

Important dates:

31 January 2024 Abstract submission
28 February 2024 Abstract acceptance
15 May 2024 Paper submission

info@nuclear-option.org
www.nuclear-option.org

**14th INTERNATIONAL CONFERENCE
OF THE CROATIAN NUCLEAR SOCIETY**
Nuclear Option for Resilient Electricity Generation

ZADAR, CROATIA
JUNE 9 – 12, 2024





Croatian Nuclear Society

in co-operation with



14th INTERNATIONAL CONFERENCE
OF THE
CROATIAN NUCLEAR SOCIETY
Nuclear Option for Resilient Electricity Generation

ZADAR, CROATIA
JUNE 9–12, 2024



**FIRST ANNOUNCEMENT
AND CALL FOR PAPERS**

Important dates:

31 January 2024 Abstract submission
28 February 2024 Abstract acceptance
15 May 2024 Paper submission

www.nuclear-option.org

**14th INTERNATIONAL CONFERENCE OF THE
CROATIAN NUCLEAR SOCIETY**
Nuclear Option for Resilient Electricity Generation

CONFERENCE SCOPE

Croatian Nuclear Society continues with its successful series of international conferences for professionals working in the field of nuclear energy and associated areas. The purpose of the conference series is to present and discuss the most relevant topics concerning the role and position of nuclear option in the current energy balance, with special attention paid to the countries with small and medium electricity grids. Main concerns with which modern society is faced include availability of energy resources, greenhouse gas emissions and potential climate changes with evidences of apparent global warming. In such a context the issue of ensuring reliable and sustainable energy becomes ever more challenging.

Nuclear energy as the CO₂ free energy source should have its place in resolving these concerns and enabling all the countries to cope with challenges they pose. The energy sector needs to be fundamentally transformed into a low carbon energy supply system to assure that world will be able to mitigate climate changes in the next decades. At the same time, the sector needs to withstand extreme events and to adapt to changes in the environment. Nuclear power's resilience follows general definition of resilience as the ability to limit the extent, severity, and duration of system degradation following an extreme natural or man-made event. The resilience is already closely integrated in concept of nuclear safety, making the nuclear power reliable energy source and helping the global community to overcome potential challenges in near future.

Following the success of the previous conferences in the series, the 14th International Conference in Zadar will serve the same general purpose, concentrating on the topics which attracted the most of interest previously.

At the Conference, the nuclear option will be considered and discussed from the point of view of national energy strategies, resources, costs and technological, organizational and educational requirements, as well as environmental advantages. The focus will also be on matters related to nuclear power plants operation and design safety, fuel cycle, waste management, decommissioning and achievement of Long Term Operation (LTO). Successful LTO should be considered in the light of plant generation of reliable, safe, low-cost, low-emission electricity for decades longer than originally envisioned.

As in the previous cases, the important goal of the Conference will be to promote regional co-operation and exchange of experience in use of nuclear power and fuel cycle facilities among the countries with an interest in the nuclear option.

TOPICS

The topics of the conference series have, over the past decades, followed the developments and main points of interest in nuclear energy and industry sector considering also scientific research in the field and current regulatory requirements, as well as the role of the nuclear option in the societal context. With this in mind, the focus of the 14th Conference in the series will be on:

- ♦ Nuclear Option in the Context of Energy, Economics, Finance and Resilience

- ♦ Nuclear Energy and Environment
- ♦ Power Reactors and Technologies
- ♦ Operation, Maintenance and Lifetime Expansion Experience
- ♦ Safety Culture and Knowledge Management
- ♦ Nuclear Safety Analyses
- ♦ Probabilistic Safety Assessment and Severe Accident Analysis
- ♦ Nuclear Fuel Cycle and Reactor Physics
- ♦ Radioactive Waste Management and Decommissioning
- ♦ Public Relations
- ♦ Regulatory Practice
- ♦ Emergency Preparedness

Several invited lectures are planned to be delivered during the Conference.

A round table is planned in order to offer an opportunity for less formal discussions and exchange of ideas on conference topics.

The official language of the Conference will be English.

PROGRAMME COMMITTEE

I. Bašić, Croatia, Chairman

| | | |
|-----------------------------|--------------------------|---------------------------------|
| C. Allison, USA | J. Lebegner, Croatia | M. Prah, Croatia |
| N. Čavlina, Croatia | J. Leppanen, Finland | A. Prošek, Slovenia |
| M. Čepin, Slovenia | B. Mavko, Slovenia | A. Pulido, Spain |
| Z. Čorak, Croatia | S. Medaković, Croatia | F. Rahnema, USA |
| F. D'Auria, Italy | J. Mišák, Czech Republic | N. Rendić-Miočević, Croatia |
| B. Filipović-Grčić, Croatia | S. Monti, IAEA | M. Ricotti, Italy |
| M. Gluhak, Croatia | M. Naitoh, Japan | S. Rožman, Slovenia |
| D. Grgić, Croatia | T. Nemeč, Slovenia | P. Sabharwall, USA |
| I. Iveković, Croatia | B. Niceno, Switzerland | V. H. Sanchez Espinoza, Germany |
| D. Jakšić, Croatia | L. Pavelić, Croatia | K. Szarłowicz, Poland |
| V. Jelavić, Croatia | P. V. Petkov, Bulgaria | Z. Šimić, Switzerland |
| I. Jenčič, Slovenia | B. Petrović, USA | P. Širola, Slovenia |
| R. Jobard, France | A. Petruzzi, Italy | Ž. Tomšić, Croatia |
| D. Kavšek, Croatia | D. Pevec, Croatia | I. Vrbanić, Croatia |
| M. Kim, Republic of Korea | G. Pfeifer, Slovenia | I. Vuković, Croatia |
| M. Kromar, Slovenia | | T. Žagar, Slovenia |

ORGANISING COMMITTEE

M. Matijević, Croatia, Chairman

| | | |
|----------------------|----------------------|--------------------|
| A. Ament, Croatia | D. Pevec, Croatia | Ž. Tomšić, Croatia |
| P. Dučkić, Croatia | P. Strmečki, Croatia | K. Trontl, Croatia |
| I. Iveković, Croatia | S. Šadek, Croatia | |

CONFERENCE SECRETARY

A. Ament, Croatia

TIME AND PLACE OF THE CONFERENCE

June 9 – 12, 2024, Hotel Kolovare, Zadar, Croatia

CALL FOR PAPERS

Authors are invited to present their work on one or more topics addressed by the Conference. Abstracts of the proposed papers should be submitted before **31 January 2024**. Authors may indicate their preference for oral or poster presentation.

The abstract should be submitted by filling a web form through a web-based Conference Management Tool at <http://www.nuclear-option.org>. Authors should first create an account under the section 'Account', then log in the section 'Log in', and finally submit an abstract in the section 'User Home'.

The abstract will be published in the Book of Abstracts and should include the title of the paper, full names of the authors, their institution, addresses and e-mails, up to one page (from 300 to 500 words).

The Programme Committee will inform authors on the acceptance of their contribution and the form of presentation before **28 February 2024**. Full-length papers should be submitted before **15 May 2024**.

All papers, presented orally or as posters, accepted upon peer review will be included into the proceedings. The Book of Abstracts will be distributed at the Conference. The Proceedings will be available for download upon completion of the review process, foreseeably several weeks after the Conference.

CONFERENCE FEE

| | |
|---|---------|
| Authors or members of the ENS | 500 EUR |
| ENS YGN members and ENS retired members | 300 EUR |
| Others | 550 EUR |

This is a Conference fee for payments received after **30 April 2024**. Early registration fee is charged 50 EUR less for payments received before **30 April 2024**. The payment details can be found at the Conference web-page: www.nuclear-option.org.

The Conference fee includes a copy of the Book of Abstracts, access for Proceedings download, welcome reception and Conference dinner.

VENUE

The Conference will take place in Hotel Kolovare in Zadar. Information about the hotel, accommodation and room reservations are provided on the Conference website. The hotel website is www.hotel-kolovare.com.

Croatian Nuclear Society

info@nuclear-option.org
www.nuclear-option.org

ZADAR

Zadar is a city of exceptional history and rich cultural heritage, a city of tourism. The city is irresistible for those who respect and admire historical monuments and cultural heritage, artists, tourists and its citizens. Zadar is a city monument, surrounded by historical ramparts, a treasury of the archaeological and monumental riches of ancient and medieval times, Renaissance and many contemporary architectural achievements such as the first sea organs in the world.



It is a three thousand years old city with tumultuous and dynamic history, often destructed, looted, devastated, every time emerging from the ruins stronger, richer and more beautiful. Zadar appeared for the first time in history in the 4th century B.C. as a settlement of the Illyrian tribe of Liburnians – the name Jader was mentioned, and through history it changed into Idassa (Greek source), Jadera (Roman source), Diadora, Zara (during Venetian and later Italian rule) up to today's name of Zadar.

Today Zadar is a preserved monument of various historical times and cultures that have placed their boundaries and visible outlines of their urban appearance. During its existence it was for many centuries the home of the Ilyrian Liburni and for 1000 years the capital city of Dalmatia.

Zadar is the urban centre of northern Dalmatia as an administrative, economic, cultural and political centre of the region with almost hundred thousands inhabitants.

SOCIAL PROGRAMME

As a part of our tradition, both welcoming reception and Conference dinner will take place in a beautiful surrounding providing opportuni-

ty for informal discussions, combining Zadar traditions with the taste of the Adriatic.

Since we expect that the beauty of the Conference venue will inspire many of our participants to bring their spouses or other likely companions along, we have organised an accompanying guests' programme. Some optional events will be available during the Conference depending on the interest of participants.

YOUNG AUTHORS CONTEST

A special Award Committee will review papers and presentations prepared by a first author aged below 36 years. The Committee will give the award for the best young authors contribution, so all candidates are kindly requested to indicate their intent to participate in this contest.



INFORMATION AND CONTACT

Mario Matijević

University of Zagreb

Faculty of Electrical Engineering and Computing

Unska 3, 10000 Zagreb, Croatia

Email: mario.matijevic@fer.hr

info@nuclear-option.org
www.nuclear-option.org

All photos are property of the Zadar Tourist Board.

Cover photo: Fabio Šimićev