

Day/Venue: April 14, 2025/SCME Seminar Hall		
Time	3rd International Conference on Nanoscience & Nanotechnology (ICONN-2025)	
8:30-9:20	Registration	
9:25-9:35	Inaugural	Welcome Remarks (Principal and Conference Chair, School of Chemical & Materials Engineering)
9:35-9:45		Address by the Guest of Honour
9:45-10:00		Address by the Chief Guest
		Presentation of Shields
10:00-10:30	Group Photo/Tea Break	
Plenary Session		
10:30-11:00	Plenary Speaker 1	Nano-electrodeposition ( <b>Dr. Walther Schwarzacher</b> ) Dean, Syed Babar Ali School of Science and Engineering, LUMS, Lahore
11:00-11:30	Plenary Speaker 2	Nanostructures as Novel Drug Delivery Systems: Fundamental Issues and Market Perspectives ( <b>Dr. Rassoul Dinarvand</b> ) Professor of Pharmaceutics and Director, Nanotechnology Research Centre, Tehran University of Medical Sciences, Iran
Session-I (Nanobiotechnology (I))		
Session Chair and Co-Chair (Dr. N. M. Butt and Dr. Ather Farooq Khan)		
11:30-11:55	Invited Int. Speaker 1	Microorganisms in the LED spotlight: Light-assisted biosynthesis of valuable substances ( <b>Dr. Harald Schoebel</b> ) Department Biotechnology, MCI/ The Entrepreneurial School® Innsbruck, Austria

11:55-12:15	Invited Nat. Speaker 1	The Design & Development of Multifaceted Scaffolds for Enhanced Guided Hard Tissue Engineering ( <b>Dr. Ather Farooq Khan</b> ) Interdisciplinary Research Centre in Biomedical Materials, COMSATS University Islamabad, Lahore campus, Lahore, Pakistan
12:15-12:35	Invited Int. Speaker 2 (Online)	From Waste to Valuable: Nanomaterials for Sustainable Environment ( <b>Dr. M. Nawaz Tahir</b> ) Department of Chemistry, King Fahd University of Petroleum and Minerals, Dhahran, Saudi Arabia)
12:35-12:55	OT1	CaO and MgO-based catalysts for the synthesis of drug intermediates ( <b>Shahzad Rasheed</b> ) Department of Chemistry and Chemical Engineering, Syed Babar Ali School of Science and Engineering, Lahore University of Management Sciences, LUMS, Lahore
12:55-14:00	Lunch/Prayer Break	
Session II [Nanotechnology and Environment]		
Session Chair and Co-Chair (Dr. Nasir Mehmood and Dr. Basit Yameen)		
14:00-14:25	Invited Int. Speaker 3 (online)	Functionalising Thiosemicarbazones for Covalent Immobilisation on Nanoparticles and More ( <b>Dr. Axel Klein</b> ) Department of Chemistry, University of Cologne, Cologne, Germany
14:25-14:50	Invited Nat. Speaker 2	Two-Dimensional Materials: A New Class for Water Purification and Desalination Technologies ( <b>Dr. Khalid Hussain Thebo</b> ) Shenyang National Laboratory for Materials Science, Chinese Academy of Sciences, Shenyang, China/ NESCOM, Islamabad, Pakistan
14:50-15:10	Invited Nat. Speaker 3	Covalent conjugates of polymers for addressing energy and environmental challenges ( <b>Dr. Basit Yameen</b> ) Department of Chemistry and Chemical Engineering, Lahore University of Management Sciences (LUMS), Lahore, Pakistan
15:10-15:30	OT2	Electrospinning: A Revolution in Tissue Engineering ( <b>Dr. Hamad Khalid</b> ) COMSATS University Islamabad, Lahore Campus

15:30-16:00	Tea Break/Posters Session	
Session III (Semiconductor Nanomaterials)		
Session Chair and Co-Chair (Dr. Asad Ullah Khan and Dr. Muhammad Akhyar Farrukh)		
16:00-16:20	Invited Nat. Speaker 4	Quantum Breakthroughs: Applications and Global Market of Energy-Efficient High-Frequency Quantum Semiconductor Devices (Dr. Muhammad Usman) Faculty of Engineering Sciences, Ghulam Ishaq Khan Institute of Engineering Sciences and Technology, Topi, Swabi, KPK, Pakistan
16:20-16:40	Invited Nat. Speaker 5	Machine Learning Algorithms for Predicting Band Gaps and Photocatalysis Applications of Semiconductor Nanomaterials (Dr. Muhammad Akhyar Farrukh) Department of Basic and Applied Chemistry, Faculty of Science and Technology, University of Central Punjab, Lahore, Pakistan
16:40-16:55	OT3	Demonstrating donor-acceptor covalent conjugate of polythiophene and perylene diimide as an all organic photocatalyst for enhanced light-driven H2O2 production (Sana Iqbal) Department of Chemistry and Chemical Engineering, Lahore University of Management Sciences (LUMS), Lahore, Pakistan
Closing for Day 1		

Day/Venue: April 15, 2025/SCME Seminar Hall		
Time	3rd International Conference on Nanoscience & Nanotechnology (ICONN-2025)	
Session IV (Functional Materials)		
Session Chair and Co-Chair (Dr. Khurram Yaqoob and Dr. Sulalit Bandyopadhyay)		
09:30-09:55	Invited Int. Speaker 4	Engineering Particles via Flash Nanoprecipitation for Applications in Biomedicine (Dr. Sulalit Bandyopadhyay) Department of Chemical Engineering, Norwegian University of Science and Technology (NTNU), Trondheim, Norway
09:55-10:20	Invited Int. Speaker 5 (Online)	Water-Surface Interactions in Nanoporous Materials (Dr. Christian Weinberger) Akademischer Oberrat Inorganic Functional Materials, Paderborn University, Germany
10:20-10:45	Invited Int. Speaker 6 (Online)	Fabrication of dye-sensitized solar cells using natural materials for powering IOT devices (Dr. Muhammad Awais) Department of Industrial Engineering, Taibah University, Medina, Saudi Arabia
10:45-11:00	OT4	Evaluation of the Therapeutic Potential of Nano-Coated Drugs in In-Vitro and In-Vivo Models in Brain Cancer (Dr. Aneela Javed) Department of Biomedicine, ASAB, NUST, Islamabad
11:00-11:25	Tea Break	
Session-V (Nanocomposites)		
Session Chair and Co-Chair (Dr. Iftikhar Ahmad and Dr. Adeel Umer)		
11:25-11:50	Invited Int. Speaker 7 (online)	Controllable preparation and oxygen reduction application of non-noble metal nanocomposites (Dr. Xiaoxiao Huang) Department of Physics, Beijing Normal University, China

11:50-12:10	Invited Nat. Speaker 6	Quantum modelling of multi-directional fused-ring electron acceptors for organic photovoltaics <b>(Dr. Raja Shahid Ashraf)</b> Department of Chemistry, GCU, Lahore, Pakistan
12:10-12:35	Invited Int. Speaker 8	Developing eco-friendly and efficient mesoporous hybrid materials for environmental applications <b>(Dr. Mohamed A. Shenashen)</b> Professor of Materials Science, Department of Petrochemical, Egyptian Petroleum Research Institute (EPRI), Nasr City, Cairo, Egypt
12:35-13:00	Invited Int. Speaker 9 (Online)	Design of Profiles in Batch Processes and CFD Simulations with Direct Inverse Analysis of Machine Learning Models <b>(Dr. Hiromasa Kaneko)</b> Department of Applied Chemistry, School of Science and Technology, Meiji University, Kanagawa, Japan
13:00-14:00	Lunch/Prayer Break	
Session VI [Energy and Healthcare Materials]		
Session Chair and Co-Chair (Dr. Walther Schwarzacher and Dr. Usman Liaqat)		
14:00-14:25	Invited Int. Speaker 10 (Online)	Novel nanostructured metal oxide materials for applications in solar cells and molecular separation <b>(Dr. Jan-Henrik Smått)</b> Laboratory of Molecular Science and Engineering, Åbo Akademi University, Henriksgatan 2, 20500 Turku, Finland.
14:25-14:50	Invited Int. Speaker 11 (Online)	Lightweight Multifunctional Structural Composites <b>(Dr. Pagona Papakonstantinou)</b> School of Engineering, Ulster University, United Kingdom
14:50-15:15	Invited Int. Speaker 12	Nano-Biosensors: Transforming Diagnosis and Management Tool in Healthcare <b>(Dr. Mahmood Hassan Akhtar)</b> Hangzhou Zheda Dixun Biological Gene Engineering Co., Ltd. Hangzhou (Zhejiang), China
15:15-15:30	OT5	The Rational Design of Green Nanocomposites Materials for Environmental Detoxification of Pollutants <b>(Dr. Rooh Ullah)</b> Department of Chemistry, university of Turbat, Baluchistan, Pakistan

15:30-16:00	Tea Break/Posters Session	
Session VII (Nanosynthesis)		
Session Chair and Co-Chair (Dr. Muhammad Shahid and Dr. Khurshid Ayub )		
16:00-16:20	Invited Nat. Speaker 7	Transition metalides based on facially polarized all-cis-1,2,3,4,5,6-hexafluorocyclohexane – a new class of high performance second order nonlinear optical materials (Dr. Khurshid Ayub) Department of Chemistry, COMSATS University, Abbottabad, KPK, Pakistan
16:20-16:35	OT6	“Revolutionizing the Domains of Restorative Dentistry”; Clinical Efficacy of Novel Nano-reinforced Dental Adhesives in Reducing Post-operative Sensitivity in Composites: A Randomized Clinical Trial (Dr. Nehal Amir) School of Dentistry, Shaheed Zulfiqar Ali Bhutto Medical University, Islamabad
16:35-16:50	OT7	Ultrasound-Mediated Enhanced Amygdalin Delivery in Glioblastoma Cell Line Using gH625-Tagged Microbubbles (Dr. Shah Rukh Abbas) Department of Industrial Biotechnology, Atta-Ur-Rahman School of Applied Biosciences, National University of Sciences and Technology (NUST), Islamabad, 44000, Pakistan
16:50~	Closing Ceremony	

**Day/Venue: April 15, 2025/Room#107**

Time	3rd International Conference on Nanoscience & Nanotechnology (ICONN-2025)	
Session VIII (Advanced Nanomaterials)		
Session Chair and Co-Chair (Dr. Sofia Javed and Dr. Rohama Gill)		
09:30-09:50	OT8	Development of PLCL/Chitosan Nanofibrous Membranes Loaded with Nicotinamide and ZnO-NPs of Ocimum basilicum for wound repair and Skin Regeneration (Dr. Ghulam Murtaza Khuhro) Department of Molecular Biology and Genetics, Shaheed Benazir Bhutto University, Shaheed Benazir Abad- 67450, Pakistan
09:50-10:05	OT9 (Online)	Enhanced heat transfer of minichannel heat sink with graphene based nanofluids (Dr. Asif Khan) National university of Sciences and Technology, Pakistan Navy Engineering College, Karachi
10:05-10:20	OT10	Soft Lithographic Surface Patterning of in-situ PEG Nanocomposite Hydrogels for Selective Interface Interaction (Dr. Mehwash Zia) Department of Chemistry, Allama Iqbal Open University, Islamabad, Pakistan
10:20-10:35	OT11	Comparative Analysis and Green Synthesis of SWCNTs and MWCNTs Electrodes Modified with MOF (ZIF-67) and Laser-Ablated Ag Nanoparticles for Electrochemical Detection of Glucose. (Ms. Ramsha Taffazul) School of Chemical and Materials Engineering, National University of Sciences and Technology H-12 Islamabad
10:35-10:50	OT12	Impact of Computational Advancements on the Design of 2D-Materials (Mr. Syed Atta Hussain) Department of Materials Engineering, SCME, NUST.
11:00-11:25	Tea Break	
Session-IX (Nanofabrication and Nanodevices)		

Session Chair and Co-Chair (Dr. Mohsin Saleem and Dr. Farha Masood)		
11:25-11:45	OT13	Eco-Friendly Nanocomposite Membranes for Removal of Heavy Metals and Biofouling from Industrial Effluents (Dr. Farha Masood) (COMSATS University, Islamabad)
11:45-12:00	OT14	Formulation of Herbal Nano-sponge for Diabetes Treatment (Ms. Sana Saleem) Interdisciplinary Research Centre in Biomedical Materials, COMSATS University Islamabad, Lahore campus, Lahore, Pakistan
12:00-12:15	OT15	Numerical Insights into High-Indium InGaN NIR LEDs: A Path to Efficient Nano-Optoelectronics (Ms. Iqra Anjum) Faculty of Engineering Sciences (FES), Ghulam Ishaq Khan Institute of Engineering Sciences and Technology, Topi, Swabi, Pakistan.
12:15-12:30	OT16	Amino Acid Functionalized Co-BTC MOF as an Efficient Electrocatalyst for OER (Mr. Khalid Talha) University of Bari Aldo Moro, Bari Italy 70125
12:30-12:45	OT17	Design and Analysis of a Supramolecular Gel Electrolyte with Enhanced mobility for Li-Ion Batteries (Mr. Farooq Ahmad) Institute of Molecular Physics, Polish Academy of Sciences, M. Smoluchowskiego 17, 60-179, Poznań, Poland
12:45:13:00	OT18	A new green switchable dispersive solid-liquid microextraction Using multi-walled carbon nanotubes for selenium in real water samples (Dr. Naeem Ullah) Department of Chemistry, University of Turbat, Balochistan-92600, Pakistan
13:00-14:00	Lunch/Prayer Break	



## Session X [Nanobiotechnology (II)]

### Session Chair and Co-Chair (Dr. Ing-Farhan Javed and Dr. Sumaira Anjum)

14:10-14:30	OT19	Green Synthesis of Biocompatible Core-Shell (Au-Ag) and Hybrid (Au-ZnO and Ag-ZnO) Bimetallic Nanoparticles and Evaluation of their Potential Antibacterial, Antidiabetic, Antiglycation and Anticancer Activities <b>(Dr. Sumaira Anjum)</b> Kinnaird College for Women University Lahore
14:30-14:45	OT20	Quercetin-Loaded Nano Formulation for Diabetes Management <b>(Ms. Asma Jaffer)</b> Interdisciplinary Research Centre in Biomedical Materials, COMSATS University Islamabad, Lahore campus, Lahore, Pakistan
14:45-15:00	OT21	Fabrication of pRNA Nanoparticles for Targeted Regression of MYCN Gene Overexpressing Human Cancers <b>(Ms. Asima Asghar)</b> Interdisciplinary Research Centre in Biomedical Materials, COMSATS University Islamabad, Lahore campus, Lahore, Pakistan
15:00-15:15	OT22	Dynamic light scattering Based optimization of zinc cobalt sulfide nanoparticles with enhanced energy and power density for Supercapictors application <b>(Hafeez Ur Rehman)</b> Comsats University Islamabad Abbottabad Campus
15:15-15:30	OT23	Multi-Phase Transfer Studies of Diverse Iron Oxide Nanoparticles: Characterization and Insights <b>(Haroon Zafar)</b> Particle Engineering Centre, Department of Chemical Engineering, Norwegian University of Science and Technology
15:30-16:00	Tea Break/Posters Session	

**Closing Ceremony (SCME SEMINAR HALL)**