

THE SECOND SAUDI INTERNATIONAL CONFERENCE ON (NUCLEAR POWER ENGINEERING (SCOPE-2

Tuesday, 4 November 2025

(Ground-MainHall-Sec-1 - Exam (13:00 - 14:30/54 - Poster

;Conveners: Jure Oder; Michał Spirzewski; Omar Al-Yahya; Michael Ojovan; Piotr Kopka; Rosa Lo Frano; Mariusz Dąbrowski-
Iztok Tiselj; Martina Adorni; Aznan Fazli Ismail; Konstantin Nikitin; Andrea Pucciarelli; Tomasz Kwiatkowski; Francesco Galleni
time id] title] presenter

13:00	Numerical Evaluation of RANS Turbulence Models for Flow-Accelerated Corrosion [25411]	
13:01	Fuel Temperature Coefficient of Reactivity in Triga Mark II Reactor in Slovenia [25413]	
13:02	Elastic Polymer Shielding: Integrating Zinc Oxide for Enhanced Radiation Protection [25186]	
13:03	Preliminary Thermal-Hydraulic Assessment of Iron-Based ATF [25213] Claddings with Reduced Thickness	
13:04	Environmental Assessment of Nuclear Waste Management Strategies [25384] in Saudi Arabia: Toward a Sustainable Energy Transition	
13:05	Radiological impact of Cs-137 release from the near surface disposal facility at Serpong Nuclear Center to environment: Effect of compacted bentonite layer [25180]	
13:06	Advancing Pool Scrubbing Simulations: from Traditional to AI Methods [25156]	
13:07	Exploring thermal hydraulics characteristics of hybrid TiO ₂ -Cu/Water [25348] nanofluid in a triangular array of PWR subchannel using ANSYS Fluent	
13:08	-Safety assessment of interim disposal facility in KFUPM area for low and intermediate-level radioactive waste (LILW) repository using RESRAD-OFFSITE code [25410]	
13:09	Influence of Buoyancy in a Mixed Convection Liquid Metal Flow for a Horizontal Channel Configuration [25449]	
13:10	Comparative Study of the Accuracy and Applicability of AHFM-NRG [25445] through RANS Turbulence Based Models for Low-Prandtl Fluids	
13:11	First Draft of The Poster for Team-G ,(Numerical Prediction of Liquid Metal Thermal-Hydraulics in Backward Facing Step for Advanced Nuclear (Reactor Design [25448]	
13:12	Designing a Full Implementation Plan for the First Fusion Reactor in Saudi Arabia [25359]	
13:13	Development of an Automated Remote System for Calibration Data [25144] Acquisition of Radiation Survey Instruments in Shielded Facilities	
13:14	Salt Selection Study For Molten Salt Reactor Design In Saudi Arabia's Energy Mix [25412]	
13:15	Experimental Evaluation of Thermophysical Properties of Graphene [25284] Nanofluids for Emergency Cooling in BWRs	
13:16	Radioactivity in Camel Milk in Saudi Arabia [25196]	

13:17	Reactor Response to Step Reactivity Changes [25403]	
13:18	Modeling Impact of Roughness and Wettability on Critical Heat Flux [25246] Predictions	
13:19	Full Implementation Plan for the First Fusion Reactor in Saudi Arabia [25404]	
13:20	Boiling Regime [25405]	
13:21	Thermal investigation of turbulent flow inside a square duct using [25408] heated foil sensors	
13:22	Thermal fatigue in T junction dead leg flows [25406]	
13:23	Nuclear Steam Cogeneration Industrial Growth [25145]	
13:24	Characterizing Fluid Flow Regimes with Proper Orthogonal [25407] Decomposition	
13:25	PREDICTION OF FLOW AND HEAT TRANSFER IN A MOLTEN [25409] CORIUM POOL	
13:26	Techno-Economic Analysis of Nuclear-Based Hydrogen Production: A [25208] Case Study Approach Using HEEP	
13:27	Monte Carlo Simulation for Performance Analysis of a ²⁵² Cf-Driven [25290] PGNAA Landmine Detection and Identification System	
13:28	Loss of Flow Transient Analysis of a Small Modular Reactor during [25336] Normal Operation	
13:29	Feasibility Study of Accelerator-Based Boron Neutron Capture [25212] Synovectomy (BNCS) For Treating Rheumatoid Arthritis	
13:30	Performance study of spent radioactive resin conditioning using [25383] cementitious binders incorporating clay	
13:31	Towards a Self-Reliant Nuclear Future: An Analysis of Saudi Arabia's [25296] Potential in Localizing Nuclear Power Plant Equipment Production	
13:33	Numerical Prediction of Mixed Convection Flow Regime in Liquid-Metal [25443] Fast Cooled Reactor Design	
13:34	A Comparative Performance Analysis of Standard RANS Models for [25447] Simulating Turbulent Impinging Jet Heat Transfer with Variable Prandtl Number Fluids	
13:35	Innovative Microreactor For Sustainable And Localized Medical [25174] Isotopes Production	
13:36	Bridging Industry and Regulation: A Thorium Separation Initiative for [25332] Radioactive Waste Management	
13:37	Thorium Fuel Designs for Enhanced Performance in Micro Modular [25331] High Temperature Reactor	
13:38	Radiation Attenuation Properties for different Aluminum Alloys Poster [25426]	
13:39	Assessment of RANS Turbulent Heat Flux Models for High Prandtl [25402] Number Fluids Under Mixed Convection Regime	
13:40	An assessment of URANS turbulent models and predicting thermal [25446] mixing and thermal fatigue	
13:41	Assessment of Numerical Models in Predicting Flow Pulsation in a [25444] Closely-Spaced Bare Rod Bundle	
13:42	Safety Assessment of Interim Disposal Facility in King Fahd University [25182] for Petroleum and Minerals (KFUPM) Area for Interim Storage of Low- and (Intermediate-level Radioactive waste (LILW	

13:43	Impact of Monte Carlo Calculations on Design, Activation and Inventory [25203] Analysis, Safety and Radiation Protection of Nuclear Power Plants	
13:44	Evaluation of microstructural evolution of glassy carbon induced by [25387] helium implantation and annealing	
13:45	Predictive Modelling of Hydrogen Releases from Nuclear Waste [25239] Pipelines: A Collaborative Study with Sellafield Ltd	
13:47	Optimizing Neutronics and Thermal Performance in High-Temperature [25286] Gas-Cooled Reactors	
13:48	Assessment of RANS Turbulent Heat Flux Models for High Prandtl [25357] Number Fluids Under Mixed Convection Regime	
13:49	Thermal Hydraulic Characteristics of Advanced Reactor Fuels: An [25143] Analysis of MOX, TRISO, and Metallic Fuels	
13:50	The role of high frequency intermittent field to control CHF accident in [25121] water cooled nuclear reactors	
13:51	Innovative Radiation Leak Detection and Analysis Using Intelligent Sensors [5] .and Spectroscopy	
13:52	The Prospect of Using Advanced HALEU & TRISO Fuels in Advanced [25132] Nuclear Reactors	
13:53	Predictive modelling of small scale hydrogen explosion overpressures [25368] related to hydrogen releases from nuclear containment systems: A Collaborative Study with Sellafield Ltd	
13:54	From environmental contamination to policy reform: Radiological impact [25372] of unregulated tin-tailing in support of Malaysia's Nuclear Safety Framework	
14:09	Enhancing Corrosion Resistance and Nuclear Fuel Salt Chemistry for [25414] Structural Integrity in Molten Chloride Salt Fast Reactors	
14:15	Designing a Digital Twin Framework for a Tokamak Reactor [25436]	
14:20	FINITE NUCLEI PROPERTIES FROM NUCLEAR MATTER [25452] EQUATION OF STATE	