

Technical programme

**INTERNATIONAL CONFERENCE**

**ON**

**ADVANCED MATERIALS AND NANOTECHNOLOGY**  
**(AMN-2020)**

Venue: Jaypee Institute of Information Technology, Sector-62, Noida,  
U.P., India

<b>Day-1</b>	<b>Thursday, February 20, 2020</b>
08:30-09:30	Registration Conference (Venue: Reception, ABB II)
09:30-10:00	Inaugural Function (Venue: LT4, ABB II)
10:00-10:10	Group Photo
10:10-10:30	High Tea
10:30-11:15	<b>Plenary Talk: Prof O. N. Srivastava, BHU</b> Prospects and Prospectives of Nano-Science
	Session 1 (Venue: LT4)
11:15-11:50	<b>Keynote Talk: Prof. Vikram Kumar, IIT Delhi</b> Schottky Contacts to GaN at Nanoscale
11:50-12:25	<b>Keynote Talk: Prof. S. Auluck, NPL Delhi</b>
12:25-12:50	<b>Invited Talk: Dr. Somnath C Roy, IIT Madras</b> Some recent advances in one-dimensional metal oxide nanostructures and composites
12:50-13:15	<b>Invited Talk: Dr. Aruna I., University of Strathclyde, Scotland</b> Nanomaterials for Energy, Environment and Health care
13:15-14:00	Lunch
	Session 2, Track 1 (Venue: LT4)
14:30-15:05	<b>Keynote Talk: Prof. Udo Schwingenschlögl, KAUST Saudi Arabia</b> Valleytronics: A Materials Perspective
15:05-15:40	<b>Keynote Talk: Prof. S. Patnaik, JNU</b> Nuances of Topological Materials
15:40-16:15	<b>Keynote Talk: Prof. D. Kumar, IIT BHU</b> Multimodal behaviour of rare earth doped self activated phosphors and their applications
16:15-16:30	Tea
	Session 3, Track 1 (Venue: LT4)
16:30-16:55	<b>Invited Talk: Dr Nirpendra Singh, KU, UAE</b> Computational design of two-dimensional thermoelectric materials
16:55-17:20	<b>Invited Talk: Dr. Sanjeev Shrivastava, IISc Bangaluru</b> Efficient use of public funded research infrastructure for the growth and promotion of Science and Technology Indigenously made national webportal: Indian Science Technology and Engineering facilities Map (I-STEM)

17:20-17:35	<b>Oral Talk: Dr. Varol Intasanta, NSTDA, Thailand</b> Air Quality Improvement by Photocatalytic Elimination of VOCs and CO by UV-light Activated NanoTiO <sub>2</sub> -Coated Fibrous Membrane by Room-Temperature and Water-Based Fabrication Process
17:35-17:50	<b>Oral Talk: Ms. Samya Naqvi, NPL New Delhi</b> Synthesis of Perylene Diimide based Electron Transport Layers for Stable Organic Solar Cells
17:50-18:05	<b>Oral Talk: Ms. Sakshee Chandel, DU</b> NiMnO <sub>3</sub> /Mn <sub>2</sub> O <sub>3</sub> Nanocomposite as an Anode For High Rate And Long Cycle Lithium Ion Batteries
Session 3, Track 2 (Venue: G11)	
16:30-16:55	<b>Invited Talk: Dr. S. K. Jaiswal, NIT Patna</b> Oxygen Permeation Characteristics of Novel Perovskite Based Inorganic Membranes for Gas Separation Applications
16:55-17:20	<b>Invited Talk: Dr. Shubhra Kala, HNB Gharwal University</b> Viability of Spark-discharge Technique to Produce Semiconductor Nanoparticles
17:20-17:35	<b>Oral Talk: Mr. Udit Pant, IIT (ISM) Dhanbad</b> TIRE Based SPR Sensor Chip for Studying Enhanced Chemical/Biomolecular Interaction
17:35-17:50	<b>Oral Talk: Dr. Abhishek Kumar Singh, DCE, Bihar</b> On the Electrical Characterization of Focused Ion/Electron Beam Fabricated Platinum and Tungsten Nano Wires
17:50-18:05	<b>Oral Talk: Dr. Geevarghese V. Jacob, DCE, Bihar</b> Enhanced Inter-facial Electron Transfer Resistance By Changing The Position of Substituent of Bridging Terpyridines
18:30-19:30	<b>Cultural Program</b>
19:30-21:30	<b>Conference Dinner</b>
<b>Day-2</b>	<b>Friday, February 21, 2020</b>
Session 4 (Venue: LT4)	
09:30-10:15	<b>Plenary Talk: Prof. Matthias Batzill, USF, USA</b> Modifications of Transition Metal Dichalcogenides: Defects and Monolayers
10:15-10:50	<b>Keynote Talk: Prof. Zakir Hossain, IIT Kanpur</b> Interface Induced Phenomena in Perovskite Oxide Thin Films
10:50-11:10	Tea
Session 5 (Venue: LT4)	
11:10-11:45	<b>Keynote Talk: Prof A. K. Srivastava, CSIR-AMPRI Bhopal</b> Oxide nanostructures: synthesis, characterization and properties evaluation
11:45-12:20	<b>Keynote Talk: Prof. A. K. Nigam, TIFR Mumbai</b> Magneto-caloric Effect: Search for (Functional) Materials for Magnetic Refrigeration
12:20-12:55	<b>Keynote Talk: Prof. S. K. Chaplot, BARC Mumbai</b> Dynamics in Functional Materials: Neutron Scattering and Simulations
13:00-14:00	Lunch
Session 6, Track 1 (Venue: LT4)	
14:00-14:25	<b>Invited Talk: Dr. S. S. Kushvaha, CSIR-NPL, New Delhi</b> High responsive III-nitrides nanostructures based UV Photodetectors
14:25-14:50	<b>Invited Talk: Dr. Rajesh Kumar, IIT Indore</b> Revealing Subtle Physics at Nanoscale: Raman Scattering and Beyond

14:50-15:15	<b>Invited Talk: Dr. Manika Khanuja, JMI New Delhi</b>
	Enhanced Photocatalytic Performance of g-C <sub>3</sub> N <sub>4</sub> and Tg-C <sub>3</sub> N <sub>4</sub> for Dye Degradation: A Study on the Influence of Surface Modifications
15:15-15:30	<b>Oral Talk: Ms. Nisha Bala, DU</b> Effect of oxygen annealing on the growth and magnetic behavior of sol-gel synthesized NiO nanoparticles
15:30-15:45	<b>Oral Talk: Dr. Vijayeta Pal, IIT BHU</b> Structural and Large Electric Field-Induced Bipolar Strain Study of Lead Free Bi <sub>0.5</sub> Na <sub>0.5</sub> TiO <sub>3</sub> : Gd Piezoceramics
Session 6, Track 2 (Venue: G11)	
14:00-14:25	<b>Invited Talk: Dr. Shail Upadhyay, IIT BHU</b> Recent Studies On Ruddlesden-Popper A <sub>2</sub> BO <sub>4</sub> Oxides: Structure, Electrical, Dielectric And Optical Properties
14:25-14:50	<b>Invited Talk: Dr. C. R. Gautam, Lucknow University</b> Bioactive Composite Glass and Glass Ceramics For Biomedical Applications
14:50-15:15	<b>Invited Talk: Dr. S. K. Mishra, QCI, New Delhi</b>
	A Comparative Study on Dielectric Characteristics of Fe and Sr Modified Lead Zirconate Titanate Ceramic
15:15-15:30	<b>Oral Talk: Dr. Sandeep Sharma, GNDU Amritsar</b>
	Room temperature ammonia sensing using MoSe <sub>2</sub> nanostructures
15:30-15:45	<b>Oral Talk: Dr. Rajni Bansal</b> Investigation of Magnetization Dynamic Damping in NiFe/Pd Bilayer at Room Temperature
15:45-16:15	Tea
16:15-17:30	Session 7, (Venue: Atrium, ABB II) <b>Poster Session</b>
<b>Day 3</b>	<b>Saturday, February 22, 2020</b>
	Session 8 (Venue: LT4)
09:30-10:05	<b>Keynote Talk: Prof. Rajeev Ranjan, IISc Bengaluru</b> Tailoring ferroelectric materials to derive new functionalities
10:05-10:40	<b>Keynote Talk : Prof. K. L. Yadav, IIT Roorkee</b> Power generation from nanoporous metal oxide based Hydroelectric cell (HEC)
10:40-10:55	Tea
	Session 9 (Venue: LT4)
10:55-11:30	<b>Keynote Talk: Prof. Binay Kumar, DU</b> Energy Scavenging through Piezoelectric Nanoparticles and Crystals
11:30-12:05	<b>Keynote Talk: Prof. Sanjay Puri, JNU</b>
12:05-12:30	<b>Invited Talk: Prof. Vamsi K. , IIT Delhi</b> Practical Implementation Of Third-Generation Solar Cell Ideas For Enhancing Device Performance By Adopting Nano-Photonics And Plasmonics Concepts
12:30-12:55	<b>Invited Talk: Dr Mahesh Kumar, IIT Jodhpur</b> CVD grown two-dimensional MoS <sub>2</sub> for NO <sub>2</sub> sensing
12:55-13:50	Lunch
	Session 10, Track 1 (Venue: LT4)
13:50-14:25	<b>Keynote Talk: Prof. D. K. Rai, IIIT Noida</b>
14:25-14:50	<b>Invited Talk: Dr. Mukesh Kumar, IIT Ropar</b> 3-D network of edge-enriched MoS <sub>2</sub> flakes for next generation room

	temperature and low power sensor applications
14:50-15:15	<b>Invited Talk: Dr. A. K. Singh, IIT BHU</b> Crystal Structure and Phase Coexistence in Bi-Based Piezoelectric Ceramics
15:15-15:30	<b>Oral Talk: Dr. Manoj Kumar, PDPU Gandhinagar</b> Role of defect density on the electronic transport and current-voltage characteristics of the hole transporter free perovskite solar cell
15:30-15:45	<b>Oral Talk: Dr. Dhermendra K. Tiwari, Goa University</b> Synergistic Biocidal Effect of TiO <sub>2</sub> Nanoparticle and Carbon Nanodots with Other Antibacterial Reagents
15:45-16:00	<b>Oral Talk: Bhupendra K. Sharma</b> Large Area Flexible, Stretchable and Printed Electronics: Oxides and 2-D Materials
Session 10, Track 2 (Venue: G11)	
13:50-14:25	<b>Keynote Talk: Prof. R. K. Dwivedi, IIIT Noida</b>
14:25-14:50	<b>Invited Talk: Dr. O. P. Thakur, SSPL-DRDO, New Delhi</b> Silicon Carbide Bulk Single Crystal Growth And Wafer Fabrication Technology
14:50-15:05	<b>Oral Talk: Ms. Vineeta Singh, DU</b> The Direct and tunable band gap of chemical vapour deposited two-dimensional MoSe <sub>2</sub> by layer variation and S incorporation
15:05-15:20	<b>Oral Talk: Dr. Arpita Bhattacharya, Amity University, Noida</b> Efficient Treatment of Industrial Waste Water with a Mixture of Bagasse Based Charcoal and Nano-Titania
15:20-15:35	<b>Oral Talk: Dr. Kuldeep Mishra, Jaypee University, Anoopshahar</b> TiO <sub>2</sub> nanoparticle dispersed porous gel polymer electrolyte membrane for room temperature Na-S battery
15:35-15:50	<b>Oral Talk: Dr. Arun Kumar Singh, VNIT Nagpur</b> Frictional Properties of Dry Multiwall Carbon Nanotubes (MWCNTs) Nanoparticles
15:50-16:05	<b>Oral Talk: Mr. Rahul Saxena, IIIT Noida</b> Point-of-Care Device for Thyroid Diagnosis
16:00-16:20	Tea
16:20-16:40	Valedictory Function and Prize & Certificate Distribution (Venue:LT4)