

21st IBCAST 2024: Advanced Materials

Technical Program

ADVANCED MATERIALS

Overview

Day 1: August 20, 2024

14:00–16:00		LUNCH	
16:00–18:30 Session Chair: Dr. Huiqing Fan, NPU China	Time 1600:1700	Surface Modification and Adhesive Selection for Enhanced Performance in Steel-Composite Joining for ballistic armor	Prof. Dr. Yasir Nawab, NTU Faisalabad
	1700-1720	24AM142: Prediction of Low Velocity Impact Performance of Carbon/Flax Bio-Hybrid Composites using Experimental and Neural Network Approaches	Manzar Masud, NUST Islamabad
	1720:1740	24AM546: Synthesis of water-resistant polyurethane composite for underwater transducers encapsulation	Ammar Hasan, CESAT Islamabad
	1740: 1800	24AM334: Synthesis and Characterization of Aerospace Grade Novolac Epoxy Resin System	Ijaz Ahmad, CESAT Islamabad

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Day 2: August 21, 2024

09:00 – 10:30 Invited Talks Session Chair: Prof. Dr. Yasir Nawab NTU Faisalabad	0900-0950	Morphological Construction of Carbon Nitride For Photocatalytic Hydrogen Evolutions	Prof. Dr. Huiqing Fan, <i>NPU China</i>
	0950:1010	24AM110: Fabrication of Copper-doped Lignin-based Carbon Nanotube Composite Electrodes for Energy Storage Applications	Asifa Kusar, Comsats University Islamabad
	1010:1030	24AM210: Layered Double Hydroxide Based Self-Powered Triboelectric Sensor for Biomechanical Motions	Muhammad Saad Ur Rahman, NUST Islamabad
10:30 – 11:00	Tea Break		
11:00 – 12:50 Session Chair: Prof. Dr. Yasir Nawab NTU Faisalabad	1100-1150	piezoelectrics/multiferroics ceramics with the knowledge of synthesis/characterisation and applications	Prof Dr Fayaz Hussain, NED Karachi
	11:50-1210	24AM170: An Angularly Stable Bi-layered FSS for X- and Ku-Band Applications	Syed Muhammad Qasim Ali Shah , University of Chakwal
	1210-1230	24AM302: Synthesis of Improved Soft Magnetic Composite (SMC) for Applications in Transformer Core	Amena Mohsin, PIEAS, Islamabad
	1230-1250	24AM343: Alkaline earth metal-modified cellulose triacetate: A promising advancement in battery separator technology	Shabana Noureen, CESAT Islamabad
12:50 – 14:00	LUNCH		

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14:00–15:30 Session Chair: Dr. Semran Ipek, Istanbul Medeniyet University, <i>Turkiye</i>	Time 1400:1500	Quantum transport simulation at the nanoscale	Dr. Ibrahim Genc Istanbul Medeniyet University, <i>Turkiye</i>
	1500-1530	24AM383: A Regression-Based Approach to Optimize Curved Beam Parameters for Micro-Scale Bistable Actuation	Muhammad Owais Tariq, The Superior University Lahore
15:30–16:00	Tea Break		
16:00–16:50 Session Chair: Dr. Semran Ipek, Istanbul Medeniyet University, <i>Turkiye</i>	1530-1550	24AM109: Efficient multifunctional and multiband tunable THz metasurface based on VO ₂	Rehmat Iqbal, BIT China
	1550-1620	24AM169: Thermal Evaluation of Advanced Ablative Composites and Analysis of Space Shuttle Columbia Recovered Panel	Dr. Mohammad Bilal Khan, University of Chakwal
	1620-1650	Yarn Pullout as Assessment of Adhesion in Flexible Woven-Reinforced Laminates	Prof. Dr. Abdel-Fattah Seyam NC State University USA

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Day 3: August 22, 2024

09:15 – 10:50 Session Chair: Dr. Ibrahim Genc Istanbul Medeniyet University, <i>Turkiye</i>	Time 09:15-1000	Nanotechnology: From The Theory To The Applications	Prof. Dr. Mohamed Abdel Salam , Florida A&M University, USA,
	1000-1020	24AM376: Enhanced Efficiency of Deep Ultraviolet μ LEDs through Graded-Last Quantum Barrier Integration	Shazma Ali , GIKI
	1020-1040	24AM354: Graded Waveguide design for improved performance of AlGaIn based deep ultraviolet-C 221 nm Laser Diode	Syeda Wageeha Shakir , GIKI
10:40 – 11:00	Tea Break		
11:00 – 12:50 Session Chair: Dr. Ibrahim Genc Istanbul Medeniyet University, <i>Turkiye</i>	1100-1150	Friction and thermal transport at nanoscale	Dr. Semran Ipek , Istanbul Medeniyet University, <i>Turkiye</i>
	1150-1210	24AM463: Enhancing Charge Storage Mechanism in Mixed Metal Phosphate as Anodic electrode material for energy storage systems	Anique Ahmad , GIKI
	1210-1230	24AM445: Hydrophilic-hydrophobic titania coatings on fog collectors for water harvesting applications	Danya Khan , GIKI
	1230-1250	24AM399: Determination of Activation Energy using various Kinetic Models and their Influence on Life Prediction of Neoprene Rubber	Wasif Shahzad , PIEAS Islamabad
12:20 – 14:00	LUNCH		

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Day 3: August 22, 2024

16:00–17:10 Session Chair: Dr. Huiqing Fan , NPU China	1400-1500	“Sinterability and magnetic properties deviation in the spark plasma consolidated nanocrystalline recycled HDDR Nd–Fe–B powders.”	Prof. Dr. Awais Ikram University of Ljubljana, Slovenia
	1500-1520	24AM314: A Numerical and Experimental model for P-TIG Welded CpTi/V/Inconel 718 joint incorporating Represented Volume Elements (RVEs) and Nano indentation	Muhammad Akif, GIKI Sawabi
	1520-1540	24AM382: Mechanical and Nano-Mechanical Characterization of Dissimilar Weldment between HSLA Steel (D406) and Stainless Steel (AISI 304)	Mirza Nadeem Baig, PAEC Islamabad
	1540-1600	24AM197: Synthesis and Characterization of TiO ₂ -MWCNTs Nanocomposite for the Photocatalytic conversion of N, N-Dimethylformamide	Muniba Yaseen Naz, PIEAS Islamabad
	1600-1620	24AM483: Effect of Antioxidant Activity on Aging Profile of Expansion Joint Sealant	Dr. Shazia Amir, CESAT Islamabad