

National Conference on Innovations in Nuclear Physics and its Application to Nuclear Power Generation (INP-NPG-2026)

Invited Talks: Keynote, INS-Plenary, Plenary and Distinguished Talks

<i>Sl. No.</i>	<i>Name Of The Speaker</i>	<i>Title</i>
<i>I1</i>	Dr. Amit Roy	<i>Bird's eye view of Nuclear Science and its applications</i>
<i>I2</i>	Shri Kishor U. Agrawal	<i>India's Nuclear Reset: From State Monopoly to Market Framework</i>
<i>I3</i>	Dr. Debabrata Datta	<i>National Nuclear Energy Mission of 100 GWE by 2047 and Shanti Act</i>
<i>I4</i>	Prof. Gautam Gangopadhyay	<i>Theoretical study of neutron capture reactions in astrophysics</i>
<i>I5</i>	Dr. Dipayan Chattopadhyay	<i>Machine Learning in Nuclear Physics: Applications to Fusion Dynamics and Nuclear Astrophysics</i>
<i>I6</i>	Dr. K. S. Golda	<i>Accelerator Developments and Experimental Facilities in Nuclear Physics at IUAC</i>
<i>I7</i>	Prof. Ajay Tyagi	<i>Neutron: A versatile tool for nuclear reaction studies</i>
<i>I8</i>	Dr. Sarala Rathi	<i>Mechanism of large alpha production for systems involving weakly bound projectiles</i>
<i>I9</i>	Dr. Aranyak Chakraborty	<i>Nuclear reactor thermal-hydraulics for enhanced reactor safety</i>
<i>I10</i>	Prof. S. K. Tandel	<i>Novel decay modes of nuclear metastable states</i>
<i>I11</i>	Dr. Tumpa Bhattacharjee	<i>Exotic Nuclear Shapes and Quantum Shape Phase Transition: Need for the state of the art facilities</i>
<i>I12</i>	Prof. M. Saha Sarkar	<i>Low-Cost Nuclear Physics Experiments for Teaching Labs</i>
<i>I13</i>	Prof. Indranil Mazumdar	<i>Studies in Nuclear Structure & Nucleosynthesis using low and Medium Energy Light Ions</i>
<i>I14</i>	Dr. Tilak Ghosh	<i>Into the Fission Valleys of HE and SHE</i>
<i>I15</i>	Dr. Vishwajeet Jha	<i>Probing Fundamental Neutrino properties using Reactor based Neutrino Experiments</i>
<i>I16</i>	Dr. Haridas Pai	<i>Direct measurement of the ${}^7\text{Li}(p, \alpha){}^4\text{He}$ reaction at astrophysical energies in the context of the Cosmological Lithium problem using the ELISSA array</i>
<i>I17</i>	Dr. Arun Kumar Nayak	<i>A nuclear powered Vikshit Bharat & the radiation phobia</i>
<i>I18</i>	Prof. A. K. Jain	<i>Realization of ${}^{229}\text{Th}$ based Nuclear Clock and its consequences</i>
<i>I19</i>	Dr. Suruchi Jain	<i>Wonders of Nuclear Medicine</i>

Technical Talks: Contributory Oral Presentation

Sl. No.	Name of The Presenter	Title
T1	Abhijit Bairagya	Comparative Study of Orientation-Dependent Barrie Distributions with Experimental Fusion and Quasi-Elastic Barrier Distributions in ^{28}Si -Induced Reactions
T2	Saisundar Mohanty	AI-Driven Reduced Order Modelling for Neutron Flux Prediction in Small Modular Reactors
T3	Abhinaba Baidya	Estimation of Alpha Decay Energy Using Physics-Guided Deep Neural Networks
T4	Aiken Nurpeisov	Study of the Scattering of $^{11}\text{B}(^{10}\text{B},^{10}\text{B})^{11}\text{B}$ at an Energy of 41.3 MEV
T5	Albert Thomas	Systematic Investigation of Cluster Radioactivity in ^{221}Ra to ^{224}Ra Isotopes Using the Universal Decay Law and Unified Formula
T6	Amandeep Kaur	Structural and Dynamical Aspects of ^{16}O -Induced Compound Nuclear Decay
T7	Anil Kumar	Probing the shape evolution and shell structure in neutron rich $N=50$ nuclei
T8	V. K. Anjali	Studies on Proton decays from Superheavy nuclei in the range $104 \leq Z \leq 118$
T9	Anjana C R	Ternary fission of uranium-236 in equatorial configuration
T10	Annanya Mahajan	Classification of superdeformed bands via rigidity ratio: Evidence for two dynamical regimes in Hg isotopes
T11	Arup Datta [OFFLINE]	A Critical Review of Recent Advancements in Structural Aluminum Alloys for Nuclear Reactors and Nuclear Industry Applications
T12	B. Ashna	Interplay of fission and quasifission in the $^{30}\text{Si} + ^{197}\text{Au}$ reaction around the Coulomb barrier
T13	U. V. S. Seshavatharam	On the Beginning of Atomic and Nuclear Cosmology
T14	Debadrita Dasgupta	Polyaniline as Nuclear Radiation Detector: Recent Advances, Mechanism, and Challenges
T15	Astha Kumari	Semiconductor Nuclear Detectors for Radiation Detection
T16	Debabrata Dey [OFFLINE]	Universality in Space–Time ω modes of Quarkyonic Stars
T17	Debashish Saha	The Phase Function Method in Nuclear Scattering
T18	Deepthy Maria Joseph	Hafnium: From Nuclei to Biomaterials
T19	G. Saxena	Physics-Informed Ensemble Learning of Nuclear Masses for Astrophysical Applications
T20	Hamsini Ananya	Artificial Intelligence in Nuclear Power Plants: Safety Aspects and Emerging Applications
T21	Heera K P	Cold Ternary Fission of Superheavy Nuclei $^{290-293}\text{Lv}$ with ^2He as Light Charged Particle

T22	Hisham M P	Shape evolution in Hafnium isotopes
T23	Julie S	Effects of Ion Irradiation and Corrosion on Nanocrystalline Nickel: A Potential Material for Molten Salt Reactor
T24	Hanuman prasad K	Recent Advances in Neutron Detector Technologies for Nuclear Power Applications
T25	S. Madhumitha Shree	Residual Learning Framework for Accurate Prediction of Nuclear Charge Radii
T26	Milan Singh	Optimization of PET Diagnostics: S-Value Calculation and 3D Dose Mapping of Radiotracers via GEANT4
T27	Yasir Arafat	Systematic investigation of ^{97}Ru production in ^{11}B -induced reactions on medium mass targets
T28	Monik Maisuriya	Couple channel effects in the elastic scattering weakly bound nuclei
T29	Siddhartha Das [OFFLINE]	Assessment of Counter Current Flow Limitation in Nuclear Reactor Coolant Passages for Enhanced Safety
T30	Nandita Pradhan	Quantum scattering and Jost function formalism
T31	Nayeemuddin Ahmed	Applications of Artificial Intelligence and Machine Learning in Modern Nuclear Physics: Enhancing Nuclear Security and Operational Efficiency
T32	Nikhitha P	A Systematic Analysis of Alpha Decay in Thorium Isotopes
T33	Nilaydeep Das [OFFLINE]	Resonance Spectroscopy of ^{11}C through the $^7\text{Be}(\alpha,\alpha)^7\text{Be}$ Elastic Scattering Reaction
T34	N. Chandnani	Convex Optimization for a Diverse Set of Nuclear Mass Models
T35	Aiken Nurpeisov	Investigation of elastic scattering in the $^{11}\text{B}(^{10}\text{B},^{10}\text{B})^{11}\text{B}$ reaction at an energy of 41.3 MeV
T36	P. M. Prajapati	Nuclear Data Assessment of the $^{243}\text{Am}(n,\gamma)$ Reaction for Minor Actinide Transmutation
T37	Poornima K T	Structural analysis of oxygen isotopes
T38	Prabhat Mishra	Investigation of d-stripping using α - α coincidence in $^{10}\text{B}+^{209}\text{Bi}$ reaction
T39	Prasanna M	Investigation of Complete Fusion, Incomplete Fusion, and Neutron transfer Reactions in the $^7\text{Li}+^{205}\text{Tl}$ System
T40	Raj Nandani	Benchmarking Thermonuclear Reaction-Rate Parameterizations for Iron-Peak and p-Process Seed Isotopes
T41	Rambabu Mourya	Coupled channel effects in the elastic scattering using stable projectile of ^{11}B
T42	Sachin Shet	Benchmark Analysis of Neutron Multiplication in Lead for Fusion Blankets Using Modern Evaluated Nuclear Data Libraries
T43	Sayan Acharjee [OFFLINE]	Bell-State Representation of Two-Flavor Neutrino Oscillations
T44	U. V. S. Seshavatharam	Experimental Setup and Procedure for Conducting Cold Nuclear Fusion Experiments Based on Strong and Electroweak Nuclear Binding Energy Scheme
T45	Shubham Saha [OFFLINE]	Elastic Proton Scattering on ^{10}B : An R-Matrix Study of Astrophysically Relevant States in ^{11}C

T46	Suhail A. Tali	Systematics of Breakup Fusion in Carbon, Oxygen and Neon Induced Reactions
T47	Tinu Ann Jose	Probable decays of Super heavy nuclei $^{324}124$ using Modified Generalized Liquid Drop Model with Q value dependent Preformation factor
T48	Jesna Jose	Decay modes of Super heavy nuclei $^{308}120$ using Modified Generalized Liquid Drop Model
T49	Vishesh Varshney	Machine Learning-Assisted GEANT4 Simulation of Hybrid Radiation Shielding Materials for Future Mars Habitats
T50	Virender Ranga	Absolute cross-section of g-rays from (p,p'g) reactions on light nuclei
T51	Niya Santhosh	Level density and Thermodynamical properties of Z=119
T52	Shital Thakur	Incomplete fusion dynamics in the reactions with ^{12}C and ^{13}C projectiles at ~ 6 MeV/A
T53	Souravtanu Roy	Finite Element Analysis of Nuclear Reactor Containment Structure under Seismic Loading in North-Eastern India
T54	Subham Kumar	Systematic Comparison of the Universal and Improved Fusion Function Formalisms for the $^{12}\text{C}+^{130}\text{Te}$ System
T55	Yojashwi Dewangan	Investigation of Proton Transfer Reactions in the $^9\text{Be} + ^9\text{Be}$ System
T56	Sakshi Sharma	Role of Nuclear Interaction Potentials in Fragmentation Dynamics of Mass Symmetric and Asymmetric Heavy-Ion Collisions
T57	Rajib Roy	Estimation of Early Time using The Density Parameters and Scale Factor