1. Record Nr. UNISA996396368603316

Titolo	A true and joyfull relation of a famous and remarkable victory obtained by inhabitants of Clamorganshire in VVales [[electronic resource]] : against the Marquesse of Hartford, and the cavaleers, who had took the castle of Cardiffe in the said county. October the 3. 1642. Also the manner how they obtained the victory, killing fifty of the cavaleers, with the losse of nine men, and after five hours fight obtained the castle, putting them all to flight. Together with the means of the flight of the Marquesse of Hartford into VVales and the victorious proceedings of the Earl of Bedford against his confederates, his taking the Lord Pawlet, Sir Henry Berkley, and two of his brothers Sir Charles and Sir Iohn Barkes prisoners
Pubbl/distr/stampa	London, : Printed for H. Fowler, October 5. [1642]
Descrizione fisica	[8] p
Soggetti	Great Britain History Civil War, 1642-1649 Campaigns Early works to 1800 Wales History Early works to 1800
Lingua di pubblicazione	Inglese
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Livello bibliografico	Monografia
Note generali	Date of publication from Wing. Reproduction of the original in the British Library.
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Titolo	Challenges and Recent Advancements in Nuclear Energy Systems : Proceedings of Saudi International Conference on Nuclear Power Engineering (SCOPE) / / edited by Afaque Shams, Khaled Al-Athel, Iztok Tiselj, Andreas Pautz, Tomasz Kwiatkowski
Pubbl/distr/stampa	Cham : , : Springer Nature Switzerland : , : Imprint : Springer, , 2024
ISBN	9783031643620 9783031643613
Edizione	[1st ed. 2024.]
Descrizione fisica	1 online resource (849 pages)
Collana	Lecture Notes in Mechanical Engineering, , 2195-4364
Disciplina	621.48
Soggetti	Nuclear engineering Nuclear fusion Refuse and refuse disposal Nuclear Energy Nuclear Fusion Waste Management/Waste Technology
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Note generali	Includes index.
Nota di contenuto	Intro -- Forward -- Contents -- Education and Training -- Ready for Nuclear Energy? a Road to Peaceful Nuclear Power Generation Development in the Kingdom of Saudi Arabia: Vision 2030 -- 1 Introduction -- 2 Milestones Approach: Successful Development of Nuclear Power Plant -- 3 Historical Overview of KSA Nuclear Power Generation Deployment: -- 4 Suggestions and Recommendations: -- 5 Conclusion -- References -- Sustainable Energy Transition: Role of Nuclear Power -- 1 Introduction -- 2 Nuclear Power and Energy Transition -- 3 Energy Technologies for Energy Transition: Multi-criteria Decision Analysis -- 3.1 AHP Analysis -- 4 Conclusions -- References -- Model-Driven Engineering for Optimal Project Delivery: Introducing the Project Delivery Model (PDM) -- 1 Introduction -- 2 Background -- 3 The Project Delivery Model (PDM) -- 3.1 PDM - The Metamodel -- 3.2 MBSE for PDM -- 3.3 Artificial Intelligence (AI) -- 4 PDM - Going Beyond Traditional KPIs -- 5 Implementation of PDM -- 6

PDM Building Blocks -- 7 PDM Benefits for Nuclear Projects and Discussion -- 8 Conclusions -- References -- The Role of Research Reactor in National Human Capacity Building for Nuclear Power -- 1 Introduction -- 2 Lack of Nuclear Human Resources -- 3 The Role of the Research Reactor -- 3.1 Design, Construction and Commission Phase -- 3.2 Operation Phase -- 4 Conclusions -- References -- Nuclear Applications and Radiation Processing -- Development of Radionuclides for Theragnostic Applications at the Paul Scherrer Institut (PSI) -- 1 Introduction -- 2 Radionuclide Production -- 3 Conclusions -- References -- CNN-Based Detection of Welding Crack Defects in Radiographic Non-Destructive Testing -- 1 Introduction -- 1.1 Overview -- 1.2 Welding and Welding Defects -- 1.3 Radiographic Non-Destructive Testing: -- 2 Neural Networks -- 2.1 Deep Neural Networks (DNN).
2.2 Convolutional Neural Networks -- 2.3 Filters, Stride and Padding -- 2.4 Max Poling -- 3 Related Work -- 4 Materials and Methods -- 4.1 Dataset -- 4.2 Data Preparation -- 4.3 Data Augmentation -- 5 Results and Discussion -- 6 Conclusions -- References -- Simulation Study on X-Ray Radiographic Testing of Welds -- 1 Introduction -- 2 Materials and Methods -- 3 Results and Discussion -- 3.1 Flawed Carbon Steel Welded Plate -- 3.2 Flawed Carbon Steel Welded Pipe -- 4 Conclusions -- References -- Assessing Environmental Hazard Parameters of Natural Radioactivity in a High Background Area -- 1 Introduction -- 2 Experimental -- 2.1 Study Area -- 2.2 Analytical Methods -- 2.3 Implications of Environmental Hazards -- 3 Results and Discussion -- 3.1 Radionuclides Activity Concentrations -- 3.2 Environmental Hazard Impacts and Results -- 4 Conclusions -- References -- Conceptual Design for an Advanced High Field 30 MeV Superconducting Cyclotron for Medical Isotopes Production -- 1 Introduction -- 2 Magnet -- 2.1 Iron Yoke -- 2.2 Superconducting Coil -- 3 Conclusion -- References -- Production Radio-Chromic Films Dosimeter for Low and High Irradiation Dose Application -- 1 Introduction -- 2 Experiment Methods -- 2.1 Materials and Devices -- 2.2 Film Dosimeter Preparation -- 3 Result -- 3.1 Study of UV/Vis Measurement of Methyl Red Dye -- 3.2 Study of UV/Vis Measurement of Sudan Orange Dye -- 3.3 Study of UV/Vis Measurement of Solo Chrome Black Dye -- 3.4 Study of UV/Vis Measurement of Phenolrot Dye -- 4 Discussion -- 5 Conclusions -- References -- The Promising Use of Volcanic Silica as an Environmental Source for Diagnostic X-ray Shielding Applications -- 1 Introduction -- 2 Materials and Methods -- 2.1 Monte Carlo Simulation -- 2.2 Shielding Material -- 2.3 Silica Collection and Their Chemical Element Compositions -- 2.4 Procedures.
3 Results and Discussion -- 4 Conclusions -- References -- Techno-Economic Model for Hydrogen Production Using Advanced Nuclear Power Plants in Saudi Arabia -- 1 Introduction -- 2 Methodology -- 2.1 Computational Tool and Financial Parameters -- 2.2 Inputs Data for HEEP -- 3 Results and Discussion -- 4 Conclusions -- References -- Experience with Delayed- and Prompt-Gamma Neutron Activation Analysis Using Accelerator-Based Neutrons at KFUPM: An Overview -- 1 Introduction -- 2 Experimental Setups -- 2.1 Delayed-Gamma NAA (NAA) -- 2.2 Prompt-Gamma NAA (PGNAA) -- 3 Conclusions -- References -- Nuclear Power, Photovoltaics, and Compressed Air Energy Storage: A Low-Cost, On-Demand Power Hub for Saudi Arabia -- 1 Introduction -- 2 Methods and Discussions -- 2.1 Exploring Nuclear Energy Storage as a Primary Solution Among Alternative Applications -- 2.2 Integrating NPP and PV into CAES -- 2.3 Energy Cost Estimate of the Integrated NPP-PV-CAES -- 3 Conclusions --

References -- Modeling of Compact ECR Ion Source for Electrostatic Storage Ring at KACST -- 1 Introduction -- 2 ECR Mechanical Design -- 3 LEBT Beam Line -- 4 Beam Line Modelling and Simulation -- 5 Conclusion -- References -- Phenazine Porous Polymers for Radioactive Iodine Capture -- 1 Introduction -- 2 Experimental -- 2.1 Materials and Instruments -- 2.2 Synthesis of Phenazine Based Porous Polymers -- 2.3 Volatile Iodine Uptake Experiments -- 2.4 Solution Iodine Uptake Experiments -- 3 Results and Discussion -- 3.1 Characterization of PHP, PHT and PHF Porous Polymers -- 3.2 Adsorption Properties of the Synthesized Polymers -- 4 Conclusions -- References -- Possible Deep Geological Repository Site for High-Level Radioactive Waste in the Kingdom of Saudi Arabia -- 1 Introduction -- 2 Literature Review -- 2.1 Cigéo -- 2.2 Gobi Desert -- 2.3 Onkalo -- 2.4 Yucca Mountain.
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3.3 Single Crystal Zirconium -- 3.4 The Effect of Fission Products -- 4 Conclusions -- References -- Hydrogen and Temper Embrittlement Effects on Fatigue Fracture Behaviour of 2.25Cr-1.0Mo Nuclear Reactor Pressure Vessel Steel -- 1 Introduction -- 2 Experimental -- 2.1 Materials and Heat Treatment -- 2.2 Metallography -- 2.3 Fatigue Crack Growth Test -- 2.4 Fractography -- 3 Results and Discussion -- 3.1 Microstructures -- 3.2 Role of HE on IGF -- 3.3 Embrittlent and Fatigue Crack Growth -- 4 Conclusions -- References -- Numerical Evaluation of Crack in the Nuclear Reactor Pressure Vessel Using Extended Finite Element Method Technique -- 1 Introduction -- 2 System Description -- 2.1 Semi-elliptic Surface Crack Inside Finite Plate -- 2.2 Semi-elliptic Surface Crack in RPV -- 3 Conclusion -- References -- Review of Neutronics, Thermal-Hydraulic, and Fuel Performance Research of Accident Tolerant Fuels for APR-1400 in United Arab Emirates Nuclear Power Plants -- 1 Introduction -- 2

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3.1 Computer Vision in Nuclear Power Plant.

Sommario/riassunto

This book gathers the latest advances, innovations, and applications in the field of nuclear power engineering, as presented by researchers and engineers at the Saudi International Conference on Nuclear Power Engineering (SCOPE), which was organized by King Fahd University of Petroleum and Minerals (KFUPM), and held in Dhahran, Saudi Arabia on November 13–15, 2023. The contributions encompass topics such as nuclear thermal-hydraulics, reactor physics, nuclear materials, fuel cycle and waste management, safety and severe accidents, fusion and advanced reactors, nuclear applications and radiation processing. The contributions, which were selected through a rigorous international peer-review process, share exciting ideas that will spur novel research directions and foster new multidisciplinary collaborations.