

**4th International Conference on
Nuclear Power Plants:
Structures, Risk, Control &
Decommissioning**

NUPP 2022

Call for Papers

ASRANet

About the Conference

Following the success of NUPP 2017 (6-8 February), NUPP 2018 (11-12 June) and NUPP 2019 (10-11 June), ASRANet decided to hold NUPP 2022. The 4th International Conference on Nuclear Power Plants: Structures, Risk, Control & Decommissioning during 19-20 September 2022, ONLINE. This conference will be held ONLINE only because of the pandemic situation all over the world.

Many countries are currently constructing or are in the planning/designing stage of building nuclear power plants. This is primarily to move away from fossil fuels and is an attempt to combat climate change. However, design, construction and operation of these structures pose particular challenge with respect to handling radioactive material. The conference aims to bring together researchers and practitioners to address the structural analysis design, risk analysis and decommissioning technologies employed in nuclear power plants. This will involve advanced analysis methods to establish safety level. Probabilities and risk analysis form the basis for the safety of a Nuclear facility to asses risk of failure caused by internal or external incidents. Safe closure and dismantling of a plant is also pivotal in creating confidence in the long term use of nuclear power. This conference presents the perfect opportunity for you, as it aims to provide an ideal platform for industry leading researchers, technology developers, industrial players and supply chain partners to interact.

Conference Themes

- **Containment Design**
- **Balance of Plant Design**
- **Thermal Effects**
- **Artificial Intelligence**
- **Structural integrity**
- **Lifetime Behaviour**
- **Nuclear Reactor Safety**
- **Probabilistic Seismic Hazzard**
- **Nuclear fuel (including Thorium Cycle)**
- **New Reactor Design**
- **Risk analysis and Reliability**
- **Control & Instrumentation**
- **Life Extension**
- **Digital Twin**
- **Uncertainty Modelling**
- **Characterisation techniques in nuclear decommissioning**
- **Remote handling and radioactive waste management**
- **Radiation detection instrumentation and imaging**
- **Robotics and autonomous systems in decommissioning**

Organising Committee

Professor Purnendu Das, ASRANet Ltd, UK

Professor Nawal Prinja, JACOBS, UK

Key Dates

Abstract submittal: 31 May ,2022

Abstracts acceptance: 15 June 2022

Full Payment Deadline: 15 July 2022

Full length paper: 31 August 2022

Conference: 19-20 September 2022

Registration Fees

Full Registration: £200

Student Registration: £175

Information to authors:

(1) Registration

The registration fee includes:

- access to the conference oral presentations via Zoom with an opportunity to ask questions
- opportunity to present your work to ONLINE participants.
- publication of presented conference papers in conference proceedings with an ISBN number for reference in the British Library.

Oral presentations of remote participants will be arranged live through Zoom platform.

(2) Publication

ASRANet will publish the conference proceedings as ASRANet NUPP 2022 Proceedings with ISBN no (which has been for the previous 3 conferences) and then submit them to the British Library for reference.

Provided ASRANet receives a number of good quality papers with adequate total numbers which will satisfy WoS (Web of Science) criteria, ASRANet will send the NUPP 2022 proceedings for possible indexing with WoS (Web of Science) and publish a few good papers from the conference as a guest editor in some journals.

(3) Full Paper Format

- **The deadline for full paper submission is 31 August 2022.** The full paper length is 15 pages with the following Copyright Form and Paper Format.
- Paper Format: <https://rb.gy/iet2fv>
- Copyright Form: <https://rb.gy/72pnns>

Technical Advisory Panel

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- Dr. Rejendra Solanki, Atomic Energy Regulatory Board, India
- Dr. Lenka Thinova, FNSPE CTU in Prague, Czech Republic
- Dr. Branislav Virban, Slovak University of Technology in Bratislava, Slovakia
- Prof Yutake Watanabe, Tohoku University, Japan
- Dr Yiqiang Wang, UKAEA, UK
- Dr Adam Wojcik, University College London, UK
- Prof Wang Yan, Institute of Nuclear and New Energy Technology, China
- Mr. Jiri Zavorka, SKODA JS, Czech Republic
- Prof Enrico Zio, Mines Paristech, France and Politecnico di Milano, Italy
- Dr. Ahmed Aslam, Jacobs, UK

CV's of Keynote Authors

Professor Nawal Prinja



Professor Nawal Prinja has 41 years of academic and industrial experience in the nuclear sector. He is the Technology Director of Jacobs (Clean Energy) and held a position of Honorary Professor at four British universities (Aberdeen, Brunel, Bangor and Bolton). He has been on IAEA missions to China, South Africa, UAE, Spain and Poland. He was appointed as an advisor to the UK Government to help formulate their long-term R&D strategy for nuclear industry and continues to advise as a member of the Fusion Advisory Board of UKRI. He chairs a Technology Focus Group on Artificial Intelligence in Science and Technology Advisory Group of Ministry of Defence, participates in a number of international committees and represents the UK at the Senior Industry Advisory Panel of the Generation IV International Forum for next generation of nuclear reactors.

Professor Enrico Zio



Professor Enrico Zio received the MSc degree in nuclear engineering from Politecnico di Milano in 1991 and in mechanical engineering from UCLA in 1995, and the Ph.D. degree in nuclear engineering from Politecnico di Milano and in probabilistic risk assessment at MIT in 1996 and 1998, respectively. He is currently full professor at the Centre for research on Risk and Crises (CRC) of Ecole de Mines, ParisTech, PSL University, France, full professor and President of the Alumni Association at Politecnico di Milano, Italy, distinguished guest professor at Tsinghua University, Beijing, China, adjunct professor at City University of Hong Kong, Beihang University and Wuhan University, China and Co-Director of the Center for REliability and Safety of Critical Infrastructures (CRESCI) and the sino-french laboratory of Risk Science and Engineering (RISE), at Beihang University, Beijing, China.