



# International Commission of Agricultural and Biosystems Engineering

## Newsletter 130 September 2022

*"...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..."*

2022 CIGR World Congress Coming Soon! <http://cigr2022.org/>

Join CIGR on Twitter at <https://twitter.com/CIGR1930>

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Web: [www.CIGR.org](http://www.CIGR.org)

Journal: [www.CIGRjournal.org](http://www.CIGRjournal.org)

Contact us: [secretarygeneral@CIGR.org](mailto:secretarygeneral@CIGR.org)

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## Third 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 by representatives of member organizations. Nominations must be submitted by November 25th, 2022. Term of service is for six years starting in 2023: Two years as incoming resident, 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](mailto:secretarygeneral@cigr.org).

Fedro S. Zazueta  
Secretary General, CIGR

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## 2022 CIGR World Congress in Kyoto December Date coming up fast: Register now!

The date for the CIGR World Congress is quickly approaching. Participants can register [here](#) or visit the web page at <http://cigr2022.org/> for up to date information and follow the link to registration.

Online participation fee is 60% of face-to-face participation fee.

The scientific program has more than 10 thematic sessions, and will be all oral presentations, in which online participants are required to submit a lecture video in advance, and the question and answer will be given online with the participation of the speaker.

- Various meetings such as the board of directors, subcommittees, and WGs are held online.
- Corporate exhibitions will be conducted online.
- Technical tour will be delivered with a video. (Details will be announced later.)
- Public seminars will be held face-to-face at the Centennial Hall of Kyoto University.
- The opening ceremony, awards ceremony, and closing ceremony will be held in a hybrid manner.

- Welcome parties, banquets are only for face-to-face participants. If possible, we recommend face-to-face participation.

### **Keynote Speakers**

During the CIGR World Congress 2022 we are proud to present agricultural and biosystems engineering luminaries as keynote speakers. An overview of the keynote speakers can be found [here](#):

### **Important Dates**

June 1st: Online payment (credit card payment) starts.

August 15th: Deadline registration for presenters and early birds.

We kindly invite you to take part in this congress and request that you announce it to colleagues and societies of interest.

With best regards,

Prof. Noboru Noguchi, Congress General Chair  
Prof. Michihisa Iida, Executive Committee Chair

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## VIII International Workshop on Computer Image Analysis and Spectroscopy in Agriculture.



Naoshi Kondo, Ph.D.  
Laboratory of Bio-Sensing  
Engineering  
Graduate School of Agriculture.  
Kyoto University, Japan



Jose Blasco Ph.D.  
Centro de Agroingeniería. Instituto  
Valenciano de Investigaciones  
Agrarias (IVIA), GVA, Spain



Bosoon Park, Ph.D.  
Quality and Safety Assessment  
Research Unit. U.S. National Poultry  
Research Center. USDA,  
Agricultural Research Service, USA

The CIGR Working Group 5 on Image Analysis for Agricultural Products and Processes is organizing the International Workshop on Computer Image Analysis and Spectroscopy in Agriculture, chaired by Jose Blasco (Spain), Naoshi Kondo (Japan) and Bosoon Park (USA).

This is the VIII edition of the Workshop after the successful editions in Potsdam (Germany, 2009), Budapest (Hungary, 2010), Adelaide (Australia, 2011), Valencia (Spain, 2012), Montreal (Canada, 2014), Aarhus (Denmark, 2016) and Antalya (Turkey, 2018). On this occasion, the Workshop will be held in Kyoto (Japan) from December 5 to 9, under the umbrella of the XX CIGR World Congress (<http://cigr2022.org/>). This event is open to those interested in using non-destructive optical techniques applied to agricultural processes and products. Recent advances in optical and spectral technologies open new lines of research that cause a constant need to develop new algorithms, methods and systems, which must be able to deal with the enormous amount of information they provide. In addition, they must be focused on innovative development that can be transferred to the industry for practical use.

This event will gather knowledge on standard and non-standard techniques and technologies of artificial vision, image processing and spectroscopy oriented to the field and post-harvest agriculture, emphasizing trends in acquisition and data analysis technologies. Topics include applications related to crop monitoring, precision agriculture, remote sensing, robotics, fruit detection, plant phenotyping, weed detection, nutritional diagnostics, or rapid pre- and post-harvest quality inspection. In addition, acquisition technologies are included, such as spectroscopy and imaging for in-line/on-line/at-line applications, hyperspectral and multispectral imaging, thermal, fluorescence and microscopic imaging, and magnetic resonance imaging. Finally, the focus is also on analyzing the information generated through data mining, segmentation techniques, feature selection, real-time image processing, machine learning, deep learning or chemometrics.

The Workshop is co-organized by the International Commission of Agricultural and Biosystems Engineering (CIGR), Instituto Valenciano de Investigaciones Agrarias (IVIA, Spain), and locally by the Science Council of Japan (SCJ), Japan Association of International Commission of Agricultural and Biosystems Engineering (JAICABE), the Japanese Society of Agricultural Machinery and Food Engineers (JSAM) and the Kyoto University (KU, Japan).

Young researchers are encouraged to participate through the "Student Presentation Award" for students and the "Research Encouragement Award" for young researchers.

Submission of abstracts is now open. All interested in computer vision and spectroscopy in agriculture are kindly invited to submit their works through the Congress website, <https://cigr2022.confit.atlas.jp/login>, by selecting First category "Organized Session", and Middle Classification "WG5 Image Analysis for Agricultural Processes and Products; VIII International Workshop on Image Analysis and Spectroscopy in Agriculture".

<http://cigr-imageanalysis.com>

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## Address from Prof. Banji Oyelaran-Oyeyinka to the Nigerian Academy of Engineering



Prof. Banji Oyelaran-Oyeyinka Senior Special Adviser to the President on Industrialization, The African Development Bank

Prof. Oyelaran-Oyeyinka is renowned innovation and development scholar. He is currently Senior Special Adviser to the President on Industrialization, The African Development Bank. He served as the acting Director, Regional Office for Africa (ROAF), United Nations -Habitat in Nairobi and Director Monitoring & Research Division in which capacity he provided intellectual leadership for the UN-HABITAT “State of the World Cities Report” and the “Global Report on Human Settlements.” He is a Professorial Fellow in Innovation and Development, United Nations University, MERIT, Maastricht, The Netherlands and a visiting Professor for Innovation and Development, The Open University, Milton Keynes, United Kingdom. He was Senior Economic Adviser at the UN Centre on Trade and Development (UNCTAD), Geneva where he coordinated a ten-year review of

performance of Least Developed Countries. He is a fellow of the Nigerian Academy of Engineering.

On September 8, 2022, Prof. Oyelaran-Oyeyinka addressed the assembly of Fellows for the Nigerian Academy of Engineering on the topic “From Consumption to Production: The Role of Special Agro-Industrial Processing Zones”. In this address he addresses issues related to the challenges of achieving industrialization and compares Nigerian to other economies. He presents the case of successful economies and the use of special agro-industrial processing zones and gives strategic recommendations on closing the gap between Production Nations and Consumption Nations.

The presentation can be streamed at <https://drive.google.com/file/d/1zbBnwZfDlze6I6OuY5Op8pMim9r9IDUE/view?usp=sharing> (Presentation Starts at 17min:20sec)

And the related document can be downloaded from [https://drive.google.com/file/d/1BwoaVX4n\\_7gOg4rIiayAEw\\_0BdPaYtnu/view?usp=sharing](https://drive.google.com/file/d/1BwoaVX4n_7gOg4rIiayAEw_0BdPaYtnu/view?usp=sharing)

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## Artificial Intelligence Session at the CIGR2022 Kyoto World Congress



Prof. Luis Carlos Miranda Trujillo Eberswalde University for Sustainable Development, Eberswalde, Germany

The CIGR Working Group 12, "Artificial Intelligence and Data Science", will be very active during the upcoming XX CIGR World Congress (<http://cigr2022.org>). The Congress will be the perfect opportunity to bring together the activity of the group, with members from countries around the globe. Around 50 in-person presentations on novel applications of AI

and Data Science were submitted to the congress, with even more online and poster presentations planned. The topics cover a wide range of applications in biosystems engineering and agriculture, including precision agriculture, remote sensing, water balances, phenotyping, pollination, animal science, post-harvesting technologies, pest management, among others.

In a self organized session by WG12, a set of presentations dealing with AI for phenotyping. Other presentations with a broader scope were invited to provide an overview of the topic among disciplines and countries.

The two presentation sessions will be coupled with a networking event during the congress. This networking event will be open for everyone and will be offered as an opportunity to interact with each other and make it possible to generate synergetic cooperation within the group, since many of the technical topics are being actively developed by members from all continents. The opportunity is perfect to talk about machine learning models, convolutional neural networks, autoencoders and random forest classifiers, as well as image analysis (RGB or multispectral), behaviour analysis, time series

models and digital twins. Robots and human-machine interaction experts will be also joined, and anyone interested in this, or any related topics is invited to attend, including programmers and educators working on the wide range of biosystems engineering topics at CIGR.

For further details, you can contact the organization committee of the CIGR World Congress (cigr2022@convention.co.jp) or directly the coordinator of the session. ss (luis.miranda@hnee.de).

We look forward to meeting you in Kyoto!

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## Invitation for book chapter contributions on Sustainable Engineering: Concepts and Practices.



Israel Dunmade, PhD, P.Eng, PMP  
Professor of Sustainable Engineering,  
Mount Royal University, Calgary,  
Canada

Dear Colleagues, as researchers, investigators and experts in various fields of Science and Technology that affect and relate to Sustainable Development, you are invited to contribute a chapter/chapters to an edited book entitled Sustainable Engineering: Concepts and Practices. The book will be published by Springer Nature Publisher, 233 Spring Street, New York, NY 10013. The edited book will contain 11 sections covering various aspects of agri-food, architecture, biotechnology, energy, engineering, infrastructure, nanoscience, urban planning and many other disciplines and topics in relation to sustainable development. To contribute a chapter or chapters, please signify an expression of interest by sending the following: (a) A 200 words abstract with the title of the contribution (b) Names and affiliations of the authors and their full

contact details (c) Proposed section where the chapter should be categorized (d) 6 keywords for the intended chapter The abstract should include the objectives of the chapter, the methods used and the findings (where applicable), and implications of your work for future research and practices in sustainable engineering and/or sustainable development. Full detailed information on the edited book's background, objectives, editors and coverage is obtainable at:

[https://drive.google.com/file/d/1j8bSW\\_shr20yV82SB\\_MV7fRsG7es1cpF/view?usp=sharing](https://drive.google.com/file/d/1j8bSW_shr20yV82SB_MV7fRsG7es1cpF/view?usp=sharing)

Please help circulate this Call for Book Chapters to your contacts. For abstract submission, full manuscript submission or for further clarification, you are welcome to contact us by email via:

[sustainabletextbook@gmail.com](mailto:sustainabletextbook@gmail.com)

or [idunmade@mtroyal.ca](mailto:idunmade@mtroyal.ca) Finally, you are encouraged to regularly visit:

[https://docs.google.com/document/d/1oroZ72s64GgdZg\\_SMiez1Hd5nw9Awyd1bUCg9vezzbhc/edit?usp=sharing](https://docs.google.com/document/d/1oroZ72s64GgdZg_SMiez1Hd5nw9Awyd1bUCg9vezzbhc/edit?usp=sharing)

for timelines and updates on the sustainable engineering textbook publication. You will also find information on some of the benefits of contributing a chapter/chapters to the edited book there.

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## Invitation to APFITA/WCCA2022, 24-26 November 2022, Hanoi, Vietnam



Prof. J. Adinaraya Jagarlapudi  
APFITA President  
Indian Institute of Technology,  
Bombay, India

On behalf of the organizing committee, I would like to extend to you an invitation to participate in the 13th Asian-Pacific Federation for Information Technology in Agriculture 2022 (APFITA 2022) and the World Congress on Computer in Agriculture (WCCA). These events will take place on 24-26 November 2022, at the University of Engineering and Technology, Vietnam

National University, Hanoi (VNU-UET). The APFITA 2022 with the theme "Application of smart technology for achieving sustainable agriculture" aims to bring together researchers, practitioners, agencies, and industry partners through scientific presentations and business matching. Besides that, the conference organizes the session on discussion and recommendations on science and technology policies in sustainable agricultural development. The conference is also the platform to exhibit new advances and research results in the fields of agricultural technology.

For more details, please visit our website <https://apfita.fimo.edu.vn>. Please also feel free to contact us at [Apfita2022@vnu.edu.vn](mailto:Apfita2022@vnu.edu.vn)

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## News from ASABE

**Applied Engineering in Agriculture Journal** 38(4) is now available. [Table of Contents](#), [Journal homepage](#)

**ASABE Presidential Citations Awarded To:** [Shane Williams](#), for his leadership in organizing and running the AETC meeting after the in-person hiatus due to Covid. [Chuck Roth](#), for his profound leadership in the Member Hour initiative. [Shane Williams and Brady Lewis](#), for leading the Student Engagement Task force

and managing the immense workload behind it. [Peg McCann](#), for her countless hours of help with the Ag/Bio Supplied Reference Handbook for the PE exam. [David Bohnhoff](#), for longstanding and tenacious support of the ASABE post-frame building design standards.

*Dolores Landeck*  
ASABE

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## Standards Updates

### New ASABE/ISO Standard for Roll-Over Protective Structures

The American Society of Agricultural and Biological Engineers (ASABE) has identically adopted the latest versions of two ISO standards for front and rear roll-overprotective structures on narrow (axle width less than 1,150 mm) tractors. The adoptions replace the 2008 version with the 2021 version of the standards and further harmonizes national and international standardization.

- ASABE/ISO 12003-1:2021, Tractors for agriculture and forestry -Roll-overprotective structures on narrow tractors- Part 1: Front-mounted ROPS, incorporates the updated OECD Code 6, Strength of the front-mounted ROPS on narrow-track wheeled ag and forestry tractors.
- ASABE/ISO 12003-2:2021, Tractors for agriculture and forestry -Roll-overprotective structures on narrow tractors- Part 2: Rear-mounted ROPS, incorporates the updated OECD Code 7, Strength of the rear-mounted ROPS on narrow-track wheeled ag and forestry tractors.

- SAE J974, Flashing Warning Lamp for Agricultural Equipment

purchased by contacting ASABE headquarters at [OrderStandard@asabe.org](mailto:OrderStandard@asabe.org).

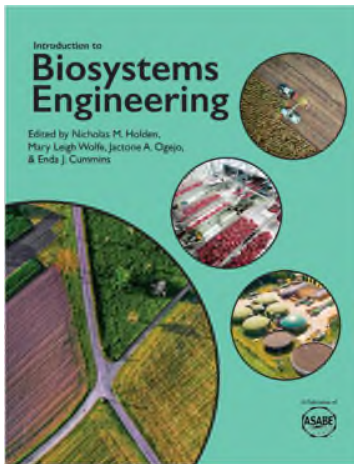
The standard is available at ASABE’s online Technical Library at [elibrary.asabe.org/](http://elibrary.asabe.org/). The standard can be

*Dolores Landeck*  
ASABE

## Open-Source Textbooks Available from ASABE

New open-source educational resources are available from ASABE including the textbooks. You can also contribute to grow this resource that benefits the Agricultural and Biosystems community worldwide:

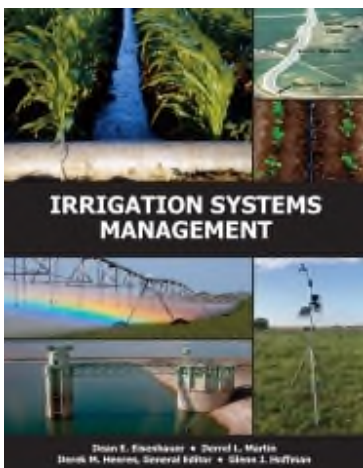
### Introduction to Biosystems Engineering.



“This open educational resource is available for [free download](#) as PDFs of individual chapters and the complete first volume (compilation of chapters). *Introduction to Biosystems Engineering* is designed as a coherent, dynamic educational resource targeted at 1st- and 2nd-year university-level students. The chapters are intended to stimulate interest and curiosity across the breadth of Biosystems Engineering and provide an international perspective. Faculty anywhere in the world can select interesting and engaging chapters of local relevance. This resource will grow over time with chapters contributed by Biosystems Engineers around the world. While the inaugural chapters are aligned with six ASABE technical communities, contributions of new chapters across the full scope of ASABE technical communities are very welcome. See [How to Contribute a Chapter](#).”

Citation: Holden, N. M., Wolfe, M. L., Ogejo, J. A., & Cummins, E. J. (Eds.). (2020). *Introduction to Biosystems Engineering*, ASABE and Virginia Tech Publishing. doi:[10.21061/IntroBiosystemsEngineering](https://doi.org/10.21061/IntroBiosystemsEngineering), CC BY 4.0, <https://creativecommons.org/licenses/by/4.0>

### Irrigation Systems Management



“The emphasis of this book is on the management of irrigation systems that are used for agricultural crop production. There are two distinct components of the book, starting with the soil-water-plant-atmosphere system and how soil water should be managed to achieve the desired crop production outcomes. This includes in-depth presentations on soil water storage and movement, plant water use, managing the soil water reservoir through irrigation scheduling, and salinity management. The book then shifts to the second component, which is the description and management of the various forms of agricultural irrigation systems along with their water supply. Whether it be a surface, sprinkler, or micro-irrigation system, the irrigation manager must not only know how much water to apply but also how to manage the system itself to achieve efficient application. The textbook is available for download at Irrigation Systems Management Textbook ([asabe.org](http://asabe.org)).”

Citation: Eisenhauer, D. E., Martin, D. L., Heeren, D. M. & Hoffman, G. J. (2021). *Irrigation Systems Management*, ASABE. doi:[10.13031/ISM.2021](https://doi.org/10.13031/ISM.2021), CC BY-NC-ND 4.0, <https://creativecommons.org/licenses/by-nc-nd/4.0/>

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## Invitation:ASABE Global Conference–Sustainable Energy for a Sustainable Future, San Jose, Costa Rica Oct. 24–26, 2022



Prof. Wei Liao  
Biosystems and Agricultural  
Engineering  
Michigan State University, USA



Prof., Ajit Srivastava  
Biosystems and Agricultural  
Engineering  
Michigan State University, USA

We are pleased to inform you that the ASABE Global Conference–Sustainable Energy for a Sustainable Future will be held in San Jose, Costa Rica October 24 – 26, 2022. The conference will be in a hybrid mode.

A fast-growing world population, estimated to reach 9.1 billion in 2050, coupled with megatrends such as rapid urbanization and diet transformation will require nearly doubling of food production worldwide. While

increasing food production is critical, issues such as water and energy security are equally important to ensure sustainability of the global food system while addressing climate change. The goal of the conference is to bring together agricultural and biological engineers and peers from academia, government, and industry including growers/farmers from across the world with local stakeholders to enable interdisciplinary dialogs among international scientists, business owners, and government agents to explore renewable energy technologies and innovations. It is expected that partnerships will be developed among individuals and organizations to address issues and barriers that are most relevant to local/regional energy security.

The conference scope includes innovative renewable energy production technologies; agriculture and circular bioeconomy for sustainable energy production; distributed renewable energy systems and global climate change; food-energy-water nexus; social, environmental and economic perspectives of energy security.

Please visit the conference website at <https://energy.asabe.org/> to register.

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## Opening Speech at SAIAE South Africa Symposium by Prof. Remigio Berruto

Professor Remigio Berruto from the University of Turin, President of the world association of agricultural engineering for the years 2021-2022, was invited by Prof. Jeff Smithers, member of section I as keynote speaker at the SAIAE (South Africa Institute for Agricultural Engineers) Symposium in Tzaneen (21/09/2022-23/09/2022), South Africa, presenting a report entitled "An overview of CIGR activities and success factors for innovation and technology transfer". First of all, the CIGR activities were presented and then the success factors for innovations recently introduced in the agricultural engineering sector were highlighted. The five pillars to consider to successfully adopt one innovation are: the strategic vision, the technological

development but also concern aspects of communication, training and business models that allow the adoption of the complex technologies that characterize agriculture and the food industry 4.0.

The conference was attended by over 120 researchers and professors from universities working in the agricultural and agro-industrial sector of South Africa.

All the speakers at the opening plenary session of the conference highlighted the negative effects of climate change on agricultural production in South Africa and thus the request of increasing attention to the sustainability aspect in the agricultural engineering domain. The aspects of spatial planning and construction



of artifacts to allow the use and reuse of rainwater were the subject of two sessions of the symposium, demonstrating the interest and the need to mitigate the effects of global warming with landscape planning actions. The other sessions were dedicated to post-harvest, food processing and packaging. During the meetings with representatives of the ministry of agriculture and with the president of the council of engineers of South Africa, the interest in collaborating on international projects of common interest was expressed.

The SAIAE will share the abstract within the CIGR proceedings.



From left to right: Prof. Remigio Berruto and prof. Jeff Smithers

## Invitation: 8<sup>th</sup> International College Students Intelligent Agricultural Equipment Innovation Competition

### **To all Universities, Colleges, and Institutes:**

The International College Students Intelligent Agricultural Equipment Innovation Competition (Hereinafter referred to as the "competition") aims to cultivate students' innovative spirit and practical ability, stimulate innovation and entrepreneurship inspiration, and promote the cultivation of innovative and entrepreneurial talents in the field of agricultural equipment engineering and international exchange and cooperation for students majoring in agricultural engineering. The competition has become extremely influential in the field of agricultural equipment engineering and has achieved remarkable results in cultivating students' innovation and entrepreneurship ability and comprehensive quality. According to the regulations, the competition is held once a year. Now relevant matters are hereby notified as follows :

### **I. Purpose of the competition**

With the theme of "ensure food security and achieve rural revitalization", the competition aims to cultivate modern agricultural equipment innovation and entrepreneurship talents with "strong professional knowledge and hands-on ability, as well as excellent innovation and entrepreneurship ability"

Teams of undergraduate and graduate students are invited to compete in the areas of intelligent agricultural equipment, robotics, and design.

Application deadline: October 22, 2022.

Travel funding may be applied for.

urgently needed by the industry, and creates a comprehensive international education platform, contributing to the innovative development of modern agricultural equipment industry.

### **II. Organization**

The competition sets up leading organizations and working organizations. The leading organization consists of the Competition steering Committee and the Competition Committee (Annex 1), which has a secretariat (affiliated to Jiangsu University). The working organizations include the working group of the competition organizer and the competition evaluation expert group.

### **III. Organizers**

The 8<sup>th</sup> International College Students Intelligent Agricultural Equipment Innovation Competition is organized by the following collaborating institutions:

**1. Co-hosts:**

- International Commission of Agricultural and Biosystems Engineering (CIGR)
- Chinese Society of Agricultural Machinery (CSAM),
- Chinese Society of Agricultural Engineering (CSAE),
- Jiangsu Province and Education Ministry Co-sponsored Synergistic Innovation Center of Modern Agricultural Equipment(SIAE)
- International University Consortium for Agricultural Engineering (IUCAE).

**2. Organizer:**

Jiangsu University.

**3. Co-organizer:**

China Agricultural Machinery Distribution Association (CAMDA).

## IV. Competition Requirements

**1. Participants:**

Student of undergraduate and graduate may apply in teams of two to five members. Class A, B and D works are limited to one entry for each participant.

**2. Entry categories:**

The entries are divided into three classes: A , B and D.

Class A: Scientific or Technological Inventions in Intelligent Agricultural Equipment

- A1: Invention of intelligent tillage equipment,
- A2: Invention of intelligent planting equipment,
- A3: Invention of intelligent field management equipment,
- A4: Invention of intelligent water-saving irrigation equipment,
- A5: Invention of intelligent harvesting agricultural equipment,
- A6: Invention of intelligent farm products origin processing equipment,
- A7: Basic parts (hydraulic parts, transmission system, sensors, electric drive, navigation system, etc.)
- A8: Other intelligent agricultural equipment.

The Participate with the highest academic degree is the team leader of the work, which is divided into undergraduate and graduate groups.

Class B: Robotics

Fruit picking and sorting robot competition.

The Participate with the highest academic degree is the team leader of the work, which is divided into undergraduate and postgraduate groups.

Class D: Conceptual Design

The works refer to the conceptual designs of intelligent agricultural machinery and smart agriculture that are forward-looking and future oriented.

The Participate with the highest academic degree is the team leader of the work, which is divided into undergraduate and postgraduate groups.

**3. Declaration for quantity**

The number of works submitted by universities (colleges and institutes) shall be no more than 15 for Category A, no more than 8 for Category B and no more than 5 for Category D.

**4. Supervisor**

Each supervisor is limited to 2 A and D works, and 1 B works and responsible for the originality and authenticity of the works, and each work is limited to 1~3 supervisors.

**5. Requirements for Entries**

(1) The entries should be the prototype, physical model, software, virtual concept and other achievements independently developed and designed by the student team. The papers and patents involved must be the results of the last two years (September 2020 to September 2022). A works must have a prototype or physical model; Category D: Concept video (MP4, 720P, 200M or less).

(2) The results that have been awarded by national competitions shall not be used for declaration.

(3) It is not allowed to apply directly with the achievements of the tutor.

(4) Do not plagiarize any achievement declaration that does not belong to me.

(5) The core content of the works shall not be the same or repeated with the previous seven entries.

(6) It is forbidden to use intellectual property rights (such as patents, papers, etc.) without the signature of the participating students.

For violation of competition results, falsification of entries, the competition commission after check will be on the official website or the relevant conference within the scope of present colleges during the event list, participating college, teachers and students, at the same time disqualified from winning entries, outstanding teachers qualification and qualification of "challenge cup" of colleges and universities; If the situation is serious, relevant personnel will be held responsible according to the rules of the competition.

## V. Registration

### 1. Competition registration.

Universities and colleges are required to select excellent work to participate in the competition. Teams in class A shall send the Summary List of Works (Annex 2) , application document, the R&D report and attachments (Annex3, PDF format) to znnzds2022@163.com before October 10th, 2022. Teams in class D shall send the application document, the R&D report and attachments (Annex 3, PDF format) and the virtual concept model presentation video (720P, 200M or less) to znnzds2022@163.com before October 10th, 2022.

### 2. Final competition, entries presentations and awards (mid-to later November 2022)

Due to the COVID-19, the competition will be conducted online. The participating teams are required to display their self-developed prototypes, physical models, software, design drawings and concept videos online for Class A and D; Class B will compete with each other on site.

**Due to the COVID-19, the competition schedule may be adjusted. If there are any adjustments will be informed in a timely manner.**

## VI. Award Types

### 1. Student awards

There are top prizes (may be declared vacant), first prizes, second prizes and excellence prizes. During the competition, the judges will determine the number of prizes based on the entire number and quality of the entries.

### 2. University "Cup" award

The competition will award a certain number of "Cup" awards to the participating universities. It will be according to the total score of the winning works, from high to low score. The special prize, first prize, second prize and excellence prize are calculated according to 100 points, 70 points, 40 points and 10 points, respectively.

### 3. Outstanding supervisor award

The competition will award the "Outstanding Supervisor Award" to the supervisors of the top prize entries.

## VII. Other Matters

### 1. Contact information:

- Hou Baoquan, Jiangsu University; Email: 2011@ujs.edu.cn.
- Ni Ya, Jiangsu University; Tel: 086-18451973955.

### 2. Other related information of the competition will later be released on the official website (<http://uiaec.ujs.edu.cn/>).

**Annex 1:** Member List of Organization

**Annex2:** Summary List of Works

**Annex3:** Application Form for Classes A,D

**Annex4:** Class A,D Evaluation Rules

**Annex5:** Rules of Class B Fruit picking and sorting robot competition

8<sup>th</sup> International College Students Intelligent Agricultural  
Equipment  
Innovation Competition Committee  
June 25th, 2022

## Upcoming Conferences

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2<sup>nd</sup> International Conference on Research of Agricultural and Food Technologies (I CRAFT2022) 06-07 October 2022, Adana, Turkey

We are very pleased to announce the 2<sup>nd</sup> International Conference on Research of Agricultural and Food Technologies (I CRAFT2022) which will be held on 06-07 October 2022 at the Sheraton Hotel in Adana, Turkey. The aim of this conference is to discuss and engage in some common interest on current knowledge and results in any field of agriculture and food technologies. At the same time, this conference provides an opportunity for academic researchers and developers to discuss various aspects of these areas with other stakeholders. In this context, we are honored to see all researchers in the field of agriculture and food sciences. The conference meets

all criteria for the new academic premium. All accepted abstracts and full-text papers will be published in the conference proceedings and the Cukurova Journal of Agriculture and Food Science (The official language of this conference is English). Participants should submit and prepare their abstracts, and full papers, posters, and oral presentations in English). All the information you need will be found in the attached file.

To pick up news from us please use our websites, e-mail, and phone is given below.

website: [www.icraft-conference.com](http://www.icraft-conference.com)

E-mail: [info@icraft-conference.com](mailto:info@icraft-conference.com)

Mobile Phone: +90 537 492 1906

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Sustainable Energy for Sustainable Future. 24-26 October, 2022, San Jose, Costa Rica.



An ASABE Global Initiative Conference

### *Sustainable Energy for a Sustainable Future*

October 24-26, 2022 • San Jose, Costa Rica



Join us 24-26 October 2022 for the 3<sup>rd</sup> conference in the ASABE Global Initiative Series, Sustainable Energy for a Sustainable Future. The purpose of this conference is to enable interdisciplinary dialogues among multi-national scientists, engineers, business owners, and government agents about new renewable energy generation technologies and communicate regional based energy innovations considering the three basic principles with a global perspective. The conference focuses on the following topics:

- Innovative Renewable Energy Production Technologies

- Agriculture and the Circular Bioeconomy in Sustainable Energy Production
- Distributed Renewable Energy Systems and Global Climate Change
- Integrated Food, Energy, and Water Systems Perspectives on Energy Security
- Impacts of Regulation and Policy Interventions on Energy Security
- Social, Environmental, and Economic Perspectives on Energy

Up to date information and a detailed program can be found at the [conference website](#).

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AgEng-Land.Technik, 22-23November, 2022, Berlin, Germany



European agriculture, both crop and animal production, currently faces major challenges such as the need to protect biodiversity, increasing bans or limitations on the use of pesticides, soil quality degradation, the impact of the COVID-19 pandemic, and the overarching challenge of climate change. To overcome these challenges, scientific and industrial research, and development in agricultural and biosystems engineering, across all areas of agriculture and nutrition, must work together to offer strategic pathways and technological solutions.

The AgEng-LAND.technik 2022 conference, part of both the EurAgEng AgEng and the VDI

LAND.technik conference series brings together these competencies and expertise to provide an arena to connect and drive forward the needed solutions to these global challenges.

**The main topics are:**

- \* Animal Production Technologies
- \* Circular Biobased Economy / Sustainable Energy/ Waste Management
- \* Farm Buildings
- \* Land, Soil and Water Engineering
- \* Plant Production Technologies
- \* Post-Harvest Technologies
- \* on Agriculture / Digitalization
- \* Tractors / Power Trains / Electrical Drives

More information at: [LAND.technik AgEng - Intern. Conference on Agricultural Engineering | VDI Wissensforum \(vdiconference.com\)](https://www.vdi-conference.com/)

REGISTER HERE: [Order | VDI Wissensforum \(vdiconference.com\)](https://www.vdi-conference.com/)

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APFITA/WCCA2022, 24-26 November, 2022, Hanoi, Vietnam



The 13th Asian-Pacific Federation for Information Technology in Agriculture 2022 (APFITA 2022) will take place on 24-26 November 2022, at the University of Engineering and Technology, Vietnam National University, Hanoi (VNU-UET). The APFITA 2022 with the theme “Application of smart technology for achieving sustainable agriculture” aims to bring together researchers, practitioners, agencies, and industry partners through scientific presentations and business matching. Besides that, the conference organizes the session on discussion and recommendations on science and technology policies in sustainable agricultural development. The conference is also the platform to exhibit new advances and research results in the fields of agricultural technology. In 2022, INFITA (the International Network for IT in Agriculture, Food and the Environment) board decided to organize the World Congress on Computer in Agriculture (WCCA) in conjunction with APFITA 2022 in Hanoi, Vietnam.

For more details, please visit our [website https://apfita.fimo.edu.vn/](https://apfita.fimo.edu.vn/) . Please also feel free to contact us at [Apfita2022@vnu.edu.vn](mailto:Apfita2022@vnu.edu.vn)

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<http://cigr2022.org/>

The theme of this CIGR World Congress "Sustainable Agricultural Production - Water, Land, Energy and Food" will underpin the need for collaboration and cooperation of individuals from a wide range of professional backgrounds. This congress will provide an excellent international platform for academicians, researchers, engineers, industrial participants, and students from around the world to share their research findings with global experts in all areas related to agricultural engineering.

Kyoto has flourished as the capital of Japan for over

a millennium, since 794. The city has an abundance of historically significant and unique locations, and has preserved its refined culture, historical sites, and innumerable Shinto shrines and Buddhist temples, continuing to fascinate visitors from all over the world.

We hope you will enjoy the content of the Congress, renew old friendships, make new friends, get new ideas, and above all, have a good time, as well as enjoy the city famous for its cultural traditions.



**BOLOGNA - ITALY, 3 - 6 JULY 2023**

**UNLEASHING THE POTENTIAL OF PRECISION AGRICULTURE**

The 14th European Conference on Precision Agriculture will showcase the results of ongoing research and applications in precision agriculture. Organized under the auspices of the International Society of Precision Agriculture (ISPA), by the Department of Agricultural and Food Sciences of the University of Bologna, the ECPA sessions will present Precision Agriculture from the viewpoint of scientists, crop consultants, advisors, extension personnel, agronomists, producers, and other practitioners

**ABSTRACT SUBMISSION IS NOW OPEN!**  
Deadline: October 15, 2022  
[TO SUBMIT YOUR ABSTRACT - CLICK HERE](#)