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President's Message

Prof. Tadeusz Juliszewski

This new year, 2018, will provide CIGR members with the opportunity to meet during the CIGR World Congress which occurs every four years. The organizers of the Congress in Antalya strive to assure similar success as was achieved in Beijing (2014), Quebec (2008), and Bonn (2004). The CIGR Presidency supports the organizers of the Congress in various ways, perhaps even more that in the past. We want this meeting of the *family of CIGR* (using the words of Professor Peter Schulze – Lammers, Past General Secretary) "professionals of agricultural and biosystem engineering to proceed in the atmosphere of creative discussions and exchange of the results of research." It is also important to note that CIGR is an international, non-governmental, and non-profit organization.

After a ten-year period of operating in Japan, the CIGR Secretariat was moved to the USA. Professor Mikio Umeda is still in the process of handing over the documents and finances to Professor Fedro Zazueta who started his duties of Secretary-General of CIGR on 1 January 2018. I would like to thank Mikio for his past work for CIGR and wish Fedro all success in the administration and finances of our organization.

Based on the recent experience of transferring the Secretary General's Office it has become clear that a business process must be established. The lack of this process has resulted in not concluding the full transfer of the secretariat's responsibilities, records and finances. The formula for gathering documents and their storing in archives, as well as deadlines for preparing minutes, audits etc. should be clearly defined for the transfer of the Secretariat. I had expected that moving the Secretariat would be a complicated process, and I had therefore suggested that Professor Mikio Umeda should start the process in the summer or autumn of 2016, but my appeal was unsuccessful.

As a result, the CIGR Secretariat is still in the process of being transferred. The CIGR webpage is, in its major part, out-of-date and needs correcting and supplementing. I will request the experienced Colleagues for a help in possibly rapid formulation of the principles for functioning of the CIGR Secretariat, so it's effective and benefits our CIGR family.

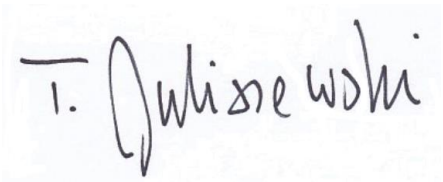
Also, I cannot remain silent on the unilateral action by the previous Secretary General of CIGR, Professor Takaaki Maakawa (Tsukuba University), that led to the destruction of the CIGR archives. Paper documents, with the history of CIGR starting in 1930, and the events which took place throughout almost 90 years of CIGR activities, were incinerated. They were not been digitalized, even though this is not an expensive or complicated process. I would like to add, that the decision about the destruction of CIGR archives was not done in consultation, nor suggested or recommended by the CIGR Presidium (or anyone from the CIGR authorities past or present). I will not formulate here my personal opinion about the decision to destroy CIGR archives, since I decline to use the words universally regarded as unprintable.

In the nearest future, it will necessary to formulate a new the strategy for the activities of the CIGR as the whole organization, as well as its technical sections, and working groups. The CIGR Presidency is aware that our members expect more from the organization than they received in the past. In particular, young agriculture and biosystem engineers involved in universities, research institutions, production and service enterprises, need an organization that contributes and facilitates their professional careers. The Presidium will create a platform to for suggestions on how to proceed with strategic reforms for CIGR.

We are also in discussions on how to use social media strategically.

Finally, I would like to underline CIGR's support the Global Initiative initiated in 2014 by the American Society of Agricultural and Biological Engineers (ASABE). The meetings between ASABE and CIGR during the Conferences in Aarhus (2016), Stellenbosch (2016), and Palermo (2017) confirmed that collaboration on tis important initiative should be further developed.

I wish successful Year 2018 to all my Colleagues and Friends from the CIGR.



Tadeusz Juliszewski
President, CIGR

Election of Prof. Chen Zhi to the CIGR Presidium

In December 2017 the Presidium was informed that Prof. Shujun Li would not be able to continue serving as CIGR President for personal reasons. CIGR statues require that under such conditions that the immediate Past President take the role of Acting CIGR President. This responsibility was graciously accepted by Prof. Tadeusz Juliszewski.

To maintain the integrity of the Presidium and to ensure regional representation, the Presidium proposed that a representative from the same organization continue in the role of President. Because this continency had never occurred and was not contemplated by the CIGR Statutes, and whereas the CIGR President is an elected position, the Presidium proposed that: 1) When a member of the Presidium becomes indisposed, a new individual can be elected to complete his/her term, and 2), that the replacing individual be duly elected.

A ballot was submitted to address each of these issues. In both cases the minimum required number of votes was exceeded (54%) with no votes in opposition or abstentions.

As a result, Prof. Chen Zhi will serve the remainder of this year as President of CIGR, and the following two years, 2019 and 2020, as Past President of CIGR.

Results of the 2019 CIGR Incoming President Election

As required by CIGR Statutes a call for nominations for CIGR President was made in the CIGR Newsletter. The nomination period closed on January 31st, 2018, with a single candidate submission, Dr. Remigio Berruto from the University of Turin, Italy.

With the nomination period being closed a description of the candidate and a ballot was sent to all voting members of CIGR with a March 19th, 2018, deadline. The results of the election were as follows:

A total of 58% of CIGR voting members completed and submitted the ballot on time, thus meeting the CIGR Statutes minimum 51% requirement for a vote to be valid. All votes were in favour of Dr. Berruto, with no votes in opposition and no abstentions.

The final result of the election is that Prof Remigio Berruto is the incoming President of CIGR for the years 2019 and 2020.

Working Groups Report (2016-2017)

Prof. Thomas Banhazi

The CIGR Working Groups are important building blocks of the CIGR organization. To further enhance the important role of the WG in CIGR, CIGR Working Groups are encouraged to:

1. Increase their visibility and functionality in CIGR;
2. Establish more close links with CIGR Sections;
3. Sponsor or co-organise relevant CIGR Section Symposiums;
4. Organise WG national or international workshops;
5. Publish CIGR Booklets/Handbook on WG area of interests;
6. Organise Special Issue in your WG area for CIGR E-Journal; and
7. Conduct actively other relevant activities.

Following are reports submitted by CIGR Working Groups.

Earth Observation for Land and Water Engineering Working Group

An official email was received from the WG leadership informing that the CIGR Working Group on Earth Observation for land and water management has not been active during the last 18 months.

Animal Housing in Hot Climate Working Group

No formal report has been received, but it is know that this group participated and managed a special session during the CIGR conference in Aarhus.

Rural Development and the Preservation of Cultural Heritages Working Group

Rural Development and Preservation of Cultural Heritages WG was quite active in 2016. We are still planning to develop a questionnaire in relation to improving rural development and preservation of cultural heritage within south eastern European countries including Bosnia & Herzegovina, Bulgaria, Croatia, Romania, Serbia and Turkey. Inquiry would be carried out in collaboration with farmers and extension service experts. The meeting of CIGR WG Rural Development and Preservation of Cultural Heritage was organized in 2016 during 44th symposium ATAE and we have had some interesting presentation like ”Green energy and rural development-role of high education” delivered by prof. Dr Milan Martinov from Serbia ”Machinery induced compaction of agricultural soil and mitigation strategies in Danube region” presented by dr. sc. Gerhard Moitzi from Austria, Off-grid slaughterhouses: services and use of renewable energy in inner areas by M.E. Menconi and S. Dell' Anna from Italy, The katuns-rural buildings as a perspective of seasonal mountain settlements in Montenegro by I. Lakovic, S. Petkovic, D. Statuto and P. Picuno from Montenegro and ”Biomass valorisation for energy uses and *Central European Initiative* instruments to promote regional cooperation” by project manager Peter Canciani from Italy. At the Closing Session, the Convenor, dr.sc. Igor Kovacev, emphasized the role of EurAgEng and CIGR in the ecologically sustainable

development of agriculture and in the preservation of the rural cultural heritage within the East-European countries.
Our plan for 2017 is to:

1. Promote the idea of preservation of cultural heritages via rural development especially during an open debate as part of the 45th symposium of ATAE,
2. finalize the Enquiry Forms and disseminate it to executives of CIGR with idea to be approved for further activities and
3. find candidates for new staff of the WG RDPCH.

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Cattle Housing Working Group

Scope and objectives

The WG is composed of several experts (researchers, engineers, extension service persons) working in different fields (behavior, environment, climate conditions, construction etc.) in relation to cattle housing. The aim of the WG is to analyze and provide references on housing conditions and building construction for cattle (dairy, beef, calves) in different climate regions of the world. The WG writes comprehensive guide books for beef and dairy cattle housing and short notes on more specific technical topics. The WG meets physically once a year for 3 days at the institute of the one of the members.

Work plan 2016-2017

Article: The group started writing a review article on "compost barns". The objective is to finish the paper early 2017.
Participation in congress: Members of the WG will participate at the "Livestock housing for the future" congress organized from February 22 to 24, 2017 in Lille (France). Four members will give talks (T. Norton, A. Herlin, M. Ventorp, J. Lensink).
Annual meeting: The annual meeting of the WG will take place in July 2017 in Gent (Belgium), organized by Suzy van Gansbeke, member of the group. We will be hosted by Flemish ministry of agriculture and will work on different documents, visit farms and the ILVO research station.

Work Group Members

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Water Management & Information Systems Working Group

No formal report has been received

Agricultural Engineering University Curricula Harmonization Working Group

Not active in 2016

Rural Landscape Protection and Valorization Working Group

No formal report has been received

Image Analysis for Agricultural Processes and Products Working Group

Objectives

The CIGR Working Group on Image Analysis for Agricultural Products and Processes was created in 2008 by initiative of Dr. Enrique Molto (Spain), Dr. Manuela Zude (Germany) and Dr. Da-Wen Sun (China) with the following objectives:

- To meet recent demands on process monitoring in agricultural production, during storage and processing of raw material
- To develop objective, sensitive, and reliable optical tools for receiving analytical data in a non-destructive way.

Expected outcomes

- Capture the state-of-the-art of image analyses applications in agronomy
- Enhance collaboration between industry and academia
- Publication of an outline of recent trends and future needs of industry, including the proceedings of the workshops on the internet
- Promote a list of useful references and links (with key words) for WG members
- Propose gold standards and methods for imaging and spectral calibration

Activities in 2016

A new website has been developed that can be visited at http://cigr-imageanalysis.com. All information about the working group, including past and future events organized by the working group and also others closely related to our activities are listed. In addition, the articles presented in the workshops that have been organized by the working group to the present are available for download in pdf format. Also, software and image databases are available for free download from this website. However, it is still under construction, but expected to have it ready by the end of the year.

The major event organized by the WG in 2016 was the 6th International Workshop on Computer Image Analysis and Spectroscopy in Agriculture, held in Aarhus (Denmark), chaired by Dr. Jose Blasco (Spain) as Special Parallel Conference under the International Conference on Agricultural Engineering CIGR-AgEng 2016. The workshop resulted in a great success being one of the topics with that had higher attendance throughout the conference. We receive more than 70 submissions from over 25 countries and five continents.

The members of the governing board attending the workshop (Dr. Naoshi Kondo, Japan, Dr. Bosoon Park, USA, Dr. Victor Alchanatis, Israel, and Dr. José Blasco, Spain) met to decide the activities and policy for future workshops. We receive offers that are now under study to celebrate the upcoming events in Korea, Colombia, Turkey, and as a joint event along with the next CIGR Section VI Technical Meeting. We agree with the convenience to continue celebrating the workshop together with the next CIGR events and also promote our activities as CIGR WG to other regions of Latin America or Asia. We agree with Dr. Kondo Noshi decision to move the workshop to be held in Japan under his presidency from 2017 to 2019.

Work Group Members

Chair: Dr. Jose Blasco, Agricultural Engineering Centre, Instituto Valenciano de Investigaciones Agrarias (IVIA), Spain

Vice Chairs: Dr. Victor Alchanatis, ARO, Israel; Dr. Bosoon Park, USDA, ARS, USA;

Board Panel: A. Prof. Thomas Banhazi, USQ-NCEA, Australia; Dr. Laszlo Baranyai, Corvinus University, Hungary; Martin Weiss, University of Hohenheim, Germany; Dr. Naoshi Kondo, Kyoto University, Japan

Food Safety Working Group

Food safety is a major public health and economic issue both for foods consumed within a country and those that are exported. The consumer's response to food safety issues is of paramount importance to the competitiveness of international industry. Any evidence, or indeed belief, of a potential risk from food has the potential to result in severe health outbreaks and marketing disruption as well as loss of sales. High standards of food safety will, therefore, remain important and determinant for the consuming and producer countries. Technologies and processes that enable the production of high safety products as well as appropriate management and analytical procedures are essential to meet the demands in a globalized and competitive world market.

Mission Statement

- Improve understanding of hazards and their risks at different steps in the food chain,
- Improve the knowledge to strengthen the food chain,
- Understand the human factor

Aims and Objectives

The general objective of FSWG is to identify researchers specialized in all the fields related to Food Safety, aiming at presenting new achievements and trends in the Area, as well as identifying necessities and opportunities of joint research for providing scientific information and technical advances in order to satisfy the demands and necessities of consumers and manufactures' along the food chains worldwide.

1. Gathering, generating and disseminating information on predicting and monitoring the behaviour and fate of emerging biological and chemical hazard;
2. Divulging advances on risk assessment and risk-benefit evaluation;
3. Disseminating information on tools, preservation practices and processes to ensure safety along the food chain;
4. Understanding and addressing consumer concerns with food safety issues.

Expected Outcomes

- Description of chemical contaminants in foods and identification of strategies for their reduction; generating and interpreting data on the fate of chemicals in the food chain and improving exposure assessments for key potential hazards, including the migration of chemicals from packaging materials into food;
- Description of measures to avoid biological and chemical contamination in agricultural production and to reduce formation of heat-induced contaminants by application of novel food preservation technologies;
- Identification of the needs for development and validation of quantitative risk assessment tools and models based on the generated data for those areas with the biggest impacts on reducing food-borne illnesses; refinement of data required for risk assessment of food allergens and tools to analyse such data;
- Information on processing technologies for reduction or elimination of hazards at the level of primary production, novel and traditional technologies for reduction or removal of chemical and biological hazards during processing;
- Knowledge of methodologies for tracking and tracing of microbes, contaminants and allergens;
- Logistic approaches for strengthening safe distribution of foods, including abuse detection and approaches for the prevention of food adulteration and bioterrorism;
- Understanding consumers' perception of risk issues, particularly in the context of risk benefit trade-offs and the amplification of risk perceptions beyond the available scientific evidence;
- State of the art on information for an effective consumer communication

strategies and messages on risk-related issues.

Work Group Members

FSWG Chair: Prof. Antonio Martinez
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2016 activities

On the 28th October 2016, the FSWG has organized its third Workshop just after the 10th CIGR Section VI Symposium, which was organized together with the XXV Brazilian Congress of Food Science and Technology. The Workshop was organized together with the Food Safety Portfolio of Embrapa (Brazilian Corporation for Agriculture Research). The event gathered several researchers and professionals from the academia, institutes and companies to discuss the scenarios and trends related to food safety and to present research proposals to attend such demands and opportunities.

Logistics Working Group

There is a need to distribute agricultural products further in the chain to incorporate additional income in agricultural activities. This require improving skill on logistics for farmers, both as new research or as a technology/knowledge transfer from other domains. Logistic plays an important role in today agriculture, facing new challenges and new opportunities. 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. Still few researchers within CIGR work on this topic and there is a need to share information on methodologies and applications.

Objectives

- To meet recent demands on machinery management in complex agricultural operations related to harvest, distribution and transport of produce (e.g. grain, biomass, food)
- To share the state-of-the art technology for the optimal management of on-farm, extra-farm and regional logistic operations
- To share the research and knowledge transfer among members of the WG and within CIGR
- To develop methods and tools to improve the efficiency of the logistic operations
- To set-up standard parameter for comparison of logistic operations
- To analyze logistics of complex value chains expanding to agri-food chains
- To optimize, with a system approach, the performance of the value chains logistic operations, under many viewpoints,

considering technical, economic and sustainability aspects.

Expected outcomes

- To organize within CIGR specific workshops on the topic
- To share knowledge and research done by members at regional, national and international level.
- To make training material on Agriculture and Agri-food logistics for researchers who want to start research in this field.
- 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
- 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

Current Activities (2016-2018) decided after Aarhus meeting

- To organize within CIGR specific workshops on the topic for the next CIGR Congress in 2018. This will be made with the Flipped Classroom format.
- To share knowledge and research done by members at regional, national and international level related to logistic fields and topics. This platform is in construction and will be available by the end of 2016. It will be made in Drupal.
- To apply for an EU call to make training material on Agriculture and Agri-food logistics for researchers who want to start research in this field. (Done by end of 2018).

Workgroup Members

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Plant Factory and Intelligent Greenhouse (PFIG) Working Group

Working plan for 2016-2017

This WG was established in 2016. The website documenting our mission, objectives/aims, work plan, expected outcomes, and how to join this WG will be finalized and made available in November 2016. We are preparing to hold the world workshop entitled "Innovative and feasible technologies for plant factory and intelligent greenhouse - Plant Factory Conference 2017" at Ehime University in Japan during 6-7th September 2017. All the information would be provided through the WG's website.

Introduction:

A dramatic improvement of land productivity will be required to secure stable food supply and thus to reliably feed the growing world population. At the same time, demand for high value-added foods is also increasing. To answer to these demands, the application of "plant factories and intelligent greenhouses" needs to be investigated. Plant factory is a facility that can achieve high efficiency plant production under fully controlled environmental condition without sunlight. On the other hand, intelligent greenhouses are equipped with an automated environmental control system to facilitate year-round plant production using the energy of the sun. Currently, the computerized plant production based on the concept of 'Speaking Plant Approach (SPA)' that aims to optimize cultivation conditions based on the plant biological and physiological status. SPA is regarded as an implementable key technology to achieve a significant productivity improvement.

Work Group Members

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Prof. Dr. Dongxian He (China Agricultural University, China)

Prof. Dr. Eldert van Henten (Wageningen University, The Netherlands)

Assistant Prof. Dr. Jong-seok Park (Chungnam National University, South Korea)

Functional/Wellness Foods and Nutrition (FWFN) Working Group.

Growing and aging global populations, increasing healthcare costs, global food security challenges, increasing consumer awareness of the relationship between diet and health, and consumer preference stimulate the transformation of traditional everyday foods into new category foods that promote nutritional well-being and reduce the effects of stress and disease. Terms such as “Functional Foods”, “Wellness Foods”, “Medical Foods” and “Health Foods” are now widely used to describe natural whole foods or processed foods that can provide additional and validated health-promoting, performance-enhancing or disease-preventing effects beyond the basic nutritional functions of the component nutrients upon consumption at efficacious levels as part of a regular diet.

Mission Statement

Promoting nutritional well-being through incorporating “functional/wellness foods” into a balanced diet and lifestyle is imperative to all populations. However, translating relevant scientific advances into real consumer products in the form of “functional/wellness foods” is highly challenging. Our vision is to establish a global Functional/Wellness Food & Nutrition platform, in which academic and industry professionals as well as consumers will have access to our scientific publications, information, products, services and activities related to functional/wellness food R&D and regulation. This requires us to:

- Improve understanding of the specific role of individual bioactive components for their health-promoting, performance-improving or disease/illness-preventing function, as well as relevant metabolic kinetics, ethical or toxicological issues.
- Improve understanding of the interactions among the dietary constituents in a single functional/wellness food, and the ultimate contribution of such interactions to the overall efficacy of the whole diet.
- Improve understanding of consumer acceptance and biological availability of the physiologically active components in various functional/wellness foods based on individual physiological, metabolic, psychological, cultural and social differences.
- Improve understanding of the nutritional requirements for the modern populations who differ in age, physical state, behaviour, lifestyle and genetics, and how functional/wellness foods satisfy the requirements of different populations.

Work Group Members

Chair: Dr. Dongxiao Sun-Waterhouse (New Zealand and China; Email address: dxsun72@hotmail.com).

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Secretary: To be appointed.

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Dr. Sara Bußler (Leibniz Institute for Agricultural Engineering, Germany)

Dr. Rosires Deliza (Embrapa, Brazil)

Dr. Karina dos Santos (Embrapa, Brazil)

Dr. Adam Ekielski (Warsaw University of Life Sciences, Poland)

Dr. Teodoro Espinosa-Solares (Universidad Autónoma Chapingo, Mexico)

Dr. Tatiana Koutchma (Agriculture and Agri-Food Canada, Canada)

Dr. Yukiharu Ogawa (Chiba University, Japan)

Dr. Svetlana Rodgers (South Australian Research and Development Institute, Australia)

2016 Activities

Global Biotechnology Congress, 22-25 August 2016, Boston, USA (Conference President was Nobel Laureate Prof. Ferid Murad with Plenary Speakers including 4 Nobel Laureates). Dr. Dongxiao Sun-Waterhouse was an Invited Speaker and Track Chair of the "Pharmaceutical Biotechnology" Track (covering Biopharmaceuticals Discovery (CNS, cancer, cardiovascular, endocrine, immune, systems biology); Vaccines; Antibodies; Protein Engineering; Bioinformatics; Clinical Research/Clinical trials). Dr. Dongxiao Sun-Waterhouse's Invited Lecture topic was: "Achieving wellness through biotechnology solutions: The balance of efficacy and palatability". The Session Lectures presented by the FWFN WG members included: Dr. Teodoro Espinosa-Solares (topic "Evolution of antioxidants in capulin fruits during pre-harvest and harvest and the development of antioxidant microcapsule"), Dr. Yukiharu Ogawa (topic "Impact of biological grain attributes on in vitro digestibility of cooked rice"), and Dr. Margaret Barth (topic "Phytonutrient and bioactivity analysis of traditionally-used native American edible plants").

The 10th The International Commission of Agricultural Engineering (CIGR, Commission Internationale du Génie Rural) Section VI Symposium & the XXV Brazilian Congress on Food Science and Technology, 24-27 October 2016, Gramado, Brazil. Dr. Dongxiao Sun-Waterhouse officially introduced the FWFN WG in the conference during her one-hour Keynote Speech on "Functional foods for human well-being: Optimizing the interplay between individual bioactive and delivery matrices" and her 30-minute Panel Speech on "Functional Ingredients". The Vice Chair of FWFN WG Dr. Jozef Grochowicz also presented a Session Oral Presentation on "Current Status of Research on Functional Food in the Context of the Promotion of a Healthy Lifestyle in Poland and Europe".

A formal FWFN WG meeting was held on 27th October to attract more members and discuss about WG's future activities. In addition to the Chair Dr. Dongxiao Sun-Waterhouse and Vice-Chair Dr. Jozef Grochowicz of the FWFN Working Group, CIGR Section VI Board members and new FWFN WG members Drs Amauri Rosenthal, Oliver Schlüter, Aladin Bekhit, Tatiana Koutchma, Geoffrey Waterhouse and Adam Ekielski also attended the meeting.

Precision Aerial Application Working Group

Mission

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.

Activities

1. The second World Precision Agricultural Aviation Conference was held in China International Exhibition Centre, Peking, on the 19th-21th, April 2016. It was jointly organized by Agricultural Aviation branch of China Agricultural Engineering Society (CAES), China Agricultural Aviation Industry Technology Innovation Strategic Alliance, International Agricultural and Biological Systems Engineering Society (CIGR) Precision Aerial Application (PAA) branch. The conference aimed to share and explore the application of agricultural aviation technology experience and problems, strengthen domestic and foreign advanced agricultural aviation technology extensive exchanges and cooperation, accelerate the development of China's agricultural aviation technology and Industry. The conference invited many keynote speakers from US Department of Agriculture (USDA), Texas A&M University, University of Queensland (UQ), International Maize and Wheat Improvement Centre (CIMMYT), CTF Company of Australia, Agnav Company of Canada, Agricultural Robot Research Centre of Korea Chonnam National University, and many other foreign universities and research institutions.
2. On 22nd, April 2016, the PAA WG has organized the 2nd China and Australia precision agriculture workshop. The workshop was organized together with National Agricultural Intelligent Equipment Engineering Technology Research Centre, and invited researchers and professionals of the Australia CTF Company and International Maize and Wheat Improvement Centre (CIMMYT) to communicate and discuss the key technologies in precision agriculture.
3. On 18th -27th, October 2016, a delegation made up of seven researchers from CIGR PAA group visited Australia to visit University of Queensland, Agricultural Science Lab , Mulgowie Farm, National Research Centre for Environmental Toxicology, National Centre for Engineering in Agriculture (NCEA), and communicated with faculty members. We reached agreement for establishing a Sino-Australia Smart Agricultural Centre, and also other areas such as aerial spray drift model, efficacy evaluation, and agricultural intelligent equipment.
4. The 5th International Precision Aerial Application Conference will be held on November 12-15, 2016, in Guangzhou. It is organized by PAA branch of CIGR, International Laboratory of Agricultural Aviation Pesticide Spraying Technology (IPAA). Many well-known experts and scholars from Australia, Malaysia, Pakistan, South Korea, China and the United States will be invited to give presentations.

Plan for 2017

1. Further promote the precision aerial applications with research cooperation between China and Australia, develop smart agricultural collaboration.
2. To promote agricultural aviation technology application in agricultural plant protection around the world.
3. The 3rd International Precision Aerial Application Conference will be held on April 20-23 2017, in Beijing.

4. The 9th International Symposium on Precision Aerial Pesticide Application Technology will be held in November 15-18, 2017 in Nanjing.

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CIGR Presidium's Visit to China

The CIGR Delegation to China and representatives of leading universities and agricultural machinery organizations.

A CIGR delegation consisting of: President Tadeusz Juliszewski; Secretary General Fedro Zazueta; Past President Bill Stout; and CIGR member Wonsuk "Daniel" Lee met with leading universities and representatives of Chinese agricultural machinery organizations during the 26th through the 30th of March, 2018.

Chinese representatives and organizations included: Academician Wang Maohua, Honorary Chair of CSAM and CSAE; Academician, Luo Xiwen, Honorary Chair of CSAM and CSAE; Prof. Chen Zhi, President of CAAMM; Liu Xian, President of CAMA; Mao Hong, President of CAMDA; Zhu Ming, Vice Chair and Secretary General of CSAE; Fang Xianfa, Vice President of CAAMS and Vice Chair of CSAM; Zhang Quanguo, Vice President of Henan Agricultural University and Vice Chair of CSAE; Han Lujia, College of Engineering Dean of the China Agricultural University and Vice Chair of CSAM; Jiang Weidong, Chairman of the Shandong Wuzheng Group and Vice Chair of CSAM; Zhang Xiansheng, Secretary General of CSAM; Guan Xiaodong, Vice Secretary General of CSAE; and Qin Jingguang, Vice Secretary General of CSAE.

The CIGR delegation and Chinese colleagues discussed the role of agricultural and biosystems engineering and potential strategies to improve outcomes driven by the profession at a world level. In particular, creating opportunities for collaboration amongst institution, engineers and related professionals, with a focus on China's role.

In addition to the business meetings, the delegation visited The China Agricultural University, The Chinese Academy of Agricultural Mechanization Sciences, The Xi'an University of Technology, participated in the 2018 Summit of Precision Agricultural Technology and Equipment, and the 2018 National Agricultural and Machinery Parts Exhibition.

Upcoming CIGR2018 Conference

The destination of the XIX. World Congress of the International Commission of Agriculture and Biosystems Engineering (CIGR) to be held between April 22-25, 2018, has been changed to Antalya, Turkey.

Located at the Southern part of Turkey, Antalya is considered as the Pearl of Mediterranean. It is 7th largest city of Turkey that stands for professionalism, experience, diversity and quality, and which hosts more than 10 million foreign guests, from all over the world on a yearly basis.

CIGR World Congresses are the most important and biggest event for the international community of Agricultural and Biosystems Engineers, as well as researchers, academicians, engineers working in related fields. Being organized with an invaluable cooperation of the Turkish Chamber of Agricultural Engineers, Akdeniz University and Ege University, the XIX. World Congress of CIGR is an excellent opportunity for you to present your current studies, discuss new ideas, technologies, processes, application experiences and machines, and developing new

collaborations between academics, researchers, developers, engineers, experts, students and also practitioners.

The Congress also will offer you and your family extraordinary experiences about Turkish culture, daily life and historical wonders of the country during the Congress and also during the post congress tours. The congress venue is a family friendly resort venue, so, you can think about bringing your family with you. A travel guide including the **official airline discount code information**, alternative flight routes, visa requirements, airport transfers, etc has been announced on the congress website (www.cigr2018.org/general-information/travel-guideline-for-antalya).

Scientific Program

The main theme of the congress is "Sustainable Life for Children". The scientific sessions are being created within the scope of the technical sessions of the CIGR while having four invaluable keynote speakers Prof. Linus Opara (South Africa), Prof. Margarita Ruiz Altisent (Spain), Prof. Istvan Szabo (Hungary) and Prof. Mikio Umeda (Japan) address the participants of the congress.

Program at a glance

A draft programme of the congress is as below:

April 22, 2018, Sunday:
CIGR Governance Meetings; Presidium, Executive Board, Technical Board Meetings
Welcome Reception
April 23, 2018, Monday:
Opening Ceremony
Scientific Sessions: Oral and Poster Sessions
CIGR Governance Meetings; Meetings of Technical Sections and Working Groups
April 24, 2018, Tuesday:
Keynote Lectures
Scientific Sessions: Oral and Poster Sessions
Award Ceremony
Gala Dinner
April 25, 2018, Wednesday:
Keynote Lectures
Scientific Sessions: Oral and Poster Sessions
Closing Ceremony
April 26, 2018, Thursday:
Technical Tour (included in the registration fees): The programme of the technical tour will be announced in the upcoming weeks.
April 27-29, 2018, Friday-Sunday:
Post Congress Tours (optional for the ones who reserve post congress tours)

Abstracts

Hundreds of abstracts have been submitted for the XIX. World Congress of CIGR. A list of accepted abstracts can be found on the congress website (www.cigr2018.org/scientific/accepted-abstracts). While having the Scientific Committee building the programme nowadays, it is still possible to submit new abstract(s). Our online abstract submission is kept open (until the beginning of April) for the participants who decides to attend the congress at the last minute.

Information

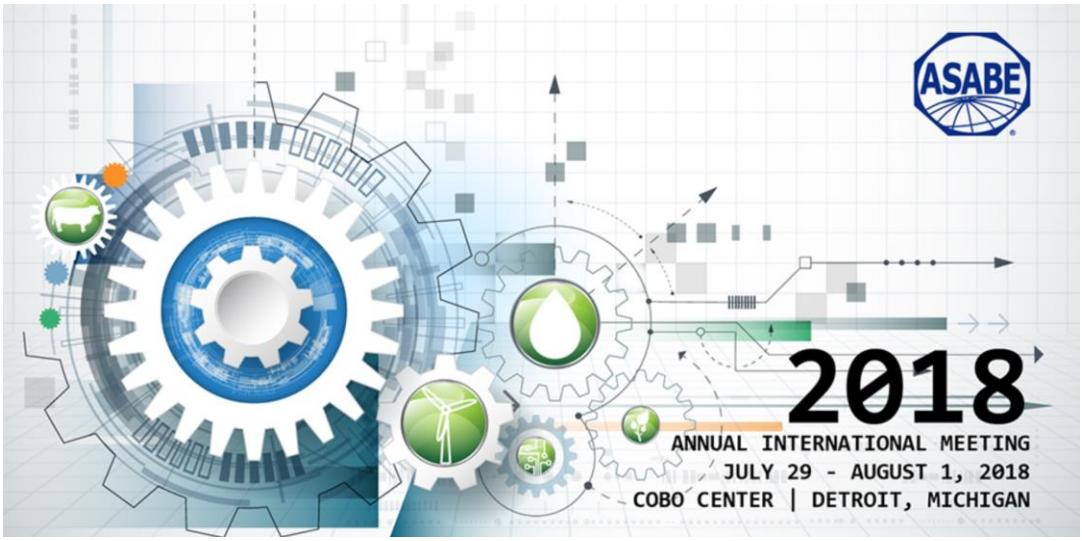
Please visit the congress website (**www.cigr2018.org**), and/or the social media accounts of the congress (Facebook: CIGR2018 / Instagram: CIGR2018 / Twitter: CIGR2018)

For inquiries, please email Prof. Can Ertekin of Akdeniz University, Co-Chair of the Organizing Committee, at **ertekin@akdeniz.edu.tr**, or the congress secretariat: **cigr2018@k2-events.com**

Latin America and the Caribbean Agricultural Engineering Congress

The Congress will be held from the 4th to the 7th of June in San Jose, Costa Rica. For information See: http://www.CLIA2018.org.
For more information mail: info@clia2018.com

ASABE Annual International Meeting



For information please see:

http://www.asabemeetings.org/

Section VI International Symposium

Call for Papers

12TH CIGR SECTION VI INTERNATIONAL SYMPOSIUM

(Postharvest Technology & Bioprocess Engineering)

Innovation and Technologies for Sustainable Agricultural Production and Food Sufficiency

Monday 22 – Thursday 25 October, 2018

Institute for Tropical Agriculture (IITA), Ibadan, Nigeria

The Symposium Organizing Committee extends to all CIGR members and related professionals an invitation to submit abstracts on any of the conference sub-themes. For information on paper submissions please visit www.cigrvinigeria2018.org

Please follow the guidelines for full paper submission found at www.cigrjournal.org. Abstracts can be submitted after registering at www.cigrvinigeria2018.org

Sub-themes

1. Postharvest Technologies and Processes
2. Engineering Technologies for Fruit, Vegetables, and Other Specialty Crops,
3. Agro-processing, value addition and poverty alleviation,
4. Information and Communication Technologies for postharvest processing,
5. Renewable Energy Resources in Agricultural and Food Production,
6. Energy Utilization and Application in Agricultural Facilities, Processes and Operations,
7. Reduction of postharvest losses and agricultural financing,
8. Dairy Value Chain and Entrepreneurship
9. Handling, Storage, Transport, and Processing of crops,
10. Gender roles in postharvest, agro-processing technologies, and
11. Innovative Resource Systems and Energy Strategies in Controlled Environments.