

Poster Presentations	
Electronics (ELE)	
P1.1.	Planar Junction less Diodes
	Udit Kotnis PI : Aditya Sadhanala
P1.2.	A Single-Step MOCVD Route to Phase-Pure Cu ₂ O at Low Temperatures for BEOL p-Type Oxide Electronics
	Swagatika Nayak PI : Sushobhan Avasthi
P1.3.	Phase Noise and Frequency Stability in MEMS Oscillators
	PREM PRAKASH MANGLAM : PI : Prof. Saurabh Chandorkar
P1.4.	Thickness-dependent electro-thermal-RF optimization of in-situ MOCVD AlN passivation in RF AlGaIn/GaN HEMTs.
	Nidhi Sharma : PI : Prof. Srinivasan Raghavan
P1.5.	Redox-Based Resistive Switching in an Azo-Aromatic Osmium Complex
	Gaureesh K I PI: Prof. Sreetosh Goswami
P1.6.	Fabrication and Characterization of an Aluminium Yttrium Nitride/Gallium Nitride (AlYN/GaN) Heterostructure MISHEMT
	Diptanu Debnath I PI: Prof. Srinivasan Raghavan
P1.7.	Understanding Etching of β -Ga ₂ O ₃ in BCl ₃ /Ar Inductively Coupled Plasma Reactive Ion Etching
	Taha Saquib : PI : Prof. Digbijoy Nath
P1.8.	Towards 1200 V GaN Bidirectional Switches: Understanding Leakage and Dielectric Passivation
	Vadiyala Sai Nanda Kumar: PI : Prof. Srinivasan Raghavan
P1.9.	Investigating traps in Aluminium Yttrium Nitride/Gallium Nitride (AlYN/GaN) Heterostructures
	Abdul Kashif Shah PI : Prof. Digbijoy Nath
P1.10	Design of a Wideband and High-Efficiency GaN HEMT Doherty Power Amplifier Using an Optimized Two-Section Transmission-Line Network
	ABHISEK KUMAR PI : Prof. Digbijoy Nath
P1.11	TbMnO ₃ : A Next-Generation Material for Lead -Free Photovoltaic Applications
	Seema Sahu PI : Prof. Aditya Sadhanala
Photonics & Lasers (PNL) + Quantum Science and Technologies (QST)	
P2.1.	Reactive Magnetron Sputtering of Crack-Resistant and Hydrogen-Free 800 nm Silicon Nitride
	Neivisita Hinge PI : Prof. Shankar Kumar Selvaraja
P2.2.	Orthogonal Evanescent-Field Engineering for Optomechanical Transduction of Suspended MoS ₂ on SOI Microrings
	Deya Ganguly PI : Prof. Akshay Naik
P2.3.	Roadmap towards demonstrating quantum advantage and fault-tolerant photonic quantum computing
	Nishith Narendra PI : Prof. Shankar Kumar Selvaraja
P2.4.	Training a Single Liquid Crystal Mach-Zehnder Modulator Node for Time-Delay Reservoir Computing
	Mukta Janpandit PI : Prof. Shankar Kumar Selvaraja
P2.5.	Laser locking methods for on-chip and free-space optical cavities
	Jai Samarth PI : Prof. Akshay Naik
P2.6.	High-Power Single Frequency 1550nm Fiber Amplifier with Improved SBS Threshold and Low ASE Noise
	Md Sabir Hossain PI : Prof. Supradeepa V R
P2.7.	From MBE Growth to Heralded Photons: A Spontaneous Four-Wave Mixing Single-Photon Source on a Native AlGaAs Photonic Platform
	Mukund Kumar Singh PI : Prof. Shankar Kumar Selvaraja
P2.8.	Room Temperature Ferroelectricity in Magic Angle Twisted Bilayer Graphene
	Punyabrata Karmakar PI : Prof. Chandan Kumar
P2.9.	Design and Construction of a Quantum Twisting Microscope

	Harishankar K P S PI : Prof. Chandan Kumar
P2.10	Engineering Scalable Growth of High-Tc Superconducting Thin Films
	Sohini Guin PI : Prof. Dhavala Suri
P2.11	Nonlinear Magneto-Optical Rotation in Microfabricated Vapor cells
	Puran Pal PI : Prof. Prosenjit Sen
P2.12	Catching a Single Electron in Liquid Helium
	Debnath Samantal PI : Prof. Ambarish Ghosh
P2.13	Coupled-Mode Optomechanics in Photonic Crystal Cavities Enabled by Low-Loss Coupling
	Riya Das PI : Prof. Akshay Naik
Micro, Nano Mechanics & Microfluidics (MNM)	
P3.1.	Bistability-Induced Independent Motion of Helical Structure Under Global Magnetic Actuation
	Tanmoy Dutta PI : Prof. Ambarish Ghosh
P3.2.	Fabrication of Suspended Microchannel Resonators
	Surojit Biswas PI : Prof. Saurabh Chandorkar
P3.3.	Nonlinear Resonator System Identification via Parameter Fitting Techniques
	Garvit Gupta PI : Prof. Saurabh Chandorkar
P3.4.	Particle coated droplet supported micro stage
	Allu Sai Nandan Reddy PI : Prof. Prosenjit Sen
P3.5.	Interaction of an Accelerated Liquid Interface with a Mesh for Satellite-Free Droplet Ejection
	Imnatoshi PI : Prof. Prosenjit Sen
P3.6.	Parallelized Microfluidic Impedance Cytometry for High-Throughput, Label-Free Characterization of Single Cells
	Anjali Rameswari PI : Prof. Prosenjit Sen
P3.7.	Coupling of Acoustically Driven Ferromagnetic Resonance in a SAW Delay Line to Nitrogen-Vacancy Centers
	Jyothish Raj PI : Prof. Gayathri Pillai
P3.8.	A high Q (139k) Butterfly Resonant Mode via Mechanical Excitation using Thin-Film Piezoelectric-on-Silicon
	Raeann Jesma R PI : Prof. Gayathri Pillai
P3.9.	Noise Supression in AlN based SAW Resonators using two slit IDT design
	Rishab Navaneet PI : Prof.Akshya Naik
Materials	
P4.1.	Sol-Gel Synthesis of Alpha-Quartz Piezoelectric Thin-Film and its Characterization
	Rahul Lakra PI : Prof. Pavan Nukala
P4.2.	Exploring VO2 wires as an analogue of biological neuron
	Arup Basak PI : Prof. Pavan Nukala
P4.3.	Sol gel synthesis and ferroelectric phase transition of La doped HfO2 thin films on TiN-coated silicon substrates
	Jajjara Sandeep PI : Prof. Pavan Nukala
P4.4.	Harnessing Memristor Chaos for Hardware Machine Learning
	Vivek Dey PI : Prof. Pavan Nukala
P4.5.	Correlation Between Metal-Insulator Transition and Strain Relaxation in NdNiO3 Thin Films: A Negative Charge Transfer Insulator
	Kartick Biswas PI : Prof. Pavan Nukala
P4.6.	Solar-Driven Hydrogen Production: Development of Stable Thin-Film Photoelectrodes for Photoelectrochemical Water SplittingV.
	SHALINI SINGH PI : Aditya Sadhanala
P4.7.	Raman signature of G and 2D modes in twisted double bilayer graphene

	Arshin Krishna V P PI : Prof. Chandan Kumar
P4.8.	Epitaxial growth of AlN & AlScN on TiN buffered Si by Pulsed Laser Deposition
	Phani Shankar Borra PI : Prof. Pavan Nukala
P4.9.	Effect of Ammonia on the density of hBN nucleation and growth
	Sakshi Chandola PI : Prof. Srinivasan Raghavan
P4.10.	Pure Orange Emission from Low-Temperature-Synthesized Mixed-Halide Perovskite Nanocrystals
	Sarang Mashale PI : Prof. Aditya Sadhanala
P4.11.	Substrate-Dependent Surface Roughening in Step-Graded AlGa _N on Si(111) and 4H-SiC(0001)
	Syed Helal PI : Prof. Srinivasan Raghavan
Nano Bio Technology	
P5.1.	Factors that affect nanobot manoeuvrability in biological media
	Ankur Jaiswar PI : Prof. Ambarish Ghosh
P5.2.	TiN/PEDOT:PSS composite as a printable and biocompatible ink for flexible and implantable electrodes applications
	Bharadwaj Routhu PI : Prof. Vini Gautam
P5.3.	Effects of Topological Cues on Proliferation and Mechanotransduction of Human Glioblastoma Cells
	Anushree Chakraborty PI : Prof. Vini Gautam
P5.4.	Solid State Nanopore-Based Detection of Oral Cancer-Derived Exosomes for Liquid Biopsy Applications
	Laila Jabir PI : Prof. Manoj Varma
P5.5.	Multiplexed detection of Cancer-associated cell-free Nucleic acids using Padlock probes and Solid-State Nanopores for Liquid Biopsy
	Tejas Prakash Meshram PI : Prof. Manoj Varma
P5.6.	Investigating the Effects of Ultrasound Stimulation on Glioblastoma Survival and Morphology
	Morye Tanuja Dattaram PI : Prof. Vini Gautam
P5.7.	2D- MoS ₂ Extended-Gate ISFETs for Enzymatic Urea Detection
	Ananya Tiwari PI : Prof. Navakanta Bhat
P5.8.	Investigating the role of Biophysical stimuli in modulating Astrocyte morphology and functions
	Anindita Tarafdar PI : Prof. Vini Gautam
P5.9.	Single Cell Analysis Through Micropore
	Deepanshu Pathak PI : Prof. Manoj Varma
P5.10.	Spontaneous Calcium Dynamics and Functional Connectivity of Primary Hippocampal Neurons on P(VDF-TrFE) Micropillars
	Bipul Ch Sarkar PI : Prof. Vini Gautam
P5.11.	Silicon Nanopillars as Spectral Filters for Retinal Interfaces
	SHARMISTHA DAS PI : Prof. Vini Gautam