International Commission of Agricultural and Biosystems Engineering

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Newsletter 144

"...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..."

Contents

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Artificial Intelligence in Biosystems Engineering: Benefits, Challenges, and the Role of AI under the EU Policy Landscape

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President, CIGR
Aarhus University,
Denmark

Benefits and challenges

Biosystems Engineering is a transdisciplinary field that integrates engineering, biology, and environmental science. Currently, AI has moved from an experimental phase to an operational necessity, acting as the key connection between biological sensors and physical action. AI holds immense potential to revolutionize Biosystems Engineering, making agriculture more efficient, sustainable, and resilient (Miller *et al.*, 2025). However, realizing this potential requires addressing data, cost, technical, ethical, and regulatory challenges as well as harvesting the benefits. Key benefits and challenges are listed in Table 1 and Table 2.

Future directions of AI in Agri-Food systems will include explainable AI and hybrid models combining biological understanding with machine learning (Correa *et al.*, 2025). Furthermore, Edge AI for on-device analysis in remote or low-connectivity environments, Digital Twins for crops, livestock, and bioprocess systems, greater standardization of data formats, and sustainable AI through energy-efficient algorithms and sensor networks will be included. Especially, the advance of edge-AI will have a significant influence (Mansoor *et al.*, 2025).

Edge-AI and EU policy provisions

The shift toward, for example, Edge AI in agriculture is no longer just a technological choice; it is a primary strategy for compliance with several key EU policies. Because Edge AI processes data locally on the farm rather than in distant clouds, it directly addresses EU provisions regarding data sovereignty, environmental transparency, and hardware longevity. This includes the EU AI Act (risk and transparency), which classifies AI systems based on risk, and where farmers must ensure their Edge AI is transparent and explainable (Ramon et al., 2024). If, for example, an autonomous tractor decides, the system must be able to explain *why*.

The EU Data Act and the Common European Agricultural Data Space (CEADS) focus on who owns the data. As Edge AI generates massive amounts of machine data, the Data Act ensures that farmers have the right to access and use the data generated by their connected and sensors, preventing data monopolies by equipment manufacturers. This also means the farmer can switch between different service providers (e.g., from one AI crop advisor to another) because the provision requires interoperability and open interfaces for field data. Another provision involves the right to repair, which affects heavily proprietary data providers but is a huge benefit for farmers and farm operations. As Edge AI becomes embedded in hardware, manufacturers are now prohibited from using software locks to prevent independent access.

Finally, the EU Green Deal and Farm to Fork sets comprehensive targets: a 50 % reduction in pesticide use and a 20 % reduction in fertilizer use by 2030 (Pawłowski and Sołtysiak, 2024). Edge AI is the primary tool to achieve these targets, where remote sensing and imaging technology can prove that farmers are only applying chemicals where required. Digitalization provides the auditable proof needed to receive subsidies under the Common Agricultural Policy (CAP). In 2026, many green

payments are tied to providing high-fidelity, sensor-verified data.

Going forward, the transition from Cloud-centric AI to Edge AI is an important operational shift in agriculture (Ajith *et al.*, 2025) The simplest way to think about it is this: Cloud AI is a brilliant scientist sitting in an office 500 miles away, whereas Edge AI is a smart operator standing in the field with a wrench in their hand. Edge AI will increasingly become a "standard" for modern agriculture, promoted by facts like many decisions in production and operations cannot wait for a round-trip to a data center. This is, for example, the case for a high-speed autonomous weeder moving at 10 mph needs to identify a weed and trigger a laser or sprayer in under 50 milliseconds (Fontani *et al.*, 2025). Sending images to the cloud, waiting for a server to process it, and receiving the command back takes 1–2 seconds. By then, the robot had moved 15 feet and missed the target. Edge AI happens locally, enabling observation and action at full operational speed.

The connectivity issue, where internet on a farm is unreliable meaning rural areas often have zones where 5G or even 4G signals vanish. Using Edge-AI means that an autonomous robot relying on the cloud and the internet, can keep working maintaining operational capacity as well as being independent from intentional disruptions in data communication. As mentioned earlier, EU policies like the Data Act emphasize who owns and sees the farmer's information. Farmers are increasingly wary of sending every pixel of their field to a third-party tech giant's cloud, whereas by processing data at the edge, the raw images and sensitive data never leave the farm. Only recommendations (e.g., "field 4 needs 10% more water") are uploaded. This meets strict privacy regulations and prevents vendors lock-in.

Finally, agriculture produces Big Data in the literal sense—terabytes of data and streaming these data from 10 different drones to the cloud 24/7 is prohibitively expensive and energy-intensive. Edge AI uses Small Language Models (SLMs) and specialized chips (like specialized AI processing units in the form of Tensor Processing Units (TPUs) or Application-Specific Integrated Circuit (ASICs)) that are optimized for low power. They process the data on-site and only transmit the tiny fraction that matters, reducing bandwidth costs by up to 80 %.

Table 1. Key specific benefits of AI in Biosystems Engineering

Key area	Specifics
Improved precision and efficiency	AI enables highly accurate sensing, prediction, and control of biological and agricultural systems. Precision agriculture: Machine learning improves irrigation scheduling, fertilizer recommendations, and pest detection using multispectral imaging and sensor data. Process optimization: AI models optimize bioprocesses (e.g., fermentation, anaerobic digestion), improving yields and reducing energy use
Real-time monitoring and decision support	Advanced sensors, IoT devices, and AI analytics help engineers understand complex, dynamic systems. Early detection of equipment failures, animal stress, plant diseases, or environmental changes Decision-support systems integrate climate, soil, plant, and equipment data for rapid responses.
Automation of labor-intensive tasks	Automation reduces reliance on manual labor, which is critical as agricultural labor shortages grow. Robot-assisted harvesting, sorting, grading, and milking. Autonomous tractors, UAVs, and field robots.
Enhanced modeling of complex biological Systems	AI handles nonlinear, multivariate relationships that are difficult to model mechanistically. Predictive models for crop yield, nutrient cycling, and soil–plant–atmosphere interactions. Hybrid modeling: AI + mechanistic models (a growing research direction).

Sustainability and resource optimization	AI contributes directly to sustainability goals. Reduced use of water, fertilizers, pesticides. Improved energy efficiency in controlled environments and bioprocess facilities. Lower greenhouse gas emissions through optimized resource use

Table 2. Key challenges of AI in Biosystems Engineering

Key challenge areas	Specifics
Data availability, quality, and bias	AI requires large, high-quality datasets, which are often limited in biological systems. Biological variability, environment-dependent behavior, and measurement uncertainty hinder model training. Bias in datasets (e.g., limited geographical coverage) reduces model generality.
Integration with existing systems	Legacy equipment and fragmented data formats make deployment difficult. Interoperability issues between sensor platforms, machinery manufacturers, and software systems. Lack of standardization slows adoption across farms and bioprocess facilities.
Explainability and trust	Stakeholders (farmers, operators, regulators) need transparent models. Many AI models—especially deep learning—act as "black boxes." In biosystems, decisions affecting safety, yield, and animal welfare require explainable reasoning.
Economic and adoption barriers	AI technologies can be expensive to implement and maintain. High upfront investment in sensors, robotics, and software. Limited digital literacy in some sectors slows effective adoption. Small and medium farms face larger
	adoption hurdles.
Ethical and regulatory considerations	AI influences living organisms, food systems, and environmental outcomes. Concerns about data privacy (e.g., farm operational data). Regulations for AI-driven decision systems in food production are still evolving. Potential inequalities between technologically advanced and resource-limited regions
Robustness and reliability	Real-world biosystems are dynamic and unpredictable. AI systems trained in controlled conditions may fail when conditions shift (weather, pests, diseases). Overreliance on automation could reduce operator expertise

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Winners of the CIGR International Undergraduate Student Competition

CIGR proudly congratulates the winners of the **CIGR International Undergraduate Student Competition** (**https://www.cigrstudentcompetition.org**) and recognizes all participating students for their outstanding contributions. The competition shows innovative engineering solutions addressing global challenges in sustainable agriculture, environmental stewardship, energy systems, and digital transformation.

This year's competition attracted high-quality submissions from universities around the world. The selected winners demonstrated exceptional scientific rigor, creativity, practical relevance, and excellence in technical communication.

CIGR expresses sincere appreciation to Technical Section committees, faculty mentors, reviewers, and organizers for their essential role in supporting student innovation and professional development worldwide.

Submissions were first evaluated within each CIGR Technical Section. The highest-ranked projects from these sections advanced to the final stage of evaluation for the Overall Winner distinction. The results are presented below.

Overall Winner

Fathurrahman Yazid Tabrani and Ardhika Rizky Ramadhan Universitas Mataram, Indonesia. Project: *SmartFarmers: Solar-Powered Automatic Irrigation with 91-Meter Deep Pump and LoRa-Based Automatic Control System*

Technical Section 1 – Land and Water Management

1st Place: Fathurrahman Yazid Tabrani and Ardhika Rizky Ramadhan – Universitas Mataram, Indonesia Project: SmartFarmers: Solar-Powered Automatic Irrigation with 91-Meter Deep Pump and LoRa-Based Automatic Control System

2nd Place: Eric Falgano Cristob Siwabessy – Universitas Pertahanan Republik Indonesia (UNHAN RI), Indonesia. Project: *Ultra-Low-Cost Solar-Powered Smart Drip Irrigation with Zero-Internet Dependency for Rural Farmers*

3rd Place: Ethan Lantzy and Sarah Laboda – University of Florida, USA. Project: Fertigation Efficiency and Visualization Tool (FEVT)

Technical Section 2 – Structures and Environment

1st Place: Kwasi Ampofo Opoku – Kwame Nkrumah University of Science and Technology, Ghana. Project: *Design of a Pre-Treatment Sedimentation System for Efficient Management of Bio-Solids in a RAS Pond*

2nd Place: T. K. Rahul Vetri – Tamil Nadu Agricultural University, India. Project: *Symbiotic Agro-Photovoltaic Systems: Optimizing Pollinator Health and Honey Production in a Structured Farm Environment*

3rd Place: Sabidur Rahman Shezan and Nusrat Jeehan Jui – Bangladesh Agricultural University, Bangladesh. Project: *Development of Agro-Waste*

Reinforced Piezoelectric Tiles for Sustainable Energy Harvesting in Smart Farms

Technical Section 3 – Plant Production

1st Place: Samprit Giri – Acharya N.G. Ranga Agricultural University, India. Project: *Remote Sensing and Irrigation System using ESP32 and AWS IoT Core*

Technical Section 4 – Energy in Agriculture

1st Place: Md. Abu Horaira Al Rezon, Amina Arif Riya and Sowaib Ahmed Sotej – Bangladesh Agricultural University, Bangladesh. Project: *NASA-Driven Carbon Sequestration and Yield Optimization*

Technical Section 5 – System Management

1st Place: Tanvir Hossain, Khoirom Ananta Oni and Nushrat Jahan Mumu – Bangladesh Agricultural University, Bangladesh. Project: *AgriGuard: Machine Learning and GIS-Based Integrated Agri-Farm Monitoring and Management System*

2nd Place: Andressa Rosado Massirer and Team – Federal University of Santa Maria, Brazil Project: *Aerial Mapping of Weeds by Remote Sensing for Spray Solution Volume Estimation in Targeted Herbicide Application*

3rd Place: M. Rahat Miah and Khondokar Junayed Ahamed – Bangladesh Agricultural University, Bangladesh. Project: *IoT-Based Onion Storage for Reducing Post-Harvest Storage Losses*

Technical Section 6 – Bioprocesses

1st Place: Emmanuel Abemyine Ayimolga – Kwame Nkrumah University of Science and Technology, Ghana. Project: *Development and Evaluation of an Improved Stove for Smoking Catfish*

2nd Place: Okpewo Okeoghene Freda – University of Ibadan, Nigeria. Project: *Development of an IoT-Based Monitoring System for Environmental Conditions in Maize Storage*

3rd Place: Mariam Odunayo Olokode – Olusegun Agagu University of Science and Technology, Nigeria. Project: *Cassava Flakes: Instant Fortified Garri Mix Enriched with Defatted Groundnut Flour*

Technical Section 7 – Information Technology

1st Place: Kanin Kamma and Thirathada Kaeophiphob – Khon Kaen University, Thailand Project: *A Comparative Study of Weed Detection in Sugarcane Fields Using Machine Learning and Deep Learning Models*

2nd Place: E. Nivashini, Jeya Shri J., Nanthitha A.T. and Shrivarthini S. PSG Institute of Technology and Applied Research, India. Project: *Smart Agro Guard*

3rd Place: Isaac Ayensu – Kwame Nkrumah University of Science and Technology, Ghana. Project: *Smart IoT-Enabled Handheld Gas Measuring Device for Greenhouse Gas Monitoring and Beyond*

Acknowledgements

A Personal Invitation to Join Us in Torino: CIGR–EurAgEng World Congress 2026

Dear Colleagues and Friends,

As Co-Presidents of the **CIGR–EurAgEng World Congress 2026**, it is our great pleasure to warmly invite you to join us in **Torino, Italy, from 24 to 26 June 2026**.

With the Congress now fast approaching, we kindly encourage all colleagues to **complete their registration and finalize travel and accommodation arrangements as soon as possible**. We are delighted by the strong international interest in the event, and early confirmation will help ensure smooth participation in both the scientific program and social activities.

A Congress at a Critical Time

This joint Congress of **CIGR and EurAgEng** will bring together the global agricultural and biosystems engineering community at a time when our discipline plays a central role in addressing challenges related to **sustainable food systems, climate change, digital transformation, water and energy management, and resilient rural development**.

The programme will include:

Plenary and keynote lectures by leading international experts

Parallel technical sessions across all CIGR technical sections

Poster presentations and student activities

Meetings of CIGR governance bodies and working groups

Industry interaction and networking opportunities

Venue and Accessibility

The Congress will take place at the historic **Castello del Valentino**, located along the Po River in central Torino. The venue is easily accessible from **Torino International Airport (Caselle)** and via high-speed rail connections from major European cities, including Milan.

Participants are advised to arrange **accommodation early**, as June is a busy period in Torino due to cultural and academic events. A range of hotels and lodging options are available within convenient distance of the Congress venue.

Registration and Practical Information

Participants are encouraged to:

- **Register online at the Congress website** at the earliest opportunity
- Confirm visa requirements and begin application procedures where necessary
- Arrange travel itineraries and accommodation bookings
- Prepare presentations and finalize participation in technical sessions
- Monitor Congress communications for updates on the final programme and social events

We Look Forward to Welcoming You

We sincerely hope you will join us in Torino to share your work, engage with colleagues from around the world, and contribute to advancing engineering solutions for sustainable agriculture and food systems.

We very much look forward to welcoming you personally this June.

With our warm regards,

Prof. Remigio Berruto   Prof. Patrizia Busato
Presidents
CIGR–EurAgEng World Congress 2026

Notice and Invitation to Participate in the 11th International College Students Intelligent Agricultural Equipment Innovation Competition

Universities, colleges, institutes, and students worldwide are warmly invited to participate in the **11th International College Students Intelligent Agricultural Equipment Innovation Competition**.

This international competition aims to foster **innovation, entrepreneurship, and practical engineering skills** among students while strengthening global exchange and cooperation in the field of **intelligent agricultural equipment and modern agricultural engineering**.

Theme

"Pooling Wisdom in Agricultural Machinery for a Brighter Future – Empowering Agriculture through Technology."

The competition provides an international educational platform for cultivating future leaders capable of contributing to the innovative development of intelligent agricultural systems and sustainable agricultural production.

> The **International Commission of Agricultural and Biosystems Engineering (CIGR)** is pleased to support this important international competition.
>
> By encouraging student participation and innovation in intelligent agricultural equipment, the competition contributes to the development of future engineering leaders and promotes international collaboration in advancing sustainable and technology-driven agricultural systems. CIGR strongly encourages universities and students worldwide to take part in this initiative and engage in global knowledge exchange.

Organizing Institutions

Co-hosts

- International Commission of Agricultural and Biosystems Engineering (CIGR)

- Chinese Society of Agricultural Machinery (CSAM)
- Chinese Society of Agricultural Engineering (CSAE)
- Synergistic Innovation Center of Modern Agricultural Equipment (SIAE)
- International University Consortium for Agricultural Engineering (IUCAE)

Organizer

- Gansu Agricultural University

Co-organizers

- China Agricultural Machinery Distribution Association (CAMDA)
- Jiuquan OK Seed Machinery Co., Ltd.

Competition Categories

Class A – Scientific and Technological Inventions

Innovative intelligent agricultural machinery includes tillage, planting, irrigation, harvesting, post-harvest processing, and key components such as sensors, electric drives, transmission systems, and navigation technologies. **Prototype or physical model required.**

Class D – Conceptual Design

Future-oriented intelligent agricultural equipment concepts and industrial design innovations. **Submission must include a concept video (MP4, 720p, ≤200 MB).**

Teams will be classified into **Undergraduate and Graduate Groups** based on the academic level of the team leader.

Participation Requirements

- Teams must consist of **2–5 students**.
- The competition primarily targets **international students**, although mixed teams are permitted

provided an international student serves as team leader and represents at least half of the team.

- Projects must be independently developed and based on work completed within the **last two years**.

Competition Schedule

Activity	Date
Registration period	**1 December 2025 – 1 April 2026**
Submission of summary list of works	**By 1 April 2026**
Submission of project reports and materials	**1 – 10 April 2026**
Notification and preparation for final round	**April 2026**
Final competition and exhibition (tentative)	**May 2026**

Final Competition

Teams selected for the final round will be required to:

- Present prototypes, physical models, or concept designs
- Participate in on-site questioning and defense
- Display exhibition boards and supporting materials

Remote live presentations may be permitted for large equipment subject to approval by the Organizing Committee.

Awards

Student awards include:

- Grand Prize (may be vacant)
- First Prize
- Second Prize
- Excellence Prize

Supervisors of Grand Prize projects will receive the **Outstanding Supervisor Award**.

Registration and Contact

Registration materials and required annexes should be submitted electronically to: **icsiaeic2026@163.com**

Further updates will be available at:

- Competition website: http://uiaec.ujs.edu.cn/

- Gansu Agricultural University: https://www.gsau.edu.cn/

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Jiangsu University

Invitation to Attend the SHWA 2026 – IX International Conference on Safety, Health and Welfare in Agriculture & Agri-Food Systems

The **University of Tuscia (UNITUS), Department of Agricultural and Forestry Sciences (DAFNE)**, in partnership with **INAIL (Italian National Institute for Insurance against Accidents at Work)** and in collaboration with the **Italian Society of Agricultural Engineering (AIIA)**, cordially invite researchers, professionals, policymakers, industry representatives, and students to participate in the **IX International Conference on Safety, Health and Welfare in Agriculture & Agri-Food Systems (SHWA 2026)** to be held **14–16 September 2026 in Rome and Viterbo, Italy.**

About the Conference

SHWA 2026 aims to provide an international forum for discussion on scientific advances, innovative technologies, and policy developments that contribute to improving **occupational safety, health, welfare, sustainability, and resilience** in agricultural, forestry, and agro-food systems.

The conference will foster collaboration among academia, public institutions, industry stakeholders, and international organizations working to promote safer and more sustainable working environments across the agri-food sector.

Main Conference Themes

Topics of interest include, but are not limited to:

- Occupational safety and health in agriculture and forestry
- Ergonomics, human factors, and worker well-being, including psychosocial risks
- Agricultural mechanization, precision agriculture, and digital technologies for safer work
- Risk assessment, prevention strategies, training approaches, and policy frameworks
- Sustainability, climate change adaptation, and resilient agro-food production systems

Scientific Programme and Activities

The conference programme will include:

- Oral and poster scientific presentations
- Keynote lectures by international experts
- Panel discussions and networking sessions
- Opportunities for interdisciplinary collaboration
- Recognition of outstanding contributions through the **SHWA 2026 Young Researchers Award**

Venue and Location

SHWA 2026 will take place in **Rome and Viterbo**, two historic Italian cities offering excellent conference facilities, rich cultural heritage, and convenient international accessibility.

Sessions will be hosted by the **University of Tuscia**, a leading institution in agricultural and forestry sciences, providing an inspiring academic setting for scientific exchange

Call for Abstracts

Researchers and professionals are invited to submit abstracts for oral or poster presentations.

Extended abstract submission deadline: 20 April 2026

Detailed submission guidelines, registration information, and updates are available on the conference website: 👉 https://shwaconference.eu

Professionals, researchers, students, and stakeholders involved in agricultural engineering, occupational safety, agro-food systems, and rural sustainability are warmly encouraged to attend SHWA 2026.

The conference offers an excellent opportunity to exchange knowledge, build international partnerships, and contribute to advancing safer, healthier, and more resilient agricultural systems worldwide.

Invitation to Attend the SAIAE Biennial Symposium 2026

Senso Masikane
SAIAE BM
South Africa

The South African Institute of Agricultural Engineers (SAIAE) cordially invites engineers, researchers, academics, students, industry professionals, and stakeholders to attend the **SAIAE Biennial Symposium 2026**, to be held **21–23 October 2026** at the **Upington Protea Hotel Marriott**, Northern Cape, South Africa.

Held under the theme **"Driving Agricultural Growth through Engineering Excellence,"** the Symposium will serve as a key national platform for exchanging knowledge, presenting innovations, and strengthening collaboration across the agricultural and biosystems engineering community.

About the Symposium

The Biennial Symposium aims to bring together professionals working in agricultural and biosystems engineering to share research findings, practical experiences, and emerging technologies that support sustainable agricultural development and agri-processing growth.

The event will feature:

- Technical presentations and discussions

- Networking opportunities among academia, industry, and government

- Technical tours highlighting regional agricultural and water management initiatives

- Exposure to innovative engineering solutions relevant to African and global agriculture

Conference Topics

Participants are invited to engage in discussions and presentations covering a broad range of themes, including:

- Precision agriculture and agricultural mechanization
- Irrigation, hydrology, and water resource management
- Renewable energy and energy management in agriculture
- Climate change adaptation and soil conservation
- Food engineering, post-harvest management, and processing systems
- Aquaculture, hydroponics, and livestock water systems
- Circular economy approaches in agriculture
- Structural engineering, farm infrastructure, and rural road design
- Subsurface drainage systems and water supply engineering
- Digital technologies and Fourth Industrial Revolution applications in agriculture

Contributions should focus on innovative developments, practical applications, or emerging challenges in agricultural engineering.

Venue and Host Region

The Symposium will take place in **Upington**, a strategic agricultural hub in South Africa's **Northern Cape Province**, known for strong production systems in grapes, raisins, pecans, wool, and livestock, as well as increasing integration of renewable energy and climate-smart agriculture initiatives.

The **Upington Protea Hotel Marriott** offers modern conference facilities capable of accommodating up to **250 delegates**, along with a range of nearby accommodation options.

Upington is accessible via **direct flights from Johannesburg and Cape Town**, as well as major road networks, ensuring convenient travel for national and international participants.

Technical Tours and Regional Attractions

Delegates will have the opportunity to participate in technical tours focusing on:

- Irrigation and water management projects along the Orange River
- Agricultural processing facilities
- Climate-smart agriculture initiatives

The region also offers notable attractions such as **Augrabies Falls National Park, wine and agri-tourism experiences, and river-based adventure activities**, making it an engaging destination for professional exchange and cultural exploration.

Important Dates

- Registration opens: **13 April 2026**

- Abstract submission deadline: **14 August 2026**
- Notification of acceptance: **31 August 2026**
- Preliminary programme release: **11 September 2026**
- Proof of payment deadline: **5 October 2026**
- Symposium dates: **21–23 October 2026**

Participation and Registration

Abstracts (maximum 300 words) may be submitted to the Symposium Secretariat. Registration details, fees, and accommodation costs will be announced in a subsequent circular.

SAIAE warmly encourages professionals, researchers, students, and organizations involved in agricultural engineering and related disciplines to participate in this important event. The Symposium offers a valuable opportunity to exchange knowledge, foster partnerships, and contribute to advancing engineering solutions for agricultural growth and sustainability.

ASABE publishes a revised standard for cotton module builder and transporters

ST JOSEPH, MICHIGAN— The American Society of Agricultural and Biological Engineers (ASABE) has revised its standard for the cotton builder and transporters.

The new version, ANSI/ASAE S392 Cotton Module Builder and Transporter Standard, includes an addition to address the use of cylindrical modules during cotton harvest.

ASABE members with standards access and those with site-license privileges can access the full-text via electronic download on the ASABE online Technical Library at elibrary.asabe.org/. Others can obtain a download for a fee directly from the library or by contacting ASABE headquarters at OrderStandard@asabe.org.

ASABE is recognized worldwide as a standards-developing organization for food, agricultural, and biological systems, with more than 280 standards currently in publication. Conformance to ASABE

standards is voluntary, except where required by state, provincial, or other governmental requirements, and the documents are developed by consensus in accordance with procedures approved by the American National Standards Institute. For information on this or any other ASABE standard, contact Scott Cedarquist at 269-932-7031, cedarq@asabe.org. A current listing of all ASABE standards projects can be found on the ASABE web site at www.asabe.org/projects.

ASABE is an international scientific and educational organization dedicated to the advancement of engineering applicable to agricultural, food, and biological systems. Further information on the Society can be obtained by contacting ASABE at (269) 429-0300, emailing hq@asabe.org or visiting www.asabe.org/.

Dolores Landeck
landeck@asabe.org

Invitation to attend the Annual Meeting and Conference of CSABE

On behalf of the local organizing committee, I am delighted to invite you to the 2026 Annual General Meeting and Technical Conference of the Canadian Society for Agricultural and Biosystems Engineering (CSABE), taking place from July 19 to 22, 2026, at the University of Saskatchewan in Saskatoon, Canada. This year's theme centers on the Food-Feed-Fiber-Water-Energy nexus, exploring opportunities and challenges in the bio-circular economy. The conference will provide excellent networking opportunities and foster meaningful discussions on the techno-economic challenges facing agri-food and biological systems. For more information, visit the conference website https://csabe-scgab.ca/saskatoon2026

Stéphane Godbout
President, CSABE
Incoming President, CIGR

Upcoming Conferences

KeSEBAE Annual Conference 24-27 March 2026, Nairobi, Kenya

www.kesebae.or.ke

The **Kenya Society of Environmental, Biological and Agricultural Engineers (KeSEBAE)** will hold its **Annual Conference 2026** on **24–27 March 2026** in **Nairobi, Kenya**, under the theme *"Artificial Intelligence for the Transformation of Agriculture, Industry, Infrastructure, and the Environment."* The conference is expected to attract more than 500 participants from academia, industry, government, and the student community, providing a dynamic forum to share cutting-edge research, exchange practical insights, and explore innovative AI applications addressing key challenges in sustainable development across Africa.

CIGR–EurAgEng World Congress, 24-26 June, 2026, Torino, Italy

https://www.cigr-eurageng-2026.org/

The Joint CIGR–EurAgEng World Congress 2026, which will be held at the Polytechnic Institute of Turin, Italy, from July 24–26, 2026.

The Congress will focus on "Emerging Technologies and Innovation in Biosystems" and aims to bring together professionals, researchers, and stakeholders from around the world. It offers a unique forum to share the latest scientific advancements, practical applications, and future perspectives in biosystems engineering. Attendees will have the chance to engage in discussions, connect with peers, and contribute toward sustainable solutions for agriculture, environmental management, and resource use.

https://asabe.org/events

The **American Society of Agricultural and Biological Engineers (ASABE)** invites researchers, engineers, students, and industry professionals worldwide to participate in the **ASABE Annual International Meeting 2026**, to be held **12–15 July 2026 in Portland, Oregon, USA**.

This flagship international event will bring together the global agricultural and biological engineering community to exchange scientific knowledge, present innovative technologies, and discuss solutions addressing sustainability, food production, natural resource management, digital agriculture, automation, and climate resilience. The programme will include **technical paper and poster presentations, keynote lectures, student competitions, technical tours, exhibitions, and networking opportunities**. Researchers are encouraged to submit abstracts and full papers for presentation.

AIM 2026 offers an excellent platform to strengthen international collaboration and stay informed on emerging trends shaping the future of agricultural and biosystems engineering.

Ragusa SHWA (Safety, Health, and Welfare in Ag. and Agro-food Syst.), 14-16 September, 2026, Rome and Viterbo

https://www.ragusashwa.it/

16th International Congress on Agricultural Mechanization and Energy, 2-4 September, 2026, Tekirdağ, Türkiye

16th International Congress on Agricultural Mechanization and Energy (TrakAgEng 2026)

📍 *Tekirdağ, Türkiye* | 📅 *2-4 September 2026*

https://trakageng2026.com.tr/

ICID 26th International Congress, 12-17 October 2026, Marseille, France

https://icidcongress2026.org/

The Indian Society of Agricultural Engineering (ISAE) was selected by the 2024 CIGR Executive Board as the organizer for 2028 CIGR International Conference. The venue of the conference will be in New Delhi, India.