



International Commission of Agricultural and Biosystems Engineering

# CIGR

**Newsletter Quarterly**

**Newsletter No. 94  
December 2011**

*Since 1930  
81 Years of CIGR*

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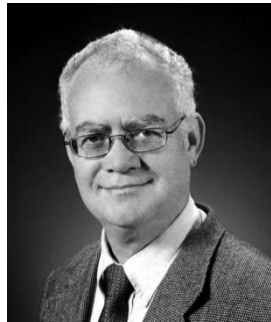
***Commission Internationale du Génie Rural (CIGR)***

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

# 1. CIGR NEWS

## Message from the President

One of the founding goals of CIGR is to encourage the exchange of scientific knowledge in order to improve the capacity and skills of agricultural and bio-systems engineers towards a sustainable agriculture. Actions towards achieving this goal focus in part on creating the proper environment and opportunity for communication amongst its members.



Prof. Fedro Zazueta

The CIGR International Conference in Valencia, Spain, provides a unique opportunity for experts from diverse countries, backgrounds and all agricultural and bio-systems specialties to exchange the latest experiences and scientific research findings. All CIGR members are encouraged to attend and invite professionals from related fields.

The CIGR Presidium is looking to promote initiatives that encourage education, stimulate research and technology in agricultural and bio-systems engineering, and uphold the good name of the profession. During the International Conference in Spain, the CIGR Presidium will engage in a strategic planning effort to identify long term direction and short-term actionable items that best use our available resources to meet CIGR's goals. For this purpose, the CIGR Presidium is asking you to participate by communicating your ideas for opportunities that will improve our profession and our society.

*Prof. Fedro Zazueta  
President of CIGR*

## Summarized Reports of the CIGR Business Meetings Held in Tower Hall Funabori, Tokyo, Japan, on 19 and 20 September, 2011

The CIGR Secretary General would like to report the summary of the CIGR Business Meetings which were held on 19 and 20 September, 2011 in Tokyo as below;

- Presidium Meeting: at Room Kenshushitsu from 9:00 to 13:00 on the 19th
- The 66th Executive Board Meeting: at Room Kenshushitsu from 13:30 to 16:30 on the 19th
- Technical Board Meeting: at Room No.307 from 15:30 to 17:30 on the 20th

In the 66<sup>th</sup> Executive Board Meeting, the Minutes of the 65<sup>th</sup> Executive Board Meeting held in Quebec, Canada last year were approved unanimously. They will be available in the next issue of CIGR Newsletter.

Important items discussed and the digested results are as follows;

### 1) Activity Reports of the Presidium Members

- The President reported he had a meeting with the two representative persons of EurAgEng, Prof. P. Lammers and Prof. Florentino Juste in the USA, and they exchanged information on the current status of preparations for the next World Conference in Valencia, 2012. The Past President also reported that the Local Organizer has proposed the CIGR Award Session be held in corporation with EurAgEng.
- The Presidium discussed narrowing down the candidates of the next Incoming President.
- The Past President reported that although the CIGR Award is a very prestigious award, he has received little response from the sections up to today. The Past President asked all the sections to send him the nomination lists of candidate awardees.
- The Presidium discussed CIGR strategic planning, where they agreed on starting the online service of proceedings of past CIGR sponsored conferences, symposium and workshops through the website "cigrproceeding.com". The Presidium will send requests to the hosts of the conferences to provide relevant data.
- The Incoming President who is CIGR Working Group Coordinator proposed a new CIGR working group "Precision Aerial Application". The Presidium approved its establishment unanimously, and then reported the approval in the 66th CIGR Executive Board Meeting (EB).
- The Secretary General reported Japan will continue the service of CIGR General Secretariat for another 4 years from January 2014 to December 2017 and the candidate of the next SG after Prof. Toshinori Kimura is Prof. Mikio Umeda (Professor Emeritus of Kyoto University, Japan). The Presidium unanimously accepted him as a candidate of the next SG. He was also approved as the candidate in the EB held at 13:30 on the same day after the Presidium Meeting (PM).



Prof. Toshinori Kimura

### 2) Account and Budgets

- CIGR 2010 working account-result and the auditors' reports were approved by the PM and the EB unanimously.
- Current status of the CIGR accounting and budget of 2011 year were reported by the SG and the report was approved by the PM.
- The CIGR accounting and budget of 2012 year were approved by the PM and the EB.

**3) CIGR Bodies**

- The national membership application from India which had been basically approved by the PM was approved by the EB unanimously. In accordance with the CIGR Statutes, the official approval will be made by the next CIGR General Assembly (GA) to be held in Valencia, however India can participate in elections and other activities as a national member after the payment of membership dues for 2011. Current activity reports and MOSAs of sections for 2011-2014 were reported in the Technical Board Meeting (TB). The TB confirmed that the maximum number of section members is "16", which is specified by the bylaws. In order to make changes in the number of maximum board members, adjustments must be confirmed by the GA.
- The establishment of two working groups, "Logistics" and "Precision Aerial Application" was reported from the Incoming President in the EB and the TB.

**4) CIGR Information and Communication System**

- In all the business meetings of the PM, the EB and the TB, the Incoming President who is in charge of the CIGR Journal Policy Board reported the problems in the CIGR Ejournal editing activity, eg. remaining in "no index" state in the ISI listing and very slow publication. On these matters, as an observer Prof. Lanfang Zhang in place of Dr. Yingkuan Wang who is the Current Editor in Chief of CIGR Ejournal joined the EB and reported the present situation being faced. All the participants in the PM, the EB and the TB understood the importance of this matter and agreed that the necessary countermeasures

should be taken to improve the management process as early as possible.

- On line service for 6 volumes of CIGR Handbook has started. They are available for download from the CIGR website without charge.

**5) Congresses and Conferences**

- Candidate nomination for CIGR World Congress 2018 is still open. The SG openly asks for nominations or proposals through the CIGR website (the information has already uploaded).

**6) Date and Location of forthcoming CIGR Business Meetings**

- All the business meetings, the PM, the EB, the TB and the General Assembly will be held in the period of the 3rd CIGR International Conference 2012, 7-12 July, Valencia, Spain. The detail of room and time allocation will be announced on the CIGR website or in the next issue of CIGR Newsletter accordingly.
- Chairs of sections, working groups and committees are requested to send the proposal to the SG in advance if you wish to have meetings in the above period.

*Prof. Toshinori Kimura  
Secretary General of CIGR*

## CIGR World Congresses and Internatinal Conferences, 2012–2016

### Call for Papers CIGR-AgEng2012, International Conference of Agricultural Engineering 8-12 July 2012, Valencia, Spain <http://cigr.ageng2012.org>

**MAIN THEME**

The main theme of this Congress is "Agriculture & Engineering for a Healthier Life", an ambitious idea that claims how Agricultural and Biosystems Engineering is an essential part of the solution for producing quality food while protecting the environment.



Prof. Florentino Juste

**SESSION TYPES**

The Conference will include both oral and poster sessions. Authors are encouraged to indicate their presentation preference. A review committee will approve the proposed abstracts and request the full papers for their inclusion in the conference proceedings.

**RIGHTS**

The authors transfer freely their rights non exclusively to the Conference for the time of the conference. All the conference proceedings (abstracts and full text) will be indexed in the CABI bibliographic database. It is up to the authors of the paper to take all necessary steps to respect the rights of any third parties in relation to parts of the text and/or the illustrations it contains. Any graphical element - photograph, drawing map, etc.- should be accompanied by the indication of the source. The authors shall sign a Copyright License Agreement.

**SUBMISSION OF PAPERS**

Authors are invited to present their abstract by 21 December, 2011 via CIGRAgEng2012 website. The abstracts should not exceed 500 words. An abstract is indicative of the final paper quality, and therefore authors are urged to prepare concise, clear and informative abstracts describing their work with emphasis on objectives and results.

Each abstract should include:

- Title of the paper
- Authors
- Preference for oral or poster presentation
- Preference for specific general conference area or special parallel conference

Based on the abstract, the Scientific Committee will decide on the acceptance of the papers as oral or poster presentation.

Selection criteria for paper acceptance will include full compliance with submission deadlines and procedures, relevance to conference topics, quality of the abstract, perceived completeness of the reported work, originality, and the number of proposals submitted.

Selected authors shall send their full papers (maximum 6 pages including figures, tables and references) by April 30, 2012.

Proposals must be submitted electronically following the procedure outlined at <http://cigr.ageng2012.org>.

#### Main Topics:

**AP:** Animal Production Technology.

**ED:** Education and Curricula.

**EN:** Energy, biomass and biological residues.

**ES:** Ergonomics, Safety and Health.

**IT:** Information Technology, Automation and Precision Farming.

**PF:** Post Harvest, Food and Process Engineering.

**PM:** Power and Machinery.

**RD:** Rural Development.

**SE:** Structures and Environmental Technologies.

**SW:** Soil and Water Engineering.

**CIGR-AgEng2012** is designed as a large umbrella for seven simultaneous thematic conferences with the goal of promoting the interaction between CIGR and EurAgEng Working Groups.

#### SPECIAL PARALLEL CONFERENCES, included in the CIGR-AgEng2012 Conference

**SPC-01 - EnviroWater'2012** – 15th Inter Regional ENVIRO Water: Soil Water and Environment Management (CIGR-Section I: Land and Water Engineering)

*Chair Jose M<sup>a</sup>. Tarjuelo, Co-Chair: Guanhua Huang*

**SPC-02** – CFD Applications on Agriculture Building (CFD). (Working group of the International Society of Horticultural Science- ISHS)

*Chair: Ricardo Suay. Co-Chair: In-Bok Lee and Thomas Banhazi*

**SPC-03** – IV International Workshop on Computer Image Analysis in Agriculture (CIGR Working Group on Image Analysis for Agricultural Products and Processes)

*Chair: José Blasco, Co-Chair: Victor Alchanatis and Manuela Zude*

**SPC-04** - 5th Automation Technology for Off-Road Equipment Conference

*Chair: Francisco Rovira-Más, Co-Chair: Qin Zhang*

**SPC-05** - ILES IX - International Livestock Environment Symposium

*Chairs: Richard Gates and Maria Cambra, Co-Chair: Tami Brown-Brandl and Daniela Jorge de Moura*

**SPC-06** -Applications of smart sensors and wireless sensor networks (WSN) in PLF (Precision Livestock Farming) and PA (Precision Agriculture)

*Chairs: Pilar Barreiro Co-Chair: Esmaeil Nadimi*

**SPC-07** - Silos and Granular Materials (SIGMA ).

*Chairs: Francisco Ayuga Co-Chair: Jørgen Nielsen*

**SPC-08** - Creating a competitive edge through agricultural mechanization and post-harvest technology in developing countries

*Chairs: Chakib Jenane and Josef Kienzle. Co-Chair: Antonio Torregrosa*

#### Relevant Information and Contact

##### Deadlines

Submission of abstracts on-line via CIGR-AgEng2012 website: **21 December 2011**

Notification of acceptance: **February 2011**

Submission of full papers: **30 April 2012**

Final programme: **20 May 2012**

##### Web page, registration and call for papers

Further information on the conference, registration and call for papers can be found in the conference website: <http://cigr.ageng2012.org/>

*Prof. Florentino Juste*

*Instituto Valenciano de Investigaciones Agrarias*

*Email: juste\_flo@gva.es*

*Phone: +34 963 424 010; Fax: +34 963 424 002*

## The XVIII CIGR World Congress 2014 Agricultural & Biosystems Engineering - Upgrading Our Quality of Life Beijing, China, 16-19 September 2014

The XVIII World Congress of the International Commission of Agricultural and Biosystems Engineering (CIGR) will be held in Beijing, China from 16-19 September 2014. Preparation for the big event has been proceeding smoothly. The Preparatory Committee and the Secretariat of the Congress have been set up and appropriate staff and facilities allocated.

##### Theme

Agricultural and Biosystems Engineering - Upgrading Our Quality of Life

##### Time

16-19 September 2014

##### Venue

Beijing

##### Call for papers:

The Congress will focus on the above-mentioned areas and contributions in those and the related areas are appreciated. Scientists, professors, practicing engineers, enterprises

managers and students engaged in agricultural/biosystems engineering are encouraged to participate in this big event and are invited to submit paper proposals to the Congress. Detailed instructions for submitting abstracts will be in the 2nd announcement.

#### **Preparation Office:**

The preparation office is located in CAAMS and the website of the Congress will be available soon. At present you may contact the Congress as follows:

Prof. Lanfang ZHANG

International Cooperation Department

Chinese Academy of Agricultural Mechanization Sciences (CAAMS)

NO.1 Beishatan Beshengmen Wai Beijing 100083 China

Tel: +86-10-64882358

Fax: +86-10-64883508

Email: cigrwc2014@yahoo.cn

## **The 4th CIGR International Conference - AgEng Conference-2016 Robotics, Environment and Food Safety 26 -29 June 2016, Aarhus, Denmark**

The Conference will be carried out at University of Aarhus 26-29 June 2016 as a joint event between CIGR (International Commission of Agricultural and Biosystems Engineering) and EurAgEng (European Society of Agricultural Engineering) and cosponsored by NJF (Nordic Association of Agricultural Scientists) and Aarhus University.

Planning and implementation of the congress will be carried out in close cooperation with "KongresKompagniet A/S", which is a conference organizer bureau in Aarhus.

Contact: Prof. Søren Pedersen

Email: soeren.pedersen@agrsci.dk

## **2. NEWS FROM REGIONAL AND NATIONAL SOCIETIES**

### **Report of the CIGR International Symposium 2011 on Sustainable Bioproduction (WEF)**

The CIGR International Symposium 2011 on "Sustainable Bioproduction – Water, Energy, and Food" held from 19 to 23 September, 2011 at Tower Hall Funabori, Edogawa in Tokyo, Japan. It was the first time CIGR International Symposium had in Japan, but the XIV CIGR World Congress held from 28 November to 1 December, 2000.

Two hundred seventy participants; 54 foreigners and 216 Japanese attended the symposium from 22 countries. On behalf of the Organizing Committee, I would like to extend deep gratitude to all the participants of the symposium.

The Presidium meeting, the Executive Board meeting and the Section Board meeting of CIGR were held on 19 September. Following these meetings, welcome reception was held on 19 September. Excursion was arranged on 21 September for visiting National Park of Nikko.

The symposium was started with the Opening Session at 9:00-10:10 on 20 September. Welcoming addresses and congratulations were extended by the chairman of the organizing committee CIGR International Symposium 2011 Prof. Emeritus Taichi Maki, the vice president of the Science Council of Japan Prof. Emeritus Hideaki Karaki, President of the Japan Association of International Commission of Agricultural and Biosystems Engineering Prof. Takemi Machida, CIGR President Prof. Fedro Zazueta, other key organizers along with the message from the Prime Minister of Japan, His Excellency, Mr. Yoshihiko Noda of Japan and the message of Chairman of Agriculture, Forestry and Fisheries Research Council of Ministry of Agriculture, Forestry and Fisheries, Japan Prof. Eitaro Miwa, and the President of the Asian Association Agricultural Engineering

Prof. Shujun Li, and by the master of ceremony Prof. Toshinori Kimura.

In the afternoon on 20 September, keynote speeches titled as "Power from space in future and present" by Prof. N. Shinohara, "Developing high quality on-line learning environment" by Prof. F. Zazueta and "Using hyperspectral imaging technique to evaluate and inspect quality and safety of agricultural and food products" by Prof. Da-Wen Sun, and open extension seminar titled as "Greenhouse production in US" by Dr. Murat Kacira.

On 20-23 September, Oral and Poster Sessions, etc. were organized where more than 200 papers (keynote speech: 3, open extensive seminar: 1, guest speech: 6, oral session: 63, organized session 13: 79, seminar: 15, poster session: 37, luncheon seminar: 1, dinner session: 1, total: 206) were presented. The special meetings organized were held on 21 September. And several special lectures were held on 19-22 September. Selected papers were published in the proceedings (CD-ROM) and the abstract book on the first day of the symposium, which are available from the secretariat of CIGR International Symposium 2011 in Japan; HP (E-mail: <http://www.cigr2011.org/>) at prices of ¥10,000 and ¥5,000, respectively.

The banquet was held in the evening on 22 September at Tower Hall Funabori. In the ceremony, the chairman T. Maki awarded the following Mr. Y. Kishida, Prof. S. Li, Prof. H. Shimizu, Assoc. Prof. Y. Kitamura, Dr. A. Ikeguchi and Dr. L. Okushima.

The post symposium tour were arranged to visit in Kansai area on 24-25 September.

Although CIGR has played the primary role, the symposium was supported by many organizations and volunteers. As the hosting organization, the Science Council of Japan, the

Japan Association of International Commission of Agricultural and Biosystems Engineering, and its 10 member societies strongly supported and intensively assisted for the success of the symposium. I would like to express my sincere gratitude to these organizations and individuals and am looking forward to seeing you in the next World Conference in 2012 in Valencia, Spain.

*Prof. Taichi Maki*  
Chairman, Organizing Committee  
CIGR International Symposium 2011



### 3. NEWS FROM SECTIONS AND WORKING GROUPS

#### CIGR Establishes Two New Working Groups

At the CIGR Presidium Meetings held in Nantes, France and Tokyo, Japan in April and September 2011, respectively, CIGR approves the establishment of two new working groups. Details of these two new WGs are given below. If anyone is interested in joining the working groups, please contact the WG chairpersons directly.



Prof. Da-Wen Sun

##### “CIGR Logistics Working Group”

**Chair:** Prof. Remigio Berruto, DEIAFA – Dept. of Agricultural, Forestry and Environmental Economics and Engineering, University of Turin, Italy

**Vice Chair:** Dr. Patrizia Busato, DEIAFA – Dept. of Agricultural, Forestry and Environmental Economics and Engineering, University of Turin, Italy

**Secretary:** Dr. Elisabeth Quendler, University of Natural Resources and Applied Life Sciences (Universität für Bodenkultur), Wien, Austria

Logistic plays an important role in today agriculture, facing new challenges (GMO crops, Globalisation, Traceability, Local produce distribution, High capacity harvesting equipments, Increase in food quality concerns, Environmental impact, etc.) and new opportunities (biomass and bioenergy supply-chains, GPS technologies on tractors and trucks, e-commerce, new methods from operation research and industry, information technology, etc.). Some logistic techniques are available from industry domain, however there is a need for adaptation (handling and storage of perishable produce, seasonal production and demand, timeliness constraints, food safety constraints on transportation) and some methodologies should be implemented ex-novo.

##### Objectives

- To meet recent demands on machinery management in complex agricultural operations related to harvest,

distribution and transport of produce (grain, biomass, slurry)

- To share the state-of-the art technology for the optimal management of on-farm, extra-farm and regional logistic operations
- To develop methods and tools to improve the efficiency of the logistic operations
- To set-up standard parameter for comparison of logistic operations
- To optimize, with a system approach, the performance of the working chains, under many viewpoints, considering technical, economic and environmental aspects.

##### Expected outcomes

- To organize within CIGR specific workshops on the topic
- To interact with other CIGR Working Groups and Sections
- To provide reports on state-of-the-art of the topics
- To develop a network among the people working on logistic topics within CIGR
- To Cooperate with E-Journal with papers on the topic and with a pool of expert reviewers for the subject
- To promote the activity among industry researchers and agriculture extension services specialists
- To develop contacts with similar international organizations

##### “Precision Aerial Application Working Group”

**Chair:** Dr. Yubin Lan, Agricultural Engineer, USDA ARS, Aerial Application Technology Group, Areawide Pest Management Research Unit, 2771 F&B Road, College Station, TX 77845, USA

**Vice Chairs:** Dr. Steven J. Thomson, Research Agricultural Engineer, USDA ARS, Crop Production Systems Research Unit, 141 Experiment Station Road, Stoneville, MS 38776

Professor Xinyu Xue, Director, The Center of Plant Protection, Nanjing Research Institute for Agricultural Mechanization, Ministry of P.R. China, No.100 Liuying, Xuanwu District, Nanjing, P.R. China 210014

**Secretaries:** Dr. W. Clint Hoffmann, Agricultural Engineer, USDA ARS, Aerial Application Technology Group,

Areawide Pest Management Research Unit, 2771 F&B Road, College Station, TX 77845, USA

Dr. Ron Lacey, Professor, Department of Biological & Agricultural Engineering, Texas A&M University, College Station, TX 77843

The mission of the Precision Aerial Application Working Group is to develop and implement new and improved precision aerial application equipment for safe, efficient, and sustainable crop production and protection.

### Objectives

The overall objective of this group is to provide precision aerial application solutions for aerial applicators using cutting edge technologies. The first variable-rate aerial application system was developed about a decade ago in the USA and since then, precision aerial application has benefitted from these technologies. Many areas around the world rely on readily available agricultural airplanes or helicopters for pest management, and variable-rate aerial application provides a way of making effective and precise application of agrochemicals. In the context of precision aerial application, variable-rate control can simply mean terminating spray over field areas that do not require inputs, terminating spray near pre-defined buffer areas determined by Global Positioning, or applying multiple rates to meet the variable needs of the crop. Prescription maps for precision aerial application are developed using remote sensing, Global Positioning, and Geographic Information System technologies. Precision aerial application technology has the potential to benefit the agricultural aviation industry by saving operators and farmers time and money.

### Expected Outcome

As the first International Precision Aerial Application Group, this new CIGR working group will serve as a valuable resource to the aerial application community. By coordinating research projects across multiple institutions, the role and impact of precision application will increase in aerial application situations.

*Professor Da-Wen Sun  
Incoming President of CIGR*

## CIGR-SECTION I: “LAND AND WATER”

### Mission statement

The mission of CIGR-Section I is to promote the advance of the engineering science in the area of land and water use in agriculture and in rural areas, giving special attention to the conservation of resources, the preservation and re-establishment of environmental balances, and the social and economic impacts of applications in order to realize sustainable development for



Prof. Guanhua Huang

both urban and rural societies.

### Objectives

The main objective of Section I as defined in the mission statement implies other objectives also contributing to the promotion of the land and water engineering science. These are:

- Improving the knowledge on processes leading to or affecting the quality of the soil resource,
- Development and applicability of technologies for land use planning, including the forecast of land use changes, and to assess land use impacts;
- Improving the knowledge on hydrological processes as affected by land use and agricultural practices;
- Enhanced knowledge of water contamination by fertilizers and agro-chemicals, and other agricultural sources, as well as relative to the assessment of control measures;
- Improved technologies for higher performances in irrigation and drainage;
- Environmental assessment of land and water use in agriculture;
- Development of technologies, standards and monitoring systems for wastewater treatment and reuse, and use of low quality water in agriculture.

### Scope

Considering the objectives defined as above, the scope of CIGR-Section I refers to the following main subject areas:

- Soil management and soil technologies;
- Soil and water conservation and soil erosion assessment;
- Agricultural and rural watershed hydrology;
- Land use planning and assessment;
- Rural roads and related supporting infrastructures;
- Irrigation scheduling and on-farm irrigation systems;
- Surface and sub-surface drainage systems;
- Irrigation water supply, conveyance and distribution systems;
- Non-point and point source contamination assessment and control;
- Integrated soil and water use planning;
- Integrated impact assessment of land and water development projects;
- Modern technologies in land and water engineering, including modeling, information systems, remote sensing, decision support and expert systems.

The Section actually co-operates with three Working Groups:

- the Working Group on “Sustainable Land Use and Landscape Planning”, chaired by Gerrit-Jan Carsjens;
- the Working Group on “Water Management and Information Systems”, chaired by José Fernando Ortega;
- the Working Group on “Earth Observation for Land and Water Engineering”, chaired by Guido D’Urso.

### Activities

To achieve the objectives, several activities shall be developed by CIGR-Section I. These comprise:

- Organisation, sponsoring and co-sponsoring of seminars, workshops and conferences oriented to the objectives and scope of CIGR-Section I;

- Co-organisation of thematic special sessions, workshops or seminars on occasions of CIGR congresses;
- Collaboration in scientific committees of general themes of CIGR Congresses;
- Contributing to the e-journal of CIGR, both with papers and paper reviews, as well as to other publications of CIGR;
- Supporting the specialised working groups of CIGR of which themes fall in the domain of the Section, the respective Chair Persons becoming members of the Section Board;
- Establishing special relationships with other international societies of which field is common to that of Section I, namely the International Commission on Irrigation and Drainage and the European Society for Soil Conservation, of which representatives are ex-office members of the Board of Section I;
- Developing relations with the regional Agricultural Engineering Societies for implementing common actions; at present one Vice-President of EurAgEng is ex-office member of the Board of Section I;
- Implementing inter-sections activities;
- Promoting exchanges of scientific information with professionals, such as through the FAO Agricultural Engineering sites.

All activities referred above require improved effectiveness from contributions of the Board members but some need particular inputs from the CIGR Bureau. This is the case for:

- Better clarification of relationships between Congress organizing and scientific committees and the CIGR-Section Boards for more effectively achieving common objectives and improving the quality of Congress papers and publications;
- Re-examining the contributions of CIGR Sections to the E-journal of CIGR, probably considering specialized editorial boards relative to each Section domain, such as for the Transactions of ASAE;
- Providing better information and diffusion of the e-journal of CIGR to increase its circulation and its recognition by the scientific and engineering community;
- Promoting the links of the regional Agricultural Engineering Societies with the CIGR Sections; a representative of each of these societies should become either member or ex-office member of each Section Board for improved co-operation;

#### **Forthcoming Inter-regional Conferences on Land, Water and Environment**

- 15th Inter-Regional Conference in CIGR-EurAgEng joint Congress on Agricultural Engineering 2012 Valencia Spain.
- 16th Inter-Regional Conference may be held in Tunisia, 2013.
- 17th Inter-Regional Conference in CIGR World Congress will be held in China, 2014.
- 18th Inter-Regional Conference may be held in Montevideo, Uruguay, 2015.

*Prof. Guanhua Huang  
Chair of CIGR Section I*

## **CIGR Section V: "System Management" Minutes Report, 29 June 2011, Vienna, Austria**

#### **Participant Members:**

C.G. Sørensen, DK (Chairman, Board member)  
R. Berruto, IT, (Vice Chairman, Board member)  
E. Quendler, AT (secretary, Board member,)  
P. Piccarolo, IT (Past President)  
R. Bartosik, AR (Board member)  
D. Bochtis, GR (Board member)  
T. Juliszewski, PL (Honorary Chair, member)  
T. Luoma, FI (Board member)  
L. Nozdrovicky, SL (Board member)  
T. Romanelli, BR (Board member)  
M. Schick, CH (Board member)

#### **Auditor Members:**

V. Belyakov, RU (CIGR conference participant, CIOSTA-Organisers 2015)  
V. Kryuchkov, RU (CIGR conference participant, CIOSTA-Organisers 2015)  
V. Minin, RU (CIGR conference participant, CIOSTA-Organisers 2015)  
E. Ovchinnikova, RU (CIGR conference participant, CIOSTA-Organisers 2015)  
J. Sauter, CH (CIGR conference participant)

#### **Absent Members:**

J. Frisch, DE  
T. Takigawa, JP  
B. V. Marti, ES

#### **1. OPENING OF THE MEETING AND APPROVAL OF THE AGENDA**

Chairman Sørensen opens the meeting at 18.00. He is pleased to welcome the members and auditor members to the meeting in Vienna, Austria.

Each member makes a short presentation of himself. Details of new and auditor members are documented. A new member is Dr. R. Bartosik from Argentina, he works at Estación Experimental Agropecuaria Balcarce in Buenos. Prof. V. Belyakov comes from St. Petersburg, he is professor at the division "Mechanisation of Agriculture" at the State Agrarian University in Pushkin. Dr. V. Kryuchkov works as a director in the agricultural college (technicum) in the Russian town Velicy Novgorod. V. Minin is professor at the Division of Mechanisation and Electrification in Agriculture in Puskin and director of IAMFE (International Association Mechanisation Field Experiments) and makes international projects. Elena Ovchinnikova leads the rectorate at the State Agrarian Agricultural University in St. Petersburg. Dr. Jorchin Sauter comes from Agroscope, FAT Tänikon, he works in the research fields system engineering and grassland management.

#### **2. APPROVAL OF THE MINUTES OF LAST BOARD MEETING IN QUEBEC**

Minutes of the Board Meeting in Quebec handed out by Sørensen. There were no comments to it and it was approved.



### 3. CURRENT ACTIVITIES CIGR V (INCLUDING CIOSTA WEBSITE, CIGR PROCEEDINGS DATABASE)

The new board of CIGR V has established itself with C.G. Sørensen as the chair, R. Berruto as the vice-chair and E. Quendler as the secretary for the next 4 years.

#### Section name:

Sørensen informed about the up-dating of the name of the Section V as well as the up-dating of the MOSA (Mission, Objectives, Scope and Activities of Section V) which has been forwarded to the CIGR secretariat. The new name of CIGR V is System Management and the overall mission of Section V is to optimize farm management and work organization by use of operations planning, logistics and system engineering, while improving the operations efficiency, economics, health, ergonomics, and workers' safety.

Sørensen asked for any comments to the mission and goal. Juliszewski is satisfied that ergonomics, health and safety is included in the mission statement.

Berruto commented that logistic is not specifically mentioned in the mission statement. It would be useful to adapt it. He proposed that logistics could be associated with the material flow within the farm or as part of the broader concept of supply chain management.

Nozdrovisky commented about system engineering and proposes Biosystem Engineering instead. Sørensen stressed that such change requires to go through the whole process again and therefore is not considered feasible.

Bochtis added that Biosystem Engineering is not the same as Biosystem Management.

Sørensen mentioned that logistic can be included in the MOSA (Mission Objectives Scope and Activities). Berruto added that it should be included as "the flow of good services through the supply chain". Within the scope and activity of Section V, there will be added one item:

**Logistics:** related to flows of raw materials, goods, services and related information through the supply chain.

A modification will be attempted and send around soon for approval before upload to the CIGR web-site.

#### CIOSTA-website:

Elisabeth was asking about the website. There is one in Torino, one in Stuttgart and one in Reggio Calabria.

Juliszewski informed that there existed a yellow book about CIOSTA. It contained information about CIOSTA, list of participants, main topics, scientific committees, pictures; it was established in Horsens (DE) in the year 1999.

Sørensen added that this information might not be sufficient for a CIOSTA-website. Berruto expressed that the costs for renting a domain are not much (20 EURO/year) and reminded that CIGR and CIOSTA are different organisations although closely associated.

Luoma mentioned nevertheless CIGR Section V is responsible for CIOSTA. Berruto proposed to use the allotted money from CIGR to maintain the website. For a homepage we need only to up-date the dates and names. Bochtis added that these are only 40 EURO (over 2 years of presidency) for a country, but there is needed a CIOSTA domain. Sørensen ensures that Denmark try to do one.

Luoma added that it is important to establish and maintain an informative CIGR Section V CIOSTA-website.

Berruto informed that the proceedings database for CIGR conferences is currently available, promoting our conference papers. Also the papers of this conference will be uploaded. It requires some work, but with help of Elisabeth, it is considered feasible. Sørensen stressed that it is functionality where we can show our papers that are not reviewed. It is already working via a link on the webpage.

### 4. REPORT ON CURRENT ACTIVITIES RELATED TO CIGR V WORKING GROUPS

Two applications for working groups have been submitted in the previous period: operation management and logistic. The one on logistic was approved and Berruto will send it out. The reason for not approving "operation management" was that it was considered a general topic coinciding with the overall topic of CIGR V. Bochtis informed that it is the scope of the working group that will be rewritten and adapted to the comments.

### 5. XXXIV CIOSTA-CIGR V CONFERENCE, 2011, VIENNA

Quendler explained the conference management tool "Conftool" and its use in connection with CIOSTA 2011. Schick asked about the use of the same tool in the future. Berruto adds that it is possible to keep tracks of changes, a start with a peer reviewed conference would be useful. It should be the next step for CIOSTA.

Sørensen stated that it is very important that CIOSTA become more international so the good results from CIOSTA 2011 in terms of widen the participation must be followed in the future.

### 6. XXXV CIOSTA-CIGR V CONFERENCE, 2013, DENMARK

The location for the next CIOSTA conference will be Denmark. Planning of the CIOSTA congress in 2013 will be done from Århus University with Bochtis as the CIOSTA 2012 president.

Bochtis will arrange a meeting with Quendler for using the conference management software "Control" and the design.

### 7. XXXVI CIOSTA-CIGR V CONFERENCE, 2015, ST. PETERSBURG

The CIOSTA 2015 conference in St. Petersburg was discussed. Belyakov passed over the confirmation letters about organising the CIOSTA conference in St. Petersburg in 2015 to Sørensen and expressed that he has already some ideas about how to organise it, especially in term of bringing in new experiences. He is getting a feeling of CIOSTA here in Vienna and he invites CIGR Section V with CIOSTA to St. Petersburg to have a look at the venue. The next information about CIOSTA 2015 will be sent out with a mail.

Luoma explained that it is a good idea to plan the CIOSTA conferences well ahead in time like the position we are in now. Sørensen stated that it is a good thing to go to the East and St. Petersburg is a nice historical city.

Quendler asked about the CIGR grant of 500 EURO for CIOSTA. Sørensen stated that he will forward the letter to CIGR and Quendler will send the text.

**8. MISCELLANEOUS**

Sørensen closed the meeting at 19:00.

*Dr. Claus Grøn Sørensen  
Chair of CIGR Section V  
PD Dr. Elisabeth Quendler  
Interim secretary*

## **CIGR Section VI: “Bioprocesses” Activity Report**

CIGR Section VI deals with the advancement of engineering and technology in postharvest handling and agri-food processing, with particular focus on properties of products, unit operations, equipment, process control and traceability in respect to ensure the high quality and safety of food.



*Prof. Umezuruike  
Linus Opara Sun*

In accordance with CIGR regulation, a new board of CIGR Section VI has taken office for the period 2011-2014, with Prof. Umezuruike Linus Opara as Chair, Prof. Shujun Li as Vice Chair and Dr Amauri Rosenthal as Secretary. The board said farewell and thank you to Prof. Manuela Zude who served as immediate past secretary and welcomed Dr Oliver Schlüter as a new board member. Prof. Jozef Grochowicz, immediate past Chair and long-time member of CIGR Section VI Board, and active member of the global agricultural, biosystems and food engineering family was elected as Honorary Chair of CIGR Section VI. We thank Prof. Grochowicz and Prof. Zude for their selfless service and continuing participation in CIGR affairs.

The 1st International CIGR Workshop on “Food Safety: Advances and Trends” was successfully organised in 14-15 April, 2011 in Dijon, France by the CIGR Food Safety Working Group linked to CIGR Section VI. The Workshop was co-chaired by Dr. Amauri Rosenthal, Vice-Chair of CIGR Food Safety and Secretary of CIGR Section VI, and Prof. Patrick Gervais, Head of Laboratory of Food and Microbial Engineering, University of Burgundy and AgroSup Dijon, France.

The 6th International Technical Symposium of CIGR Section VI on “Towards a sustainable food chain” was successfully held in 18-20 April 2011, Nantes, France under chairmanship of the local organising committee by Prof. Alain Le BAIL. The Symposium attracted over 420 paper and poster submissions and was attended by delegates from around the world.

The 7th International Technical Symposium of CIGR Section VI on “Postharvest Technology and AgriFood Processing: Innovating the Food Value Chain”, will be held

- Enhancement of e-education/training tools to effectively transfer technologies to farmers

on 25-28 November 2012, Stellenbosch, South Africa. This is the first international postharvest and process engineering event to be hosted in Africa and promises a combination of plenary sessions, technical scientific sessions, workshop and tremendous opportunities for excursion and adventure. Further information about this event will be available at [www.sun.ac.za/postharvest/cigr2012](http://www.sun.ac.za/postharvest/cigr2012) or by email: [opara@sun.ac.za](mailto:opara@sun.ac.za). Convenor: Prof Linus Opara ([www.sun.ac.za/postharvest](http://www.sun.ac.za/postharvest))

The next National Congress of the Spanish Society of Agro-Engineering will take place in Madrid, last week in August, 2013. Ibero-American participants are all welcome, language is Spanish. Contact: Professor Margarita Ruiz Altisent, Universidad Politécnica de Madrid, Madrid. Email: [margarita.ruiz.altisent@upm.es](mailto:margarita.ruiz.altisent@upm.es) [www.lpftag.upm.es](http://www.lpftag.upm.es); [www.fruturana.net](http://www.fruturana.net)

The African Network for Solar Energy (ANSOLE) is organizing the first ANSOLE days in Yaounde, Cameroon, 17-19 February 2012. The main topic is "Solar energy for sustainable development". All papers on the application of renewable energies in food processing are welcome. Further information about this event can be found at <http://www.ansole.org>. Contact: Professor Cesar Kapseu, Regional Representative for Central Africa. Email: [kapseu@yahoo.fr](mailto:kapseu@yahoo.fr)

*Prof. Umezuruike Linus Opara Sun  
Chair of CIGR Section VI  
E-mail: [opara@sun.ac.za](mailto:opara@sun.ac.za)*

## **CIGR VII: “Information Technology” Mission, Objectives, Scope and Activities**

### **Mission**

The mission of Section VII is to advance the use of information and communication technologies to harness optimal farm management and food supply chain, achieving sustainable agriculture. The sustainability includes productivity, profitability, environmental harmonization, robustness against climatic change, food security, food safety, food quality, and farm welfare. ICT should be utilized in almost all the fields in CIGR and interdisciplinary collaborations are particularly important in the Section VII activities.



*Prof. Seishi Ninomiya*

### **Objectives**

Section VII aims to promote people to achieve the following targets through maximally utilizing most up-to-date ICT;

- Enhancement of data acquisitions and development and sharing with efficient tool supports

- Enhancement of data and model integrations for effective decision supports
- Enhancement of DSS development for farmers, extension staffs, policy makers and distributors
- Enhancement of R&D of basic technologies and tools adaptable to ICT applications in agriculture

### Scope

The scope of Section VII is broad covering;

- Policy
  - ICT policies for rural development, ICT adoption in rural community, e-government, e-agribusiness
- Data content development
  - agricultural resources data banks, market information, weather information, soil information, technology information, digital library, intellectual property
- Applications
  - decision support system, precision farming, sensors, knowledge management system, GAP support system, traceability system, e-learning/training system, extension service
- Technology
  - data/text/Web mining, cloud computing, social media/Web technologies, metadata, standards and cataloging, taxonomy, ontology and the semantic Web, information retrieval, open source tools, sensor network, sensors, Grid, human-computer interaction, mobile services, remote sensing, GIS, pattern recognition, image analysis, modeling, security

### Activities

To achieve the objectives, Section VII promotes the collaborations among related groups, providing opportunities to discuss and exchange information among them. The main activities of Section VII are to organize sessions and workshop collaborating with several

organizations which have the similar aims in terms of the utilization of ICT in agriculture.

- Section VII co-organizes WCCA (World Congress of Computer in Agriculture) as a member of INFITA (International Network of Federations of Information Technology in Agriculture, <http://www.infita.org/>). A WCCA takes place annually synchronously with one of the international conferences organized by one of the INFITA members.
  - CIGR2010 in Quebec, Canada (June, 2010)
  - EFITA2011 in Prague, Czech (July, 2011)
  - WCCA Workshop in Windhoek, Namibia (July 2011)
  - AFITA2012 in Taipei, Taiwan (September, 2012)
  - EFITA2013 in Italy
- Section VII organizes sessions and workshops on specific topics during the CIGR conferences
  - “Sensor Network and its Applications in Agriculture”, an organized session in CIGR2011 in Tokyo
  - A plan to propose a workshop in CIGR2012 in Spain (July, 2012)
- Section VII co-organizes workshops and sessions in several related conferences and meetings
  - “Agriculture and Food Security Workshop” in 5th GEOSS Asia-Pacific Symposium in Ahmadabad, India (January, 2012)
  - “ICT for Optimal Crop Management against Climatic Change”, a proposed session in APAN (Asia Pacific Advanced Network) Chiang-Mai Meeting (February, 2012)

*Prof. Seishi Ninomiya  
Chair of CIGR Section VII*

## 4. CIGR SUPPORTED ACTIVITIES

### Report on the 11th International Congress on Mechanization and Energy in Agriculture TRAKAGENG-2011 21-23 Sept. Istanbul, Turkey

A total number of 480 abstracts were submitted and then 300 abstract were accepted. 220 full papers were submitted to the Congress and finally 180 full papers were accepted for presentation and to be included into the Congress Proceedings and in the Journal of Agricultural Machinery Science published by Turkish Agricultural Machinery Association. The program included 4 keynote speeches (one of them titled as Physiological and Behavioral Sensors for Individual Cows – Advanced Technologies to Support Precision Dairy Management could not be presented due to

last minute change of the author’s program), 70 additional oral and 110 poster presentations.

There were many highlights at the TRAKAGENG2011 Congress: sessions on special topics, the gala dinner, CIGR Section IV Board Meeting and more.

The 11th International Congress on Mechanization and Energy in Agriculture had been organized parallel with 34th Symposium of the CIGR Section IV: Electricity and Energy in Agriculture. Its theme was: "Bioenergy and other Renewable Energy Systems".

More than 250 people participated in the opening session, on Wednesday 21st September 2011. The TRAKAGENG2011 Congress brought together 202 registered participants from all over the world interested in agriculture machinery and energy in agriculture. These participants from 23 different

countries (such as Iran, Japan, Taiwan, Thailand, Mexico, USA, Egypt, Chile, Bulgaria, Greece, Romania, Poland, Hungary, Czech Republic and many other European countries), representatives from industry, agriculture ministry officials and journalists.

The 15 sessions of the conference dealt with 9 main different topics, all regarding agricultural engineering and environmental and energy technologies, but about different aspects (Power and Machinery; Structure and Environment; Energy in Agriculture; Information and Electrical Technologies; Automation and Emerging Technologies in Agriculture; Management, Ergonomics, System Engineering in Agriculture; Post-Harvest Technologies and Process Engineering; Agricultural Engineering Education and Biosystem Engineering).

*Assoc. Prof. Turkan Aktas*  
*General Secretary of the Organizing Committee*

## **Report on the 4th Asian Conference of Precision Agriculture 4-7 July 2011, Obihiro, Japan**

The 4th Asian Conference of Precision Agriculture (ACPA) held on 4-7 July 2011 at Tokachi Plaza in Obihiro, Hokkaido, Japan was organized by the Asian Conference of Precision Agriculture with the co-operation of Obihiro City. The chairman was Professor Sakae Shibusawa (Tokyo University of Agriculture and Technology, Japan) while the vice-chairmen were professor Chung Sun-Ok (Host of the 5th ACPA, Chungnam National University, Korea) and Prof. Noboru Noguchi (Hokkaido University, Japan). The administrative work was entrusted to Hokkaido University with the collaboration with other local organizations. In addition, there were 20 sponsors for the conference including CIGR and Obihiro University of Agriculture and Veterinary Medicine

Hundred thirty seven participants from 10 countries attended the conference which consisted of an Opening Ceremony, Keynote Addresses and Topic Sessions covering all the broad subject-areas that fall under the scope of Precision Agriculture. The conference was preceded by a special session called "International Workshop on Obihiro Food-valley Strategy with Community-based Precision Agriculture" on July 2.

In the Opening Ceremony, Prof. Sakae Shibusawa (Chair of ACPA) addressed the opening remarks followed by Mr. Norihisa Yonezawa (Mayor of Obihiro City) and Prof. Raj Khosla (President of ISAP).

In the Keynote Addresses, 6 topics were addressed by different speakers as follows:

- 1 An Idea of Agro-wisdom Robotics for Precision Agriculture  
Prof. Sakae Shibusawa (Chair of ACPA)
- 2 Vision on the Practice of Precision Agriculture

Prof. Maohua Wang (China Agricultural University, China)

- 3 Recent Trend of Precision Agriculture in Korea  
Prof. Sun-Ok Chung (Chungnam National University, Korea)
- 4 Twenty Years of Precision Farming - More Questions than Answers?  
Prof. Herman Auernhammer (Technical University Munich, Germany)
- 5 Precision Agriculture and Variability Management in the Food Chain  
Prof. Josse De Baerdemaeker (Katholieke Universiteit Leuven, Belgium)
- 6 Innovations for Japan Agriculture based on Automation and Robotics  
Prof. Noboru Noguchi (Hokkaido University, Japan)

Topic Sessions had in total 56 oral and 31 poster presentations, where the topics were categorized as follows:

- Soil sensors and equipment
- Spectroscopy
- Field management
- Robot and navigation
- Irrigation
- Visualization and 3D
- Image sensor
- Greenhouse technology
- Hyper-spectral imaging

An 83-page paper book that contains all abstracts as well as a CD that contains all the proceeding was handed to each participant.

Another special session named "international Workshop on Obihiro Food-valley Strategy with Community-based Precision Agriculture" was held during the conference in the collaboration of ACPA and CREST\_WSSPA. (CREST\_WSSPA: The project on "Water Saving System for Advanced Precision Agriculture" funded from Japan Science and Technology Agency (JST) as "Core Research for Evolutional Science and Technology (CREST)" program)

In the final session, 4 special presentations and a panel discussion related to "Food-valley with Precision Agriculture" were held. The panel was moderated by Professor Shibusawa while the titles of the presentations and the names of the panelists were as follows:

### **Presentation**

- 1 Critical topics on Water and Foods in business perspective  
Mr. Mark Vanacht, business consultant and president of SWCS Missouri
- 2 An emerging topic of precision conservation  
Dr. Raj Khosla, president of ISPA and professor of Colorado State University
- 3 Hot spot on ocean fishery using RS/GPS techniques  
Dr. Seiich Saito, chief of RS/GIS WG and professor of Hokkaido University
- 4 Social experiment on community-based precision paddy in Central Java

Ir. Sari Vigrwati, leader of ESD team, UPN Veteran Yogyakarta

### Panel Discussion on Food-valley with Precision Agriculture

Panelists:

Mr. Norihisa Yonezawa (Mayor of Obihiro City)  
 Dr. Toshihisa Kanayama (Director of Obihiro Univ.)  
 Mr. Marc Vanacht  
 Dr. Raj Khosla  
 Ir. Sari Vigrwati

In the closing ceremony, it was announced that the 5th conference will be held in Korea in 2013.

*Prof. Youichi Shibata*  
 General Secretariat of 4th ACPA



Reception of the 4th Asian Conference of Precision Agriculture

## Report of The VI Iberian Congress of Agricultural Engineering University of Evora, Portugal 5-7 September 2011

The VI Iberian Congress of Agricultural Engineering was held at the University of Evora on days 5, 6 and 7 September 2011. This congress, organized by the Department of Agricultural Engineering, School of Science and Technology, University of Évora in collaboration with the Spanish Society of Agricultural Engineering and Agricultural Engineering Section of the Society for Agricultural Sciences in Portugal, joined about 270 researchers, technicians and students from different countries who participated in several sessions and technical visits. It was with pride that we saw on the participants a clear satisfaction with the work, which resulted in a significant contribution to the development of the topics in question. As general conclusions we can say that:

1. The organizing committee welcomes the participation of so many colleagues from different educational and research institutions, which contributed to the dynamic of the various technical sessions, showing the interest and actuality of the topics discussed;
2. As it was planned from the beginning the thematic areas of the VI Iberian Congress of Agricultural Engineering

covered the technologies associated with the agri-food sector that enable the improvement of the productivity and competitiveness of this sector in a sustainable and environmentally friendly way, contributing to the development of rural areas and for the welfare of the general population;

3. The subjects chosen were presented and discussed in three forms: lectures given by internationally recognized experts, oral communication and presentation in the form of poster, both integrated in the technical sessions of the nine thematic areas.

In a more specific way, the works presented in these days have allowed the following conclusions:

#### 1: CONSTRUCTION

- The use of three-dimensional analysis techniques proved to be of great interest in drawing and design of rural buildings;
- It is recommended the realization of experimental tests to study the development of new building materials and their durability when applied in farming systems.

#### 2: ENERGY

- The viability of using renewable energy passes through the correct design;
- The correct use of power must take into account two aspects: the evaluation and optimization of energy resources consumption;
- It was demonstrated the possibility of use of various sources of renewable energy and waste in rural areas;
- There is a wide range of crops that can be used in biofuel production, having some more potential than others, according to the geographic region and with the technology used in its processing and purpose.

#### 3: MECANIZATION

- The works presented in this thematic area combined mechanization with agricultural production and focus on ways to improve the knowledge applied to conservation agriculture, forest and to different cultivation techniques;
- Precision farming techniques were presented, such as prototyping and computational fluid dynamics (CFD), which can contribute to the improvement of inputs use efficiency;
- Issues related to hygiene and safety in pruning and harvesting of fruits were also studied.

#### 4: PROJECTS, ENVIRONMENT AND TERRITORY

- Works applied to various situations of European and Ibero-American countries related to public participation in rural development and land management were presented;
- It was clear the necessity for further enhancement of the landscape criteria in agricultural infrastructure and transport taking into account the information provided by users and agents involved;
- Particular importance was given to the emissions from livestock farms and processing of waste from various sources.

**5: SOIL AND WATER**

- It was demonstrated the ability of models to represent the growth of irrigated crops and can be used in water management in real conditions. Nevertheless these models should be calibrated and validated according to the characteristics of each region;
- The automatic systems introduced in irrigation systems have satisfactory results allowing the maintenance of soil field capacity.

**6: GREENHOUSE TECHNOLOGY**

- The importance of reducing costs production, increasing technology use and productivity crops were enhanced as a way to face the current crisis;
- The aspects of the structure and roofing materials continue to have attention in greenhouse technology;
- When designing natural ventilation systems in greenhouses particular attention to the presence of objects or other buildings nearby should be paid.

**7: POST-HARVEST TECHNOLOGY**

- New mathematical methods based on robust models have been presented with application in studies of post-harvest technology, particularly in simulations and control processes that allow the application of robots handling fruit;
- The physical properties of agro-food products determined by objective instrumental techniques and the use of statistical tools enable a rapid classification of fluids and grains;
- The use of infra-red spectrometry (NIRS) is also an innovative application for the industries of this area.

**8: ANIMAL PRODUCTION TECHNOLOGY**

- Since in the present context the productivity and competitiveness of animal production systems is conditioned by four main aspects: animal welfare, environmental protection, food security and health security, animal production engineering should be carefully develop and implemented.

**9: EMERGING TECHNOLOGIES**

- Monitoring, efficiency and optimization of resources that have impact on bio-systems are the key words for Emerging Technologies;
- The use of spectral images in fruits and vegetables has a lot of interest because it is a relatively inexpensive technology. However, it has to be improved considering the use and processing of images.

**FINAL COMMENT**

The European Union continues to provide substantial amounts for research projects. However, both the Agro-engineering in general and the Mediterranean countries in particular have difficulties in accessing these funds. It is necessary to provide high quality projects in integrated teams who can lobby and participate for settings the priorities.

*A/Prof. Dr. Fátima Baptista  
President of Organizing Committee*



Opening session, 5 September 2011, with the presence of the Ministry of Agriculture

## 5. PUBLICATIONS

**Agricultural Engineering International The  
CIGR Ejournal  
Dr. Wang Yingkuan, Editor-in-Chief  
ISSN 1682-1130  
Submit manuscripts for peer review to  
[www.CIGRjournal.org](http://www.CIGRjournal.org)**

Since the implementation of Open Journal System (OJS) by the CIGR Journal, the numbers of manuscript submissions and registered users continue to increase. The table below shows the statistics for the CIGR Journal from January to March 2011 after using OJS.

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

From April to September of the year 2011, 46 manuscripts have been submitted, which is a little more in number than 37 from January to March 2011. The average time to conduct a review and publish a manuscript is far more than 30 days (compared with the data from the first season). As we can see many submissions (91%, lower than 68% in the last season) were in the queue awaiting



Dr. Wang Yingkuan

review by section editors. This is due to a number of reasons, such as unsmooth transition after the retirement of some section editors, too much workload on limited number of section editors, improficiency of online review using OJS, and some other personal reasons. Many authors

complain about the long delay. Measures should soon be taken to speed up the review process.

Up to October 20, 2011, the total number of registered users in CIGR Journal through OJS reached 7513 with 2110 new users, registered readers 6987 and authors 6565, however, among which 1101 with 108 new were registered as reviewers in the journal database. Compared with the number of registered users at the end of 2010 and the end of March 2011, there was a significant increase in the past months. Owing to the incomplete registration information, particularly without reviewing interests, it is hard to select proper reviewers according to their expertise. CIGR Journal will warmly welcome your participation and appreciate your support. If you have not registered in the CIGR Journal, please do so by going to the Website and registering as an author and reviewer. Moreover, in order to increase the number of reviewers, authors will be encouraged to recommend 3-5 qualified peer experts as the potential reviewers of their manuscripts when they submit to CIGR Journal.

Moreover, there are in all 217 manuscripts submitted to CIGR Journal, with no papers accepted so far, and all the manuscripts still are in process--under review or revision. Thank you.

Finally, I would like to share the good news that CIGR Journal has been officially approved for inclusion in

SCOPUS after evaluation by the Content Selection & Advisory Board (CSAB). Please see the Appendix to know more.

*Dr. Wang Yingkuan*  
*Editor-in-Chief of CIGR Journal*

#### 2011 Statistics for the CIGR Journal (April – September)

Issues (Vol.13, No.1, 2011)	Published 1 ( No. 2)
Items (Research papers)	Published 15 in No.2
Total new submissions	46
Peer reviewed	12
Delayed at section editor's hand	34 (74%)
In review with some review comments	4 (8%)
In review without review comments	42 (91%)
Accepted	0 (0%)
Declined	0 (0%)
Resubmitted	3
Days from submission to complete review	Over 90
Days to from submission to publication	Over 180

#### CIGR Section Boards (for 2011 )

<b>Section I:</b>	<i>Land and Water</i>	(Chair: Guanhua Huang [China])
<b>Section II:</b>	<i>Structures and Environment</i>	(Chair: Thomas Banhazi [Australia])
<b>Section III:</b>	<i>Plant Production</i>	(Chair: John K. Schueller [USA])
<b>Section IV:</b>	<i>Energy in Agriculture</i>	(Chair: Janusz Piechocki [Poland])
<b>Section V:</b>	<i>System Management</i>	(Chair: Claus Gron Soerensen [Denmark])
<b>Section VI:</b>	<i>Bioprocesses</i>	(Chair: Linus Opara [South Africa])
<b>Section VII:</b>	<i>Information Technology</i>	(Chair: Seishi Ninomiya [Japan])

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

**CIGR GENERAL SECRETARIAT**

**Professor Dr. Toshinori Kimura, Secretary General**  
**Associate Professor Dr. Yutaka Kaizu, Editor in Chief**

Hokkaido University, Research Faculty of Agriculture

Kita-9, Nishi-9 Kita-ku, Sapporo, Hokkaido 060-8589, Japan

Tel.: +81-11-706-3885; Fax: +81-11-706-4147, E-mail: [cigr\\_gs2010@bpe.agr.hokudai.ac.jp](mailto:cigr_gs2010@bpe.agr.hokudai.ac.jp)

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