

Sessions Schedule for NLS-31

Day 1, Saturday, Dec 3, 2022

Session-1	Inaugural Session	
9:30 -10:30	Welcoming of Dignitaries and Inaugural Function Address by the Chief Guest Dr. R. Chidambaram, Chairman(Honorary), School for Advanced Studies in Nuclear Science and Technology, BARC	
10:30-11:15	Keynote Address Dr. S.K. Sarkar, Former GD, Chemistry Group, BARC and RRF, DAE Chronicles of Chemical Dynamics	
11.15-12:00	Inauguration of Industrial Exhibition followed by High Tea	
Session-2	ADVANCED LASER TECHNOLOGIES AND APPLICATIONS	
12:00-12:30	Prof. V.R. Supradeepa, IISc Bangalore High Power Narrow-Linewidth Fiber Lasers for Directed Energy Applications	IT-01
12:30-13:00	Shri D.N. Sanyal, NPCIL Mumbai Laser based Technology Innovations for use in Nuclear Power Plants	IT-02
13:00 - 14:00 Lunch Break		
Session-3	POSTER SESSION I	
14:00-16:30	Poster Presentations	PP-1
16:30 - 16:45 Tea Break		
Session-4	LASER INSTRUMENTATION AND SENSORS	
16:45-17:15	Prof. Sunil Khijwania, IIT Guwahati All-optical Smart Sensing for Structural Health Monitoring using FBG and Specialty Fiber	IT-03
17:15-17:45	Dr. N. Kawade, BARC Mumbai Dual Mach-Zehnder Interferometer based Optical Fiber Sensor for Perimeter Intrusion Detection System	IT-04
17:45-18.15	Prof. Rajan Jha, IIT Bhubaneswar Broadband LED based Modal Interferometer for potential Device Development	IT-05
18:15 – 19:00 Tea Break		
19.00- 20.00 Evening talk	Special Evening Talk Prof. R.P. Singh, PRL Ahmedabad Free space quantum communication	
BANQUET		

Day 2, Sunday, Dec 4, 2022

Session-5	NANO-PHOTONICS	
9:30-10:00	Prof. Sajal Dhara, IIT Kharagpur <i>Exploring exciton-photon interactions in 2D materials with twist and turn of light beam</i>	IT-06
10:00-10:30	Prof. Ramachandrarao Yella, Univ. of Hyderabad <i>Optical nanofibers: a versatile platform for Nanophotonics and Quantum Optics</i>	IT-07
10:30-11:00	Prof. Rajesh V. Nair, IIT Ropar <i>Harnessing color centers in diamond for quantum technologies</i>	IT-08
11:00 – 11:15 Tea Break		
Session-6	INDUSTRIAL AND DEFENCE APPLICATIONS OF LASERS	
11:15-11:45	Dr. C.P. Paul, RRCAT Indore <i>LAM Activities at RRCAT</i>	IT-09
11:45-12:15	Prof. Swarup Bag, IIT Guwahati <i>A perspective on laser welding of metallic materials: Modelling and experiments</i>	IT-10
12:15-12:45	Dr. Gaurav Singhal, CHESS Hyderabad <i>High Power Laser Source Technology and Applications</i>	IT-11
12:45-13:30 Lunch Break		
Session-7	POSTER SESSION II	
13:30-16:00	Poster Presentations	PP-2
16:00 – 16:15 Tea Break		
Session-8	ULTRAFAST LASERS AND APPLICATIONS	
16:15-16:45	Prof. Syamsundar De, IIT Kharagpur <i>Classical and quantum noise of ultrafast light</i>	IT-12
16:45-17:15	Dr. P.K. Mukhopadhyay, RRCAT Indore <i>Generation of pulses in diverse temporal formats from modelocked all-normal dispersion fiber laser</i>	IT-13
17:15-17.45	Prof. Jayeeta Bhattacharya, IIT Madras <i>Carrier dynamics in semiconductors studied using ultrafast lasers</i>	IT-14
Tea Break		
18.00- 19.00	ILA General Body Meeting	
CULTURAL PROGRAM & DINNER		

Day 3, Monday, Dec 5, 2022

Session-9	INTERNATIONAL YEAR OF GLASS	
9:30-10:00	Dr. K. Annapurna, CGCRI Kolkata <i>An endeavor towards indigenous technology development of large size Nd³⁺-doped phosphate glass rods and discs: A preferred gain medium in high energy-high power Lasers</i>	IT-15
10:00–10:30	Shri Sudipta Bhaumik, Sterlite Tech. Ltd., Pune <i>Glass Optical Fibre: Building blocks of digital connectivity</i>	IT-16
10:30 – 11:00 Tea Break		
Session-10	PARALLEL SESSIONS 10A & 10B	
10A	ELECTRONICS AND INSTRUMENTATION FOR LASERS	
11:00-11:30	Shri Rajesh Arya, RRCAT Indore <i>Laser power supplies and controllers for laser based nuclear field applications</i>	IT-17
11:30-12:00	Dr. Shubendu Ghosh, IUAC New Delhi <i>Commissioning of a coherent tunable THz radiation source based on Free Electron Laser</i>	IT-18
10B	NONLINEAR AND QUANTUM OPTICS	
11:00-11:30	Prof. Tarak Nath Dey, IIT Guwahati <i>Optically sculpting atomic waveguide for vector beams</i>	IT-19
11:30-12:00	Prof. Saptarishi Chaudhary, RRI Bangalore <i>Laser Cooled atomic mixture as quantum sensors</i>	IT-20
Session-11	BRNS and Industrial Session	
12:00-13:00	BRNS and Industry Presentations	
13:00-13:30	Panel Discussion – Industry Academia Interactions	
13:30-14-30 Lunch Break		
Session-12	POSTER SESSION III	
14:30-16:30	Poster presentations	
16:30-16:45 Tea Break		
Session-13	Ph.D. Thesis Presentations	
16:45-19:15	Thesis presentations	
DINNER		

Day 4, Tuesday, Dec 6, 2022

Session-14	LASERS IN CHEMISTRY AND BIOLOGY	
9:30-10:00	Dr. Rashmi Shrivastava, RRCAT Indore <i>Emerging Paradigms in Biophotonics for Diagnosis and Management of Diseases</i>	IT-21
10:00-10:30	Prof. Sajan D. George, MAHE Manipal <i>Nanoscale Surface Engineering: Applications in Biology and Chemistry</i>	IT-22
10:30-11:00	Dr. Vinu Namboodiri, BARC Mumbai <i>Superresolved microscopy using defocused orientation and position imaging (DOPI)</i>	IT-23
11.00-11:15 Tea Break		
Session-15	LASER SPECTROSCOPY	
11:15-11:45	Dr. Asawari Rath, BARC Mumbai <i>Insight into Selective photoionization of Lu-176 using RIMS</i>	IT-24
11:45-12:15	Prof. Nilmoni Sarkar, IIT Kharagpur <i>Understanding The Self-Assembly of Biological Building Block Molecules and Their Impact on Membranes</i>	IT-25
Session-16	CONCLUDING SESSION	
12:15-13:15	Award Presentation and Concluding Ceremony	
13:15-14:00 Lunch		