

# IUAC ACCELERATOR USER'S WORKSHOP

4 - 8 July 2026

Day 1: Saturday, 4 July 2026

9:00 AM: WELCOME ADDRESS BY DIRECTOR, IUAC FOLLOWED BY REMARKS BY CHAIRMAN, AUC

Session 1 (09:15 - 11:00)				Chair: Prof Sunil Bajpai
AUCID	BTR TYPE	FIELD	TITLE	PI
80103	Fresh Proposals	AMS	14C measurement of foraminifera and other calcareous shells	Aninda Mazumdar, CSIR-National Institute of Oceanography
80104	Fresh Proposals	AMS	Decoding Late Quaternary Regime Shifts in Dal Lake, Kashmir: A Multiproxy Approach	Ishfaq Ul Rehman, University of Kashmir
80106	Fresh Proposals	AMS	Develop a High Resolution Late Quaternary Magnetofossil Record for the Arabian Sea Sediments	Joju George Sebastian, CSIR-National Institute of Oceanography, Goa
80107	Fresh Proposals	AMS	Tracing solar-monsoon linkages using <sup>10</sup> Be in Holocene Lake sediments from the Indian Himalaya and Ganga plains	Dr. Pradeep Srivastava, Indian Institute of Technology Roorkee
80109	Fresh Proposals	AMS	Assessment of the Time Scale of Polymetallic Nodules (PMNs) and the Relative Hardness from Core to Periphery of samples across different ocean locations and depths	Amudha K, National Institute of Ocean Technology MoES

Session 2 (11:15 - 13:00)				Chair: Prof Binita Phartiyal
AUCID	BTR TYPE	FIELD	TITLE	PI
80120	Fresh Proposals	AMS	Radiocarbon dating of lacustrine sediments from Lunkaransar Lake, Bikaner, Rajasthan	Ankush Shrivastava, Mohanlal Sukhadia University, Udaipur
80122	Fresh Proposals	AMS	Past ventilation changes in the oxygen minimum zone of the Arabian Sea	Siby Kurian, CSIR-National Institute of Oceanography
80202	Thesis Proposals	AMS	Holobioime Response And To Past Climate Variability Clues From Lakes Of Himalayan And Its Foreland	Padmalochan Malik C/O Pradeep Srivastava, Iit Roorkee
80203	Thesis Proposals	AMS	Antibiotic Resistance and Bacterial Diversity in Permafrost of Ladakh Region	Nidhi Verma C/O Pradeep Srivastava, Iit Roorkee
80207	Thesis Proposals	AMS	Late Holocene Paleoclimate Reconstruction from the High-altitude Meadows of the Garhwal Himalaya	Priyanka Bhandari C/O Prof. Narendra Kumar Meena, Department Of Geology, H. N. B. Garhwal University
80208	Thesis Proposals	AMS	Late Quaternary Variability of the Indian Monsoon and Its Forcing Mechanisms: Insights from Multi-Proxy Marine Records of the Bay of Bengal	Ilaiyarsan M C/O Dr. Anbuselvan N, Sathyabama Institute of Science and Technology

Lunch Break

Session 3 (14:00 - 16:00)				Chair: Prof Sunil Bajpai
AUCID	BTR TYPE	FIELD	TITLE	PI
80209	Thesis Proposals	AMS	Late Quaternary sedimentation history and fluvial landscape development in the north Brahmaputra plain, Northeast India	Krishna Bhuyan C/O Prof. Parag Phukon, Gauhati University
80211	Thesis Proposals	AMS	Palaeoclimatic Studies Of Quaternary Sediments Of Kannur-Kasaragod Districts, Kerala, India	Vismaya Dileep C/O Dr. Rajesh Reghunath, Department of Geology University of Kerala
80216	Thesis Proposals	AMS	Assessment and management of subsurface characteristics of groundwater in the Jammu region using electrical resistivity tomography technique and machine learning approach	Amit Sharma C/O Avtar Singh Jasrotia, University of Jammu
80218	Thesis Proposals	AMS	Blue carbon sequestration in limnic, deltaic and coastal environments in India	Abhijeet Tripathi C/O Dr. Supriyo Kumar Das, Presidency University, Kolkata
80221	Thesis Proposals	AMS	Multiproxy Records Of The Holocene Paleoclimate And Environmental Changes From Chandrapur, Amravati And Gadchiroli Districts Of Maharashtra, India	Shweta Shekhar Wahurwagh C/O Dr. Sumedh K. Humane, Department Of Geology Rtmnu
80224	Thesis Proposals	AMS	Remote Sensing and Field-Based Assessment of Climate Change and Hydro-Geomorphc Dynamics on Peatland in the Western Himalaya, Uttarakhand.	Amol Kumar Garg C/O Dr. Sk Mustak, Central University of Punjab

80225	Thesis Proposals	AMS	Reconstruction of late Quaternary monsoon variability and associated sediment provenance, productivity and water masses from Arabian Sea.	Adhra Renny C/O Dr. Manoj M.C, Birbal Sahni Institute Of Palaeosciences, Lucknow
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**Tea Break**

<b>Session 4 (16:15 - 17:30)</b>				<b>Chair: Prof Binita Phartiyal</b>
AUCID	BTR TYPE	FIELD	TITLE	PI
80230	Thesis Proposals	AMS	Spatial Variability of the Indian Monsoon System using Western and Eastern Himalayan Lake and Meadow Sediment Archives	Gangmei Gaichunglu C/O Champoungam Panmei, Indian Institute of Technology Roorkee, Roorkee, U
80228	Thesis Proposals	AMS	Foraminiferal response to the riverine influx and its application to reconstruct the past monsoon intensity from the northern Bay of Bengal	Rajesh Kumar C/O Rajeev Saraswat, Csir National Institute Of Oceanography Goa
80239	Thesis Proposals	AMS	"Holocene Vegetation and Climate Dynamics of Brahmaputra Basin: Insights from a multiproxy study of upper Assam"	Ajay Kumar C/O Dr. Swati Tripathi, Birbal Sahni Institute of Palaeosciences, Lucknow,
80244	Thesis Proposals	AMS	Radiocarbon Dating of Organic Matter in Rock Art Pigments and Weathering Rate Analysis of Rock Surfaces using AMS	Sudeshna Biswas C/O Manoj Kumar Singh, Department of Anthropology, University of Delhi
80315	Funds & Beamtime	AMS	Surface exposure dating of offset fan and moraine deposits along the Karakoram Fault (KF)..	Seema Singh, Geology Department, Panjab University Chandigarh
80319	Funds & Beamtime	AMS	Geochemical characterization of sediments of lower Ganga River basin: Implications for natural vs anthropogenic stressors	Dr. Syed Mohammad Saalim, Department of Geology, Patna University

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**4 - 8 July 2026**

**Day 2: Sunday, 5 July 2026**

<b>Session 1 (09:15 - 11:00)</b>				<b>Chair: Prof Mahendrajit Singh</b>
AUCID	BTR TYPE	FIELD	TITLE	PI
80123	Fresh Proposals	Atomic Physics	A peek into the world of Super-Heavy systems in quasi adiabatic Regime using X-rays as signatures	Punita Verma, Kalindi College
80234 & 80524	Thesis Proposals Low Energy Ion Beam Facility	Atomic Physics	Ultrafast Nuclear Rearrangement Dynamics in Substituted Hydrocarbon Dications	Dharun J C/O Krishnendu Gope, School Of Physics, IISER Thiruvananthapuram
80246	Thesis Proposals	Atomic Physics	Systematic Investigation of M-shell X-ray Production Cross Sections in Rare-Earth (Er, Yb) and Heavy Metal (Au, Bi) Targets induced by 16O and 19F Ions in the 70-110 MeV Energy Range.	Rinku Khatkar C/O Dr. Mumtaz Oswal, Department of Physics DAV College Sec10 Chandigarh
80526	Low Energy Ion Beam Facility	Atomic Physics	Energetic proton-induced ring expansion and rapid dehydrogenation in methylated and ethylated PAHs	Binduja panja C/O Umesh R. Kadhane, Indian Institute of Space Science and Technology
80527	Low Energy Ion Beam Facility	Atomic Physics	Investigation of Nitrogenation Effects and Ionization Dynamics in Single Aromatic Ring Molecules under Proton Impact	Devika V S C/O Dr. K. Murugadass, Department of Physics, Amrita Vishwa Vidyapeetham
80531	Low Energy Ion Beam Facility	Atomic Physics	Investigation of quasiaadiabatic heavy ion atom collisions in the low energy regime	Punita Verma, Kalindi College, DU, Delhi

**Tea Break**

<b>Session 2 (11:15 - 13:00)</b>				<b>Chair: Prof Raghava Varma</b>
AUCID	BTR TYPE	FIELD	TITLE	PI
80238	Thesis Proposals	Nuclear Physics	Investigating the interplay between projectile break-up and fusion dynamics at near and above barrier energies	Shariika Sharief C/O Dr Raja Nisar Ali, Department of Physics, Central University of Kashmir
80323	Funds & Beamtime	Nuclear Physics	Influence of Projectile Deformation Fusion Dynamics at Projectile Energies $\approx$ 3-8 MeV/nucleon on Incomplete	Dr. Dharmendra Singh, Department of Physics, Central University of Jharkhand, Ranchi
80245 & 80514	Thesis Proposals Low Energy Ion Beam Facility	Nuclear Physics	Study of the Astrophysical $^{14}\text{N}(p, \gamma)^{15}\text{O}$ Reaction using Indirect Asymptotic Normalization Coefficient (ANC) Method.	Vadali Choudhary C/O Dr Ashok Kumar Mondal, Manipal University, Jaipur
80219	Thesis Proposals	Nuclear Physics	Systematic Investigation of Fission Fragment Mass and Angular Distributions, Neutron Multiplicities, and Mass Flow Dynamics in Heavy Ion Induced Fission of Fermium Isotope	Shiva Prasad Nayak C/O Dr. E. Prasad, Central University of Kerala
80223	Thesis Proposals	Nuclear Physics	Study of fusion-fission dynamics of $^{197}\text{Bi}$ nucleus populated through $^{32}\text{S} + ^{165}\text{Ho}$ reaction	Vikas Vikas C/O Dr. Meenu Thakur, Central University of Haryana

80227	Thesis Proposals	Nuclear Physics	Probing of Entrance Channel Effects in Heavy-ion Induced Fission Dynamics at Moderate Excitation Energies	Satyam Gangwar C/O Avinash Agarwal, Bareilly College, Bareilly
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**Lunch Break**

<b>Session 3 (14:00 - 16:00)</b>				<b>Chair: Prof P V Madhusudhanarao</b>
AUCID	BTR TYPE	FIELD	TITLE	PI
80231	Thesis Proposals	Nuclear Physics	Investigation of Multi-Mode Fission of Lower Pre-actinide Nuclei	Rajat Kumar Sahu C/O Prof. Samit Kumar Mandal, University Of Delhi
80110	Fresh Proposals	Nuclear Physics	Understanding the correlation between fusion hindrance and structural properties of colliding nuclei in medium-heavy mass systems	Malvika, National Institute of Technology Kurukshetra
80111	Fresh Proposals	Nuclear Physics	Fusion barrier of heavy and super-heavy systems mapped by measurement of scattered target-like ions at forward angles	Subir Nath, Inter-University Accelerator Centre
80121	Fresh Proposals	Nuclear Physics	Evaporation residues cross-sections measurements at deep barrier energies to explore the effect of neutron transfer and entrance channel dynamics	Rudra Narayan Sahoo, Institute of Physics(IOP), Bhubaneswar
80124	Fresh Proposals	Nuclear Physics	Alpha Spectroscopy and Isomer Studies of <sup>194</sup> Po at HYRA	Sansaptak Basu, Saha Institute of Nuclear Physics
80212	Thesis Proposals	Nuclear Physics	Study of proton and deuteron scattering from <sup>7</sup> Be at 10 MeV	Raja Chakraborty C/O Raja Chakraborty, Bose Institute

**Tea Break**

<b>Session 4 (16:15 - 17:30)</b>				<b>Prof. Basanta Nayak</b>
AUCID	BTR TYPE	FIELD	TITLE	PI
80247	Thesis Proposals	Nuclear Physics	Study of fusion and positive Q-value neutron transfer channels in heavy-ion reactions around sub-barrier energies	Dominic Savio C/O Prof. Moumita Maiti, IIT Roorkee
80215	Thesis Proposals	Nuclear Physics	Single-particle excitations in the vicinity of doubly-magic nuclei	Jay Kaushik C/O Prof. Sujit K. Tandel, Shiv Nadar Institution of Eminence, Delhi NCR,
80217	Thesis Proposals	Nuclear Physics	Nuclear excitations and the K- quantum number	Sachin Kumar Singh C/O Prof. Sujit K. Tandel, Shiv Nadar Institution of Eminence, Delhi-NCR
80222	Thesis Proposals	Nuclear Physics	Metastable states in neutron-rich, A~180 region nuclei	Ankit Rana C/O Prof. Sujit K. Tandel, Shiv Nadar Institution of Eminence, Delhi NCR
80317	Funds & Beamtime	Nuclear Physics	Single-Particle and Collective Structures near N ≈ 40: Search for Octupole Correlations	Kumar Raju Mukhi, GITAM University, Visakhapatnam

## IUAC ACCELERATOR USER'S WORKSHOP

**4 - 8 July 2026**

**Day 3: Monday, 6 July 2026**

<b>Session 1 (09:15 - 11:00)</b>				<b>Chair: Prof Damodar Gupta</b>
AUCID	BTR TYPE	FIELD	TITLE	PI
80108	Fresh Proposals	Radiation Biology	Radio sensitization of Glioblastoma Using Verapamil and Berberine Combination in Cell Lines with Carbon Ion Beam Irradiation.	Dr. Sayantani Karmakar, Santosh deemed to be University
80305	Funds & Beamtime	Radiation Biology	In vitro effect of Nanoparticles with piperine in radiation-resistant cancer cells to develop effective radiosensitizer	Pallavi Srivastava, Galgotias University, Greater Noida
80310	Funds & Beamtime	Radiation Biology	Nanoencapsulated Chemotherapeutic Drug in Combination with Radiotherapy for Pancreatic Cancer Treatment	Rajni Singh, Amity University Uttar Pradesh
80115	Fresh Proposals	Materials Science	Accelerator-Induced Defect Engineering in Co/Mn-Doped BiFeO <sub>3</sub> for Leakage-Controlled Multiferroic Devices	Dr. Nellutla Jahangeer, VNR VJHET-Hyderabad
80117	Fresh Proposals	Materials Science	Surface modification and defect engineering of TiO <sub>2</sub> nanotubes and nanorods by swift heavy ion irradiation	Sanju, SRM Institute of Science and Technology
80118 & 80522	Fresh Proposals Low Energy Ion Beam Facility	Materials Science	Defect engineering in Pb-free multi-layered perovskite BaBi <sub>4</sub> Ti <sub>6</sub> O <sub>15</sub> relaxor for energy storage applications	Ramcharan Meena, IUAC

**Tea Break**

<b>Session 2 (11:15 - 13:00)</b>				<b>Chair: Prof Shikha Verma</b>
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AUCID	BTR TYPE	FIELD	TITLE	PI
80214	Thesis Proposals	Materials Science	Optimization and Enhancement of Magnetic Properties of Layered Nanostructures through Ion Beam and Nanopatterning	Amruta A C/O Dr. Dileep Kumar, UGC-DAE Consortium for Scientific Research, Indore
80220	Thesis Proposals	Materials Science	Exploring the impact of bandgap-engineering to study thermoelectric, thermodynamic and magnetic behaviour of Heusler alloys using Ab-initio calculations	Komal Verma C/O Arvind Kumar, SPS,JNU
80226	Thesis Proposals	Materials Science	Ion Beam Engineering and Characterization of Cu:S/PVDF Hybrid Nanocomposites for Thermo-Triboelectric Energy Harvesting Applications	Wasif Sadad M C/O Dr. P P Pradyumnan, Department of Physics, University of Calicut
80235	Thesis Proposals	Materials Science	Studies of Interface Dynamics in Co based thin films and multilayer	Manish Manish C/O Dr. Parasmani Rajput, BDAS
80240 & 80530	Thesis Proposals Low Energy Ion Beam Facility	Materials Science	Ion Beam Irradiation-Induced Effects in High-Entropy Metal Oxide Electrodes for Efficient Alkaline Electrolysis toward Green Hydrogen Generation	Manoj Aravindh S C/O Dr. P. Sivakumar, Thiagarajar College of Engineering
80213 & 80506	Thesis Proposals Low Energy Ion Beam Facility	Materials Science	Towards the realization of a highly controllable multilevel Phase Change Memory device with low power density using ion implantation engineered Ge4Sb6Te7	Rajkumar Shanajaoba Singh C/O Dr. Vinod E. Madhavan, NIT Calicut

**Lunch Break**

<b>Session 3 (14:00 - 16:00)</b>				<b>Chair: Prof Sunita Srivastava</b>
AUCID	BTR TYPE	FIELD	TITLE	PI
80232 & 80519	Thesis Proposals Low Energy Ion Beam Facility	Materials Science	Enhancing Broadband Photodetection in Reduced Graphene Oxides by Ion Beams	Kajal Agarwal C/O Dr. R. Thangavel, IIT ISM Dhanbad
80243 & 80532	Thesis Proposals Low Energy Ion Beam Facility	Materials Science	Effect of ion-irradiation on metal-induced-crystallisation and layer exchange for Aluminum-Silicon thin films using Transmission Electron Microscopy.	Bipul Chandra C/O Dr Balaji Birajdar, Jawaharlal Nehru University New Delhi
80302	Funds & Beamtime	Materials Science	Exploring Radiation Resistant High Entropy Alloys under Swift Ion Irradiation	Dambarudhar Mohanta, Tezpur University
80303	Funds & Beamtime	Materials Science	SHI Irradiation Dependent Investigation on ZnS Quantum Dots-CuO/NiO Nanostructures Hybrid Films by Chemical Coating Technique for Photocatalytic Water Treatment Applications	Dr. V. P. Devarajan, K.S.Rangasamy College Of Technology (Autonomous))
80304	Funds & Beamtime	Materials Science	Ion-Beam Engineered Graphene Oxide and Carbon Nanotubes for Tunable Electronic, Magnetic, and Functional MEMS Devices	Sanjeev Gautam, Panjab University
80306	Funds & Beamtime	Materials Science	Enhanced Physical Properties of Swift Heavy Ion Modified Perovskite Nanomaterials for High-Performance Supercapacitors	Senthil T S, North-Eastern Hill University

**Tea Break**

<b>Session 4 (16:15 - 17:30)</b>				<b>Chair: Prof. Rajendra Singh</b>
AUCID	BTR TYPE	FIELD	TITLE	PI
80312	Funds & Beamtime	Materials Science	Swift Heavy Ion-Induced Graphitization of Ferroelectric Polymers for Metamaterial Applications	Khadke Udaykumar, Vijayanagara Sri Krishnadevaraya University, Ballari
80318	Funds & Beamtime	Materials Science	Irradiation-Driven Defect Engineering at In2O3/ZnO Heterointerfaces with Patterned IDE Arrays for Room-Temperature Gas Sensing	Dr. Rishi Ranjan Kumar, School of Basic and Applied Sciences, K.R. Mangalam University, Gurugram
80307 & 80503	Funds & Beamtime Low Energy Ion Beam Facility	Materials Science	Advanced Ion Beam-Assisted Defect and Porosity Engineering of NiCo <sub>2</sub> O <sub>4</sub> and Bio-Carbon Electrodes for Energy Storage and Electrochemical Water Splitting	Dr. Ayan Mukherjee, College Of Commerce, Arts And Science, Patna
80314 & 80518	Funds & Beamtime Low Energy Ion Beam Facility	Materials Science	Engineering Cu-implanted MoO <sub>3</sub> thin films for trace-level detection of Dibutyl Sulfide (DBS): a mustard gas simulant	Arijit Chowdhuri, Acharya Narendra Dev College, University of Delhi
80316 & 80513	Funds & Beamtime Low Energy Ion Beam Facility	Materials Science	Engineering of WO <sub>3</sub> and Its Polymer Nanocomposites for Visible-Light-Driven Pharmaceutical Degradation by Ion Beams	Dr. Kriti, K.R. Mangalam University

## IUAC ACCELERATOR USER'S WORKSHOP

**4 - 8 July 2026**

**Day 4: Tuesday, 7 July 2026**

<b>Session 1 (09:15 - 11:00)</b>				<b>Chair: Prof Utpal Joshi</b>
AUCID	BTR TYPE	FIELD	TITLE	PI
80322 & 80529	Funds & Beamtime Low Energy Ion Beam Facility	Materials Science	Investigation of Ion Irradiation Effects in a Disordered VCoNi Medium-Entropy Alloy	Dr. Abid Hussain, University of Kashmir

80505	Low Energy Ion Beam Facility	Materials Science	Structure-Property Correlation in Chemically and Irradiation-Modulated Pyrochlores- $Cd_x(Zr_{2-x}B_x)O_7$ (B = Ru, Mo, Nb, Sn; $0 \leq x \leq 1$ ): Radiation Tolerance and Ferroic Properties Behavior	Keshav Kumar, Materials Science Unit, IUAC Delhi
80508	Low Energy Ion Beam Facility	Materials Science	Ion Irradiation Effects on Thiourea and Allylthiourea Complex Crystals for Tunable Nonlinear Optical Applications	Arun Rajan C/O Sreekanth G, Muthoot Institute of Technology and Science (Autonomous) , Kochi, Kerala
80509	Low Energy Ion Beam Facility	Materials Science	Ion Irradiation-induced Defect Modulation in MoS <sub>2</sub> /Transition Metal Oxides (TMOs) Composite Electrodes for Enhanced Supercapacitor Applications	Vedanki, Government Adarsh Girls college Sheopur, Madhya Pradesh
80510	Low Energy Ion Beam Facility	Materials Science	Ion-irradiation-induced tailoring of magnetic properties of exchange spring magnetic nanocomposites	Gourav Sharma C/O Sambhunath Bera, BML Munjal university

**Tea Break**

<b>Session 2 (11:15 - 13:00)</b>				
AUCID	BTR TYPE	FIELD	TITLE	PI
80515	Low Energy Ion Beam Facility	Materials Science	Engineering Tunable Single-Photon Emission in Fixed-Layer hexagonal boron nitride (hBN) via Carbon and Silicon Doping	Rkesh , Hanyang University, Seoul, South Korea
80520	Low Energy Ion Beam Facility	Materials Science	Defect Engineering of doped-AgNbO <sub>3</sub> Thin Films via Low-Energy Ion Beam Irradiation	Pinki Singh, Gurugram University

**Lunch Break**