scientists an insight into today's burning issues related to agriculture, and it should help to choose the right directions for the future in sustainable agriculture in this millennium.

The topics proposed for presentations in Udine include:

- Land, water, and air pollution in agricultural areas
  - Precision agriculture and yield forecasting
  - Landscape ecology
  - Forestry and range land management
  - Climate changes and global agricultural environment
  - Biotechnology and agricultural biodiversity
  - Desertification and land degradation control
  - Agricultural waste reuse and field management
  - Wetland and coastal ecology in humid environment
  - RS/GIS techniques in agriculture
- Current advances in restoration of rural areas for sustainability

For further information, contact Prof. Dr. Giuseppe ZERBI, Symposium Secretary General, University of Udine, Udine/ITALY; E-mail: [zerbi@dpvta.uniud.it](mailto:zerbi@dpvta.uniud.it)

### **Second World Engineers' Convention 2004**

The Second World Engineers' Convention will be held in **Shanghai, China, 2 to 6 November 2004**, under the auspices of the World Federation of Engineering Organiza-

tions (WFEO). The theme of WEC2004 is "Engineers Shape the Sustainable Future".

The program includes a plenary session and seven parallel sessions on:

- Network engineering and information society
- Biological engineering & healthcare
- Transportation and sustainable mega-cities
- Environment protection and disaster mitigation
- Agricultural engineering and food security
- Resources and energy
- Ecological material and green manufacturing

For more information, please contact Tel. +86 10 621 73499, Fax: +86 10 62180142, Email: [wec2004sec@sino-meetings.com](mailto:wec2004sec@sino-meetings.com) or consult the web page at [www.wec2004.org](http://www.wec2004.org)

### 2004 Annual Scientific Conference and General Meeting of TSAE

The 2004 Annual Scientific Conference and General Meeting of the Tanzania Society of Agricultural Engineers (TSAE) will be held at the TANESCO Training Institute, **Morogoro, Tanzania** from **22 to 24 November 2004**. The TSAE 2004 Annual General Meeting (AGM) will be held at the end of the Scientific Conference on 24 November 2004.

The main theme of "The Role of Engineering and Technology in Poverty Reduction" will be subdivided into 13 sub-themes:

- Appropriate technology adaptation, adoption and use for poverty reduction
- Role of information and communications technologies in poverty reduction
- Water supply and sanitation
- Food production and processing
- Housing
- Energy
- Transportation
- Income generation
- Employment creation / entrepreneurship
- Education and training
- Environmental issues
- Gender issues in poverty reduction
- HIV/AIDS

For further information contact: The Secretary, Tanzania Society of Agricultural Engineers (TSAE), P.O. Box 3003, CHUO KIKUU, MOROGORO. TANZANIA.

Tel: +255 23 2604216; +255 23 2603511-4 Ext. 4433;

Fax: +255 23 2603718. E-mail: [tsae@suanet.ac.tz](mailto:tsae@suanet.ac.tz) URL: <http://eng.suanet.ac.tz/>

### ICFPTE '04

The second International Conference on Innovations in Food Processing Technology and Engineering will be held from **11 to 13 January 2005** at the Asian Institute of Technology in **Bangkok, Thailand**.

The technical programme will include plenary and keynote lectures, parallel lectures and poster sessions dealing with the following subjects:

- Food processing technology

- Physical properties of foods
- Thermal processing and preservation
- Non-thermal processing
- Food safety
- Food packaging
- Nutraceutical and functional foods
- Postharvest preservation and processing
- Novel technologies in food handling, processing and transport
- Information technology applications in food industry
- Automation in food industry
- Food processing wastes

Registration fees are US\$ 350, US\$ 100 for students. Fees include the cost of conference materials (proceedings etc.), working lunches, coffee/tea and banquet.

For further information please contact: Ms. Tasana Sa-id, FEBT, SERD, Asian Institute of Technology, PO Box 4 Klong Luang, Pathumthani 12120, Thailand. Phone: + 66 2 524 5488, Fax: 66 2 524 6200, email: [phfpe@ait.ac.th](mailto:phfpe@ait.ac.th), <http://www.serd.ait.ac.th/icfppte>

### 7<sup>th</sup> International Conference on "Construction, Technology and Environment in Livestock Farming"

The Max Eyth Society for Agricultural Engineering in the VDI (VDI-MEG), the Committee for Technology and Structures in Agriculture (KTBL) and the Federal Agricultural Research Centre (FAL) invite you to participate in this conference, which will be held on **2 and 3 March 2005** at the FAL in **Braunschweig, Germany**.

The main aim of this biannual conference is to present and to discuss the latest developments in farm buildings, animal housing and animal production as well as new solutions for environmental engineering concerning emissions and process technology.

The Institute for Production Engineering and Building Research of the FAL invites scientists and experts in agricultural engineering and manufacturers to give oral, poster or video presentations in one of the three sessions of the conference. Presentations should deal with innovative developments or solutions in connection with husbandry systems for dairy cows, cattle, pigs poultry and horses, specifically:

- Farm building, building systems, constructions, building material, building costs
- Husbandry systems, animal welfare
- Milking systems
- Feeding
- Management and labour
- Quality assurance and documentation of production
- Environmental impact, emissions, immissions, air quality
- Computer based systems
- Sustainable production systems
- Waste based products, renewable energy

A volume of the papers will be distributed to the participants of the Conference. The organizers are working to keep the price to a reasonable level of around 140 €. The final programme and further information will be available from November 2004.

Dates and deadlines:

Full texts: 30 November 2004

For further information, please mail to: Prof. Dr. F.-J. Bockisch, Institute of Production Engineering and Building Research, Federal Agricultural Research Centre (FAL), Bundesallee 50, D-38116 Braunschweig, Germany.

Phone: +49 531 596 4402 / 4406 Fax: +49 531 596 4499;

E-mail: BTU-Tagung-2005@fal.de; <http://www.bb.fal.de>

### 5<sup>th</sup> ECPA and 2<sup>nd</sup> ECPLF

The 5<sup>th</sup> European Conference on Precision Agriculture and the 2<sup>nd</sup> European Conference on Precision Livestock farming will be held as parallel conferences from **9 to 12 June 2005** in **Uppsala, Sweden**. They will deal with the following main themes:

- Feed quality management
- On-farm analysis technology
- Robotics, autonomous vehicles and controlled traffic

- Environmental effects of precision agriculture and precision livestock farming
- Precision horticulture and viticulture
- Automation in livestock farming
- Implementation, education and training

Authors of accepted abstracts will be invited to write a paper intended for publication in the conference proceedings by 15 October 2004.

Important dates:

Acceptance Notification: 15 October 2004

Submission of papers: 15 December 2004

More information and updates on the conferences can be found at <http://www-conference.slu.se/ecpa/index.htm> or <http://www-conference.slu.se/ecplf/index.htm>

Contact the conference secretariat by fax under +46 18 67 35 30 or by e-mail at [ecpa@slu.se](mailto:ecpa@slu.se) or [ecplf@slu.se](mailto:ecplf@slu.se)

## PUBLICATIONS

**CIGR Electronic Journal: <http://cigr-ejournal.tamu.edu/>**

### CIGR Electronic Journal: ISSN 1682-1130

Since the last list published here, several new articles have been published in Volume VI (2004) of the *CIGR E-Journal / Agricultural Engineering International: The CIGR Journal of Scientific Research and Development*, ISSN 1682-1130

#### Peer Reviewed Technical Articles:

13.) A. Yuwono and P. Schulze Lammers. Performance Test of a Sensor Array-Based Odor Detection Instrument. Manuscript BC 03 009. Vol. VI. May 2004.

14.) M. Massoud, M. El-Fadel, M. Scrimshaw, and J. Lester. Land Use Impact on the Spatial and Seasonal Variation of the Contaminant Loads to Abou Ali River and Its Coastal Zone in North Lebanon. Manuscript LW 04 001. Vol. VI. May 2004.

15.) J. Bober and A. Demirci. Nisin Fermentation by *Lactococcus lactis* subsp. *lactis* Using Plastic Composite Supports in Biofilm Reactors. Manuscript FP 04 001. Vol. VI. June 2004.

16.) A. Vejasit and V. Salokhe. Studies on Machine-Crop Parameters of an Axial Flow Thresher for Threshing Soybean. Manuscript PM 04 004. Vol. VI. July 2004.

17.) G. van Straten and Th. Gieling. Ion Control in Closed Growing Systems with Inert Media: Controller Settings and Modes of Operation. Manuscript BC 03 016. Vol. VI. July 2004.

18.) A. Kalbasi-Ashtari. Effects of Post-harvest Pre-cooling Processes and Cyclical Heat Treatment on the Physico-chemical Properties of "Red Haven Peaches" and "Shahmiveh Pears" During Cold Storage. Manuscript FP 04 003. Vol. VI. July 2004.

19.) B. Blackmore, S. Fountas, L. Tang, and H. Have.

Systems Requirements for a Small Autonomous Tractor. Manuscript PM 04 001. Vol. VI. July 2004.

20.) J. Cancela, X. Neira, T. Cuesta, C. Alvarez, and R. Crecente. Socio-Economic Evaluation of the Terra Cha Irrigators Community by using a Geographic Information System-Spain. Manuscript LW 04 003. Vol. VI. July 2004.

21.) A. Atiku, N. Aviara, and M. Haque. Performance Evaluation of a Bambara Ground Nut Sheller. Manuscript PM 04 002. Vol. VI. July 2004.

22.) I. Audu, A. Oloso, and B. Umar. Development of a Concentric Cylinder Locust Bean Dehuller. Manuscript PM 04 003. Vol. VI. August 2004.

23.) B. Bjerg, P. Kai, S. Morsing, and H. Takai. CFD Analysis to Predict Close Range Spreading of Ventilation Air from Livestock Buildings. Manuscript BC 03 014. Vol. VI. August 2004.

24.) G. Munoz-Hernandez, M. Gonzalez-Valadez, and J. Dominguez-Dominguez. An Easy Way to Determine the Working Parameters of the Mechanical Densification Process. Manuscript FP 03 013. Vol. VI. August 2004.

#### Invited Overview Articles:

2.) A. Yuwono and P. Schulze Lammers. Odor Pollution in the Environment and the Detection Instrumentation. Vol. VI. July 2004.

3.) D. Ampratwum, A. Dorvlo, and L. Opara. Usage of Tractors and Field Machinery in Oman. Invited Vol. VI. July 2004.

4.) L. Opara. Emerging Technological Innovation Triad for Smart Agriculture in the 21st Century. Part I. Prospects and Impacts of Nanotechnology in Agriculture. Vol. VI. July 2004.

5.) L. Kipkurui, I. Kithyo, P. Okemwa, and J. Korir. Modernisation in Automotive Technology and Performance of

Informal Sector Mechanics in Kenya. Vol. VI. August 2004.

6.) S. Pedersen, G. Monteny, H. Xin, and H. Takai. Progress in Research into Ammonia and Greenhouse Gas Emissions from Animal Production Facilities. Vol. VI. August 2004.

**All articles of the CIGR Electronic Journal are available free of charge on the internet at <http://cigr-ejournal.tamu.edu/>**

#### **4<sup>th</sup> Report from Section II Working Group 13**

Pedersen, S. & and Sällvik, K. *Climatisation of Animal Houses – Heat and Moisture Production at Animal and House Levels: 4<sup>th</sup> Report from Section II Working Group 13*, 2002. Published by Research Centre Bygholm, Danish Institute of Agricultural Sciences, P.O Box 536, DK-8700 Horsens, Denmark. ISBN 87-88976-60-2 Available for download at <http://www.agrsci.dk/jbt/spe/CIGRreport>

#### **Long-term Development Strategies for Iran's Water Resources**

Published by the Public Relations and International Affairs Bureau of Iran Water Resources Management Company, Ministry of Energy; available for download in .pdf format at <http://www.wrm.or.ir/Serie1%5Clatin.pdf>

#### **CIGR Handbook of Agricultural Engineering**

Edited by CIGR and published by ASAE. Five volumes, 2,400 pages, 110 authors. The books are available in CD-ROM and individual hardcover book format. Further information: ASAE; Dept. 1661, 2950 Niles Road, St. Joseph, MI 49085-9659; USA, Tel: 616-428-6324; Fax: 616-429-3852 E-mail: martin@asae.org

#### **Coping with Water Scarcity**

Ian Cordery; Iacovos Iacovides; Luis Santos Pereira. *Coping with Water Scarcity*. IHP-VI Technical Documents in Hydrology No. 58. 272 pages, incl. bibliography. UNESCO: Paris, 2002. (IHP-VI Document code: SC.2002/WS/49, UNESCO document Catalogue Number:127846.) This publication is available free of charge in pdf format for at <http://unesdoc.unesco.org/images/0012/001278/127846e.pdf>

#### **Proceedings of the 32<sup>nd</sup> International Symposium on Agricultural Engineering**

*Actual Tasks on Agricultural Engineering: Proceedings of the 32nd International Symposium on Agricultural Engineering in Opatija, Croatia, 23 to 27 February 2004*. Ed. Silvio Košutic. Faculty of Agriculture: Zagreb, 2003. ISSN 1333-2651 The Proceedings contain more than 40 contributions on ca. 430 pages. For availability information, contact the editor: Silvio Košutic, Faculty of Agriculture, Agricultural Engineering Department, Svetosimunska 25, 10000 Zagreb, Croatia. Tel.: 00385 1 2393819; Fax: 00385 1 2315300 or 00385 1 2393724; E-mail: s.kosutic@agr.hr

#### **Recommandations internationales pour le logement des bovins viande: Synthèse des connaissances de la Commission Internationale du Génie Rural**

This publication, the French version of the "CIGR Design Recommendations for Beef Cattle Housing" by CIGR WG 14, which appeared in September 2002, can be ordered from: Technipel, 149 rue de Bercy, F75595 PARIS CEDEX 12. The price per unit is 18 € plus postage. <http://www.inst-elevage.asso.fr/> E-mail: [technipel@inst-elevage.asso.fr](mailto:technipel@inst-elevage.asso.fr)

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All correspondence and information on forthcoming activities should be sent to:

**CIGR GENERAL SECRETARIAT**

Prof. Dr. Peter Schulze Lammers, Secretary-General

**INSTITUT fuer LANDTECHNIK**

**NUSSALLEE 5; D-53115 BONN GERMANY**

Tel.: +49 228 73-2389 / +49 228 73-2597

Fax.: +49 228 73-9644 E-mail: [CIGR@uni-bonn.de](mailto:CIGR@uni-bonn.de)

**Deadline for CIGR Newsletter N<sup>o</sup> 69 is 15 December 2004**

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