



International Commission of Agricultural and Biosystems Engineering

July 2024

Newsletter 137

"...to serve - on a world-wide basis and through its members - the needs of humanity by fostering mutual understanding, improvement and rationalisation of sustainable biological production systems while protecting nature and environment and managing landscape through the advancement of engineering and allied sciences..."

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Web: www.CIGR.org

Journal: www.CIGRjournal.org

Contact us: secretarygeneral@CIGR.org

6th CIGR International Conference CIGR2024, Report from the Chair



Kangjin Lee
Chair
CIGR 2024 Organizing
Committee

The 6th international conference of CIGR 2024 held from May 19th to 22nd, 2024 at ICC Jeju, Republic of Korea has concluded. The conference was organized by the Korean Society for Agricultural Machinery (KSAM) with the support and cooperation of the Korean Society for Agricultural Engineers (KSAE) and the Korean Society for Bio-Environment Control (KSBEK).

The scientific program was prepared by the committee consisting of 7 technical sections, i.e., S1-Land and Water, S2-Structures and Environments, S3-Plant Production, S4-Energy in Agriculture, S5-System Management, S6-Bioprocess, and S7-Information Technology, and 7 workgroup sections, i.e., W1-Smart Greenhouse and Livestock Technology, W2-AI and Bigdata for Digital Agriculture, W3-Machine Learning Applications in Biosystems Engineering, W4-AI in Plant Phenotyping, W5-Circular Bio-economy Systems, W6-Plant Factory and Intelligent

Greenhouse, and W7-Rural Landscape, Structures and Infrastructure Planning and Valorization.

544 abstracts for oral and poster presentations were received, including those from plenary and keynote speakers. Among the 282 abstracts submitted by residents in the Republic of Korea, 94% (266 submissions) completed their registration, whereas 78% of international residents finalized their registration. Overall, the registration rate for all abstract submitters was 86.9%. 71 sessions were held, including 2 plenary, 49 general, 18 organized, and 2 poster sessions. The total number of presentations was 544, i.e., 340 oral presentations including 5 plenary and 18 keynote presentations, and 204 poster presentations.

There was a total of 672 participants with nationalities from 38 countries, i.e., 279 students, 10 LIC & MIC participants, 5 companions, 4 one-day registrants, 59 sponsors/exhibitors, and 315 general participants, including invited speakers. Among these, 571 were paid registrants, which included 157 general participants who did not submit abstracts, and 100 were free registrants consisting of sponsors and guests of the conference, etc. In Korea, the institution with the most registrations was the Rural Development Administration with 78 participants, followed by Seoul National University with 60 participants.

Photo Collage from the 6th CIGR International Conference

For more photos see the conference web site under the [general information tab](#).

Welcome Reception



Technical Sessions



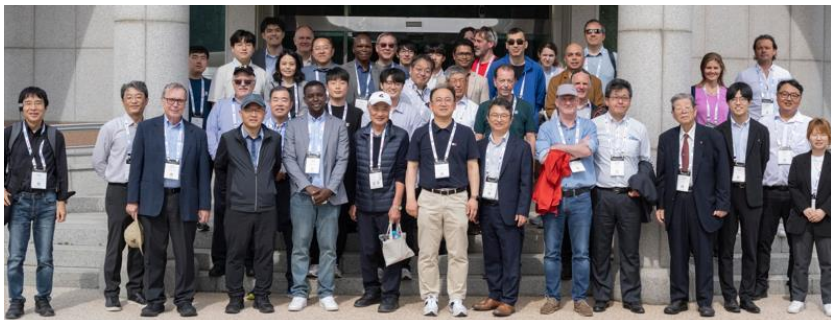
Banquet



Awards and Closing Ceremony



Technical Tour



Newly elected iAABE Fellows

The Academy is a learned society composed of elected members (Fellows) from all parts of the world, who will usually, but not necessarily, be affiliated with Adhering Bodies of CIGR. The Academy promotes, for the benefit of the international community, agricultural and biosystems engineering science and technology and related sciences. The Academy promotes high standards of ethics and scientific endeavor among agricultural and biosystems engineers, scientists and technologists. In seeking to promote scientific endeavors, the Academy encourages communication, discussion, and interaction with similar international scientific groups. The Academy serves as a source of scientific personnel and information to support international activities related to agricultural and biosystems engineering science and technology through CIGR. The Academy acts in an advisory capacity to CIGR and to the Adhering Bodies of CIGR.

To be eligible for election as a Fellow, a person must be recognized as having established an outstanding reputation for scientific accomplishments and/or leadership in agricultural and biosystems engineering, science and/or technology.

Newly elected fellows are:

Prof. Michael Favorode



Michael O. Faborode, Distinguished Professor of Agricultural Engineering, Fellow, Nigerian Academy of Engineering, was outstanding as Vice-Chancellor, Obafemi Awolowo University, Nigeria, 2006-2011, and an Eminent 2013 Resident Scholar at the Rockefeller

Foundation Study Centre at Bellagio, Italy. Currently, he serves as transformative President, Pan African Society for Agricultural Engineering (PASAE).

Prof. Enchen Jiang

Distinguished for his outstanding contributions to the advances of agricultural mechanization, agricultural residues utilization and biomass energy development for a sustainable world through education, discovery, and technology transfer locally, nationally, and globally, as an eminent researcher, agricultural engineer and educator in the agricultural and bio-systems since the early 1990's.



Prof. Rameshwar Kanwar

In recognition of Dr. Kanwar's outstanding contributions in developing innovative drainage, irrigation, and sustainable management systems to improve water quality and crop productivity, and for making positive impacts on the lives of people in more than 50 countries by assuring water and food security for vulnerable communities.



Prof. Milan Martinov

Is a key academic in South-Eastern Europe. Distinguished in renewable energies in rural areas and in machinery of medicinal and aromatic crops. He was Section Editor -Energy in Agriculture of CIGR-E-journal 2004-2010, Vice Chair Section IV – Energy in agriculture, and Vice Chair Working Group Rural



Prof. John F. Reid



Prof. Reid has over 35 years of highly accomplished technology leadership experience in industry and academia. His research focused on sensing, automation, and control of biosystems. At

Deere&Company he pioneered enterprise field robotics and was recognized as John Deere Technical Fellow. He was Vice President of Enterprise Technologies for Brunswick Corporation. He serves as Chair of CIGR WG on Circular Bioeconomy.

Prof. Yu Tang



Yu Tang is a distinguished leading expert in smart agriculture. He published over 100 journal papers, 11 United States invention patents, and 63 Chinese invention patents. He hosted over 30 provincial and

ministerial-level key scientific research projects and achieved 11 provincial and ministerial-level science and technology awards.

Prof. Virendra Kumar Tewari



Prof. Tewari has over 30 years of sustained research contributions that include tractor system design, ergonomics and industrial safety, design of agricultural machines, precision agriculture and machinery system management. He has collaborated with industry in the design and development of agricultural machinery. He is also recognized for his contributions to engineering education.

Dr. John Alexander Thomasson

Dr. Alex Thomasson is a renowned agricultural engineering scholar, distinguished for technological innovations in numerous applications involving sensors, analytics, and robotics. He has prodigiously garnered research funding and published impactful results, and he has served extensively in international roles and as an eminent leader and conference organizer for multiple organizations.



Prof. Seishi Ninomiya

Prof Ninomiya is an early pioneer in the use of IT in agriculture. For more than 30 years he has worked tirelessly towards the successful adoption and use of IT in Asia. In addition, he is an honorary President of CIGR in recognition of his leadership and service to the Society.



First Call: CIGR Incoming President Nominations

The Secretary General's Office is accepting nominations for CIGR Incoming President per Article 7 of the CIGR statutes. Nominations can be made only by representatives of member organizations. Nominations must be submitted by November 25th, 2024. Term of service is for six years starting in 2025: Two years as Incoming President, two years as President and two years as Past President. The nomination package must include: 1. A letter from the nominating member organization representative that includes contact information of the nominator, the nominee and the three supporting individuals. 2. A 500-word summary of the nominee's activities demonstrating

leadership within the profession and a track record of participation in CIGR activities. 3. The CV or Resume of the nominee. 4. Three letters from individuals supporting the nomination. Only complete nomination packages will be accepted and must be submitted in a single package. Incomplete nomination packages will not be considered, and the nominator will not be informed. Please send the nomination package in electronic format to secretarygeneral@cigr.org.

Fedro S. Zazueta
Secretary General, CIGR

Invitation to the XII Iberian AgriEngineering Congress



Jose Manuel Gonçalves
Organizing Committee Chair
Portugal

The Organising Committee extends an invitation to all CIGR members to participate in the XIII Iberian AgriEngineering Congress, scheduled to take place from the 21st to the 23rd of July 2025 in Coimbra City, Portugal. The congress is jointly organised by the Rural Engineering Section of the Portuguese Society of Agricultural Sciences and the Spanish Agriengineering Society.

The XIII Iberian Congress of AgriEngineering will serve as a forum for the exchange of ideas and insights on the science, technology, and practice of the sector. Through a multidisciplinary lens, the congress will analyze the current state of

Agriengineering, with a particular focus on the Iberian Peninsula. However, it will also address global issues. The official languages of the congress are English, Spanish, and Portuguese.

The congress will address a number of scientific areas, including mechanization, irrigation and drainage, precision agriculture, automation, rural constructions, energy, digitalization, projects, environment and territory, post-harvest technology, and greenhouse technology.

Further information about the congress, including details of the venue, the organizing committee, the scientific committees, the deadlines for abstract submissions, and other pertinent details, can be found on the congress website, www.agroing2025.org.

The CIGR members are invited to participate in the XIII Iberian AgriEngineering Congress in Coimbra City, where they will have the opportunity to share their knowledge and experiences, as well as to enjoy the city's rich history and culture.

2024 CIGR Awards

During the 2024 CIGR International Conference awards were given in recognition of outstanding service and scholarship to deserving individuals. These awards are biennial and are as follows:

Superior Merit Award

This Award is given to individuals for a sustained lifetime of contributions to agricultural and biosystems science and technology.



Xiwen Luo

Academician Xiwen Luo is amongst the most senior and respected professionals in China. He is a most distinguished contributor to the agricultural and biosystems profession nationally and internationally. His impact on the development of agricultural technologies and outreach resulted in significant rice production improvements that contributed to food security in China and other countries.



Xiwen Luo

As a Distinguished national and international scholar, Prof. Wang represents the generation that bridges the preceding and modern agricultural

engineers in China. Prof. Wang was appointed as Chairman of Academic Committee on Key Laboratory of Modern Precision Agriculture System Integration Research under Ministry of Education and Chairman of Key laboratory on Agricultural Information Acquisition under Ministry of Agriculture, P.R. China.

High Merit Award

This award is to recognize individuals that have made extraordinary contributions to agriculture and biosystems science and technology. Awardees are elected by the CIGR Technical Sections.



José Manuel Gonçalves

Section 1: Soil and Water

Currently associate professor with habilitation at College of Agriculture of Polytechnic Institute of Coimbra, Portugal (IPC-ESAC, www.esac.pt), and researcher of Linking Landscape, Environment, Agriculture and Food Research Centre (LEAF, University of Lisbon, www.isa.ulisboa.pt/en/leaf/). Served as the secretary of the CIGR Section I board for two terms starting in 2014 and as the president of the Section I board from 2018.



Nico Ogink

Section II: Structures and Environment

is a researcher at Wageningen Livestock Research, primarily working on the measurement, modelling and management of emissions for intensive livestock facilities. He has been instrumental in translating complex scientific knowledge on emission production and control towards the development of practical emission measurement and mitigation methodologies for stakeholders in the livestock sector. Nico has been a long-standing member of Technical Section 2 and has made significant contributions to all meetings and activities that he joined.



Cengiz Akdeniz

Section IV: Energy in Agriculture

Currently a researcher in the Agricultural Machinery and Technologies Engineering department at Ege University. Served as Deputy Coordinator of the Aegean Information and Innovation Center (EBIC-Aegean) until 2021. Has more than 170 scientific publications and books on University-Industry cooperation, agricultural machinery, valorization of agricultural residues and waste and energy in agriculture. He is the honorary chairman of CIGR - International Commission of Agricultural and Biosystems Engineering - Section IV "Energy in Agriculture.



Remigio Berruto

Section V: System Management

Currently an Associate Professor, ICT, Logistics and Sustainability CIGR President 2020-2022, CIGR V Section World Chair 2015-2018 Chair of European Federation of Information Technology in Agriculture, 2015-2017 Chair of International Network for Information Technology in Agriculture, 2018 Founder and Chair of CIGR Logistics Working Group Associate Editor, CIGR Journal Agronetwork Technical Committee Chair. His Research Interest Score is very high, for example higher than 89 % of ResearchGate members.



Yuki Haru Ogawa

Section IV: Bioprocesses

Dr. Yuki Haru Ogawa has organized the 13th CIGR VI Technical Symposium FWFNWG and FSWG workshops and 2019 International Joint Conference on JSAM, SASJ (Hokkaido University – Sapporo Campus, Sapporo, Japan, September 3-6, 2019) and was supporting CIGR Section VI during the XX CIGR World Congress: Sustainable Agricultural Production - Water, land, Energy and Food (Kyoto, Japan, December 5-9, 2022).



László Várallyai

Section VII: Information Technology

Currently a researcher at Wageningen Livestock Research, primarily working on the measurement, modelling and management of emissions for intensive livestock facilities. He has been instrumental in translating complex scientific knowledge on emission production and control towards the development of practical emission measurement and mitigation methodologies for stakeholders in the livestock sector. Nico has been a long-standing member of Technical Section 2 and has made significant contributions to all meetings and activities that he joined.

[Presidential Citation](#)

This award is given to individuals for extraordinary services and personal dedication to CIGR and its members. This award recognizes the team that organized the very successful 2024 International Conference in Jeju Island, Republic of Korea, CIGR2024.



Kangjin Lee

For outstanding contributions to the profession by serving as General Chair of CIGR2024.



Hak-Jin Kim

For outstanding contributions to the profession by serving as Executive Chair of CIGR2024.



Seung Hyun Lee

For outstanding contributions to the profession by serving as Executive Chair of CIGR2024.



Byoung-Kwan Cho

For outstanding contributions to the profession by serving as Program Chair of CIGR2024.



Chan-Seok You

For outstanding contributions to the profession by serving as Financial Manager of CIGR2024.



Jaesung Park

For outstanding contributions to the profession by serving as budget and finances manager of CIGR2024.

CIGR Journal Awards

Best Paper Award



J. E. Witoyo, B. D. Argo, S. S. Yuwono, S. B. Idjanarko for the paper:

*“The response surface methodology approach successfully optimizes a dry milling process of porang (*Amorphophallus muelleri* Blume) flour production that uses micro mill- assisted by cyclone separator”*

Outstanding Section Editors



In recognition to the work and time dedicated to the CIGR Journal, the following editors are recognized:

Osama Taha Bahnas,

Hamid Reza Gazor

Abd El-Rahman Abd El-Raouf Ahmed

Service to CIGR Workgroups



Daniele Torreggiani

For committed and dedicated support to the Workgroup on Rural Landscape Protection and Valorization

Armand Blanc Prize Winner

The Armand Blanc Prize is given to a young researcher, less than 20 years old at the time of the closing of a CIGR Conference that is first author and presents during the conference. Submissions are reviewed by a panel of judges. A final decision is made after the judges attend the competitor presentations. The prize consists of a certificate and US\$2000.



The winner of this year's Armand Blanc Price was Ting-Jui Huang from Taiwan for the entry “Developing a Self-Guided Patrol Robot and Plant Growth Management System for Greenhouse Asparagus”.

Honorary CIGR President

Individuals that served for six years as members of the CIGR Presidium are awarded the lifetime title of Honorary CIGR President. Individuals recognized this term are:



Remigio Berruto

For service to the CIGR Presidium in the role of President.



Mikio Umeda

For his service to the CIGR Presidium as Secretary General.

iAABE Service Recognition Awards



Fedro S. Zazueta

Zazueta is recognized for his outstanding activities as President and Executive Secretary of iAABE. He guided the academy with dignity, care and effectiveness and his leadership boosted the academy in its constitutional aims. As an international well known member of the Agricultural and Biosystems Engineering community he chaired the Academy granting it with great charisma

Stout was a key person in the evolution of CIGR in the last decades. He served as a longstanding councilor of the Academy with his constructive advice and ideational support. His personality helped the Academy to achieve great international renown.



Axel Munach

Munack served as long-term iAABE councilor. With his experience in different commitments for CIGR he made a significant contribution to the development of the Academy. Through his involvement, the Academy received increasing attention, especially in the AgEng communities of Europe



Bill Stout†

CIGR World Congress, CIGR2026

During the CIGR International Conference in Jeju Island, Republic of Korea, Patrizia Busato, Chair of the 2026 CIGR World Congress Invited the participants to attend the CIGR World Congress to be held in June 2026, In Torino, Italy.



The venue will be the Polytechnic of Torino's Main Campus and the Castello del Valentino.



The main program will focus on scientific and technical presentations along the lines of CIGR's technical Sections. In addition, specialty sessions will focus on emerging Technology and innovation in agriculture and biosystems. Field technical visit will be conducted to some of the local production facilities and Research laboratories. Governance meetings for CIGR technical sections and Workgroups will take place. Everyone is invited to participate in any of these that are of interest.

Papers will be published in MDPI Proceedings and will be indexed by Scopus. In addition, Special issues will be published in the Biosystems Engineering Journal and the CIGR Journal.

Besides its traditional technical program excellence and technical tours, the Congress will include a

Cultural and Spouse Program. Torino offers many opportunities for participants, family, and accompanying persons to experience the local culture. The cultural program will include visits to iconic sites that are considered world class such as: Venaria Reale, the Royal Palace, the Egypt Museum, and the National Automobile Museum.



So please, write in your agenda this Conference for the last week of June 2026. The web site for the Conference will go live September 2024 where you will find information and updates to the congress.



Patrizia Busato
Chair



Remigio Berruto
Co-chair

India Selected as the Venue for the 2028 CIGR International Conference



**CIGR International
Commission of Agricultural &
Biosystems Engineering**



**Indian Society of
Agricultural Engineers**



**Indian Council of
Agricultural Research**

**3rd - 6th Oct 2028
New Delhi, India**

**CIGR International
Congress 2028**



The Indian Society of Agricultural Engineering (ISAE) was selected by the CIGR Executive Board as the organizer for 2028 CIGR International Conference. The venue of the conference will be in New Delhi, India.

ISAE is responsible for all arrangements and financial decisions. The Presidium will assist you in ensuring the collaboration of the CIGR Technical Sections and Workgroups for a successful and comprehensive scientific and technical program.

Timely Information is forthcoming.

Upcoming Conferences

AgEng2024 International Conference of EurAgEng, 1-4 July, 2024, Athens, Greece



[Agricultural Engineering challenges in existing and new agroecosystems \(eventsair.com\)](https://eventsair.com)

CSBE/SCGAB 2024, 7-10 July, Winnipeg, Canada



<https://csbe-scgab.ca/winnipeg2024>

ASABE Annual International Meeting, July 28-31, 2024, Anaheim, CA USA



Key deadlines [here](#)

For more information go to <https://www.asabemeetings.org>

Invitation to EPIA2024: AI and IOT in Agriculture, 3-6 September, Viana do Castelo, Portugal



<https://epia2024.pt/thematic-tracks/artificial-intelligence-and-iot-in-agriculture/>

IUFOST: 22nd World congress of Food Science and Technology, 8-12 September, Rimini, Italy



[IUFOST 2024 | 22nd World Congress of Food Science and Technology \(iufost2024-italy.com\)](https://iufost2024-italy.com)



[Início - AgroIng 2025 - XIII Congresso Ibérico de AgroEngenharia](#)

APFITA2024 (14th Int. Conference of Asia-Pacific Federation for IT in Agriculture, Tsukuba, Japan)



<https://sites.google.com/jsai.or.jp/apfita-2024/>

6th Pan African Society for Agric. Eng. International Symposium, 13–15 November 2024 Houw Hoek, Grabouw, South Africa



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