



International Commission of Agricultural and Biosystems Engineering

CIGR

Newsletter Quarterly

Newsletter No. 86
June 2009

Since 1930
79 Years of CIGR

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Commission Internationale du Génie Rural (CIGR)

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

1. CIGR NEWS

Message from the president Agriculture Exposed to Climate Change

In the press we are regularly reminded about climate change, especially by the many reports on regions where climate change is significant impact on agricultural production potential. There have been many examples of long term climate change in the past, for instance, the various different ice ages and the rapid climate change that resulted from meteor fallout. Climate change is not a new phenomenon. The reason for today's growing concern about the climate is that today it is changing rapidly without any obvious link to the registered changes of the solar system. Most reports deal with the negative impact of climate change on agricultural production -specifically how it reduces potential yields. However, there are also regions where increased temperature will lead to improved production potential.



President Soren Pedersen

It is generally accepted that the primary reason for climate change is the increased level of human activity over the last century, where an enormous amount of fossil energy has been brought up from under the ground and released, in processes such as heating, industrial activity and transport. This release led to a big increase in the carbon dioxide that was flowing around a previously relatively steady atmospheric carbon dioxide circuit. Another often-cited contributor to climate change is the reduction that has occurred in the area of rainforests, due to logging.

When I personally made my first measurements of air quality in animal houses in the seventies, the outdoor concentration of carbon dioxide (CO₂) was often set to 330 ppm. This later shifted to 350 ppm and today the concentration has increased to nearly 400 ppm. As CO₂ is a greenhouse gas, it contributes to an increased global temperature. Over the last 150 years we have reliable records of temperature measurements, which show that the global temperature has increased by about 0.6°C during this period. One of the dramatic effects of increased global temperature is the melting of the ice caps in Greenland and the glacial mountain peaks, which raises water levels in the oceans. There are many prognoses for the increase in the expected water level increase that is expected to occur over the next century, which in a worst case scenario could rise one metre or more. Despite the fact that most of the fossil energy has been consumed within the last century, fortunately, the increase in water level up until now is relatively small—between 0.1 and 0.2 m. The big concern today is that, at present, it is increasing by about 3 mm per year. An increase in the water level of the oceans by one metre will create problems in many parts of the world—in residential areas and in areas that are focussed on agricultural production. Many islands will be flooded, and the deltas of the Nile in Egypt, the Ganges in India and the Mekong in Vietnam, will be damaged for food production. Other examples of possible effects include the increased number of hurricanes, which are currently ravaging Central America at

present, and the risk of very low rainfall. The Sahel area south of the Sahara in Africa will become dry, forcing people to move to other regions. Altogether, around 200 million people are expected to be forced to become refugees by 2050.

Worldwide, agricultural production will certainly be affected in the years to come, and many ongoing research projects are already dealing with problems related to climate change. My own experience from research projects, over four decades in the animal housing sector, shows that in the sixties and seventies we were very concerned with how to increase the production per animal, by improving their health and housing conditions. Later, in the eighties and nineties, the focus of the research projects shifted to dealing with the impact of animal production on the outdoor environment. Today, we have information on the ammonia emissions (NH₃) that are produced in animal facilities, the greenhouse gas emissions of CO₂ that are produced by animal breath, the methane (CH₄) emissions that result from ruminants and the nitrous oxide (N₂O) emissions that are produced in slurry stores and field application. Further information and considerations will surely be added in the years to come. The next step must be the identification of good solutions to reduce the agricultural impact on the environment. At this point, it will be relevant to draw attention to the fact that the agricultural sector is only responsible for a minor part of total greenhouse gas emissions. In the report 'Europe's environment—the fourth assessment', it is made clear that the agricultural sector in Europe (EU-25) is only responsible for about 9% of total greenhouse gas emissions. The biggest contributor is the industrial sector, which accounts for 30%—or three times as much as the agricultural sector. In addition, the transport sector (19%), the household sector (16%) and finally, the manufacturing and construction sector (13%), all contribute more than the agricultural sector.

There is significant carbon dioxide (CO₂) production that is related to animal breath, due to the digestion of feed; however, in respect to greenhouse gas emission it is considered as neutral, as the CO₂ from breath is recollected by plants, stored as carbon compounds in plants, eaten by the animals and again released as CO₂. The biggest agricultural contributor to greenhouse gas emission is the methane production of ruminants. One dairy cow produces about 135 kg of methane per year. The global warming potential (GWP) of CH₄ is 21 times higher than for CO₂, which therefore corresponds to 2.8 tons CO₂ per cow, per year. Due to this figure, it is hoped there will be a significant focus on addressing the issue of whether methane production can be reduced. Some vegetarians may simply propose that we stop the production of beef cattle and convert to plant production, because the efficiency of converting plant products to meat products is very low and will help reduce greenhouse gas emissions. However, I assume that most of us prefer to eat meat and therefore, we need to find solutions to manage methane production. In Denmark, it has been seriously discussed whether farmers ought to pay a 'methane tax' on

their cattle production; and recently, comprehensive Danish research projects have been initiated on how to reduce the methane production from ruminants. It is stated that 37% of the anthropogenic-produced CH₄ in Denmark is produced as burp and intestinal gases from cattle. It is important to stress that the goal of these projects will not be to reduce the animal production, but to reduce the CH₄ emission by intelligent feeding of the animals.

Another significant greenhouse gas that is produced by agriculture, is nitrous oxide (N₂O), with a GWP of 310, which is primarily emitted from slurry stores and by field application; 7 kg N₂O per year is emitted per dairy cow, corresponding to 2.2 tons of CO₂. Therefore, finding an efficient manner of treating slurry is very important. In addition, methods of slurry treatment in biogas plants is developing at a fast rate, and this will also contribute to reduced greenhouse gas emissions.

One of the most important documents in relation to greenhouse gas emissions is the 'Kyoto Protocol on Climate Change, 1997'; this is a chief instrument for tackling climate change. The agreement implies that the global emission of greenhouse gases must be reduced by 5% before 2012. In

Europe, emissions must be reduced by 8%. The Kyoto Protocol is considered to be a continuation of the 'United Nations Framework Convention on Climate Change (UNFCCC)'. The European Commission made the decision to join on 14 December 2006. This was approved in the council decision 2002/358/EC of 25 April 2002. The development of climate change is followed closely worldwide by the IPCC (Intergovernmental Panel on Climate Changes), and in Europe by the EEA (European Environment Agency). The next big event that has been planned is the 'United Nations Climate Change Conference', which will be held in Copenhagen in Autumn 2009.

There is no doubt that, worldwide, we will see many research projects being developed that will focus on how to increase the world's ability to produce food for an increasing population while at the same time reducing the levels of ammonia emissions that are released into the local environment, and the level of greenhouse gases that are released into the atmosphere.

*Prof. Søren Pedersen
President of CIGR*

CIGR World Congresses and Conferences, 2010–2014

The XVII CIGR World Congress 2010

Québec, Canada, 13–17 June 2010

<http://www.bioeng.ca/cigr2010/>

The International Commission of Agricultural Engineering (www.cigr.org) will hold its XVII World Congress in Québec City, Canada, 13–17 June 2010. The Congress is hosted by the Canadian Society for Bioengineering—La Société Canadienne de génie Agroalimentaire et de Bioingénierie (CSBE/SCGAB) (www.bioeng.ca).

This year's theme is '**Sustainable Biosystems through Engineering**'. The local organizing committee is planning several exciting events that will make your stay in Québec City a truly memorable one. Three groups have already announced that they will meet jointly with CIGR 2010: the 9th International Drainage Symposium of the American Society of Agricultural and Biological Engineers, the Annual Meeting of the American Ecological Engineering Society and the World Congress on Computers in Agriculture. As host Society, CSBE/ SCGAB will hold its 52nd Annual Conference.

Québec is one of the oldest cities in North America; it celebrated its 400th anniversary in 2008. Eastern Canada offers excellent opportunities for technical, historical and natural science exploration. Plan to share your most recent discoveries in the areas of agricultural, food and biosystems engineering with colleagues from around the world. Mark the dates (13–17 June 2010) so you can participate in the progress and development of trends in your area of work.

General program (preliminary)

Sunday, 13 June

Board and technical section meetings
Registration
Evening welcome reception

Monday, 14 June

Congress Opening Ceremony

Technical oral and poster sessions

Evening social activity

Tuesday, 15 June

Technical oral and poster sessions

Annual business meeting of CSBE/SCGAB

Joint CIGR and CSBE/SCGAB Awards Banquet

Wednesday, 16 June

Technical oral and poster sessions

Closing ceremonies

Thursday and Friday, 17 and 18 June

Optional technical visits:

- (1) Food and process engineering activities
- (2) Engineering for crop and animal production
- (3) James Bay hydroelectric dam

The complete program will be available in Spring 2010

Important dates:

Summer 2009: Call for paper

20 November 2009: Abstract submission

February 2010: full papers

For information contact: Dr. Philippe Savoie

Chair of the Scientific Program Committee of CIGR 2010

Agriculture and Agri-Food Canada, 2560 Hochelaga,

Boulevard, Québec, QC, Canada, G1V 2J3

philippe.savoie@agr.gc.ca

The 3rd CIGR International Conference 2012, Valencia, Spain, 8–12 July 2012

The 3rd CIGR International Conference 2012 will be held in Valencia, Spain, during 8–12 July 2012, in collaboration with the European Agricultural Engineering Society (EurAgEng) as a joint Conference, namely, CIGR-EurAgEng, on agricultural engineering. It will be hosted by the Spanish Society of Agricultural Engineering. The conference will take place at the Valencia Conference

Center, which is considered to be one of the finest buildings of Valencia and is an excellent auditorium designed by the architect Lord Norman Forster.

The conference theme will be agricultural engineering for a better and healthy life, including all technologies related to the production of safe foods and environmental management. The scientific programme will include plenary sessions, parallel lectures, and poster sessions on topics that cover all the scientific activities related to agricultural engineering.

Organizing Committee:

- Chairman: Dr. Florentino JUSTE. Instituto Valenciano de Investigaciones Agrarias
 - Dr. Luis VAL. Universidad Politécnica de Valencia. (Polytechnic University of Valencia)
 - Dr. Enrique MOLTÓ. Instituto Valenciano de Investigaciones Agrarias
 - Dr. Carlos GRACIA. Universidad Politécnica de Valencia. (Polytechnic University of Valencia)
- Please visit the following webpage.
<http://www.ivia.es/AgEng2012/CIGR/Valencia.pdf>

**The XVIII CIGR World Congress 2014
 Beijing, China, Autumn 2014,
 Agricultural Engineering
 — Upgrading Our Life Quality**

The XVIII CIGR World Congress will be held in Beijing in 2014. The preparation of the big event is going on well and includes:

1. The sponsors of the XVIII CIGR World Congress 2014: International Commission of Agricultural Engineering (CIGR), Chinese Society for Agricultural Machinery, Chinese Society of Agricultural Engineering
2. The organizers of the XVIII CIGR World Congress 2014: Chinese Academy of Agricultural Mechanization Sciences (CAAMS), Chinese Academy of Agricultural Engineering, China Agricultural University
3. The time of the XVIII CIGR World Congress 2014 will be in the autumn of 2014—the golden season in Beijing

4. The central theme of the XVIII CIGR World Congress 2014 is ‘Agricultural Engineering – Upgrading Our Life Quality’

5. The scientific programme includes plenary sessions, parallel oral and poster sessions, special sessions, exhibition and field trips.

6. The main topics will cover:

- (1) Land and Water System Engineering
- (2) Machinery Engineering for Plant Production
- (3) Bioprocessing System Engineering
- (4) Information Systems and Precision Farming
- (5) Rural Electricity and Renewable Energy
- (6) Farming Buildings and Livestock Environmental Engineering
- (7) Management, Ergonomics and System Engineering

We will distribute the first announcement of call for papers in 2010 at the XVII CIGR World Congress 2010, Quebec, Canada.

*Prof. Shujun Li
 Executive Board Member of CIGR*

Next CIGR Meetings

The next Presidium, Executive Board and the Technical Board Meetings of CIGR will take place in CIGR Section VI, 5th International Technical Symposium on Food Processing, Monitoring Technology in Bioprocesses and Food Quality Management from 31 August to 2 September, 2009 at Potsdam, Germany.

<http://www.atb-potsdam.de/CIGRPostharvest2009>

Date	Time	Meeting
Sunday, 30 August	9:00–14:00	CIGR Presidium meeting
	15:00–17:00	Executive Board meeting
Monday 31 August	18:00–21:00	Technical Board meeting

2. NEWS FROM REGIONAL AND NATIONAL SOCIETIES

JAICABE

**(The Japan Association of International
 Commission of Agricultural and
 Biosystems Engineering)**

—at a glance—

(1) About JAICABE

JAICABE, which was founded in 1984, is a federation of societies of agricultural engineers, that represent the engineering and scientific societies in the various specific areas that are accredited by the Science Council of Japan. The purpose of the federation is to promote the science and technology of agricultural engineering in the broadest sense—in all agricultural and food systems, in all sub-sectors of engineering, physical, biological, social or economic and in both theory and application, including development.

JAICABE is also closely related to CIGR (International Commission of Agricultural Engineering). As CIGR is a global organization, JAICABE may be regarded as the Japanese branch of it.

Therefore, JAICABE activities are relevant not only to those societies that participate in domestic events but also to everyone who is involved in CIGR-sponsored international events, agricultural engineering research, or development and education.

There are eleven societies that are involved in the promotion and development of the area of agricultural engineering. They predominantly implement this through events such as joint technical symposiums.

(2) How JAICABE can be reached

JAICABE can be reached through your local society, which will become active in international events sponsored by CIGR.

For address details, or any further additional information, please contact the JAICABE Secretariat, details provided below.

(3) How the technical symposium of JAICABE is organized

JAICABE organizes the joint technical symposium, which takes place the day of the Annual General Assembly and which is attended by ten participating societies. The technical symposium is conducted in the manner of a council meeting; that is, its function is to coordinate and take responsibility for the technical meetings, and to promote the relevant sub-areas of agricultural engineering.

(4) What is JAICABE? What are its aims?

The primary objective of JAICABE is to serve all those organizations that are concerned with the theory and application of agricultural engineering, wherever they are situated. To further this aim, it maintains working relationships with other organizations—national and international—especially with other non-governmental professional federations.

JAICABE provides a framework for collaboration between those organizations that are working in agricultural engineering, and it promotes the free exchange of ideas and expertise within its professional fields.

JAICABE never involves itself in any kind of political activity, nor does it take a position on any such issue. JAICABE does not take part in any commercial activities that are explicitly constructed for financial gain.

JAICABE pursues its purpose by organizing the technical symposium, by coordinating the various organizations involved with agricultural engineering (as can be seen in its recent work with JABEE (Japanese Accreditation Board for Engineering Education)), and with any other means that are consistent with its constitution and which will enhance the interchange and circulation of information on agricultural engineering activities.

In particular, JAICABE organized ‘The XIV Memorial CIGR World Congress 2000’, which was sponsored by the Science Council of Japan and CIGR, and is currently in the process of organizing ‘The CIGR International Symposium on Sustainable Bio-production—Water, Energy, and Food’, which will be sponsored by the Science Council of Japan and CIGR. Information on all of their activities appears or will appear in the near future on the JAICABE homepage (HP): <http://wwwsoc.nii.ac.jp/jaicae/>, and in the CIGR Newsletter.

JAICABE cooperates closely with other organizations such as SCJ (the Science Council of Japan) and AJASS (the Association of Japanese Agricultural Scientific Societies).

(5) History of JAICABE

JAICABE was established in 1984, by seven organizations that were related to agricultural engineering, namely the Japanese Society of Irrigation, Drainage, and Reclamation Engineering (JSIDRE), the Japanese Society of Agricultural Machinery (JSAM), the Society of Agricultural Meteorology of Japan (SAMJ), the Japanese Association of Agricultural Electrification (JAAE), the Japanese Society of Environment Control in Biology (JSECB), the Japanese Society of Farm Work Research (JSFWR), and the Society of Agricultural Structures of Japan (SASJ). Prof. K. Shirai was elected as the first president of JAICABE.

In 1990, the Association of Rural Planning (ARP) was accepted into JAICABE.

In 1996, the Japanese Society of Closed Environmental Life

Support Systems (CELSS) and the Japanese Society of High Technology in Agriculture (SHITA) were invited to join JAICABE in preparation for the CIGR World Congress 2000 which took place in Japan.

In 1997, the Japanese Society of Agricultural Informatics (JSAI) was also accepted into JAICABE.

The name of the Japanese Society of Closed Environmental Life Support Systems (CELSS) was changed to the Association of Eco-Engineering (SEE) in September 2001.

The Japanese Society of Environment Control in Biology (JSECB) and the Japanese Society of High Technology in Agriculture (SHITA) united to form the Japanese Society of Agricultural, Biological, and Environmental Engineers and Scientists (JASBEES) on January 1, 2007.

The name of the Japanese Society of Irrigation, Drainage, and Reclamation Engineering (JSIDRE) was changed to the Japanese Society of Irrigation, Drainage, and Rural Engineering (JSIDRE) on June 29, 2007.

At present (in 2009), JAICABE is a federation of ten societies that are related to agricultural engineering in Japan; its members consist of over 17,250 engineers.

JAICABE has ten Presidents since 1984.

□: Prof. Kiyotsune Shirai (JSIDRE): 1984–1986

□: Prof. Seiji Sudo (JSIDRE): 1986–1988

□: Prof. Mutsumu Kadoya (JSIDRE): 1988–1990

□: Prof. Syoichiro Nakagawa (JSIDRE): 1990–1992

□: Prof. Fumihiko Sano (JSAM): 1992–1994

□: Prof. Toshio Tabuchi (JSIDRE): 1994–1997

□: Prof. Yasushi Hashimoto (SHITA & JSAI): 1997–2000

□: Prof. Osamu Kitani (JSAM): 2000–2003

□: Prof. Masashi Nakano (JSIDRE): 2003–2006

□: Prof. Taichi Maki (SAMJ): 2006–2009

The 10th President Prof. Taichi Maki (SAMJ) was elected by the General Assembly in 2006 for the 2006–2009 term of office.

The JAICABE secretariat has a rotating location. By invitation of the JASBEES, it has been formally situated at Kyushu University (Prof. Jiro Chikushi) in the office of JASBEES, but is actually located at Osaka Prefecture University (Prof. Haruhiko Murase and Dr. Hirokazu Fukuda).

JAICABE Secretariat:

Prof. Haruhiko Murase, Osaka Prefecture University,

Gakuen 1-1, Sakai, Osaka 599-8531, Japan

TEL: 81+72-254-9429 FAX: 81+72-254-9918

(6) JAICABE Organization

Officers and Officials

Honorary Advisors; Prof. Emeritus Dr. Fumihiko Sano, Prof. Emeritus, Dr. Syoichiro Nakagawa; Prof. Emeritus Dr. Kiyotsune Shirai; former Prof. of Univ. of Tokyo, Dr. Toshio Tabuchi; Prof. Emeritus Dr. Yasushi Hashimoto
Council Members: 2006–2009

(Several members were changed in May, 2008)

President: Prof. Taichi Maki: maki1944@agr.u-ryukyu.ac.jp

Vice-president: Prof. Haruhiko Murase:

hmurase@bioinfo.osakafu-u.ac.jp

(Secretary General: Prof. Haruhiko Murase (2008–2009))

Vice-president: Prof. Masaharu Komamura:

koma@nodai.ac.jp

Secretary General: Dr. Masami Iwasaki (2006–2008)

Director:

Prof. Takaaki Maekawa: biopro@sakura.cc.tsukuba.ac.jp

Prof. Kenji Omasa: aomasa@mail.ecc.u-tokyo.ac.jp

Prof. Yasushi Hashimoto: yh840@peach.ocn.ne.jp (2006, 2007–2009)

Assoc. Prof. Satoshi Yonekawa: yonekawa@fm.a.u-tokyo.ac.jp

Prof. Akira Sasao: sasao@cc.tuat.ac.jp

Prof. Takemi Machida: machidus@yahoo.co.jp

Prof. Noboru Noguchi: noguchi@bpe.agr.hokudai.ac.jp (2008–2009)

Treasurer:

Dr. Shoji Hanagata (2006–2008)

Dr. Osamu Matsuoka: matsuoka.osamu@tepeco.co.jp (2008–2009)

Prof. Yutaro Senga: senga@cc.tuat.ac.jp

Secretary:

Mr. Takeshi Kikutsuji (2006–2008)

Dr. Hirokazu Fukuda: fukuda@bioinfo.osakafu-u.ac.jp (2008–2009)

(7) Fellowship

The first fellowships were awarded to the following 19 people in 2000,: Kiyotsune Shirai, Seiji Sudo, Mutsumu Kadoya, Syoichiro Nakagawa, Fumihiko Sano, Toshio Tabuchi, Hitosshi Chaya, Sichi Kubo, Hidehiko Shiraishi, Kanji Wada, Tuguo Okamoto, Osamu Kitani, Toyoki Kozai, Kazuhiro Serata, Ryota Nakamura, Yasushi Hashimoto, Takaaki Maekawa, Taichi Maki, Rokuro Yasutomi

The total numbers of fellows in 2009 will be 194.

Prof. Yasushi HASHIMOTO

Fellow of JAICABE

Prof. Taichi MAKI

President of JAICABE

International Conference on Energy Efficiency and Agricultural Engineering, 1–3 October, 2009, Rouse, Bulgaria

www.ru.acad.bg/baer/EE&AE-2009/conference.htm

Organised By:

Bulgarian National Society of Agricultural Engineers: 'Engineering and Research for Agriculture'

With the Support Of:

-International Commission of Agricultural and Biosystems Engineering - CIGR (Section IV)

-EurAgEng (Special Interest Group 23)

-Association of Agricultural Engineering in South-Eastern Europe (AESEE)

-Union of Scientists - Rouse

-Federation of the Scientific Technical Unions - Rouse

-Angel Kanchev University of Rouse

Invitation

On behalf of the Organising Committee, we would like to invite you to attend the Energy Efficiency and Agricultural Engineering Conference organised by the Bulgarian National Society of Agricultural Engineers (ERA) in cooperation with the 4th section of CIGR, EurAgEng (Special Interest Group 23), the Union of Scientists, the Association of Agricultural Engineering in South-Eastern Europe (AESEE), the Federation of the Scientific Technical Unions and Angel Kanchev University of Rouse. We look forward to meet you in Rouse.

Conference Goals

The main objectives of the Conference are (1) to promote the

exchange of research results, scientific ideas and practical implementation concerning Energy Efficiency and Education in Agriculture

and (2) to assist personal connections between scientists and specialists, particularly those from South-Eastern Europe and the developing countries. Students and young scientists are encouraged to participate in the Conference. **Main Topics of the Conference**

- Agricultural Waste Management
- Computer Technologies in Agriculture
- Electronics in Agriculture
- Energy and Environment in Agriculture
- Food Engineering and Biotechnology
- Higher Education and Training
- Information Systems and Precision Farming
- Land, Water and Agro-Processing Engineering
- Management and Ergonomics
- Plant and Animal Production Engineering
- Power and Machinery
- Renewable Energy Sources
- Other Allied Topics

Language

The official language of the conference will be English. All papers should be submitted in English.

Location

The Conference venue will be the Angel Kanchev University of Rouse, 330 kilometers northeast of the Bulgarian capital, Sofia and 70 kilometers south of the Romanian capital, Bucharest. The transport between Rouse and Sofia is reliable and fast (approx. 3.5 hours by bus). Timetables can be found at the Conference Secretariat.

Participation Fee

The participation fee for the conference will be €100, if received before 31 August 2009. Students and young scientists will pay €50. After the deadline, the fee will increase by €30. It ensures a copy of the Conference Book and admission to the Sessions and the Welcome Party.

Accommodations

The Organising Committee will book rooms at the Riga Hotel (€50–100) for conference participants. More information is available at the hotel's Web site:

http://www.hotel-riga.com/html_source/engindex.htm.

Alternatively, a room at the university's hostel will cost €20.

Other Possibilities

The fee for a one-day conducted tour will be approximately €100, with lunch an additional €25. Advertisements may be published in the Conference Book; the price is €100 per page.

For detailed information, please contact the Conference Secretariat.

Key Dates

Full paper submission: 31 August 2009

Fee payment: 31 August 2009

Address for Correspondence:

Conference Secretariat of ERA

8, Studentska street, Angel Kanchev University of Rouse 7017 Rouse, Bulgaria

E-mail: vivanova@ru.acad.bg

Phone: +359 82 888 650

Fax: +359 82 888 650

Conference Web site:

<http://www.ru.acad.bg/baer/EE&AE-2009/conference.htm>

Location**Direct Payment**

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Name: SDRUJENIE S NESTOPANSKA CEL IIZZ

Address: 8, STUDENTSKA STR.

Organising Committee

President: Nicolay Mihailov

Members:

Andonov K., Borisov B., Kangalov P., Smrikarov A., Stanchev D., Stoyanov V., Tzonev R., Vezirov C., Vichev N.

International Scientific Committee

Beke J., Hungary; De Wrachien D., Italy; Diprose M., UK; Djevic M., Serbia; Gemtos T., Greece; Kosutic S., Croatia; Martinov M., Serbia; Nedeff V., Romania; Papadakis G., Greece; Pereira L., Portugal; Popescu S., Romania; Rose P., UK; Schulze L., Germany; Sindir K., Turkey; Skalic S., Bosnia and Herzegovina; Vaideliene A., Lithuania

*Assoc. Prof. Nicolay Mihailov,
President of Organizing Committee*

*Assoc. Prof. Hristo Beloov,
Rector of Angel Kanchev
University of Rousse*

IAEC 2009**“Role of Agricultural Engineering in
Advent of Changing Global Landscape”**

7–10 December, 2009, Bangkok, Thailand

www.aaae.ait.ac.th/IAEC/IAEC2009/index.htm

On behalf of the AAAE Executive Council, it is with great pleasure that I invite you to the 10th IAEC, held 7–10 December 2009 at the Asian Institute of Technology (AIT) in Bangkok, Thailand. The theme of this year’s conference is ‘The Role of Agricultural Engineering in the Advent of a Changing Global Landscape’.

The Asian Association for Agricultural Engineering (AAAE) is an international forum comprising committed professionals from the field of agricultural engineering. At its bi-annual event, the AAAE offers a formal setting in which AE professionals may interact with fellow engineers/scientists/researchers from the region and from

around the world. Moreover, the conference provides many opportunities for networking, scientific matchmaking and mutual learning.

Program Outline:

- Day 1 (Monday: 7 December 2009): Opening ceremony, keynote lectures and AAAE general body assembly.
- Day 2 (Tuesday: 8 December 2009): Presentation of technical papers conducted in parallel sessions and reception dinner.
- Day 3 (Wednesday: 9 December 2009): Presentation of technical papers conducted in parallel sessions.
- Day 4 (Thursday: 10 December 2009): Technical tour (optional).

Subject Areas:

Papers are invited in any of the following areas:

- Agricultural engineering research
- Agricultural engineering education
- Agricultural systems
- Agricultural waste management
- Agro-industry and agri-business management
- Electronics in agriculture
- Energy in agriculture
- Ergonomics (human factors engineering)
- Post-harvest technology
- Food engineering and biotechnology
- Power and machinery
- Soil and water engineering
- Irrigation and drainage engineering
- Structures and environment
- Protected cultivation
- Terramechanics

New materials and other emerging technologies including but not limited to the following: Advanced machine systems including sensors and controls; Mechatronics; Precision farming and variable rate technology; GPS and GIS technologies; bio-machine systems; Ecological engineering; Wetland designs for water quality-control systems; Food safety and bio-process engineering; Food traceability and safety; Livestock building design for animal welfare and health; Watershed design for water quality protection; and Educational programs in biological natural resource engineering.

Important dates:

Notification of abstract acceptance : June 2009

Full paper submission : 1 September 2009

Early registration : 1 October 2009

Conference dates: 7–10 December 2009

Conference Venue:

The conference will be held in the Conference Center at the Asian Institute of Technology (AIT), Bangkok, Thailand. AIT (<http://www.ait.ac.th>) is an autonomous international institution empowered to award graduate degrees and diplomas.

Official Language: English

Currency:

The monetary unit in Thailand is Thai Baht (THB) and it is currently pegged at THB 36.50 to US\$1.00. Major credit cards as well as Travelers Cheques in the principal currencies are accepted.

*Dr. Peeyush Soni
Secretary-General, AAAE
Assistant Editor, IAEE*

3. NEWS FROM SECTIONS AND WORKING GROUPS

CIGR Working Group Animal Housing in Hot Climates 23–25 October, 2009, Chongqing, China

Currently, for thermal environment control of livestock production operation, there is a lack of information about animal heat and moisture production in regions with hot climates. This is because most of the available research hails from temperate regions worldwide. Consequently, an important working topic/objective for the group is to establish an essential database, to improve the models for estimating animal heat production, and to facilitate the design and control for thermal environment of animal housing in hot climates.

At a group meeting in Iguassu, Brazil, it was decided that the 3rd workshop will be held in Chongqing, China in 2009. The workshop dates were recently finalised as 23–25 October 2009, in conjunction with the 4th Forum on the Animal Husbandry Science and Technology of China, and the 6th Fair of New Projects,

Technology and Products of Animal Husbandry Science and Technology in China. The workshop will provide an opportunity for research professionals and industry leaders, as well as producers in the fields of Animal Production Technology, Animal Physiology and Animal Housing in Hot Climate Conditions, to discuss new knowledge and technologies. In the interest of enhancing cooperation, making progress and establishing future perspectives, participants from universities, public institutions and private institutions will share their experiences, visions and expectations.

Topics:

Animal Housing in Hot Climates, CIGR Working Group

- Glossary definitions
- Heat waves and the impacts
- Heat and moisture production of animals in hot climates
- Animal behaviour and animal welfare in hot climates
- New production systems for animals in hot climates

Workshop program:

23 October 2009 (Friday)

Onsite Registration

24 October 2009 (Saturday)

Morning: Opening Ceremony of the Joint Conference

Keynote speeches of the Joint Conference

Afternoon: Technical Session of CIGR Section II

25 October 2009 (Sunday)

Morning: Technical Session of CIGR Section II

Afternoon: Forum Discussion of CIGR Section II

Technical Tour

Note: The visit of the Fair will be arranged during the

conference. The post-conference events are optional, including cruises to the spectacular Three Gorges Dam of the Yangtze River and excursions to the remarkable Song Dynasty Buddhist stone carvings at Dazu.

Venue:

Rongchang County, Chongqing, China

Important dates:

31 August, 2009: Deadline of full paper submission

Travel and Housing:

The Chongqing Airport code is CKG. The flights from the domestic cities to Chongqing are very convenient. For example, 18 and 15 flights can be chosen every day from Beijing International Airport (PEK) and Shanghai Pudong Airport (PVG), respectively. All CIGR workshop participants will be picked up at the Chongqing Airport.

A four/five-star hotel in Rongchang County will serve as the headquarters hotel for the conference, and the accommodations for CIGR workshop participants will be free.

Registration:

Onsite registration is preferred. Registration fee: US \$300

Sponsored by:

CIGR Section II

Hosted by:

- China Agricultural University, China
- Chinese Society of Agricultural Engineering, China
- Chongqing Academy of Animal Sciences, China
- Chongqing Government, China

Planning Committee:

- Prof. Daniel Berckmans, *Workshop Chair*, Catholic University of Leuven, Belgium
- Prof. Mohamed Hatem, *Workshop Co-chair*, Cairo University, Egypt
- Prof. Baoming Li, *Program Chair*, China Agricultural University, China
- Prof. Eberhard Hartung, *Program Co-chair*, Christian-Albrechts-University of Kiel, Germany
- Prof. Richard Gates, *Program Co-chair*, University of Illinois at Urbana-Champaign, USA
- Prof. Hongwei Xin, *Proceedings Chair*, Iowa State University, USA
- Prof. Zuohua Liu, *Local Host Chair*, Chongqing Academy of Animal Sciences, China

For further information contact:

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Phone: +86 10 6273 6904; Fax: +86 10 6273 7570;

E-mail: gotowchy@cau.edu.cn

4. CIGR CO-SPONSORED ACTIVITIES

CIGR Section I ENVIRO WATER 12th Inter Regional Conference 9 – 11 November, 2009

Marrakech - MAROC - MOROCCO

Topics of the seminar:

Topic 1: Managing water scarcity

Topic 2: Water quantity and quality issues

Topic 3: Social and economic issues in water management
 Topic 4: Management and planning of multifunctional land and water use

Important Dates:

Send Full Papers: 31 August, 2009

Conference: 9 – 11 November, 2009

Duration: 3 days including one day technical tour

Organizing Committee:

Coordinator: Hassan El Mahraz

E-mail: h.elmahraz@adi.ma

CIGR Section IV
SYNERGY & Technical Development
International Conferences in
Agricultural Engineering
30 August to 3 September, 2009
GÖDÖLLŐ, Hungary
<http://www.synergy2009.szie.hu/news.php>

Important Dates

Final Registration: 30 June, 2009.

Deadline for full text submission: 15 July, 2009.

Opening of the Conference: 30 August, 2009.

Optional two days tour: 4-5 of September, 2009.

Local Organizing Committee

President: István SZABÓ, dean

For more information

prof. Zoltán SIBALSZKY (for section CIGR) ,tel: +36 (28) 522-050,

Zoltán BARTFAI (for section Synergy) tel: +36 (28) 522-047,

E-mail: synergy2009@gek.szie.hu

CIGR Section V
International Symposium
Technology and Management to Increase the
Efficiency in Sustainable Agricultural Systems
1 to 4 September 2009, Rosario, Argentina
<http://www.cigr2009argentina.org/>

Important Dates:

15 July, 2009 - Presenter/Author Registration Deadline.

15 July, 2009 - Full papers due

1 - 4 September - CIGR Session V and CADIR Symposiums

The organizing committee:

Pietro Piccarolo (University of Torino) - President

More information: E-mail: info@cigr2009argentina.org

CIGR Section VI
5th International Technical Symposium
on Food Processing,
Monitoring Technology in Bioprocesses
and Food Quality Management
31 August to 2 September, 2009
Potsdam, Germany
www.atb-potsdam.de/CIGRPostharvest2009

Important dates:

30 June, 2009- Registration due

30 June, 2009- Full paper for CD proceedings

Preliminary Program

Sunday, 30 August 2009

16:00 – 18:00 Registration

09:00 – 14:00 CIGR Presidium Meeting

15:00 – 17:00 CIGR Executive Board Meeting

Monday, 31 August

08:30 – 09:30 Registration

09:30 – 10:00 Opening Ceremony

10:00 – 12:00 Plenary Lectures

14:00 – 17:40 Session 1~4

18:00 – 21:00 CIGR Technical Board Meeting

Tuesday, 1 September

09:00 – 12:40 Session 5-8

15:00 – 18:00 Session 9-12

18:30 – 22:00 Symposium Dinner

Wednesday, 2 September

09:00 – 12:40 Session 13-16

12:30–13:30 Optional Lunch & End of the Symposium

Poster Session 1 (Monday 12:00 – Tuesday 12:40)

Poster Session 2 (Tuesday 12:40 – Wednesday 12:00)

Contact:Conference secretariat, Dr. Oliver Schlüter, Dr.

Manuela Zude, Leibniz Institute for Agricultural Engineering

Potsdam-Bornim (ATB) , Dept. Horticultural Engineering

phone: +49-331-5699-613

fax : +49-331-5699-849

email: cigr09@atb-potsdam.de

The 2009 CIGR International
Symposium of the Australian Society for
Engineering in Agriculture
13–16 Sep 2009, Brisbane, Australia
<http://www.seag2009.com/>

Topics under the theme Agricultural Technologies in a Changing Climate include:

- Irrigation, water and environmental management,
- Post-harvest Technologies and processing
- Structures, equipment and Environment
- Power and machinery
- Precision agriculture and livestock management,
- Plant production and handling as well as
- Information management

Important dates:

Full Paper submission:, 15 June 2009

Feedback from referees:, 30 June 2009

Final paper submission:, 15 July 2009

Booking Deadline: 12 August 2009

Contact:

SEAg2009 Secretariat Phone +61 7 32551002

Fax + 61 7 32551004

email: seag2009@icmsaust.com.au

2nd International Conference on
Machine Control & Guidance,
9–11 March, 2010, Bonn, Germany
<http://www.mcg.uni-bonn.de>

The 2nd International Conference on Machine Control and Guidance, jointly organised by the Department of Geodesy and the Department of Agricultural Engineering at the University of Bonn, will be held 9–11 March 2010.

Venue:

Campus of University of Bonn Poppelsdorf, Bonn, Germany

Conference Administration:

Faculty of Agriculture, University of Bonn,

Meckenheimer Allee 174, D-53115 Bonn

E-mail: MCG@uni-bonn.de

Tel.: 0049/228/73-2620

Programme:

The importance of 3D-position sensors for the navigation of machinery on construction sites of roads, tunnels, railways, and airports has increased over the last years and the market is still growing. Also in the field of agriculture GPS-based applications such as machine guidance, parallel tracking and yield mapping are introduced.

After the 1st conference was successfully held at ETH Zürich in 2008, researchers, academics, users, system and service providers are now invited to participate in the 2nd International Conference on Machine Control & Guidance and thus to initiate a technical and scientific discussion, to interchange know-how, to bond synergies between the different applications and to boost research activities in this highly interesting field.

Main topics:

- Kinematic Measurement and Sensor Technology
- Agriculture Applications (State of the Art, Trends)
- Standardisation
- Data Processing / Data Flow
- Control Process and Algorithm
- 3D-Construction Applications (State of the Art, Trends)
- Field and Soil

Call for papers and posters:

This call for papers seeks both peer-reviewed and non-peer-reviewed papers. Poster submissions are also sought. The deadline for submission of peer-reviewed full papers is 5 October 2009. Posters and 300-word abstracts for non-peer-reviewed papers also have a deadline submission of 5 October 2009.

The scientific committee will review all submitted abstracts and decide on acceptance and form of presentation (oral or poster).

Deadlines:

5 Oct 2009: Deadline for abstracts

5 Oct 2009: Deadline for full papers for peer review

1 Nov 2009: Notification of authors with accepted abstracts

1 Dec 2009: Notification of authors with accepted peer-reviewed papers

10 Jan 2010: Peer-reviewed papers and non-peer-review papers ready for print

*Peter Schulze Lammers
Honorary President of CIGR*

PAWEES 2009

**International Conference on Promising
Practices for the Development of
Sustainable Paddy Fields
7–9 October, 2009, Bogor, Indonesia**

<http://web.ipb.ac.id/~pawees2009>

This conference is an annual event of the International Society of Paddy and Water Environment Engineering (PAWEES) and co-organised by the Department of Civil and Environmental Engineering of Bogor Agricultural University, the Indonesian Network of the System of Rice Intensification, the Japanese Society of Irrigation, Drainage and Reclamation Engineering (JSIDRE) and Technical Section I on Land and Water Engineering of International Commission of Agricultural and Biosystem Engineering (CIGR).

This conference will draw together knowledge and experience of the scientists and practitioners from all over the world who are apprehensive to find alternative or new methods of paddy field cultivation for a sustainable rice production. Special attentions will be given on how to enhance land, water and labor productivities. Organic rice farming and rediscovering of local varieties are other topics that appealing in order to restore the soils as pools of nutrients and microbiological activities. Rural values and amenities are inevitably important aspects not to disregard when introducing the new methods of paddy field cultivation. As it is customary, this conference PAWEES will also distribute awards, based on assessment by a team of panelists, as appreciations to those authors whose articles were published in the Journal of PAWEES in 2008, and to scientists who have shown significant contributions to the development sustainable paddy fields, and/or agricultural engineering as a whole.

This conference will allocate time to deliberate the accreditation progresses on engineering education programs. Topics would include the formation of a national board, plus the establishment of criteria and procedures that will be useful for those who are involved in taking their engineering education programs to a global level.

Scope of the Conference

The topics that will be discussed during the conference are:

1. Enhancing land, water and labor productivities in paddy field cultivations.
2. Application of organic rice farming and uses of local varieties and their impacts on the restoration of natural resources.
3. Functions of rural values and amenities on supporting sustainable paddy field development.
4. Presentation of PAWEES Awards.
5. Country reports on the accreditation progress of engineering education programs.

Programs

Day 1 (7 October 2009): PAWEES International Conference.

Day 2 (8 October 2009): PAWEES Award Ceremony and Annual Meeting.

Day 3 (9 October 2009): Technical Tour.

Important Dates

- Abstract submission by 30 June 2009.
- Full paper submission by 31 August 2009.
- Registration by 7 September 2009.

Contact

Organising Committee:

Prof. Budi I. Setiawan/Dr. Satyanto K. Saptomo.

Dept. of Civil and Environmental Engineering, Bogor

Agricultural University.
Bogor 16680, Indonesia.
Phone/Fax: +622518627225
E-mail: pawees2009@ipb.ac.id, and cc to:
pawees2009@gmail.com.
Web site: <http://web.ipb.ac.id/~pawees2009>

Report:
37th International Symposium
Actual Tasks on Agricultural
Engineering
10–13 February 2009, Opatija, Croatia

The 37th International Symposium **Actual Tasks on Agricultural Engineering** was held between the 10–13 February, 2009, in the ‘Grand Hotel Adriatic’, Opatija, Republic of Croatia. The Agricultural Engineering Department, Faculty of Agriculture at the University of Zagreb, was the principal organizer, with support from the following: the Department of Agricultural Engineering, the



Faculty of Agriculture, the University J.J.Strossmayer, Osijek, the Department of Bio-systems Engineering, the Faculty of Agriculture, the University of Maribor (Slovenia), the Agricultural Institute of Slovenia, the Hungarian Institute of Agricultural Engineering Gödöllő, and the Croatian Agricultural Engineering Society. The co-sponsors of the symposium were CIGR, EurAgEng, AAAE, and the Association of Agricultural Engineers of South Eastern Europe (AAESEE).

This year, 100 participants from 17 countries attended the symposium. The symposium consisted of an opening session and six topic sessions covering all the broad subject-areas that fall under the scope of Agricultural Engineering. The importance of the event was underlined by the presence of Prof. Rameshwar Kanwar, Director of the Agricultural and Biosystems Engineering Department of Iowa State University, USA who attended as a keynote speaker; the past president of EurAgEng Prof. Daniele De Wrachien; and representatives from the National Societies of Agricultural Engineers of Bosnia and Herzegovina—Prof. S. Skaljic, Prof. M. Martinov, and Prof. M. Đević of Serbia, and Dr. Viktor Jejčič and Tomaz Poje MSc of Slovenia. At the opening session, Prof. Davor Romić, Dean of the Faculty of Agriculture at the University of Zagreb, delivered his speech

emphasizing the importance and long history of the event. The convenor, Prof. Silvio Kosutic closed the session by introducing the Croatian Society of Agricultural Engineering to the audience.

Prof. Rameshwar Kanwar delivered a keynote lecture entitled ‘**Sustainable water management systems for food and feed: present and prospective**’. The speaker underlined the new challenges that humanity is facing in the third millennium, challenges that include climate change, water scarcity, massive increase in food production and genetically modified crops. Next, a number of lectures were held, including ‘**Debris and hyper-concentrated flows: An overview and perspective**’, which was delivered by Prof. Daniele De Wrachien and drawn up in cooperation with Prof. Stefano Mambretti of the Politecnico on Milan; ‘**Rapeseed oil fuelled tractors: operation and emissions**’, presented by Dr. Klaus Thuncke from Germany; ‘**Selective pesticide deposition by an autonomous robot**’, introduced by Juri Rakun BSc, from Slovenia; ‘**Biobed: protecting the environment from pesticide contamination during the filling and cleaning of sprayers**’, given by Prof. Ali Musa Bozdogan from Turkey; ‘**The applicability of GPS guidance in South-East European agriculture**’, which was expounded by Prof. Milan Martinov from Serbia; and ‘**Improving work processes in packing houses of mixed flower farm**’, given by Prof. Gad Vitner from Israel.

A Special Session on ‘**Alternative Energy Resources in Agriculture**’, was chaired by Dr. sc. Jejčič Viktor and Poje Tomaž MSc, from the Agricultural Institute of Slovenia, and involved more than 30 participants, who debated key issues concerning the topic. In the topic sessions, each started with a review report, and 50 papers were discussed, in an oral presentation.

During a round-table meeting that took place at the symposium, Professors Kanwar, De Wrachien, and Kosutic pointed out that there is a real need to improve international research and education transfer in the field of Agricultural and Bio-systems Engineering. They proposed several suitable ways that would stimulate and enhance student and researcher mobility across and between Europe and the United States. During the closing session, the Convenor emphasized the role that EurAgEng and CIGR need to play in terms of developing ecologically sustainable development, rural development, and heritage preservation of agriculture in the East-European countries.

Participants were given printed issues of the proceedings, which contained 61 papers, and made up a volume consisting of 572 pages. All the Papers presented at these symposia since 1997 have been indexed in the database of the ISI Proceedings. World famous agricultural machinery producers, such as Same-Deutz-Fahr, AGCO, Claas, Hardi and Trimble, as well as other companies, presented their current programmes through video and oral presentations during the afternoon technical sessions. The Maziva Zagreb d.d.-INA group (national petrol company) presented its new palette of biodegradable oils, demonstrating the progress that they have made, showing how they are maintaining their competitive edge against well known, worldwide competitors.

Information regarding the 38th Symposium in the year 2010 will soon be available at the web site: <http://atae.agr.gr>

Prof. Silvio Kosutic, Convenor of the Symposium
Prof. Daniele De Wrachien, Past President of EurAgEng

5. OTHER ACTIVITIES

Report of the 6th International Scientific and Practical Conference on ‘Ecology and Agricultural Machinery’ 13–14 May 2009, St. Petersburg, Russia

On the 13th and 14th of May 2009, the sixth International Scientific and Practical Conference on ‘Ecology and Agricultural Machinery’ was held at the North-West Research Institute of Agricultural Engineering and Electrification (SZNIIMESH), St. Petersburg, Russia. The conference was organized under the auspices of the Agriculture Ministry of the Russian Federation as well as the Russian Academy of Agricultural Sciences and sponsored by the Euro-Asian Association of Agricultural Engineering.

One hundred and two agricultural researchers and engineers from eleven countries participated in the conference, with the representatives of Belarus, the Czech Republic, Estonia, Finland, Italy, Latvia, Poland, Russia, and Ukraine participating in person and those of Lithuania and Turkey participating virtually.

Recent scientific and practical developments and breakthroughs in the field of agricultural engineering aiming at reducing the adverse environmental effects of the prevalent farming practices and machinery were presented and discussed during the two plenary and parallel sessions of the four conference sections.

Officers of the Committee of State Control over Management of Natural Resources and Ecological Safety and the Committee for Agro-Industrial and Fishery Complex of the Leningrad Region as well as officers of the Baltic Marine Environmental Protection Commission (HELCOM) were the keynote speakers at the opening plenary session.

The veritable common refrain of all the conference presentations was the obligation of all agricultural producers to carefully follow environmental protection and resource conservation regulations when intensifying their farming practices to produce sufficient food for the ever-increasing world population, with special emphasis being placed on the necessity for higher standards of performance in relation to farm machinery.

Following the presentations and discussions, the participants approved the conference resolution wherein they pointed to the efforts of agricultural engineers worldwide towards implementing measures directed at improving the current state of the world’s environment and towards expanding international cooperation aimed at mitigating the environmental pollution resulting from farm sources. Future researchers in the field of agricultural engineering were advised to employ the principles of engineering ecology in their research work, since it investigates the interaction of man, machines, and the natural environment with the aim of creating sustainable natural/man-made systems. The key tasks in this context would be to monitor, forecast, and assess the possible negative consequences on human and ecosystem health of existing, upgraded, and newly designed farming practices, machines, and equipment; to identify and improve the practices which have an adverse effect on man and nature; and to optimize technological, engineering, and

designing solutions by implementing the criterion of minimal environmental damage.

The conference programme included two professional visits to dairy farms in the Leningrad region, where the participants could observe the reconstructed and newly built facilities for loose animal housing and milking, get acquainted with manure removal, storing, and handling techniques as well as with the practice of fodder rolling and conservation and environmentally sound vegetable growing practices under conditions of excessive moisture content.

The conference participants were also presented with the opportunity to go sightseeing—tours to the Gatchinsky Palace, the State Hermitage museum, and Petergoff were organized.

The conference participants highly appreciated the scientific importance of such a forum and its organization and decided to hold the seventh ‘Ecology and Agricultural Machinery’ conference at St. Petersburg, Russia, in May 2011.

Prof. Vladimir Popov

Vice-President of EAAAE

Director of North-West Research Institute of Agricultural Engineering and Electrification (SZNIIMESH)

Report of the International Training Workshop “Design and Evaluation of Pressurized Irrigation Systems” on March 7, 2009 Centre of Excellence in Water Resources Engineering, Lahore-Pakistan

The International Training Workshop “Design and Evaluation of Pressurized Irrigation Systems” ended successfully on March 7, 2009 Centre of Excellence in Water Resources Engineering, Lahore-Pakistan.



Centre of Excellence in Water Resources Engineering, Lahore, Pakistan with cooperation of Islamic Development Bank organized five-days International Training Workshop on Design and Evaluation of Pressurized Irrigation Systems for the professionals working in irrigated agriculture in the Muslim countries from March 3-7, 2009. These systems are ideally studied for light and frequent irrigations. Major benefits of the pressurized irrigation system are high efficiency, increased crop yield and many more. High initial cost of the system is off-set by increased yield and by increasing irrigated land with same amount of water supply.

The main focus of the workshop was to create close and long term liaison among institutions of Islamic countries and to provide a forum to discuss the issues related to the pressurized irrigation. Seventeen participants from nine Islamic Countries including Bangladesh, Iran, Jordan, Malaysia, Oman, Saudi Arabia, Sudan, Syria & UAE and more than thirty from Pakistan participated in the workshop. The workshop was inaugurated by Prof. Dr. Muhammad Ashraf, Dean, Faculty of Civil Engineering. During his inaugural speech, Prof. Ashraf highlighted the importance of the pressurized irrigation and advised the participants to take active part in the deliberations of the workshop. Experts working in different aspects on Pressurized Irrigation made presentations during the workshop. The participants of the workshop also shared their experiences by active discussions during the workshop. Some of the participants made short presentation and presented state of the art on pressurized irrigation in their countries.

On last day of the workshop, certificates were distributed among the successful participants in concluding session of the workshop. The Chief Guest of the Concluding Ceremony was Lt. General (Rtd) Muhammad Akram Khan, Vice Chancellor University of Engineering and Technology, Lahore. In his remarks, the chief guest stressed the participants of the workshop to abreast themselves with the latest technologies like sprinkler and drip irrigation techniques. In his address he also stated that the common perception that the future wars would be on water is not true since in reality such issues have already emerged in muslim country such as Jordan. Such unfortunate events are likely to be more intense in future. He further remarks that a lot of potential exist in our muslim countries to handle the water scarcity issues in the coming years by adopting new technologies that best suits to our conditions. Earlier at the start of the ceremony, the representative from Islamic Development Bank, Dr. Muhammad Akhtar Bhatti briefly described the programmes being offered by the IDB for the muslim ummah to uplift the technological advancement in the muslim countries. Dr Bhatti in his address also highlighted the importance of water and adaptation of Pressurized Irrigation Techniques and stressed that this activity should be repeated by the Centre to enhance capacity of more participants from the Muslim countries again in near future. At the end of the ceremony, Prof. Dr. Muhammad Latif, Director of the Centre of Excellence in Water Resources Engineering thanked the participants and their organizations for nominating their employees to update their knowledge on the subject of vital importance for arid countries. Prof. Latif especially appreciated the efforts of Dr. Sajid Mahmood (Azeemi) –Secretary Training Workshop, and also other employees of the Centre who helped in organizing and conducting the event successfully. He also thanked IDB for financing this event for foreign delegates of the workshop.

Major Research Funding Received by UCD Biosystems Engineering Professor

Prof Da-Wen Sun, Prof of Food and Biosystems Engineering, from UCD School of Agriculture, Food Science and Veterinary Medicine

Prof Da-Wen Sun, Prof of Food and Biosystems Engineering, from UCD School of Agriculture, Food Science and Veterinary Medicine has recently been awarded research funding of €1.14 million for two major grants from the EU and Department of Agriculture, Fisheries and Food (DAFF). The EU 7 Framework Project “MINICRYSTAL – Method for Improving the Quality of Frozen Foods by Assisting the Freezing Process and Reducing the Size of the Ice Crystals” is based on UCD technology of ultrasound-assisting freezing developed by Prof Sun.



Prof. Da-Wen Sun

With previous funding from UCD President’s Research Award, and SFI Research Frontiers Programme, Prof Sun and his team have shown the promising ability of using power ultrasound to initiate ice nucleation and to control crystal size distribution in the frozen food product, leading to shorter freezing time, increased freezing efficiency and improved product quality.

This new EU project of €1,086,610 with a UCD share of €462,989 involves universities, research organisations and industrial companies from six countries, and will design and develop a prototype system for its industrial validation in food freezing facilities, which will be cost-effective, easy to operate and readily integrated with commercially available freezing equipment.

The DAFF FIRM project is one of the only three successful UCD projects funded by the Department of Agriculture, Fisheries and Food under the recent round of the FIRM programme. This new FIRM project led by Prof Sun is in collaboration with Teagasc Ashtown Food Research Centre with a total grant of €835,519, of which UCD shares €676,919.

Prof Sun is an international leading researcher in computer vision application in food quality evaluation. The new FIRM project will expand his research by adapting the hyperspectral imaging technique to develop a novel screening imaging system that will be able to assess the quality of meat and its tenderness. The system will be a rapid, non-destructive and non-contact system which will interest both industry and consumers.

Next plenary meeting of ISO/TC 190 and meetings of its sub-committees and working groups including an informal joint meeting of CEN/TC 345

We are pleased to inform you that KATS, Korea, has offered to host the 2009 plenary meeting of ISO/TC 190 and meetings of its sub-committees and working groups from November 2 until November 6, 2009. Venue is hotel Riviera, Seoul (www.hotelriviera.co.kr).

All SC secretaries are kindly asked to inform their SC members, WG convenors and project leaders accordingly.

All necessary details about the meeting schedule and general information will be sent to you in due course.

Saskia Schulten
Secretary ISO/TC 190

6. PUBLICATIONS

Agricultural Engineering International The CIGR Ejournal

Prof. Fedro Zazueta, Acting Editor-in-Chief

ISSN 1682-1130

Send manuscripts for peer review to –
www.CIGRjournal.org

At the CIGR meeting in Brazil, it was announced that the Ejournal (www.cigrjournal.org) would be moved into the automated journal management system OJS (Open Journal Systems). Since OJS' implementation, the CIGR Ejournal has seen a significant increase in manuscript submissions. The table below shows the statistics for the CIGR Ejournal since the beginning of this year.

Table: 2009 Statistics for the CIGR Ejournal

Issues	published 1
Items	published 21
Total submissions	128
Peer reviewed	44
Accepted	27 (61%)
Declined	17 (39%)
Resubmitted	19 (43%)
Days to review	47
Days to publication	11

Note: Percentages for peer-reviewed submissions may not add up to 100% as items resubmitted are either accepted, declined or still in the process of review.

Note that from January through May of this year, 128 manuscripts were submitted. The average time to conduct a review and publish a manuscript is less than 60 days. In addition, the acceptance rate for the CIGR Ejournal is about 60%. To reduce the time from submission to publication, the most important issue is to increase the number of members who are willing to conduct reviews in a timely manner. Currently, the reviewer database in the journal contains 896 entries. If you have not registered in the CIGR Ejournal, please do so by going to the Web site and registering as an author and reviewer.

Fedro S. Zazueta

Editor-in-Chief of CIGR Ejournal

Book: Coping with Water Scarcity: Addressing the Challenges

Springer published a book titled Coping with Water Scarcity: Addressing the Challenges, for which Prof. Luis Santos Pereira, former CIGR President, is the first author.

Visit; <http://www.springer.com/environment/water/book/978-1-4020-9578-8>, where you may access further information, including contents, the flyer and the book order forms.

CIGR Section Boards (Elected in September 2006, updated in September 2008)

Section I:	<i>Land and Water Engineering</i>	(Chair: Jose M. Tarjuelo [Spain])
Section II:	<i>Farm Buildings, Equipment, Structures and Environment</i>	(Chair: Daniel Berckmans [Belgium])
Section III:	<i>Equipment Engineering for Plants</i>	(Chair: John K. Schueller [USA])
Section IV:	<i>Energy in Agriculture</i>	(Chair: Mikio Umeda [Japan])
Section V:	<i>Management, Ergonomics and Systems Engineering</i>	(Chair: Pietro Piccarolo [Italy])
Section VI:	<i>Postharvest Technology and Process Engineering</i>	(Chair: Jozef Grochowicz [Poland])
Section VII:	<i>Information Systems</i>	(Chair: Antonio Saraiva [Brazil])

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

CIGR GENERAL SECRETARIAT

Professor Emeritus Dr. Takaaki Maekawa, Secretary General

University of Tsukuba

Graduate School of Life and Environmental Sciences

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Promoting the Mechanization of Agriculture in Developing Countries



Agricultural Mechanization in Asia, Africa, and Latin America

This magazine is an international technical journal on agricultural mechanization that promotes mechanization of agriculture in developing countries. This magazine clearly introduces problems in agricultural development and the promotion of agricultural mechanization in developing countries as well as countermeasures for tackling these problems provided by the experts in various fields. Writers include leaders of developing and advanced countries who have good knowledge of their local regions.

In the past, we have published articles on the current status of agriculture and agricultural mechanization in Asia, the Middle East, central and southern America, Africa, and Eastern Europe. We have also published articles on the improvement of agricultural technology and promotion of mechanization, creation of an agricultural industry and research and development of agricultural machinery. As a result, we have gained the reputation of being the best magazine that provides basic knowledge of and a systematic outlook on agricultural research and mechanization from an international viewpoint.

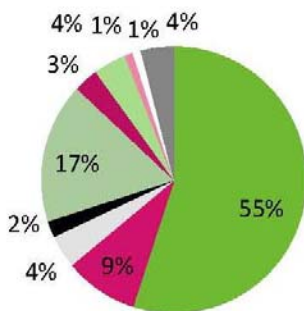
Presently, we have readers in over 120 countries, including members of government organizations, educational institutions, research and development institutions, industry, and distributors. Our journal has a particularly wide readership in developing countries that includes specialists such as policy makers for agricultural mechanization and decision makers for the adoption of agricultural machinery.

In addition, AMA is favorably received as it publishes related news such as the information on new products worldwide and trends in farm machines and implement makers.

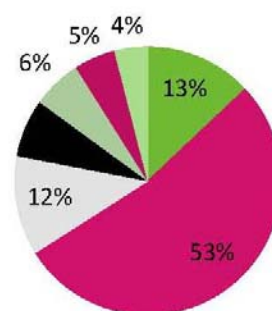


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Kubota



Regions with reading populations:

Building foundations.

The Earth... a small blue planet.

Blessed with water, soil and air - people's faces are etched with smiles.

In this same spirit, Kubota wishes to serve people through its business endeavours related to water, foods and the environment, linked directly to enhancing people's lives.

Kubota fulfils a fundamental role in building foundations that render essential services to support comfortable, rewarding lives on earth.

This is the core wish Kubota aspires to fulfil.

KUBOTA Corporation