



**ICEF13**  
INTERNATIONAL CONGRESS  
ON ENGINEERING AND FOOD

MELBOURNE, AUSTRALIA  
23-26 SEPTEMBER 2019

*Engineering Innovations  
for Food Supply Chains*

**ICEF13 – Session Submission Guidelines**

## Session and Roundtable Proposal Submission Guidelines

This section provides information to session organisers planning to submit a proposal for consideration for ICEF13. Successful proposals must incorporate quality factors listed below.

### ***Submission Process***

Session and roundtable organisers will need to submit a full proposal form for review of the session convenors. This includes complete session descriptions, learning objectives, **TWO** confirmed speakers (one of which will be considered session keynote speakers), presentation titles and short descriptions, as well as speakers' credentials (short bio). This process will allow the Scientific Committee and Theme Convenors to make informed decisions when reviewing and selecting proposals.

(Please note, there is a word limit for each section of the proposal, which is highlighted in the online submission form)

### ***Session Quality Factors***

The Scientific Committee and the Theme Convenors reserve the ultimate right to select session proposals submitted for review by each key focus area (Congress Themes) based on quality factors including, but not limited to:

- Scientific merit
- Relevance to food industry
- Relevance to the food engineering community
- Innovation
- Multidisciplinary focus
- Practical application of educational content
- Relevance to Congress Theme, and
- Pertinence to target audience(s)

Any session proposal submitted not meeting the quality factors will not be selected.

## **Congress Themes**

Sessions are organised and evaluated in key focus areas (Congress Themes). The Congress Themes are:

### **Food Engineering Across the Supply Chain**

On farm processing; Decentralised productions, Modular and small scale food processes; Postharvest Storage and food handling; Food process design; Food safety; Validation of processes; Supply chain optimisation; Mobile food processing; Next generation equipment (including kitchen equipment); Robotics; Food process engineering to address climate change problems.

### **Sustainable Food Systems**

Food process sustainability; Life Cycle Assessment (including economic, social and environmental impacts); Carbon and water footprint; Using renewable energy; Sustainability of traditional processes; Waste reduction and remediation; Improving process efficiencies; Waste processing and management; Recycling waste streams and reuse of energy ('closing the loop'; zero waste); Stabilisation and value addition to food waste; Use of other bioresources; Biorefineries; Biosystems Engineering; Innovations in packaging to minimise food waste; 'Green' processing; Centralised vs. distributed processing and its impact on sustainability.

### **Food Security**

Food security systems; Feeding the world with finite resources; Application of Food Process Engineering for food security and resilience; Use of appropriate food processing technologies for developing countries (including reduction of waste in supply chains); Food Process Engineering in managing humanitarian and emergency situations; Food processing technologies for alternative raw materials; Efficient food storage and distribution systems; Cost effective Food Process Engineering (use of 'cheap' equipment and simple processes); Synthetic biology and genetic engineering in food processing; Space applications; Life support systems.

### **Advances in Traditional Food Processing**

Drying and dehydration; Fermentation; Cooling and freezing; Thermal processing; Extraction; Mixing; Extrusion; Separation, fractionation and purification; Mass transfer operations; Membrane processes; Homogenisation and hydrothermodynamic processing; Crystallisation; Nano-emulsion and encapsulation processes; Hygiene and cleaning (including design); Multiphase fluid mechanics; Enzymatic and chemical reaction processes; Active and smart packaging; Scale up engineering; New applications adapted from other industries.

### **Novel Food Processing Technologies**

Non-thermal and minimal processing; Microwave, ohmic, dielectric, IR and radiofrequency processing; Irradiation; Electron beam; Ozone applications; High pressure processing; UV and high intensity pulsed light; Pulsed electric fields; Ultrasonics and megasonics; Cool plasma; Magnetic fields; Shockwave processing; Nanoengineering; 3D and 4D printing.

### **Food Process Systems Engineering and Modelling**

Modelling and simulation; Transport phenomena; Sensor (physical, chemical and biological) development and applications (e.g., e-tongue and e-nose); Automation and process control; Process optimisation; Product and process predictive risk assessment (chemical, biological, quality and shelf life) Risk assessment (for chemical, mechanical and biological safety); Novel approaches in modelling; Kinetics modelling (microbiology, quality); Image processing; data mining; modelling the supply chain; application of dimensional analysis for food processing applications; Multiscale simulation of oral and digestion processes of food.

### **Engineering Properties of Food and Packaging**

Mechanical properties; Thermophysical properties; Dielectric properties; Physicochemical properties; Phase transitions; Textural, rheological and structural properties; Mixing properties; Transport properties; Equilibrium properties; Functional properties; Property characterisation methods and techniques; Structure and dynamics of water in foods.

## **Food Engineering for Nutrition and Health**

Impact of process and food structure on nutrient stability and bioavailability (retaining heat-sensitive nutrients; Gentle technologies to enable claims for 'raw food'; Reduction of allergenicity by processing).

Physiology and digestion (Oro-Gastro-Intestinal Structure Engineering of Food (OGISEng)); Nutrition for specialised groups (Rheological requirements for infants, the elderly, hospital patients; precision nutrition); Hospitality industry.

## **Food Engineering Education**

*Education delivery* (University degrees; hands-on training courses and professional development; availability to the whole world, in particular to poorer countries; Food Engineering without borders)

*Curriculum* (Accreditation - examples of successful integration of Food Engineering into a degree that still passes accreditation as Chemical Engineering; examples of successful Food Engineering undergraduate degrees; Masters by coursework to extend chemical engineering into food. How to include leadership, entrepreneurship, mentoring, ethics; process optimisation of quality/safety by predictive quantitative risk assessment; Industry partnerships with universities on training highly skilled graduates)

*Resources* (New tools - online and apps; publications; books; webinars; courses; case studies. Hands-on experience of available online resources)

*Research* (Scholarly research on what is needed in Food Engineering Education; what is being done?)

Food Engineering Education: Challenges and Opportunities.

## **Innovations of Food Engineering in Australasia**

Case studies of the commercialisation of Food Engineering innovations in Australasia.

### **Other/Special sessions:**

- Future trends in food engineering
- Engineering challenges in the factories of the future
- Risk analysis
- Industry 4.0, big data, and Internet of things
- Robotics
- Manufacturing the foods of the future: Challenges
- Food Engineering in a Clean Label Era
- Commodity-oriented Food Engineering. The challenges for dairy vs. meat vs. fruits & veg vs. grains
- Young Engineers
- Knowledge and Innovation Community (KIC)
- Food Engineering opportunities in emerging markets

## **Session vs. Roundtable structure**

*A roundtable is structured as follows:* the chair introduces the topic & speakers, and gives each speaker between 10 and 15 minutes to make their case (depending on the number of speakers), followed by 30 mins of Q&A with the audience.

*A session is structured as follows:* the chair introduces the topic. As they are called (introduced) by the chair, each speaker has between 15 and 20 minutes to present (depending on number of speakers), followed by 5 min Q&A.

## **Session/Roundtable Length**

Sessions are typically 100 minutes in length (this includes introduction and Q&A time). If the subject matter requires additional time, submitters will need to organise the presentations into two parts and submit them as such.

## **Session Speakers & Moderators**

Two session or roundtable speakers should be confirmed at the time of submission. The speaker names will need to be included in the session/roundtable proposal. For sessions, the presentation title and description will be needed. It is the organiser's responsibility to select the best speaker who is knowledgeable and an effective communicator.

Further speakers will be identified through an open abstract submission process. Should the session/roundtable after abstract submission be incomplete (i.e., not having sufficient number of speakers), the session organisers can identify further speakers from their own network and invite them.

Confirmed moderator information (2) will also be collected during the submission for session proposals.

## **Session Speaker Limit & Flexible Presentation Times**

Sessions should have no more than six speakers and at least 4 speakers in a 100-minute session. Six speakers are the ideal number to achieve maximum attendee interaction and allow for speakers to explain their topical area in depth. All sessions begin with a 5-minute period of introductory remarks by the moderator followed by a presentation or series of presentations. The amount of time speakers present is customisable; however, an ideal example includes 25 min for the keynote speaker, and 15 min for the rest of the speakers. Session organisers will need to indicate in the submission the length of time each speaker will have. It is recommended that the speakers not all be from the same company or organisation.

## **Session and Roundtable Proposal Review Process**

Session or Roundtable proposals will be reviewed upon the close of the Call for Proposals 30 April 2018.

The review will be conducted by a panel consisting of the Theme Convenors with final approval by the Scientific Committee. During the submission process, it is important to outline the alignment to appropriate themes (see Theme list above in this document). The panel will review each submission to verify it has been submitted to the correct Theme. If the panel feels the submission is better suited to a different Theme, the Scientific Committee will re-categorise the submission review and will notify the session organiser of the Theme change.

The complete proposal submitted through the submission site will be used to evaluate the session's merit. After review, the Engineers Australia will notify confirmed the session organiser and provide a timeline of information that will need to be collected.

## **Session Submission Process Summary**

1. From 1 December 2017 through 30 April 2018, session organisers will be able to complete the online session or roundtable submission form available at <https://waldronsmith.eventsair.com/icef13/sessions>
2. Brainstorm emerging, scientifically sound and cutting-edge topics related to the key focus area. ***(This will assist the review panel to assess the merit of the proposal, and pre-allocation of submitted abstracts; the session organiser will receive a list of abstracts after the abstract submission closes 31 January 2019 for confirmation that these can be included in their respective session).***
3. Talk to prospective speakers (keynote speakers to gauge their interest; possibly encourage their network to submit relevant abstracts). Session/roundtable organisers **must** confirm TWO speakers when they submit their proposal.
4. Confirmed speaker names (TWO) and contact information; presentation title and description; speakers' qualifications and biography is required at time of submission. "TBD" is not an acceptable response on the submission form and your proposal will be considered incomplete and will not be reviewed.
5. All session proposals are due no later than 30 April 2018 at 4:00pm (AEST)  
**No late submissions will be accepted.**
6. Session/Roundtable organisers will be notified of the status of their submission (and further guidelines to prepare the session) by 31 July 2018.