

International Symposium on Semiconductor Materials and Devices – 2024

PROGRAM

Inaugural Session:

September 04, 2024 [9:30 Hrs. – 10:30 Hrs.]

Wednesday, September 04, 2024: Session – I [11:00 Hrs. – 13:00 Hrs.]		
Session Chair: Prof. ABC		
Time	Speaker	Title of the Talk
11:00 – 11:40	Professor S. Sivananthan	Keynote Address
11:40 – 12:00	Akhilesh Pandey	Semiconductor
12:00 – 12:20	K. K. Bamzai	
12:20 – 12:40	Moumita Mukherjee	Development of room temperature Graphene based MMW source for single photon detection: First experimental observation
12:40 – 13:00	D. S. Rawal	Indigenous GaN Hemt based MMIC technology for X/Ku Band applications

Lunch Break: 13:00 – 14:00

Wednesday, September 04, 2024:		Session – II [14:00 Hrs. – 15:30 Hrs.]
Session Chair: Prof. ABC		
Time	Speaker	Title of the Talk
14:00 – 14:20	Feroz A. Mir	Experience and Science
14:20 – 14:40	Govind Gupta	Semiconductor Heterostructures for Broadband Optoelectronic Devices
14:40 – 15:00	Farooq Hussain Bhat	Semiconducting properties of Co Doped NdMnO ₃
15:00 – 15:10	Vikash Sharma	Optical Behaviour Improved by Introducing Transparent Conductive Oxide as a Gate Material in the Junctionless Nanowire Transistor
15:10 – 15:20	Sudhir Kumar	Stabilization of Indigenous High Power AlGa _N /Ga _N HEMT devices for RF Power Characterization
15:20 – 15:30	Subash Chander	Performance Analysis of Double Back Barrier T-Gate HEMT

Tea Break: 15:30 – 15:40

Wednesday, September 04, 2024:		Session – III [15:40 Hrs. – 17:30 Hrs.]
Session Chair: Prof. ABC		
Time	Speaker	Title of the Talk
15:40 – 16:00	Mohd. Ikram	
16:00 – 16:20	Javid Ali	Enhancing the field emission properties of carbon nanotubes
16:20 – 16:40	Jatindra Kumar Rath	Towards development of PSC/SHJ based tandem solar cells
16:40 – 17:00	Muzaffar Qadir Lone	Qubits ---Some glimpses from solid state systems
17:00 – 17:10	Shivansh Tiwari	Fabrication of high-power devices based on β -Ga ₂ O ₃ for space applications
17:10 – 17:20	Shah Masheerul Alam	The gas sensing study of a modified ammonia gas sensor by decorating the metal nanoparticles on its surface.
17:20 – 17:30	Shantanu Kandar	Investigating Optical Properties of MBE-Grown 2L, 4L and Bulk 1T-WTe ₂ Using Spectroscopic Ellipsometry

Thursday, September 05, 2024: Session – IV [9:30 Hrs. – 11:00 Hrs.]

Session Chair: Prof. ABC

Time	Speaker	Title of the Talk
09:30 – 10:10	Dr. Meena Mishra	Keynote Address
10:00 – 10:30	Shakeel Khan	Solar Cells
10:30 – 10:50	P. K. Bhatnagar	Online
10:50 – 11:10	Khalid Sultan	Exploring the multifunctional behavior of rare earth (R) based double perovskite of the form R ₂ NiMnO ₆
11:10 – 11:30	Ravi Kumar	Exposition of p type transparent, conducting and magnetic oxides

Tea Break: 11:30 – 11:40

Thursday, September 05, 2024: Session – V [11:40 Hrs. – 13:00 Hrs.]

Session Chair: Prof. ABC

Time	Speaker	Title of the Talk
11:40 – 12:00	Shahid Husain	Novel lead free nanocomposites for multifunctional applications
12:00 – 12:20	Samaresh Das	THz Electronic Devices based on Low Dimensional Materials
12:20 – 12:30	Salman Firdous	Investigation of Optical Properties of La ₂ NiMnO ₆ via A-Site Doping with Strontium and Europium: A First-Principle Study
12:30 – 12:40	Prachuryya Subash Das	Impact of Interface Traps on the Performance of Localized-Metallic Gate-All-Around (LoMe-GAA) FinFET
12:40 – 12:50	Lila Abdulaziz Alkhattaby	Analysis morphology properties of K , Mn . and Co doped ZnO
12:50 – 13:00	Chanchal	Investigation of AlGaIn/ GaN HEMT Devices with Sunken Source-Connected Field Plates under Thermal Stress Conditions

Lunch Break: 13:00 – 14:00

Thursday, September 05, 2024: Session – VI [14:00 Hrs. – 15:30 Hrs.]

Session Chair: Prof. ABC

Time	Speaker	Title of the Talk
14:00 – 14:20	Santu Sardar	Quantum Technologies: Opening New Frontiers
14:20 – 14:40	Shabir Parah	Securing the Connected World: IoT Security Challenges and Emerging Solutions
14:40 – 15:00	Ashraf Shah	Physics of Semiconductors and their future prospects
15:00 – 15:10	Fayaz Ahmad Najar	Determination of some parameters of Erbium Sulfate crystals for their optoelectronic application.
15:10 – 15:20	Deepjyoti Deb	Impact of Incomplete Ionization in Presence of Interface Traps in p-i-n TFET and n-p-n Double Gate TFET
15:20 – 15:30	Bhavya	Synthesis and characterisation of TiO ₂ -PANI for electrochemical sensing applications

Tea Break: 15:30 – 15:40

Thursday, September 05, 2024: Session – VII [15:40 Hrs. – 17:30 Hrs.]

Session Chair: Prof. ABC

Time	Speaker	Title of the Talk
15:40 – 16:00	Javid Ahmad Sheikh	Electromagnetics and its role in Health care: From conventional diagnostics to Microwave Imaging
16:00 – 16:20	Khurshid A. Shah	An Overview of 2D Materials Based Sensors
16:20 – 16:40	Rajni Kant	
16:40 – 17:00	Udai P. Singh	Advances in Kesterite based thin film solar cells and Future Ahead
17:00 – 17:10	Irshad Ahmad Bhat	Low Temperature Electronic Transport Properties of an Electron Doped Polycrystalline System La _{0.9} Zr _x 0.1MnO ₃ .
17:10 – 17:20	Arfat Firdous	Transport studies of modified cadmium sulphide quantum dots
17:20 – 17:30	Aaliya Qureshi	Electrochemical analysis of glyphosate using porous biochar

	surface corrosive nZVI nanoparticles
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Friday, September 06, 2024: Session – VIII [9:30 Hrs. – 11:00 Hrs.]		
Session Chair: Prof. ABC		
Time	Speaker	Title of the Talk
09:30 – 10:10	Prof. Shreepad Karmalkar	Keynote Address
10:00 – 10:30	Sandeep Arya	Importance of electrochemical techniques for photovoltaic and supercapacitor applications
10:30 – 10:50	Tokeer Ahmad	Sustainable Hydrogen Evolution by Functional Materials based Overall Water Splitting
10:50 – 11:10	Vijay Kumar	Tetrapods based Smart materials for Advanced Technologies
11:10 – 11:30	Naresh padha	

Tea Break: 11:30 – 11:40

Thursday, September 05, 2024: Session – IX [11:40 Hrs. – 13:00 Hrs.]		
Session Chair: Prof. ABC		
Time	Speaker	Title of the Talk
11:40 – 12:00	Manika Khanuja	Structural Design of 2D layered Materials for Efficient Light Harvesting in Solar Driven Environmental Remediation
12:00 – 12:20	Monika Toma	Online
12:20 – 12:30	Farhad Ali Baksh	Application of Gallium Nitride (GaN) Based Power Electronics Devices in Converters
12:30 – 12:40	Gowhar Hussain Bhat	Microscopic investigation of chiral wobbling of triaxial nuclei
12:40 – 12:50	Hirakjyoti Chaudhury	A SPICE Modeling Framework for PLA/Al/Egg Albumin/Al Memristors
12:50 – 13:00	Himangshu Lankar	Statistical Variability of Physically Localized Interface Traps in SOI n-p-n DG TFETs

Lunch Break: 13:00 – 14:30

Friday, September 06, 2024: Session – x [14:30 Hrs. – 16:00 Hrs.]		
Session Chair: Prof. ABC		
Time	Speaker	Title of the Talk
14:30 – 14:50	Amit Jain	Scalable Growth and Transfer of large area MoS2 film on IDE structures for Photodetector Application
14:50 – 15:10	Yogendra Kumar Mishra	Tetrapods based Smart materials for Advanced Technologies
15:10 – 15:30	Speaker 30	
15:30 – 15:40	Asifa Jan	Negative Magnetoresistance In Semiconducting LaMn0.8Co0.2O3 Thin Film For Advanced Applications
15:40 – 15:50	Mehrajuddin Rather	Unravelling the linear and biquadratic magnetoelectric coupling in Ba0.95Sn0.05Ti0.95Ga0.05O3 – CoFe1.8Ga0.2O4 particulate multiferroic composites
15:50 – 16:00	Student 24	

Tea Break: 16:00 – 16:30

**Valedictory Session:
September 06, 2024 [16:30 Hrs. – 17:30 Hrs.]**