

Newsletter N° 72
October 2005

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CIGR NEWS

News from the President

In September I visited China to attend the 19th Congress of the International Commission on Irrigation and Drainage, ICID, and to participate in the centennial celebrations of the China Agricultural University.

At the 19th ICID Congress, which was held from 8 to 10 September 2005 in Beijing, I represented CIGR in the quality of CIGR President. I was able to have various conversations that may lead to further collaboration with ICID. I gave one of the three keynote speeches to the Congress and, with Huang Guanhua (CIGR Section I), I acted as co-organizer of a Special Session on "Land and Water Management" that was intended to be a continuation of the 7th Inter-regional Conference on Environment and Water. The latter was part of the excellent CIGR International Conference held at Beijing in October 2004 and was co-sponsored by the Chinese Committee of ICID. The Special Session was quite successful, with more than 100 participants, and the collaboration between CIGR and ICID proved successful in both events. Let's hope that it will continue on other occasions!

I attended the celebrations of the centennial anniversary of the China Agricultural University (CAU) as representative of CIGR. This included contacts with the President of CAU, Dr. Chen Zhangliang, and other directorial officers,



Prof. Luis Santos Pereira

as well as participating in the International Symposium on Innovation and Development of Urban Agricultural Engineering and attending the centennial ceremony held in the Great Hall of the People presided over by the Vice-Premier Hui Liangyu. Special reference must be made to the Symposium on Urban Agricultural Engineering, which was sponsored by the Chinese and the Beijing Societies of Agricultural Engineering and the China Academy of Agricultural Mechanization, because this meeting opens a new field for our profession in response to the growth of urban and peri-urban areas where land is used for leisure and intensive horticultural production.

*Prof. Luis Santos Pereira
CIGR President 2005-2006*

New CIGR Secretary-General

Please note that as of 1 January 2006 Prof. Schulze Lammers will hand the CIGR General Secretariat on to Prof. Takaaki Maekawa of the University of Tsukuba, Japan. An official ceremony will be held in Japan at the end of March 2006. The January 2006 issue of the CIGR Newsletter will still be produced by the General Secretariat in Bonn, Germany.

The full address of the new CIGR General Secretariat is: Prof. Takaaki Maekawa, University of Tsukuba, Institute of Agriculture and Forest Engineering, Tennodai 1-1-1, Tsukuba, Ibaraki, 3005-8572, Japan, T.: +81 298 53 6989, F.: +81 298 53 7496, E-mail: biopro@sakura.cc.tsukuba.ac.jp

World Congress Bonn 2006 "Agricultural Engineering for A Better World"

CIGR, EurAgEng, VDI-MEG and FAO are delighted to invite you to their joint World Congress, which will be held from **3 to 7 September 2006 in Bonn, Germany**. The World Congress will combine the "XVI CIGR World Congress" with "AgEng2006" and the "64th VDI-MEG International Conference Agricultural Engineering". As part of the congress, FAO will hold a workshop on "Agricultural Engineering Contributions to Solve Future Agricultural Problems" covering two half days. Moreover, a preconference on "Automation Technology for Offroad Equipment" will be held immediately before the World Congress.

The scientific sessions, posters, Technical Section meetings, and Special Interest Group meetings of the World Congress will deal with the latest developments in agricultural engineering. Thus, the XVI CIGR World Congress will provide an excellent opportunity for agricultural engineering scientists and representatives of manufacturers of agricultural machinery to discuss current developments from many different points of view and to promote new ways of employing recent advancements in

agricultural engineering in the service of the global agricultural situation.

Combining a world-wide, a European, and a German point of view, the XVI CIGR World Congress will enable delegates to establish new contacts, to intensify international co-operation, and to transfer their skills and experience to new areas of activity.

Meetings will be held mainly in the main building of Bonn University, the former residence of the archbishops and electors of Cologne, and at the "International Congress Centre - Bundeshaus Bonn", which incorporates the former parliament building of the Federal Republic of Germany.

The following topics and sub-topics will be discussed:

I. Land & Water Use and Environment

II. Power and Machinery

- Tractors
- Tillage & seeding
- Fertilising & plant protection
- Harvesting
- Automation technology

III. Information Systems and Precision Farming

IV. Livestock Technology

- Structures
- Environment
- Precision livestock farming

V. Processing & Post Harvest Technology and Logistics

VI. Energy and Non-Food Production Technology

VII. Systems Engineering and Management

- Emerging industrial products
- Marketing
- Service systems
- Traceability
- Work safety and ergonomics
- Farm management, calculation and planning

VIII. Fruit & Vegetable Cultivation Systems

- Protected cultivation
- Greenhouses
- Equipment for tree crops

IX. Global Issues

- Meeting needs of global markets for equipment
- Technologies to enable agri-food exports

Dates and deadlines:

Submission of abstracts	1 February 2006
Notification of acceptance	15 March 2006
List of Papers made available	15 April 2006
Submission of full papers	1 June 2006

Please note that abstracts and papers may only be submitted online. Instructions for abstract submission are available at <http://www.2006cigr.org/> under "authors". The direct URL is <http://www.2006cigr.org/authors.html>

For additional information please look up <http://www.2006cigr.org/> or contact: VDI-MEG, Graf-Recke-Strasse 84, 40239 Düsseldorf, Germany. Phone: +49 211 6214266 Fax: +49 211 6214177 E-mail: info@2006cigr.org

75 Years of CIGR: 1930 – 2005

A Short History of CIGR

On August 5, 2005, it was seventy-five years to the day that CIGR was founded in the Academic Hall of the University of Liège. On occasion of the 75th anniversary of CIGR, the last two issues of the CIGR Newsletter contain a two-installment sketch of the development of CIGR from its foundation up to the present.

Part 2

Recent Years

In the 1990s, CIGR increasingly made use of the worldwide web to provide its services to agricultural engineers free of charge. In 1998, this website (now linked to www.cigr.org) went online, hosted by the University College Dublin.

The CIGR Electronic Journal "Agricultural Engineering International" has been in operation as a peer reviewed technical journal since 1999, making available (1) peer reviewed original scientific and engineering research, (2) invited overviews of broad topics of interest, and (3) peer reviewed software papers to agricultural engineers, at no cost.

Also in 1999, the CIGR-FAO Global Network went online, hosted by FAO in Rome. This is a forum of discussion and news disseminating groups, which are organized in accordance with the CIGR Technical Sections. The CIGR Handbook of Agricultural Engineering covers the whole field of agricultural engineering applications. It was published in 1999 as five hardcover volumes with a total of more than 2,400 pages, and is alternatively available on CD-ROM. A sixth volume, "Information Technology" is under preparation

Evolution of the Technical Sections

The development of the Technical Sections of CIGR reflects some of the basic developments which have taken place in agricultural engineering in the past decades. Over the years, three new Technical Sections were added to the original four as CIGR has kept up with new directions and the development of new technologies used in agricultural engineering.

Section I

The mission of Section I has remained in the same area;

however, new topics were included, such as: soil protection and conservation, rural planning, rural infrastructure. In order to keep a short name for the section, the lengthy title was condensed to "Land & Water Engineering".

Section II

This Section still deals with farm buildings; however, new aspects were included over the years, incorporating environmental protection, informatics for environment and buildings, farm planning and waste management. The new title for this section is "Farm Buildings, Equipment, Structures & Environment".

Section III

During the 1964 CIGR Congress in Lausanne, the original Section III was split up into two separate Sections. The wide area of electricity was divided into rural electricity, which was shifted into a new section, and electrical equipment for farm machinery. The latter now includes artificial intelligence, modelling and information systems, and advanced physics. Sharpened in its direction as a result of the 1964 change, Section III was later renamed "Equipment Engineering for Plant Production".

Section IV

The present Section IV is the other result of the 1964 split. The rural energy part of Section III was enhanced by the demand for rationalisation of energy consumption as well as automation and control. Two decades later, further topics on use of renewable energy sources and related technologies were included. The section now has the title "Rural Energy & Other Energy Sources".

Section V

As a result of the 1964 split, the original Section IV changed its name and number into Section V: "Management, Ergonomics & Systems Engineering". The 70s and 80s were years in which the problems of farm management, human workload, health, ergonomics, and farm safety began to become subject of intensive and systematic studies. A methodological tool for these studies was and is systems engineering, with extensions into sociology.

Section VI

A general view on agriculture makes it clear that the primary production is only part of the whole process that ends with usage of the products by the consumer or end

user. Physical properties of food and non-food materials, processing, and quality of final products are important topics. This led to the foundation of Section VI: "Postharvest Technology and Process Engineering".

Section VII

The latest addition to the list of Technical Sections of CIGR is Section VII: "Information Systems". This section was founded after endorsement by the CIGR Executive

Board during its meeting in Toronto, Canada, in the year 1999, and approved at the World Congress in Tsukuba, Japan, in 2000. Of course, information technology is to be found in almost all agricultural applications. However, a systematic treatment that is not directly devoted to special applications needs a forum, which was created within CIGR by the foundation of this 'cross-sectional' section.

NEWS FROM NATIONAL AND REGIONAL SOCIETIES

Contributions from regional and national members

Regional and national member associations of CIGR are invited to intensify their use of the CIGR Newsletter and the CIGR web page www.cigr.org in making their news available to an international audience. Announcements of forthcoming events as well as conference reports and organisational announcements etc. are welcome to be submitted to the CIGR General Secretariat for publication in the CIGR Newsletter. Likewise, the CIGR web page at <http://www.cigr.org/> is a good place for hyperlinks to websites dealing with agricultural engineering. The regional and national member societies of CIGR are invited to suggest suitable websites to the CIGR General Secretariat and to include hyperlinks to [cigr.org](http://www.cigr.org) in their own websites.

Symposium on Innovation and Development of Urban Agricultural Engineering

As part of the centennial celebrations of the China Agricultural University, the Chinese Society of Agricultural Engineering sponsored a symposium on Innovation and Development of Urban Agricultural Engineering, which took place 14-16 Sep 2005. This meeting represented a change in the agricultural engineering profession and its scope. On the one hand, it opened agricultural engineering to areas traditionally not dealt with, such as gardening,

parks, urban areas, to work together with urban architects and landscape architects. On the other hand, it dealt with the intensive agricultural production in peri-urban areas, namely protected horticultural and floricultural production. Cities grow, agricultural land as such is lost, but agricultural engineering continues, and the different disciplines are called upon to fulfill different tasks.



ASAE and CSAE renamed

The American Society of Agricultural Engineers (ASAE) has changed its name to the **American Society of Agricultural and Biological Engineers (ASABE)**. Providing formal acknowledgement of the close integration and shared history of agricultural and biological engineering, the name change was approved earlier this year by membership vote and formally adopted on 19 July at the Society's annual business meeting. Please note the changed contact: ASABE, 2950 Niles Road, St. Joseph, MI 49085, USA. Tel.: 269 429 0300 Fax: 269 429 3852 E-mail: hq@asabe.org, URL <http://www.asabe.org/>

During the 2004-2004 period, members of the Canadian Society of Agricultural Engineers (CSAE/SCGR) decided to rename their Society to **Canadian Society for Bioengineering (CSBE)**. The new French name is 'La Société Canadienne de Génie Agroalimentaire et de Bioingénierie' (CSBE). Please note the new URL and e-mail address: CSBE/SCGAB, PO BOX 23101 RPO MCGILLIVRAY, Winnipeg MB R3T 5S3, CANADA. Tel: 204 233 1881 Fax: 204 231 8282 E-mail: bioeng@shaw.ca URL: <http://www.bioeng.ca/>

CIGR – SPONSORED ACTIVITIES

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

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

International Seminar “Maintenance of Rural Roads – Stakes and Perspectives”

On **20 and 21 April 2006**, the Moroccan Permanent Association for Roads Congress (AMPCR) and the National Association for Land Reclamation, Irrigation and Drainage (ANAFID) will hold an international seminar on “Maintenance of Rural Roads-Stakes and Perspectives” in **Rabat, Morocco**. Organized in collaboration with CIGR and the World Road Association (PIARC), the seminar will offer an insight into the state of the art in management, funding and techniques related to rural roads maintenance. It will deal with four main topics:

- Role of rural roads and their maintenance
- Maintenance techniques for rural roads
- Management and financing of rural roads
- Integrated development project and rural roads

The seminar languages will be English and French. Simultaneous translation will be provided.

Dates and deadlines:

Abstract submission: 31 October 2005

Notification of acceptance: 15 November 2005

Full paper submission: 31 December 2005

For further information contact: ANAFID, 1 Rue Haroune Errachid Agdal-Rabat, Morocco. Fax: (+212)37670303
Email: h.bartali@iav.ac.ma Further information can be found at www.piarc.org and www.anafid.org

2nd CIGR Section VI International Symposium “The Future of Food Engineering”

In order to better fulfill its missions, CIGR Section VI is organizing the 2nd International Symposium on physical properties of food, raw materials and semi products as well as bioproducts processing and food safety in **Warsaw, Poland** from **26 to 28 April 2006**. This symposium will include a series of presentations and discussions in plenary, scientific and poster sessions, and informal gatherings to highlight the most recent developments in food processing technologies as well as sustainability in food production. The full proceedings of the Symposium will be published on CD-ROM and provided to all participants at the registration desk during the Symposium.

The Symposium is jointly organized by Lublin Agricultural University and Warsaw Agricultural University.

Please note the following dates:

Deadline for full paper submission: 31 December 2005

Technical programme on website: 30 December 2005

For further information, please consult the Symposium web page at <http://www.cigr.pl> or contact the Conference Secretaries: Dr Agnieszka WIERZBICKA, Dr Andrzej POLTORAK and Dr Wojciech GOLIS, Warsaw Agricultural University, at ul. Nowoursynowska 159c, 02-776 Warsaw, Poland. E-mail: cigr2006@cigr.pl or info@cigr.pl

CIGR Section I: Inter-Regional Conference on Environment-Water 2006 “Concepts for Water Management and Multifunctional Land Uses in Lowlands”

The 2006 Inter-Regional Conference on Environment and Water will be held at the Unesco IHE (International Institute for Infrastructural, Hydraulic and Environmental Engineering) at **Delft, the Netherlands**, from **17 to 19 May 2006**. Held under the patronage of CIGR Section I and of ISOMUL (International Studygroup on Multiple Uses of Land), the conference is organized by the NWP (Netherlands Water Partnership), and the Land Use Planning Group of WUR (Wageningen University and Research Centre) at Wageningen, the Netherlands.

The Inter-Regional Conference Envirowater 2006 is dedicated in part to research projects and scientific presentations and discussions and in part to presentations and discussions of new concepts for the development of lowlands and deltas, including a one-day field trip in the Rhine Delta. Bringing together all the knowledge, experiments, visions, concepts, research and experiences on what to do with the future of our lowlands and deltas, the conference also addresses the need to integrate all these aspects for a comprehensive planning approach in delta-regions.

Oral presentations and poster sessions will deal with the following subjects:

I Opportunities and threats

- Exploitation of natural resources
- Changing land uses and societal impacts

II. Water and Climate change

- Climate change and impacts on water resources
- Climate change and sea level rise

III. Groundwater and salt water intrusion

- Changes in quantity and quality of groundwater
- Salt water intrusion and adaptive responses

IV. Water management systems as steering instrument for planning

- Potentials and constraints of water management for land uses

- New concepts in water management for land uses

V. Multifunctional land uses as approach to the problems of lowlands and deltas

- Multifunctional land and water uses
- New concepts, visions and examples in multifunctional land and water uses

The conference language will be English. Facilities will be provided for technical presentations including video and LCD projections for PC. Scientific papers will be published in proceedings (on CD-ROM). A study tour may be held at the end of the conference. Private companies will be invited to present their latest equipment in a technical exhibition in relation to several topics of the conference.

Important dates and deadlines:

Acceptance notification/Author instructions: 1 Dec 2005

Final manuscript received: 15 January 2006

Author instructions (paper/poster): 15 March 2006

Covering all technical and social sessions (welcome reception, conference dinner and technical tour), the registration fees will be approximately 300/250 Euros for regular participants, 250/300 Euros for students, and 50/60 Euros for accompanying persons (before/after 1 January

2006). A reduction of 20% in fees will apply to participants from Eastern Europe, Africa, Asia and Latin America.

For further information visit the conference website at: <http://www.wau.nl/rpv/isomul/envirowater2006/> or contact the conference secretariat: Isomul, Land Use Planning Group, Wageningen University and Research Centre (WUR), Generaal Foulkesweg 13 6703 BJ, Wageningen, The Netherlands. Tel: +31(0)317-483849 Fax: +31(0)317-482166 Email: Envirowater2006@wur.nl

ACTIVITIES BY CIGR REGIONAL SOCIETIES

International Agricultural Engineering Conference

Under the auspices of AAEE, this conference on the theme "Agricultural Engineering–Technologies and Future Trends" will be held at the Asian Institute of Technology in **Bangkok, Thailand**, from **6 to 9 December 2005**.

Topics:

- Power and machinery
- Food engineering and biotechnology
- Soil and water engineering
- Energy in agriculture
- Agricultural systems
- Structures and environment
- Electronics in agriculture
- Agro-industry
- Agricultural engineering education
- Agricultural waste management
- Ergonomics
- Terramechanics
- New materials and emerging technologies

For more information, please contact: The Secretariat, Attn.: Dr. Emmanuel C. Canillas, International Agricultural Engineering Conference, ASE SERD Asian Institute of Technology, P.O.Box 4 Klong Luang, Pathumthani 12120, THAILAND. Tel.: +66 2 524 5494 Fax: +66 2 524 6200 E-mail: aaee@ait.ac.th emann@ait.ac.th

Agricultural Equipment Technology Conference

February 2006 marks the 10th anniversary of the Agricultural Equipment Technology Conference (AETC). From **12 to 14 February 2006**, ASABE professionals and pre-professionals will gather in **Louisville, Kentucky, USA**, to share the most recent technological advances in agriculture and related industries and develop ASABE industry and safety standards. The dates of AETC 2006 have been set for February 12th-14th to precede the National Farm Machinery Show in Louisville, KY where more than 800 exhibitors will showcase their skills, products, and technologies.

For conference and exhibit information, contact: Sharon McKnight, ASABE Meetings and Conferences, 2950 Niles Road, St. Joseph, Michigan 49085 Phone: (269) 428-6333 Fax: (269) 429-3852 E-mail: mcknight@asabe.org

Annual International Meeting of ASABE

The 2006 Annual International Meeting of the American Society of Agricultural and Biological Engineers will be

held from **9 to 12 July 2006** at the Oregon Convention Center at **Portland, Oregon, USA**. The meeting will include both Lecture Sessions and Poster Sessions in the following divisions:

- Biological Engineering
- Ergonomics, Safety & Health
- Food & Process Engineering
- Information & Electrical Technologies
- International & Education
- Power & Machinery
- Soil & Water
- Structures & Environment
- Other

All presentation proposals are to be submitted to the Session Organizers listed on the online Web brochure (for URL see below).

Dates and deadlines:

Presentation proposals 11 November 2005

Notification of acceptance 2 December 2005

Presenter registration deadline 17 May 2006

Full papers due 17 May 2006

For further information look up <http://www.asabe.org/meetings/aim2006/index.htm> or contact Sharon McKnight, ASABE Meetings and Conferences, 2950 Niles Road, St. Joseph, Michigan 49085, Phone: (269) 428 6333 Fax: (269) 429-3852 E-mail: mcknight@asabe.org

WCCA 2006 – World Congress on Computers in Agriculture

The 4th World Congress of Computers in Agriculture and Natural Resources will be held in **Orlando, Florida, USA** from **24 to 26 July 2006**. A collaborative effort sponsored by ASABE and supported by CIGR, AFITA, EFITA, IAALD, and PanAFITA, this congress will provide a forum for agriculture related professionals to exchange information on applications and developments in the use of Information Technologies.

Topics include but are not limited to:

- Adoption and extension
- Decision support systems
- Education/training, distance learning and professional accreditation
- e-agbusiness and production chain management
- Field data acquisition and recording
- Food safety control/tracking-tracing
- GIS
- Grid applications
- Information systems and databases

- Instrumentation and control
 - Web services, portals and internet applications
 - Library science and knowledge representation
 - Modeling and simulation
 - Packaging science and technology
 - Portable and nomadic computing
 - Precision agriculture
 - Rural and environmental development and policy
 - Wireless and sensor networks
- Authors are encouraged to submit an abstract before 30

January 2006.

Dates and deadlines:

Abstracts submission deadline: 30 January 2006

Notification of acceptance: 27 February 2006

Camera-ready full paper submission deadline: 12 June 2006

Registration deadline for authors: 12 June 2006

Final program announcement: 15 June 2006

For questions related to this conference please e-mail Fedro S. Zazueta at fsz@ufl.edu and look up

<http://www.wcca2006.org>

CIGR CO-SPONSORED ACTIVITIES

International Congress on Irrigation and Drainage: Cuba-Irrigation 2005

The Irrigation and Drainage Research Institute (IDRI), belonging to the Ministry of Agriculture in Cuba, invites you to participate in a conference co-sponsored by CIGR Section I. The International Congress will be held from **25-28 October 2005** in **Havana, Cuba**. The conference languages will be English and Spanish.

The main topics for discussion are:

- Irrigation and drainage technologies
- Modernizing and maintenance of irrigation and drainage systems
- Environmental and social impact of irrigation and drainage
- Protection rules against tropical hurricanes
- Application of plastics in the efficient use of water for irrigable areas

Participants requiring an Invitation Card to get permission from their institutions may request one from the President of the Organizing Committee. The congress fees are \$ 200 USD for delegates and \$ 60 USD for their companions. For further information please contact Dr. A. Reynaldo Rey García, President of the Organizing Committee, P.O.B: 6090, Havana, Cuba. Tel.: (537)911038, Fax: (537)917595 e-mail: iird@ceniai.inf.cu <http://www.loseventos.cu/cuba-riego2005>

International Congress on "Efficiency and Environmental Impacts of Agricultural Mechanization"

This congress, co-sponsored by CIGR Technical Section III - "Equipment Engineering for Plant Production" – and organised by the Institute of Agricultural Engineering, Water and Forest Research (Tunisia) in collaboration with the Tunisian Association of Agricultural researchers, will be held from **9 to 11 November 2005** in **Hammamet, Tunisia**.

The congress will focus on the following topics:

1. Parameters and concepts of optimal mechanization
 - Approaches and strategies of agricultural mechanization
 - Adaptability of mechanization to conventional cropping systems, farm types and socio-environmental concepts
 - Case studies
2. Technical efficiency of agricultural equipment
 - Modelling of soil-machine and plant-machine interaction
 - Optimization of technical efficiency parameters
 - Interaction between machine efficiency and the agro-

socio-economic context

- Technological innovations and decision support tools.
- Technical and economical management
- 3. Environmental impact of agricultural mechanization
 - Soil and water conservation aspects
 - Non-pollutant aspects of spraying practices

Contributions in these and related areas are welcome.

The congress languages will be French and English; simultaneous translation will be provided.

For further information please look up <http://www.iresa.agrinet.tn/cma2005> or contact the Secretariat of cma2005: I.N.R.G.R.E.F., BP 10 – Ariana 2080 Tunisia. Tel.: +216 71 717 901 or +216 71 709 033 or +216 71 719 630 Fax: +216 71 717 951 E-mail: cma2005@iresa.agrinet.tn

PIARC TC 2.5 International Seminar on "Sustainable Access and Local Resource Solutions"

Committee TC 2.5 on Rural Roads and Accessibility of the World Road Association (PIARC) in collaboration with Royal Government of Cambodia – through the Ministry of Rural Planning, is organising an International Seminar on Sustainable Access and Local Resource Solutions to be held from **28 to 30 November 2005** at **Siem Reap, Cambodia** (close to the Ankor Wat World Heritage site; Siem Reap has direct international flight connections). The seminar is co-sponsored by CIGR Section I "Land and Water Engineering".

Attainment of the objectives of poverty eradication measures, currently being pursued by many developing countries, is difficult without addressing rural accessibility. The seminar is intended to stimulate debate on the subject and contribute to the collection of information on experiences and best practices for meeting the needs of rural accessibility. The languages of the seminar will be English and French; simultaneous translation for the two languages will be provided during; availability of Spanish translation is to be confirmed later.

The seminar will deal with the following sub-themes:

- Policies, planning and management models/tools – involvement of communities, including Integrated Rural Accessibility Planning (IRAP) approaches; using examples from countries at different stages of development
- Use of local resources – human, enterprises, institutions, communities, materials, with particular attention to solving problems of hilly and mountainous terrain, communities in

remote areas, flood susceptible areas, problematic materials, use of local resources and low cost surfaces

- Review of how the social and economic functions of low volume roads for rural communities are being appraised and what indicators are used to assess rural transport needs
- Practice guidance on design issues for low volume roads that deliver cost effective solutions fit for their purpose.

Delegates from developing countries may apply for partial funding support from the PIARC Secretary General. Such support will be provided based on the PIARC eligibility criteria.

For further information look up <http://www.piarc.org/en/projects/seminars/> and contact: Mr. Heng Kackada, Bsc CEng, MSc Transport Infra, Secretary of Cambodia National Community of Transport Practitioners (CNCTP), E-mail: CNCTP_Secretary@online.com.kh or Mr. Than Vuth, Office Coordinator, NRDP – IRAP Component, ILO – IRAP/GIS Project, Email: vuthT_ilo@online.com.kh

34 th International Symposium "Actual Tasks on Agricultural Engineering"

Co-sponsored by CIGR, this symposium will be held from **21 to 24 February 2006** in **Opatija, Croatia**. The symposia "Actual Tasks on Agricultural Engineering" have been organised for 33 years now. In recent years they have achieved greater international standing thanks to the co-sponsoring by EurAgEng, CIGR, AAAE and AESEE. The aim of this series of symposia is to present the latest scientific results on all aspects of research, design and development work in the various disciplines of agricultural engineering. The main topics to be covered by this symposium are:

- 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 registration fee of 100 Euros covers the conference proceedings and the farewell banquet. Only papers of authors who pay the registration fee will be published in the conference proceedings. Members of EurAgEng, CIGR, AAAE and AESEE will be given 20% lower fee.

The official languages of the symposium will be English and Croatian.

Instructions for writing a paper are available at the below web site. Instructions can be also sent by fax or e-mail by author's request.

Dates and deadlines:

Submission of full papers: 1 December 2005

Fee payment deadline: 15 December 2005

For further information look up <http://www.agr.hr/aed/index.htm> and contact the Symposium Secretariat: Faculty of Agriculture, Agricultural Engineering Department, Svetosimunska 25, HR-10000 Zagreb, Croatia. Tel.: +385 1 2393819 Fax: +385 1 2393724 E-mail: skosutic@agr.hr

International Symposium on "Water and Land Management for Sustainable Irrigated Agriculture"

This symposium will be held at the Mithat Ozsan Conference Hall of Cukurova University in **Adana, Turkey** from **4 to 8 April 2006**. Organised by Cukurova University and co-sponsored by CIGR along with CIHEAM/Mediterranean Agronomic Institute of Bari and Kahramanmaras University, the Turkish Scientific Research Council, the Turkish Society of Agricultural Engineers and RIHN (Research Institute for Humanity and Nature, Kyoto), the symposium will be dedicated to the memory of Prof. Osman Tekinel (1936-2004), a pioneer of agricultural water management in Turkey and the founder of Cukurova University and Kahramanmaras University.

The language of the symposium will be English. Participants and contributors to the symposium are invited to submit presentations/papers dealing with the following topics:

- Integrated water and land management
- On-farm water and soil management
- Performance evaluation and integrated management of irrigation and drainage systems
- Irrigation efficiency and associated economics
- Irrigation: poverty alleviation and food security improvement
- Demand water management in irrigation sector
- Water valuation in the irrigation sector, cost coverage, tariff system and rate level: opportunities and constraints
- Water scarcity, water harvesting
- Conjunctive use of water to optimize food production
- Virtual water concept and food security
- Policy options for water saving in irrigation
- Management transfer and participatory irrigation and drainage management
- Application of information technology in irrigation and drainage management
- Water quality/salinity management
- Role of irrigation in environmental fate of nutrients (N and P)
- Unconventional water use and environmental impacts
- Impacts of climate change on hydrological regimes and water resources
- Legal and institutional challenges
- Capacity building in water and land management
- Gender issues in water and land management

Abstracts should be limited to 400 words. During the Sessions, there will be oral presentations by invited keynote speakers. The program in its final form will be provided in due time. Poster presentations on all the themes will also be organized. Registration fees are 200 US Dollars (150 Euros) for participants from developed countries, 100 US Dollars (75 Euros) for participants from developing countries, and 50 US Dollars (35 Euros) for young professionals (under 35 years of age).

Important Deadlines

Paper submission: 15 January 2006

For further information please contact the Secretariat: Dr. Attila YAZAR, Cukurova University, Irrigation and Agricultural Structures Department, 01130 Adana, Turkey. Tel.: +90 322 3386515, Fax: +90 322 3386386, E-mail: symp2006@cu.edu.tr

International Conference on "Advances in Agricultural Technologies and Their Economic and Ecological Impacts"

On **8-10 May 2006** (instead of 9-11 May, as originally announced) the Israeli Society of Agricultural Engineers will hold its Annual Meeting and an International Conference in **Tel Aviv, Israel**. Co-sponsored by CIGR, the International Conference will be held in Cooperation with - and in the same location as - the "Agritech 2006" Exhibition.

The topics are:

1. Advanced technologies in field and greenhouse crops and their postharvest processing
 - Precision agriculture
 - Energy savings in greenhouses
 - New sensors for improvement of quality and safety of agricultural products
2. New agricultural technologies for reduction of environmental damage
 - Recycling and purification of irrigation and sewage water
 - Applications of GIS for agricultural and environmental tasks
 - Environment-friendly spray application

You are invited to submit proposals for papers to be presented at the conference. For further information contact Dr. Samuel Gan-mor, President, The Israeli Society of Agricultural Engineers, Institute of Agricultural Engineering ARO, P.O. Box 6, Bet Dagan 50250 ISRAEL. Email: ganmor@agri.gov.il Tel.: +972 3 9683303 or +972 506 220649

<http://www.agritech.org.il/events/event.php?oid=5>

V CIACH: 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 **10 to 12 May 2006**, 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 date:

The conference fees are US \$ 160 and US \$ 50 for students. For further information please contact: "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>

1st International Conference on Monitoring, Simulation, Prevention and Remediation of Dense and Debris Flows

This conference, organised by the Wessex Institute of Technology and co-sponsored by CIGR and EurAgEng, will be held from **7 to 9 June 2006** in **Rhodes, Greece**.

The scientific programme of Debris Flow 2006 will include an opening session, parallel oral sessions, and poster sessions on the following topics:

- Mass wasting and solid transport
- Slope failure and landslides
- Sediment, slurry and granular flows
- Solid transport within a streamflow
- Hyper-concentrated flows
- Debris-flow phenomenology and rheology
- Debris-flow triggering and mobilisation mechanisms
- Debris flow modelling
- Debris flow disaster mitigation (structural and non-structural measures)
- Case studies
- Computer models
- Rock falling problems
- Mechanics of solid-liquid-flows

The language of the conference will be English. As part of the conference a Special Session will be held on "Sediment discharge and hyper-concentrated and debris flows: monitoring, modelling, hazard assessment, design of mitigation measures and case studies".

For further information please look up www.wessex.ac.uk/conferences/2006/debris06/index.html or contact the chairmen of the conference: Lorenzini G., Alma Mater Studiorum-University of Bologna, Italy; Brebbia C.A., Wessex Institute of Technology, Southampton, UK; Emmanouloudis D., Technical Education Institute of Kavala, Greece; or contact the Chairman of the Special Session: Daniele De Wrachien, Department of Agricultural Hydraulics, State University of Milan, Italy, e-mail: daniele.dewrachien@unimi.it

OTHER ACTIVITIES

HYDRO 2005: Policy into Practice

This conference will be held in **Villach, Austria** from **17 to 20 October 2005**.

Topics:

- Policy into practice
- Innovation, best practice and environmental sustainability
- Maximizing the benefits of hydropower

- Longevity of hydro plants

- Learning from experience (successes and failures)

For additional information contact: Hydro 2005, Mrs Margaret Bourke, Aqua~Media International, Westmead House, 123 Westmead Road, Sutton, Surrey SM1 4JH, UK. Fax: + 44 20 8643 8200. Email: hydro2005@hydropower-dams.com <http://www.hydropower-dams.com/>

International Training Workshop on Protected Agriculture

This workshop, sponsored by the Department of International Cooperation of the Chinese Ministry of Science and Technology and organised by Yangling Demonstration Zone of Agricultural High-Tech Industries will be held in **Yangling, Shaanxi Province, China**, from **21 November to 4 December 2005**. Inter alia, participants will be expected to present papers on the following topics:

- The recent development of protected agriculture in the participant's country
- Research and application of new technology of protected agriculture
- Key issues and problems in protected agriculture

For further information, please contact Mr Wang Jucang, Int'l Exchange Center, Yangling Demonstration Zone of Agricultural High-Tech Industries, 1 Xingqiao North Road, Yangling – Shaanxi 712100, China. Tel.: +86 29870 36980 Fax: +86 29 87036061 E-mail: wjc@ylagri.gov.cn

14th European Biomass Conference and Exhibition

Subtitled "Biomass for Energy, Industry and Climate Protection", this event is scheduled to take place from **17 to 21 October 2005** in **Paris, France**.

The following topics will be dealt with:

- Biomass resources
- Research and development of bioenergy conversion technology systems
- Demonstration and market implementation of bioenergy in the heat and electricity sector
- Demonstration and market implementation of bioenergy in the transportation sector
- Application of biomass for energy, industrial products
- Economics and benefits deriving from biomass process technologies, integration and simultaneous production
- International biofuels trade, strategy, policy and climate protection issues
- International co-operation for accelerating the large-scale worldwide deployment of bioenergy
- Biomass in the developing world

For enquiries concerning abstract submission, please contact: ETA - Florence Attn.: Eng. Silvia Vivarelli Tel: +39 055 500 2174 Email: biomass.conf@eta.orence.it

International Seminar on "Biogas Technology for Poverty Reduction and Sustainable Development"

This seminar will be held from **18 to 20 October 2005** at the Beijing International Convention Centre, **Beijing, China**.

Presentations will address:

- Current status of biogas utilization, technologies and scope for enhancing biogas development
- Best practices for integrated household, community and commercial systems
- The potential contribution of biogas to energy supply, gender concerns, and poverty alleviation
- Policy and institutional issues, options and other mechanisms for promoting biogas
- Issues involved in the application of the Clean

Development Mechanism to biogas programmes
The working language will be English. Chinese-English and English-Chinese interpretation facilities will be available. Meeting documents will be available in English or Chinese.

Further inquiries may be addressed to: Director, United Nations Asian and Pacific Centre for Agricultural Engineering and Machinery (APCAEM), A-7/F, China International Science and Technology Convention Center, No.12, Yumin Road, Chaoyang District, Beijing 100029, P.R. China. Phone: +86 10 8225 3581 Fax: +86 10 8225 3584 E-mail: info@unapcaem.org OR: Director, Center for Energy and Environmental Protection Technology Development (CEEPTD), Ministry of Agriculture, 41 Maizidian Street, Chaoyang District, Beijing 100026, China. Tel: +86 10 6592 9416 Fax: +86 10 6592 9549 E-mail: ceeptd@china.com

48th Annual Scientific Conference "Agriculture and the Environment - Present and Perspectives"

This conference will take place on the **20 and 21 October 2005** at the Faculty of Agriculture in **Iasi, Romania**.

The main sections of the symposium are:

- Fundamental research
 - Soil, water and environmental protection
 - Agricultural technologies
 - Economic sciences and humanities
- For further information contact:

Prof. Constantin Leonte, Dean, Faculty of Agriculture - USAMV Iasi, Aleea Mihail Sadoveanu nr.3, Iasi, 700490, Romania. Tel.: ++40 232 275070/144 Fax: ++40 232 219175 Email: cleonte@univagro-iasi.ro or: Assoc. Prof. Daniel Bucur, Scientific Secretary, Faculty of Agriculture - USAMV Iasi, Aleea Mihail Sadoveanu nr.3, Iasi, 700490, Romania. Tel.: ++40 232 275070/105 or ++40 232 274956/105 Fax: ++40 232 260650 mobile: ++40 723 887131 Email: dbucur@univagro-iasi.ro <http://www.univagro-iasi.ro/simpozion/>

Annual Scientific Conference and General Meeting of TSAE

The 2005 Annual Scientific Conference and General Meeting of the Tanzania Society of Agricultural Engineers (TSAE) will be held at the former TANESCO Training Centre, **Morogoro, Tanzania** from **21 to 23 November 2005**. The main theme will be "Agricultural Mechanization and Industrialization in Developing Countries: Addressing the Problems of the Poor". The Annual General Meeting will be held on 23 November 2005.

Topics:

- Agricultural mechanization
- Industrialization
- Information and communications technologies (ICTs)
- Energy saving technologies
- Post harvest technologies
- Job creation, entrepreneurship, income generation
- Education and training
- Environmental issues
- Water supply and sanitation
- Gender issues
- Role of the private sector

- HIV/AIDS.

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 <http://eng.suanet.ac.tz/>

XII PIARC International Winter Road Congress

This Congress will be held in **Torino-Sestriere, Italy** from **27 to 30 March 2006**.

The main subjects will be:

- Strategies, levels of service and standards
- Performance and financing
- Safety and mobility in winter, social aspects
- Environment
- Winter maintenance managements systems
- Snow and ice removal technology

Dates and deadlines:

Early registration: 30 November 2005

Hotel reservation: 30 January 2006

For additional information please look up <http://www.aipcr2006.it/> or contact: International Congress Torino, Via Cervino 60, 10155 Torino, Italy.

2nd International Training Workshop "Towards the Integration of Biosaline Irrigated Agriculture"

This workshop will be held from **18-22 May 2006** at the Desert Research Centre, Matareya, **Cairo, Egypt**, in collaboration with the Centre of Excellence in Water Resources Engineering, Lahore, Pakistan.

Topics:

- Saline water resources management and utilization
- Saline soil reclamation and management
- Plant production under stress conditions
- Saline soil-water-plant relationships
- Animal production in saline environment
- Socio-economy in Biosaline agriculture systems
- Salinity issues and technological advancement

Further information is available from: BioSaline Workshop Secretariate, Dr. Salah A Attia-Ismail or Dr. Samir Abu El Ezz, Desert Research Centre (DRC), P.O. Box 11753, Matareya, Cairo, Egypt, Tel.: +20106046244 Fax: +2026357858 E-mail: saai54@hotmail.com; samirabouelezz@hotmail.com <http://www.drc-egypt.com/> OR BioSaline Workshop Co-Secretariate, Dr. Sajid Mahmood (Azeemi), Coordinator, Centre of Excellence in Water Resources Engineering (CEWRE-UET), Lahore, Pakistan. Tel.: +923006607290 Fax: +92426822024 E-mail: drsajid_pk@yahoo.com; drsajid_pk@hotmail.com <http://www.cewre.edu.pk>

ISTRO-17th Triennial Conference on "Sustainability – Its Impact on Soil Management and Environment"

This conference will be held from **28 August to 3 September 2006** at the Christian Albrecht University of **Kiel, Germany**. The conference will comprise 5 days of sessions, including working groups, tours and displays. The official conference language will be English. The

conference registration fee will be around 300 EUR, with discounts for ISTRO members and students. The conference will deal with the following topics:

- Soil dynamics and traction
- Traffic, tillage, and soil deformation
- Conservation farming and forestry landuse systems and environmental quality
- Soil biological quality and health
- Soil amendments
- Precision agriculture; mapping of soil properties and soil functions in agriculture and forestry
- Soil erosion and its control
- Economical aspects
- Soil management induced global change effects
- Sustainable landscape management
- Soil reclamation

Dates and deadlines:

full papers due: 15 January 2006

end of early-bird registration: 15 January 2006

final announcement: 30 March 2006

Abstracts should be submitted as a Microsoft Word file sent as an attachment via email to b.vogt@soils.uni-kiel.de. Please use your surname and first name to name the document. For further information contact: Istro 2006 Conference Secretariat, Olhausenstr. 40, D-24118 Kiel, Germany. Tel.: +49 431 8802573, Fax: +49 431 8802940 Email: b.vogt@soils.uni-kiel.de or look up <http://www.soils.uni-kiel.de/istro.htm>

3rd ISMAB

The 3rd International Symposium on Machinery and Mechatronics for Agricultural and Biosystems Engineering (ISMAB) will be held at COEX in **Seoul, Korea** on **23-25 November 2006**. This time, the biennial symposium is organized by the Korean Society for Agricultural Machinery and co-sponsored by the Japanese Society of Agricultural Machinery and the Chinese Institute of Agricultural Machinery.

Papers for either oral or poster presentations are called for the following subjects:

- Agricultural informations
- Bioenergy and alternative energy
- Biological engineering
- Biomechatronics
- Farm power and machinery
- Food engineering
- Postharvest technology
- Precision farming
- Sensor technology
- Structure and environmental technology
- Robotics in agriculture
- Others

The official language of the 3rd ISMAB will be English.

Deadlines:

Submission of abstract: 28 February 2006

Submission of Paper: 30 September 2006

Registration: 30 September 2006

For further information look up <http://www.ksam76.or.kr/> or contact: Prof. Chang Hyun Choi, General Secretary, Major in Biomechatronic Eng., Faculty of Life Science and Technology, Sungkyunkwan University, Suwon, 440-746 Korea. E-mail: chchoi@skku.ac.kr

PUBLICATIONS

CIGR E-Journal: Agricultural Engineering International <http://cigr-ejournal.tamu.edu/> ISSN 1682-1130

ASAE Distinguished Lecture Series No. 29: Continuously Variable Tractor Transmissions

Presented at ASAE Agricultural Equipment Technology Conference (AETC), Louisville, KY/USA, 14-16 February 2005, by Karl Th. Renius and Rainer Resch, TU Munich, Germany.

The paper starts with a longer analysis of the colorful history of CVT, discussing some interesting early ideas and typical problems. Hydrostatic CVTs are in the foreground for the vehicle drive of tractor transmission systems. Market demands are addressed including speeds, efficiencies, typical control strategies, expected load spectra and others. Load spectra, for example, must consider the high loads due to the popular automatic full power control. Physical CVT principles are described in a survey, their applications include the automobile sector and others.

Regarding long-term tendencies, the importance of electrical drives is expected to increase. There are several research activities for electrically driven mobile machinery and there are chances for improved components and reduced costs due to the trends in the car industry: the first mass-produced mechanical-electrical power split drive of a vehicle worldwide is offered with the Japanese Toyota "Prius" car. Its transmission structure is described in the Lecture because it stimulates or accelerates many other projects and may also increase the potential of electrical components for tractor CVTs.

The brochure with 37 pages, 42 figures, 5 tables and 92

references can be ordered directly from Sandy Rutter at rutter@asae.org.

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

International Commission of Agricultural Engineering: Framework of Organization, State and Perspectives

This publication, in Russian, gives an overview of the organisational structure of CIGR and it lists useful addresses of people active in CIGR. Published by Rosinformagrotex, Moscow, 2004, 140pp. ISBN: 5-94600-011-X

Yearbook Agricultural Engineering 17 (2005)

Volume 17 (2005) of the *Jahrbuch Agrartechnik / Yearbook Agricultural Engineering*, edited by F. Meier and H.-H. Harms, is now available. Contributions appear in English as well as German. The publication is available for 50.50 Euros from the publisher: Landwirtschaftsverlag Münster-Hiltrup, Germany. Tel.: +49 (0) 2501 80 13 00, Fax: +49 (0) 2501 80 13 51, E-Mail: Service@lv-h.de. Purchase order number 75065. ISBN 3-7843-3345-10

 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

IMPORTANT: The Deadline for CIGR Newsletter N° 73 is 15 December 2005

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