



International Commission of Agricultural and Biosystems Engineering

CIGR

Newsletter Quarterly

**Newsletter No. 103
January 2015**

*Since 1930
85 Years of CIGR*

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Commission Internationale du Génie Rural (CIGR)

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

1. CIGR NEWS

First message from the new President

CIGR is one of numerous engineering and scientific associations, as well as associations for electrical, construction and chemical engineers, medical specialists, psychologists, IT professionals, economists, etc.

The position of CIGR among these associations - in a specific country or in the international arena – is, among others, the result of problems which are faced and solved by members of these associations. We can show that we have solved numerous difficult problems related to processing biological materials from both animals and plants. At the same time we know how many problems remain unsolved in various regions of the rapidly developing world. New problems still arise in both rich and poor countries and we, as agricultural engineers, should face them. Undoubtedly, these problems will be solved faster and more effectively if we face and solve these problems together with representatives of other scientific and engineering associations. Informing such associations of our scientific and professional activities through trade publications, participation in scientific conferences, etc. is one of the purposes of my mission as president of CIGR.

My second purpose - and I encourage all agricultural and biosystems engineers to undertake it - is the promotion of our organization, i.e. CIGR. With more than 40 years of professional experience, and having participated in numerous international events and having contact with engineers and scientists I recognise that CIGR, similarly to regional and national associations of agricultural engineers, is poorly recognized. Promoting our achievements and plans for the future is today a necessity ("those who do not promote themselves do not exist...").

The third purpose I would like to achieve is to define the following concepts: agricultural engineering, biosystems engineering, biological engineering and production engineering. It is true that there are numerous definitions of these concepts, but as far as I know the overlapping parts of these concepts and differences between them are not defined. For example, what are the differences in the knowledge and professional competences of agricultural and biosystems engineers? A more accurate definition of these four concepts and, in the longer term, their approval in the CIGR environment will be useful for: 1. ourselves, 2. applicants for our study courses, 3. the general public; thus, we will be recognized among other scientific and engineering associations.

Starting the mission of the CIGR President, I would like to express my gratitude to the many colleagues and friends in our organization with whom I have had the pleasure and honour to cooperate with so far, just to mention Bill Staudt, Axel Munack, Søren Pedersen, Da Wen Sun, Fedro Zazueta, Toshinori Kimura, Langfang Zhang, Pietro Piccardo, Claus



Prof. Tadeusz Juliszewski

Sørensen and many others. The current CIGR President from Poland counts on the kind cooperation of friends and colleagues from all continents of our beautiful world.

*Prof. Tadeusz Juliszewski
President of CIGR*

Message from the Past President

International Academy of Agricultural and Biosystems Engineering (iAABE): A New Instrument for Recognising Our Top Profession – A Message from the CIGR President

We are now in a fast moving era. The challenges presented by population boom and climate change require agricultural and biosystems engineers to discover the appropriate interdisciplinary solutions. People in some parts of the world need more food to survive; urban garbage and industrial waste need new technology to become valuable energy; limited water resources



Prof. Da-Wen Sun

need advanced technology and equipment to realize its efficient utilization and sustainability. Therefore as agricultural and biosystems engineers, we share the responsibility to advance technology research and equipment design and manufacture. We devote our professional life for the improvement of the quality of our life, and for the betterment of global development. CIGR, as a global academic organization with a large membership, seven professional technical sections and a strong impact in global agricultural and biosystems engineering, takes the lead to acknowledge the most significant contributions made by our scientists, professors and entrepreneurs around the world.

For this purpose, a proposal to form the International Academy of Agricultural and Biosystems Engineering (iAABE) under the umbrella of CIGR was presented to the CIGR Presidium on 3 September 2013 during the 5th International Conference on Trends in Agricultural Engineering in Prague, Czech Republic. It was subsequently approved by the 68th Executive Board Meeting of CIGR. The proposal was finally rectified by the 53rd General Assembly of CIGR on 17 September 2014 during the 18th World Congress of CIGR held in Beijing, China.

The main purpose of the Academy is to identify and recognise individuals distinguished by their scientific and professional contributions to agricultural and biosystems engineering. Other purposes of the Academy include fostering international cooperation and exchange of information, promoting agricultural and biosystems engineering and other sciences and technology of importance for this area, and stimulating international education and training in agricultural and

biosystems engineering.

As a learned society, the Academy will be composed of elected Fellows from all parts of the world. Elected Fellows are agricultural and biosystems engineers, who have made exceptional contributions in research, education and industry for advancing agricultural and biosystems engineering. Nominations for each new fellow are made by CIGR Presidium, Academy Executive Council, and existing Fellows, and are elected by existing Fellows only. No more than 20 Fellows will be elected every two years. The Academy is a source of scientific personnel and information to support international activities related to agricultural and biosystems engineering. The Academy acts in an advisory capacity to CIGR. Existing CIGR Fellows and CIGR Presidents automatically become the Academy Fellows. CIGR Fellow awards will be replaced by the election of the academy fellowship.

Academy activities are administered by an elected Executive Council, which is composed of President, President-elect, Past President, and two Executive Councillors.

I truly believe that the establishment of the International Academy of Agricultural and Biosystems Engineering (iAABE) is another great development of CIGR, and should significantly further promote CIGR globally.

*Prof. Da-Wen Sun
Past President of CIGR*

Message from the Incoming President

I feel great honored to be elected CIGR Incoming President and will do my best to the exercise of presidential duties.

CIGR is a world professional association engaged in serving - on a world-wide basis and through its members - the needs of humanity by fostering mutual understanding, improvement and rationalization of sustainable biological production systems while protecting nature and environment and managing landscape through the advancement of engineering and allied sciences. Ever since establishment in 1930, a number of outstanding agricultural and biosystems scientists from different countries were selected by the CIGR members to serve as the presidents for this world organization. Due to the unremitting and continues endeavor of all the CIGR Presidents, General Secretaries, the Section Chairs, Executive Board members, the CIGR WG Coordinators and the active members, CIGR has been grown into an influential t international academic commission and played an important role in improving human life.

I have been involved in CIGR academic activities for more than 16 years. Throughout the years, I served as the CIGR Executive Board member, Vice Chairman of CIGR Section VI on Postharvest Technology and Process Engineering, Section Editor of CIGR Journal, contributed to the successes of the two CIGR academic events - 2004 CIGR International



Prof. Shujun Li

Conference• Beijing and the 18th World Congress of CIGR.

I would like to make my commitment to all of you, my dear colleagues, that I will be faithful to my responsibilities and implement my duties indicated in CIGR Statutes as the President. With the assistance and under the guidance of the previous presidents, with the strong support from all of you around the world, I will accomplish my presidential term with initiative contribution.

Let's work closely for the advancement of CIGR!

*Prof. Shujun Li
Incoming President of CIGR*

Message from the Secretary General

On behalf of the General Secretariat, I am honored to send the message this time.

First, Science Council of Japan (SCJ) and Japanese Association of International Commission of Agricultural and Biosystems Engineering (JAICABE) continue to strongly support CIGR activities.

In fact, the both societies (SCJ and JAICABE) elected and recommended Professor Emeritus (Mikio Umeda) as the candidate for Secretary General to CIGR board even though it has not own laboratory and stuffs at a univerty. The reason for this is that professors in active service are too busy, with their research, education and various managements, to take care of CIGR secretarial work.

The present secretariat actually consists of five members, including SG, Assistant to SG (Prof. emeritus Makoto Hoki), Membership collection and English proofread (Engr. Ms. Peachie B. Melendez located in the Philippines), Assistant to treasurer (Ms. Ikuyo Watanabe) and WEB maintenance and IT (Dr. Masahiko Suguri, Assistant Professor at Kyoto University).

We would make an effort to manage many jobs with complexity without delays. I would like to request your positive cooperation including your sending CIGR related news and information, also paying membership fee in time.

Lastly, we would like to encourage a positive participation of young researchers and members. CIGR is always open to all Agricultural and Biosystems engineers. Any members are welcomed to join Technical Section and Working Group activities. The future of CIGR depends very much upon young members.

Best regards

*Prof. Mikio Umeda
Secretary General of CIGR*



Prof. Mikio Umeda

Schedule of 2015 CIGR Business

Meetings

during the XXXVI CIOSTA & CIGR Section V
Conference 2015 in St. Petersburg, Russia

25 May (Mon), 2015

9:00-14:00 CIGR Presidium meeting

15:00-18:00 CIGR Executive Board meeting

CIGR World Congresses and International Conferences, 2016–2020

The 4th CIGR International Conference - AgEng Conference-2016

Automation, Environment and Food Safety

26-29 June 2016, Aarhus, Denmark

The CIGR and EurAgEng (European Society of Agricultural Engineering) will be jointly spearheading the conduct of the 4th CIGR International Conference – AgEng Conference 2016 – Automation, Environment and Food Safety which will be co-sponsored by the NJF (Nordic Association of Agricultural Scientists) and Aarhus University.

The conference will be held at University of Aarhus on 26-29 June, 2016.

Program overview

Saturday June 25: CIGR and AgEng Presidium and executive meetings

26 June 26 (Sun): CIGR technical meetings. Registration.

27 June 27 (Mon): Opening session, technical sessions, welcome reception at the Town Hall

28 June (Tue) : Technical sessions, Awards ceremony, Conference dinner

29 June (Wed): Technical sessions, closing ceremony

30 June (Thu) : Technical tours

General topics

Ask for Special parallel conferences

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

PhD courses, pre and post

Program your own drone

Controlled traffic farming

Autonomous vehicles and safety

CFD modelling and climate control

Biorefinery

Biogas production

Field Robotic Event

Operations management

Important dates

1 Jan. 2016: On-line registration opens

1 Jan. 2016: Abstract submission opens

29 Feb. 2016: Abstract submission deadline

15 Apr. 2016: Notification of oral and paper acceptance

30 Apr. 2016: Early bird registration deadline

31 May 2016: Full paper submission deadline.

Please see in detail

<http://conferences.au.dk/cigr-2016/>

The preparation for the conduct for the said conferences is on-going. Likewise, the Organizing Committee is currently leading the preliminary preparations.

For inquiries, you may send an email to the following heads of the Committee:

President of the conference: Prof. Morten Dam Rasmussen at Aarhus University

Email: mdr@eng.au.dk

Chair of the scientific committee: Dr. Claus Grøn Sørensen at Aarhus University

Email: claus.soerensen@eng.au.dk

The XIX CIGR World Congress 22-26 April 2018, Antalya, Turkey

During the CIGR General Assembly which was held in Valencia, Spain on 9 July 2012, Turkey was approved to host the XIX CIGR World Congress.

The Congress will be held on 22-26 April, 2018 in Antalya, Turkey.

The Organizing Committee is already preparing for the conduct of the said event.

For queries, you may send an email to Prof. Can Ertekin of Akdeniz University in this email address

ertekin@akdeniz.edu.tr

The 5th CIGR International Conference 2020

Integrating Agriculture and Society through Engineering

14-17 June 2020, Quebec, Canada

During the CIGR General Assembly in Beijing, China on 17 September 2014, Quebec was approved to host the 5th CIGR International Conference.

The Conference will be held on 14-17 June, 2020 in Quebec, Canada.

Program overview

- 14 June (Sun): Registration and welcome reception
 15 June (Mon): Opening ceremony, Technical sessions and
 Cruise on the St.-Lawrence River
 16 June (Tue): Plenary session, Technical sessions and CIGR
 Awards Ceremony
 17 June (Wed): Technical sessions and closing ceremony

Congress venue: The Quebec Convention Centre

For queries, you may send an email to the Organizer and/or
 Local Committee Chair at the following email addresses:
 stephane.godbout@irda.qc.ca

2. NEWS FROM REGIONAL AND NATIONAL SOCIETIES

Report on the 49th Convention of Indian Society of Agricultural Engineers (ISAE)

The College of Agricultural Engineering and Technology, PAU, Ludhiana in collaboration with the Indian Society for Agricultural Engineers has planned to organize “49th Annual Convention of Indian Society of Agricultural Engineers (ISAE) and Symposium on Engineering Solutions for Sustainable Agriculture and Food Processing” during February 23 – 25, 2015. This event aims at

bringing all stakeholders, policy makers, scientists and engineers on a common platform to deliberate on contemporary and futuristic issues for providing advanced farming solutions for Indian agriculture. The Information brochure-cum-call for papers, along with registration proforma are attached herewith for your kind reference. For additional information, please visit www.isae-pau.in and contact us for any support you need.

V. M. Mayande
 President of ISAE

3. NEWS FROM SECTIONS AND WORKING GROUPS

CIGR Section I: Land and Water

Mission statement

“... 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 both urban and rural societies ...”

Objectives

The mission statement of Section I implies a range of objectives that contribute to the promotion of engineering science in land and water use in agriculture. These are:

- Improving the knowledge on processes leading to or affecting the quality of land and water resources;
- Developing and applying technologies for land use planning, including forecasting land use changes, and assessing land use impacts;
- Improving the knowledge of hydrological processes as affected by land use and agricultural practices;
- Enhancing knowledge of water contamination by fertilizers and agro-chemicals, and other agricultural sources, as well as assessing control measures;
- Improving technologies for higher performances in irrigation and drainage;
- Assessing environmental impacts of land and water use



Dr. Gerrit J. Carsjens
 Chair of Section I

in agriculture;

- Developing 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 management;
- 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 modelling, information systems, remote sensing, decision support and expert systems

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;

Relationships with other groups and societies

Currently, Section I co-operates with two working groups within CIGR and several external societies, working on topics related to the scope of Section I. These working groups and societies are represented within the section board by liaison members or permanent observers.

The two working groups of CIGR represented in the Section I board are:

1. The CIGR Working Group on Water Management and Information Systems
2. The CIGR Working Group on Earth Observation for Land and Water Engineering

The societies represented in the Section I board are:

1. The European Society of Agricultural Engineers (EurAgEng)
2. The ICID Committee on Sustainable Use of Natural Resources for Crop Production
3. The European Society for Soil Conservation (ESSC)
4. The World Road Association (PIARC)

5. The International Society of Paddy and Water Environment Engineering (PAWEES)
6. The International Institute of Water and Environmental Engineering (2IE), Group EIERETSHER (Groupe des Ecoles Inter Etats des Ingenieurs et des Techniciens Superieurs), based in Africa

Inter-regional conferences

From 1998 until 2012 CIGR Section I organized a yearly conference under the umbrella Interregional conference on Environment-Water (EnviroWater). In 2012 the board of CIGR Section I decided to close this Inter-regional conference series and to replace it with a new series with a new name. The umbrella title of the new series is: Inter-regional conference on Land and Water Challenges. In 2013, the 1st Inter-Regional Conference on Land and Water Challenges was held from 10 until 15 September in Bari, Italy. The host organization was the Mediterranean Agronomic Institute of Bari (MAIB), part of the international Centre for Advanced Mediterranean Agronomic Studies (CIHEAM). The title of the conference was: Water, environment and agriculture: Challenges for sustainable development. The objective of the conference was to present and discuss the latest achievements in the field of sustainable use of natural resources at different scales and to promote a better development of agriculture in the future. The conference themes were:

1. Water use performance and water productivity
2. Conservation agriculture and water saving
3. Sustainability of groundwater exploitation for agriculture
4. Decision support systems and modelling tools
5. Innovative data-acquisition and information and communication technologies
6. Irrigation technologies and management practices for environmental upgrading
7. Use of treated and low quality water in agriculture
8. Climate change: adaptation and mitigation
9. Drought/Flood risk management
10. Socio-economic aspects of land and water management
11. Policies, governance and institutional development
12. Water-food-energy nexus, eco-efficiency and ecological footprint

The conference program included 96 oral presentations, 36 poster presentations and 135 full papers, involving 500 authors from almost 50 different countries. In total, 150 people were participating, including some very renowned keynote speakers. The keynote speakers and eight young scientists who contributed to the conference were granted free access to the conference. The editors of the conference proceedings are N. Lamaddalena, M. Todorovic and L.S. Pereira. The proceedings include an abstract book (300 printed copies) and full papers at a memory card and USB stick.

The next Inter-regional conferences are:

- 2nd Inter-Regional Conference on Land and Water Challenges, as a part of the CIGR World Congress, China, September 2014
- 3rd Inter-Regional Conference on Land and Water Challenges will be held in Colonia, Uruguay, September 2015.
- 4th Inter-Regional Conference on Land and Water Challenges will be held in Cancún, Mexico, April 2017 (tentative place and date).

Sponsored and/or co-sponsored activities

The sponsored and/or co-sponsored events in 2013 were:

- The first Inter-Regional Conference on Land and Water Challenges, Bari, Italy, 10-14 September 2013.
- Seminar on "Agricultural Irrigation Management for the Latin America, the Caribbean and the South Pacific Countries", Sept. 2-22, 2013, Beijing, China

Upcoming (co)sponsored events are:

- Workshop on "Improving Water Use Efficiency in Agriculture", June 1-6, 2014, Beijing, China.
- Seminar on "Agricultural Irrigation Management for Developing Countries", May 14-June 3, 2014, Beijing, China.
- The second Inter-Regional Conference on Land and Water Challenges, at the occasion of the 18th CIGR World Congress. September 15-19, 2014, Beijing.
- Ecohydrological Process and Pasture Management Session, following the 18th CIGR World Congress. September 19-21, 2014, Hohhot, China.

- Workshop on "Agricultural Hydrology and Water Resources Management", September 20, 2014, Beijing, China.

CIGR-journal: The Section I representatives in the editorial board of the CIGR-journal are Dr. Jose Manuel Monteiro Gonçalves and Dr. Antonio Brasa Ramos. In order to meet the difficulties in finding reviewers, both representatives get support by other board members. Dr. Louis Pereira is supporting Jose Manuel Monteiro Gonçalves and Dr. José Tarjuelo is supporting Antonio Brasa.

Board meetings: The board meeting 2013 of Section I was held on September 9 in Bari, Italy, at the occasion of the 1st Inter-Regional Conference on Land and Water Challenges. The board meeting was attended by 7 members, while 4 people were invited to participate on behalf of the organization of the inter-regional conferences in 2013 and 2015.

*Dr. Gerrit J. Carsjens
Chair of Section I*

CIGR Section III: Plant Production**Mission Statement**

Section III of the International Commission of Agricultural Engineering (CIGR) improves the world's production of plants for food, feed, fiber, fuel and environmental purposes through better engineering of equipment and equipment systems.

Objectives

Section III deals with the engineering principles and technologies of equipment used to produce plants, including equipment for soil preparation, planting, protection, harvesting, and transport of plants and plant products. Objectives include:

- fostering mutual understanding and sharing of information between different nations and regions, - improving the engineering and technologies of equipment, - identifying advances and areas of needed research and development, - promoting appropriate regional and human development, - promoting human safety and environmental sustainability, - stimulating participation in CIGR activities, - developing, strengthening, and working with regional and national societies and associations, and - representing and promoting agricultural and biosystems engineering worldwide.

Scope

The scope of Section III is broad, extending to the various topics appropriate for a professional society addressing the listed objectives, including:

- Equipment Design
land and soil preparation, planting and seeding, fertilizer and pesticide application, cultivation, crop monitoring, harvesting, crop processing, materials and crops transport, waste handling
- Equipment Use
equipment systems, machinery management, human factors, data and communications



Prof. Qin Zhang
Chair of Section III

- Research and Development
equipment processes, equipment components, equipment concepts, testing
- Technologies
mechanics and design, sensors and actuators, automation, precision agriculture, networks, manufacturing

Activities

Section III engages in a variety of activities in which section members collaborate to work towards its objectives.

Current activities include:

- Formal and informal sharing of information across national and regional boundaries,
- Organizing technical sessions at CIGR congresses, CIGR conferences, and other CIGR-sponsored events,
- Organizing and administering events which bring together section members
- Promoting the creation and use of information databases

*Prof. Qin Zhang
Chair of Section III*

CIGR Section IV Energy in Agriculture

Report on the Section IV activities in period 2011-2014:

The section was very active in these period. The Section IV related or supported conferences were organized year after year.

In 2011:

33rd Section IV symposium "Bioenergy And Other Renewable Energy Technologies And Systems" in June in Bucharest of Roumania. (<http://www.cigr2011.renerg.pub.ro/>)

The symposium "Bioenergy and other Renewable Energy Systems" as a joint meeting with "11th International Congress on Mechanization" and Section IV in September in Istanbul of Turkey. The board meetings were held during both symposiums.

In 2012:

The board meeting was held during CIGR Conference in July in Valencia of Spain.

In 2013:

The conference „Energy in Agriculture” in May in Turkey.

34th Section IV Symposium "Bioenergy and Other Renewable Energy Technologies and Systems" in September in Krakow of Poland. The symposium „Synergy - International Conferences in the Technical Development of Agriculture and Food Industry” in October in Hungary

The chair participated Technical Section meeting at the Conference in September in Prague of Czech to discuss about TS activities.

In 2014

The supported conference “Agricultural mechanization and energy in agriculture” in Nevhesyr of Turkey. The board meeting during XVIII CIGR World Congress

Janusz Piechocki

Former Chair of CIGR Section IV

Mission statement

The Section deals with the actual problems of the rational and economical applications of electricity and other energy sources in agriculture. In particular it deals with the rational use of the renewable energy sources considering the aspects of the protection of the environment. It is worldwide platform for engineers, all related individuals, national and international organizations. It provides the latest technological developments in energy issues, and creates awareness on efficient and rational utilizing of energy sources through organizing, coordinating and co-organizing the conferences, symposiums, workshops, and others.



Prof. Cengiz Akdeniz
Chair of Section IV

Objectives

The Section promotes the development of technologies and systems for energy in agriculture including bio-energy and other renewable energy and cooperation among the groups from different countries on the field of energy in agriculture.

They are:

- To realize and improve the collaboration amongst the networks active on renewable energy issues worldwide,
- To provide an effective environment for exchanging the latest new scientific research results and knowledge on technological developments,
- To support foresight studies on renewable energy sources in agriculture and give emphasize on scientific, technical and strategic developments on this issues,
- To search and promote new technologies on energy in agriculture and transferring to agriculture and industry,
- To encourage researchers to study on effective and sustainable usage of renewable energy sources,
- To make worldwide awareness on importance of renewable energy sources and rational energy usage on agriculture.

Scope

- Fuel and bio-fuel production and utilization in agriculture,
- Small scale bio-power plants (CHP),
- Biomass conversion technologies,

- Bio-energy markets and sustainable developing considering the aspects of the environment protection,
- Solar thermal and photovoltaic systems and wind power systems used in agriculture,
- Energy efficiency technologies.

Activities

The Section plans to organize one or two conferences or symposiums in every year in different countries of the world. During one of these conferences we organize meeting for Board Members of CIGR Section IV in every year. We participate in the Conferences and Congress whole of CIGR. We support native activities in different countries on the energetic area in agriculture.

R. Cengiz Akdeniz
Chair of Section IV

CIGR Section VII

Report on Section VII 2011-2014

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.

In 2010: CIGR2010 in June in Quebec, Canada

In 2011: EFITA2011 in July in Prague, Czech, WCCA Workshop in June in Windhoek, Namibia

In 2012: Initiation of African Network for Information Technology in Agriculture (ANITA) during IAALD African Chapter Meeting in May, AFITA2012 in September in Taipei, Taiwan

In 2013: EFITA2013 in Turin, Italy.

In 2014: WCCA2014 in San Jose, Costa Rica, AFITA2014 in Perth, Australia

In 2015, EFITA2015 in Poznan, Poland

Organized sessions and workshops during the CIGR conferences

“Sensor Network and its Applications in Agriculture”, an organized session in CIGR2011 in Tokyo, Japan

Co-organized workshops and sessions in several related conferences and meetings

In 2012

“Agriculture and Food Security Workshop” in 5th GEOSS Asia-Pacific Symposium in April in Tokyo, Japan

“ICT for Optimal Crop Management against Climatic Change”, a proposed session in APAN (Asia Pacific Advanced Network) Chiang-Mai Meeting, Thailand in February.

In 2013

“Human and Machine Interaction”, an organized session in EFITA2013 in June in Turin, Italy

The board meeting:

CIGR2010, CIGR2011, CIGR2012, EFITA2013, WCCA2014, CIGR2014

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.

Objectives

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

Policy making of ICT-based sustainable agriculture and rural development for green economy

Enhancement of e-education/training and communication tools to effectively transfer technologies to farmers and to solve the last one mile issue.

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

Enhancement of data integration for agricultural big data based on interoperable data standardization

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

- Policy: ICT policies for sustainable rural development, ICT adoption in rural community, e-government, e-agribusiness based on green economy

- Data content development: agricultural resources data banks, market information, weather information, soil information, technology information, digital library, intellectual property, big data cloud
- Privacy security and data quality: Interoperable data exchange platform and cloud
- Applications: decision support system, precision farming, sensors, knowledge management system, GAP support system, traceability system, e-learning/training system, extension service, and Maximum utilization of big data and IOT
- Technology: data/text/Web mining, machine learning, 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 workshops collaborating with several organizations which have the similar aims in terms of the utilization of ICT in agriculture.

Prof. Seishi Ninomiya

Chair of Section VII

Member Executive Board of CIGR

4. CIGR SUPPORTED ACTIVITIES

Frutic Italy 2015 9th Fruit, Nut, and Vegetable Production Engineering Symposium 19-22 May, 2015 in Milano, at Fieramilano (Rho Pero)

The Symposium technical program is structured in parallel sessions, which will be held over three days.

The Conference topics will be treated in invited plenary lectures, key note lectures, selected lecture presentations and poster sessions.

Posters will stay on for the whole Conference promoting Author presentation and spontaneous discussion.

Please see details (www.aidic.it/frutic).

International Symposium Agricultural and Mechanical Engineering 30 October - 1 November 2015 Polytechnica University of Bucharest, Romania

The aim of the Symposiums is to present the latest scientific results on all aspects of research, design and development work in the field of mechanics, environmental engineering, renewable energy sources, agricultural engineering and sustainable agriculture.

Please see details (<http://isb.pub.ro/isbinmateh.html>).

E-mail: isbinmateh@gmail.com

3rd Inter-Regional Conference on Land and Water Challenges: “Tools for developing” 27-30 September, 2015, Colonia, Uruguay

The objective of the conference is to present and discuss the latest achievements and advances in sustainable land and water engineering and to promote the sustainable future development of agriculture and biosystems.

Organized by the National Research Institute of Agriculture (INIA) and the Ministry of Livestock, Agriculture and Fisheries (MGAP), Uruguay.

Under auspices of CIGR Section I, Land and Water and PROCISUR

Please see details (<http://www.inia.uy/estaciones-experimentales/direcciones-regionales/inia-direcci%C3%B3n-nacional/3rd-inter-regional-conference-on-land-and-water-challenges>)

Section IV co-organized Conference Preliminary announcement

VI International Conference on Energy Efficiency and Agricultural Engineering
Bulgarian National Society of Agricultural Engineers in Ruse, Bulgaria

Synergy 2015 Congress, October 11-16, 2015 in Gödöllő, Hungary

2nd International Conference “Renewable Energy Sources
26-29 May, 2015 in Krynica, Poland.

Please confirm about all conferences to R. Cengiz Akdeniz of Chair of Section IV:

e-mail: e-mail: cengiz.akdeniz@ebiltem.ege.edu.tr

e-mail2: rcakdeniz87@gmail.com

The Sixth Asian Conference on Precision Agriculture (ACPA2015) 16 – 20 November, 2015 Guangzhou, China

The Sixth ACPA (ACPA2015) aims to provide a forum for presentations and discussions on the current state of precision agriculture research and applications in Asian region. It also offers a great opportunity for researchers and experts from Asia and other parts of the world to exchange ideas and experience in PA theory development, PA technology innovation and possible extended adoption, and to discuss obstacles and challenges in PA. South China Agricultural University (SCAU), as a committee member, is trying to put much effort to successfully organize the ACPA2015 so that participants can share our experience among the member countries, learn from other continents, and discuss issues related to the future agricultural development in Asia

Please see details (www.acpa2015.org)

Contact Information: Emails: acpa2015@163.com

Contact person:

Conference affair: Zhiyan Zhou scauzyzhou@gmail.com

Call for paper: Zheng Li, lizhen@scau.edu.cn

5. PUBLICATIONS

The CIGR Journal Agricultural Engineering International Prof. Lanfang Zhang, Editor-in-Chief ISSN 1682-1130

Submit manuscripts for peer review to
www.CIGRjournal.org

In the passing 2014, the Editorial office of CIGR Journal has been working hard and achieved progresses under the guidance of CIGR Presidium, with the instruction of Prof. Lanfang Zhang, the Editor-in-Chief as well as the enthusiastic support of all the Associate Editors (AE). It was a fruitful year for CIGR Journal. The XVIII World Congress of CIGR was held in Beijing, China during 16th-19th September, 2014. At the 18th World Congress of CIGR, Prof. Lanfang Zhang, the Editor-in-Chief and the Associate Editors of Dr. Fedro Zazueta Ranahan, Dr. Gabor Zsivanovits, Dr. Laszlo Baranyai, Dr. José Manuel Monteiro Gonçalves, Dr. Remigio Berruto received the awards from CIGR Presidium for their contribution to CIGR Journal. All of the members of the editorial office of CIGR Journal in CAAMS, Beijing received the Merit Award for the successful day-to-day running of CIGR Journal. All the awards showed the recognition of CIGR Presidium to the achievements that CIGR Journal made in the past year. We will cherish this honor and will do better job to maintain the quality of CIGR Journal.

Since the implementation of Open Journal System (OJS) by the CIGR Journal, the numbers of manuscript submissions and registered users continues to increase. The table below shows the statistics of the CIGR Journal from June 1st, 2014 to Jan 31th, 2015 using OJS. With the increasing number of

submissions, improving the quality of the papers to be published is the primary goal of the Journal. Authors, reviewers and Associate Editors are the keys to upgrading the quality of CIGR Journal.

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 June 1st, 2014 to Jan 31th, 232 manuscripts have been submitted including 67 papers recommended by the 18th World Congress of CIGR, nearly 29 submissions per month on average. The average time to complete the review process, editorial process to publish a manuscript is more than 90 days. Among the 232 new submissions, 45.7% have been peer reviewed and 12.0% are in the review process with some reviewers' comments. More new submissions were accepted by the Associate Editors, accounting for 34.5% of the total submissions. Among the 65 manuscripts in editing, 7 of them were submitted before June 1st, 2014. Some Associate Editors need to make decisions based on reviewers' comments or assign the manuscripts to more reviewers in order to speed up the editorial process. It is also notable that more newly submitted manuscripts were archived before peer reviewing by the Editor-in-Chief, because of their incompatibility with the author's guideline, scope of the CIGR Journal, English level. It is the responsibility of Editor-in-Chief to filter unqualified manuscripts, sustain and improve the quality of our Journal. During the 8 months surveyed, three issues of CIGR Journal, Vol. 16, No. 2, No. 3 and No. 4 with 88 manuscripts were published on time. We will continue our

endeavor of maintaining the manuscript statistics and prompt communications with Associate Editors.

By Feb 2nd, 2015, the total number of registered users in CIGR Journal through OJS reached 9128 with 376 new users compared to the statistics accounted last time on May 31th, 2014. The number of registered readers is 7968 with 211 new, 1982 were registered as reviewers with 230 new compared to the database at the end of May, 2014. Also, owing to the incomplete registration information, particularly without clearly indicating the review areas of the reviewers, it is hard for the Associate Editors to select proper reviewers according to their expertise. The CIGR Journal warmly welcomes the participation of its members as well as the scientists and engineers engaged in agricultural and biosystems engineering worldwide. We appreciate your journal work and your support. If you have not registered in CIGR Journal, please do so by going to the website and registering as an author and reviewer.

Right now, there are 189 manuscripts in total, with 65 papers accepted and in editing, the rest are still in process--under review or revision.

CIGR Journal has 4 new Associate Editors in 2014. They are: Dr. Yongbo WAN from University of Kentucky, USA, Dr. Murad ÇANAKCI from Akdeniz University, Turkey, Dr.

Liujun LI from University of Illinois at Urbana-Champaign, USA and Dr. Abdel Rahman Abdel Raouf AHMED from Agricultural Engineering Research Institute, Egypt. Welcome them to provide the volunteer work for CIGR Journal! Thank you!

*Prof. Zhang Lanfang
Editor-in-Chief of CIGR Journal*

2014 - 2015 Statistics for the CIGR Journal (June 1st, 2014–Jan 31th, 2015)

Issues (Vol.16, No. 2, No. 3, No. 4, 2014)	Published 3 (Vol.16, No. 2, No. 3, No.4)
Items (Research papers)	26 in Vol.16, No.2 30 in Vol.16, No.3 32 in Vol.16, No.4
Total new submissions	232
Peer reviewed	106 (45.7%)
Held by Section Editors	31
In review with some review comments	40 (17.2%)
In review without review comments	50 (21.6%)

CIGR Section Boards (2011-2014)		
Section I:	<i>Land and Water</i>	Chair: Gerrit J. Carsjens (Netherland)
Section II:	<i>Structures and Environment</i>	Chair: Eberhard Hartung (Germany)
Section III:	<i>Plant Production</i>	Chair: Qin Zhang (USA)
Section IV:	<i>Energy in Agriculture</i>	Chair: R.Cengiz Akdeniz (Turkey)
Section V:	<i>System Management</i>	Chair: Remigio Berruto (Italy)
Section VI:	<i>Bioprocesses</i>	Chair: Amauri Rosenthal (Brasil)
Section VII:	<i>Information Technology</i>	Chair: Seishi Ninomiya (Japan)

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

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