

LANGUAGE

The conference will be held in English.

KEY DEADLINES

31 July 2020 Submission of abstract
(including Forms A and B)

31 July 2020 Submission of grant
applications (Form C)

31 October 2020 Notification of acceptance of
abstract

Participants not submitting an abstract should
submit Participation Form A through the
appropriate authority as soon as possible.

EXHIBITION

Space will be available for commercial vendors'
displays/exhibits during the Conference. Interested
parties should contact the Scientific Secretariat by
31 October 2020

email: ICARST-2021.Contact-Point@iaea.org

CONFERENCE WEB PAGE

Detailed information on administrative matters
including registration, paper submission and
grants is provided on:

<https://www.iaea.org/events/icarst-2021>

Please include reference number IAEA-CN-290 in
all communications

REGISTRATION

No registration fee is charged. Limited funds are
available to assist participants, usually covering
part of the cost of attendance.

IAEA CONTACTS:

Scientific matters

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Participation, grant application and administrative matters

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2nd International Conference on Applications of Radiation Science and Technology

#ICARST2021

19–23 April 2021

IAEA Headquarters
Vienna, Austria



IAEA
International Atomic Energy Agency
Atoms for Peace and Development

BACKGROUND

The International Atomic Energy Agency (IAEA) is organizing the Second International Conference on Applications of Radiation Science and Technology (ICARST-2021), following the success of the first, ICARST-2017. Since the discovery of X-rays and radioactivity more than 100 years ago, different ways to artificially produce radiation and radioactive materials were found, leading to dramatic advances in radiation science and technology. Today, radiation technologies are successful in addressing important human needs, such as efficient industrial production and processes; better management of scarce freshwater resources; improving human health and food safety; preserving cultural heritage; and protecting our environment.

Besides acknowledging the numerous innovations and accomplishments in the field of radiation sciences and technologies, it is timely to take a look at their status in academia and industry, as well as their ability to meet future challenges. For example, radiation scientists are addressing issues related to produce advanced materials through the 'green' processes; attaining an understanding of the chemical effects of radiation under special conditions and the chemistry at interfaces. Radiation technologists are ensuring the safe and reliable operation of radiation facilities by implementing requisite standards for process control, providing continued supply of cobalt-60 consignments and developing new high power electron beam accelerators and X-ray sources. A new generation of low energy electron beam accelerators for in-line applications is challenging the dosimetrists and microbiologists to develop new approaches and methodologies.

Radiotracers and nucleonic measurement systems have huge applications for measurement of physical parameters to improve and optimize industrial processes performances, to study environmental processes and to improve or ensure the quality of products.

AUDIENCE

Since the Conference topic is a multidisciplinary area covering radiation-related physics, chemistry, materials science, biology, and engineering, it aims at bringing together research scientists and radiation technologists, educators, entrepreneurs, regulators, policy makers, and stakeholders working in these diverse fields.

FORMAT AND MAIN TOPICS

A series of plenary sessions will address the topics listed below, with invited keynote speakers from academia and industry, giving oral presentations and participating in panel discussions. Poster sessions will be organized allowing time for discussion and interaction among participants. A closing round table session will review the main conclusions drawn in the plenary sessions and will summarize the recommendations.

The conference will include, among others, the following topics:

- Advanced radiation chemistry and trends in radiation science and technology
- Radiation sciences and technology for environmental monitoring and protection

- Dosimetry, standards and quality management of irradiation facilities
- Advanced materials: from fundamentals to applications
- New generation of radiation sources: gamma ray, electron beam, and X-ray; and alternative radiation sources based on accelerator technologies
- Radiation sterilization and the microbiological qualification
- Radiation & nuclear technology for characterization, imaging, and preservation of cultural heritage
- Tracers and radiotracers for studying industrial and environmental processes, and flow dynamics
- Sealed sources, nucleonic control measurement systems, and imaging technologies
- Computational fluid dynamic) and numerical Residence Time Distribution modelling
- Recent radiation processing applications in food and agriculture
- Radiation technologies in tissue banking and tissue engineering
- Education and training in radiation science and technology
- Success stories in support of attaining UN-SDGs