

ALIGARH NANO-V & STEMCON-16

International Conference on Nanotechnology & STEM-ER

March 12-15, 2016

Centre of Excellence in Materials Science (Nanomaterials)

Department of Applied Physics

Aligarh Muslim University (AMU), Aligarh

Venue: J.N. Medical College Auditorium, AMU, Aligarh

March 12, 2016 (Saturday)

INAUGURAL SESSION & KEYNOTE ADDRESSES

Registration	8:30-10:30 a.m.	
10:30 a.m.	Recitation of verses from the Holy Quran	
	Welcome Address by Prof. Ameer Azam, Chairperson, Department of Applied Physics, AMU	
	Introduction of Guests of Honour by Dr. Wasi Khan, Department of Applied Physics, AMU	
	Conference background by Prof. Alim H. Naqvi, Convener of the Conference	
	Message of Prof. Ahmed H. Zewail, Nobel Prize Winner	
	Address By Pro Vice Chancellor Brig. S. Ahmad Ali, AMU	
	STEM-OSU Presentation by Prof. Anil Pradhan, Prof. K. Irving & Prof. Sultana N. Nahar	
	Keynote address by Prof. Abbas Pardakhty, Vice Chancellor of Research & Tech, Kerman University of Medical Sciences, Kerman, Iran	
	Keynote address by Prof. Ashok Kumar, Director, Samparsh Food, Aligarh	
	Address by the Chief Guest by Prof. William Brustein, Vice Provost, OSU	
	Address by Lt. Gen. Zameer Uddin Shah, Vice Chancellor, AMU	
	Vote of thanks by Dr. Shakeel Khan, Department of Applied Physics, AMU	
12:00 noon	University Tarana & National Anthem	
	HIGH TEA (12:10 p.m. – 12:35 p.m.)	
SESSION-1	Session Chair by: Dr. Dilshad Akhtar, DRDO, New Delhi	
12:40 p.m.	Plenary Invited Lecture : Dr. R.B. Sharma, DRDO, New Delhi <i>Nanomaterials for Field Emission Devices</i>	
1:00 p.m.	Plenary Invited Lecture : Prof. Lotfia EI Nadi, Cairo University, Egypt <i>Crystalline Si Nano-Wires Increased the Performance of Solar Cells</i>	
1:20 p.m.	Prof. Anil Pradhan, OSU, USA <i>Monochromatic X-ray imaging and diagnostics using nanostructures for biomedical applications</i>	
	LUNCH (1:35 p.m. – 2:30 p.m.)	
SESSION-2	Session Chair by: Prof. Mahavir Singh, HP University, Shimla	
2:30 p.m.	Dr. R.K. Kotnala, NPL, New Delhi <i>Role of Nanopores in Hydroelectric Cell Discovery as Green Energy Source</i>	
	Session Chair by: Prof. Mahavir Singh, HP University, Shimla	Venue: Conference room, Interdisciplinary Biotechnology Unit
		Session Chair by: Prof. Mushahid Husain, MJPRK Univ., Bareilly
2:55 p.m.	Prof. Tara Shankar Pal, IIT Kharagpur, India <i>Enhanced Catalytic Activity of Bimetallic Nanomaterial</i>	Dr. Mukesh Kumar Sinha, DRDO, Kanpur <i>Future trends and role of nanotechnology in defence protective textiles</i>
3:20 p.m.	Dr. Anjana Dogra, NPL, New Delhi <i>Effect of Cr doping on Quasi-2DEG at LaAlO₃/SrTiO₃ interface</i>	Prof. Rajendra Sonkawade, Shivaji University, Kolhapur, Maharashtra <i>Synthesis of Conducting Polymers/graphene composites for sensing application</i>
3:45 p.m.	Dr. Zishan H. Khan, JMI, New Delhi <i>Chalcogenides to Nano-chalcogenides; The magic of size</i>	Dr. Anjali Pal, IIT Kharagpur <i>Micelle mediated approach for Au(0) formation on silica surface and its application for 4-nitrophenol reduction</i>
4:10 p.m.	Dr. Asokan Kandasami, IUAC, New Delhi India <i>Ion beam interaction studies and their potential applications</i>	Prof. N.N. Sharma, Manipal University, Jaipur <i>Investigation of Rheological and Physical Properties of Selective Carbon Black nano-particulate Reinforced Rubber Composites</i>
	TEA (4:35 p.m. – 4:55 p.m.)	

SESSION-3	Session Chair by: Prof. Lotfia El Nadi, Cairo University, Egypt	
4:55 p.m.	Prof. H.B. Singh , BHU, Varansi <i>Unveiling the scope and potential of biosynthesized nanoparticles in agriculture: A greener approach for a sustainable future</i>	
5:20 p.m.	Dr. Neeraj Khare , IIT Delhi <i>Cobalt Ferrite Magnetic Nanoparticles and its Composites for various Applications</i>	
5:45 p.m.	Prof. Kholmurad Khasanov , Moscow Lomonosov State University, Russia <i>Super-compression of the space 4th dimension and nanoparticles synthesis</i>	
ORAL PRESENTATIONS BY THE PARTICIPANTS		
SESSION-4	Oral Session (Physical Sciences) Session Chair by: Prof. Tara Shankar Pal, IIT Kharagpur	Venue: Conference room, Interdisciplinary Biotechnology Unit Oral Session (Biological Sciences) Session Chair by: Prof. H.B. Singh, BHU, Varansi
6:10 p.m.	Mr. Pawan Kumar , Kurukshetra University, Haryana (PO-07) <i>Effect of Co Implantation on the Structural, Morphological and Magnetic Properties of CeO₂ Thin Films</i>	Dr. Poornima Vajpayee , IITR, Lucknow (BO-11) <i>Phytotoxicity and metabolic adaptations in rice exposed to copper oxide nanoparticles and copper ions</i>
6:20 p.m.	Dr. S.J.A. Rizvi , AMU, Aligarh (PO-06) <i>Effect of Injection Molding Parameters on Crystallinity and Mechanical Properties of Isotactic Polypropylene</i>	Dr. M. Masroor A. Khan , AMU, Aligarh (BO-13) <i>Influence of Some Nanoparticles on Growth, Physiology and Essential Oil Production of Vetiver (Vetiveriazizanioides (L.) Nash)</i>
6:30 p.m.	Mr. Abdul Moheman Gandhi Faiz-e-Aam College, Shahjahanpur (PO-03) <i>Development of electrospun polyacrylonitrile nanofibers based ultrathin layer chromatographic plates for on-plate identification and monitoring the migration behavior of amino acids</i>	Dr. Rayees M. Dar , College of Veterinary Science & A.H., Anjora, Durg, Chhattisgarh (BO-05) <i>Evaluation of Dose-Dependent Cytotoxic Effects of Graphene Oxide-Iron Oxide Nanocomposite on Caprine Wharton's Jelly Derived Mesenchymal Stem Cells</i>
6:40 p.m.	Dr. Seham K. Abdel-Aal , Cairo University, Egypt (PO-04) <i>The future lies in the pencil tip: Graphene and graphene nanocomposites, synthesis, properties and applications.</i>	Mr. Mehedi Hasan , University of Dhaka, Bangladesh (BO-02) <i>A study on the Dynamic Model of Bryophyllum pinnatum Leaf Fueled BPL Cell: A Possible Alternate Source of Electricity at the Off-grid Region in Bangladesh</i>
6:50 p.m.	Mr. Mohd. Hanief Najar , National Institute of Technology Srinagar (PO-05) <i>Investigation of the Transport Properties of PPy/[Co(EDTA)NH₃Cl] H₂O Nanocomposite Prepared by Chemical Oxidation Method</i>	Ms. R. Sultana , Jagannath University, Dhaka, Bangladesh (BO-01) <i>A Comparative Study of Thyroid Uptake Using ^{99m}Tc Perchnetate and ¹³¹I</i>
7:00 p.m.	Ms. Rubiya Samad , University of Kashmir, Hazratbal, Srinagar (PO-02) <i>Structural and Dielectric Properties of rare-earth doped Nickel Ferrite</i>	Mr. Mohd Qasim , University of Hyderabad, Hyderabad (BO-14) <i>Novel Superparamagnetic Protein Nanocarrier for Drug Delivery Application</i>
7:10-8:10 p.m.	POSTER PP01-PP35 (Except STEM)	POSTER BP01-BP25
DINNER (8:00P.M.)		

1:40 p.m.	Ms. Sonal Singhal , Shiv Nadar University, Gautam Buddha Nagar (PO-13) <i>Effect of thermal treatment on the efficiency of dry CdCl₂ treated CdTe/Zn_{0.1}Cd_{0.9}S thin film solar cells</i>	Ms. Shabistana Nisar , AMU, Aligarh (BO-15) <i>Utilization of nanochemicals for protection of crops against aphid species Myzuspersicae (Sulz.) and Lipaphiserysimi (Kalt.) on brassica cultivars</i>
LUNCH (1:50 p.m.-2:45 p.m.)		
SESSION-8	Session Chair by: Prof. Anil Pradhan, OSU, USA	
2:45 p.m.	Prof. A.C. Sharma , M.S. University, Baroda <i>Electronic conduction and collective excitations in gapped graphene</i>	
3:10 p.m.	Prof. Ravi Kumar , Beant College of Engineering, Punjab <i>Effect of substitution induced disorder and spin states on the properties of strongly correlated perovskite Cobaltites</i>	
3:35 p.m.	Prof. Shantanu Bhattacharya , IIT Kanpur <i>Fabrication, Characterization and Application of various Nano-structures in Sensing and Remediation</i>	
4:00 p.m.	Dr. Suwarna Datar , DIAT, Pune India <i>Detection of Volatile Markers of Breast Cancer using Quartz Tuning Fork based Sensor</i>	
TEA Break (4:25 p.m.- 4:45 p.m.)		
SESSION-9	Session Chair by: Prof. Ravi Kumar, Beant College of Engineering, Punjab	
4:45 p.m.	Dr. Dibakar Das , University of Hyderabad <i>Effect of slurry stability towards nanostructuring of nitride surfaces by chemical mechanical planarization (CMP) Process</i>	
5:10 p.m.	Dr. Fouran Singh , IUAC, New Delhi <i>Phase transition studies in functional oxides and its phonon dynamics</i>	
5:35 p.m.	Dr. B.R. Singh , TERI-Deakin Nanobiotechnology Centre, New Delhi <i>Synthesis and fabrications of nanostructured materials for photocatalysis of hazardous dyes</i>	
6:00-7:00 p.m.	POSTER BP26-BP47 to onwards	POSTER PP36-70 (Except STEM)
7:00 p.m. to 8:30 p.m. Cultural Program at J.N. Medical College Auditorium		
DINNER (8:30 p.m.)		

March 14, 2016 (Monday)			
BREAKFAST			
SESSION-10	<i>Venue: Conference room, Interdisciplinary Biotechnology Unit</i> Session Chair by: Prof. PMG Nambissan, SINP, Kolkata	<i>Venue: J.N. Medical College Auditorium</i> Session 1: 9:00 - 10:30 am, OSU STEM ER Faculty Training Program Session Chair by : Prof. Wasi Haider, AMU, Aligarh	
9:00 a.m.	Prof. Mona Bakr , Cairo University, Egypt <i>Carbon Dots: Photophysical Properties and Potential Applications</i>	9:00a.m.	Prof. Anil Pradhan, Prof. K. Irving & Prof. Sultana N. Nahar , OSU, USA
9:25 a.m.	Dr. Shaikh M. Mobin , IIT Indore <i>Construction of ZnO Nanoflowers Employing Symmetric and Asymmetric Zn(II) Complexes as New molecular Precursors for Improved Photocatalytic and Drastic Biological functions.</i>	9:30 a.m.	Prof. Sultana N. Nahar , OSU Advisor Prof. A. Wani , OSU Advisor Prof. Q. Wang , OSU Advisor Prof. Guramrit Singh , OSU Advisor Prof. M. Afzal , AMU Advisor Prof. T. Ahmed , AMU Advisor Prof. S.M. Hadi , AMU Advisor Prof. I. Naseem , AMU Advisor
9:50 a.m.	Dr. Siddhartha Panda , IIT Kanpur <i>Microfluidic Immunosensors - Perspectives on Transport and Reactions</i>	10:30 a.m.	Asim Rizvi (Fellow) Hala , (Fellow) Malik Anwar , (Fellow) Nida Rehmani , (Fellow)
10:15 a.m.	Prof. Andrey M. Ionov , Russian Academy of Sciences, Russia <i>Metalloporphyrins: electronic structure, bonding and self-assembling onto surfaces</i>		

10:40 a.m.	Dr. Mehdi Al Maghrabi, Yanbu Industrial College, Yanbu, Saudi Arabia <i>Studies of $Si_{1-x}O_x$ Electrode Materials Prepared by Combinatorial Sputter Deposition</i>		
TEA (11:05 a.m. – 11:25a.m.)			
SESSION-11	Venue: Conference room, Interdisciplinary Biotechnology Unit Session Chair by: Prof. Mesbahuddin Ahmed, Bangladesh	Venue: J.N. Medical College Auditorium Session 2: 11 am-12:30 pm, Presentation from Indian Universities on STEM-ER Session Chair by : Prof. A. Wani, OSU, USA	
11:25 a.m.	Prof. PMG Nambissan, SINP, Kolkata <i>Positron Annihilation Studies of Substitution-Induced Structural Transformations in Spinel Oxide Nanocrystallites</i>	11:25 a.m.	Prof. Wasi Haider, AMU, Aligarh
		11:35 a.m.	Prof. Nesar Ahmad, AMU, Aligarh
		11:45 a.m.	Prof. S. Athar, AMU, Aligarh
		11:55 a.m.	Prof. Khurshid Andrabi/Prof. Naseer Iqbal University of Kashmir
		12:05 p.m.	Dr. S. Sharma, Shillong College
11:50 a.m.	Dr. Samarendra Pal Singh, Shiv Nadar University, Gautam Buddha Nagar <i>Charge transport studies in bulk heterojunction based inverted organic photovoltaic devices processed in room ambient</i>	12:15 p.m.	Prof. Noor-e-Zahra, Sharda University, Greater Noida
12:15 p.m.	Dr. S.S.Z. Ashraf, Department of Physics, AMU, Aligarh <i>Effect of Chirality on Hot Electron Dynamics in Single and Bilayer Graphene</i>	12:25 p.m.	Prof. S. Vaishnavi, S.M.V. Devi University, Jammu
		12:35 p.m.	Prof. S. Wanchoo, S.M.V. Devi University, Jammu
12:40 p.m.	Dr. Sudha Srivastava, IIIT, Noida <i>Nanostructures Engineered Differential Affinity Modulating Detection Range of Biosensing Devices</i>	12:45p.m.	Prof. Y.N. Tiwari, North-East Hill University, Shillong
		1:00 p.m.	Salman Khan and M. Afzal Khan AMU, Aligarh (PO-24) <i>STEM education: An overview</i>
SESSION-12	ORAL PRESENTATIONS BY THE PARTICIPANTS Oral Session (Physical Sciences) Session Chair by: Dr. Anjali Pal, IIT Kharagpur		
1:05 p.m.	Mr. Mohd. Zubair Ansari, IIT Delhi (PO-21) <i>Electrical Conduction Noise of Cu_2ZnSnS_4 thin films</i>		
1:15 p.m.	Dr. Mohammad Mujahid Ali Khan, AMU, Aligarh (PO-16) <i>Synthesis, characterization and electrochemical studies of Polystyrene and PVC based inorganic composite ion-exchange membrane</i>		
1:25 p.m.	Dr. Musheer Ahmad, AMU, Aligarh (PO-19) <i>Fabrication of Unprecedented Transition metal-Based 3D coordination polymers: Selective Gas Adsorption and Proton Conduction</i>		

1:35 p.m.	Ms. Ruqiyah Bhat University of Kashmir, Hazratbal Srinagar (PO-18) <i>Effect of Metals ions on Structural and Optical Properties of ADP Single Crystals</i>		
LUNCH (1:45 p.m.-2:40p.m.)			
SESSION-13	ORAL PRESENTATIONS BY THE PARTICIPANTS <i>Venue: Conference room, Interdisciplinary Biotechnology Unit</i> Season Chair by: Dr. Shaikh M. Mobin, IIT Indore	<i>Venue: J.N. Medical College Auditorium</i> Sessions 3, 2-3:30 pm, International Universities Session Chair by : Prof. Noor-e-Zahra, Sharda University, Greater Noida	
2:40 p.m.	Ms. Reshma Jolly, AMU Aligarh (BO-08) <i>Synthesis and characterization of a nano-hydroxyapatite/chitosan/polyethylene glycol nanocomposite for bone tissue engineering</i>	2:40p.m.	Plenary Invited Lecture : Prof. Abul Hasan, Sharda University, Greater Noida <i>Use of Technology in teaching Mathematics with special referenceto Indian subcontinent and subcontinent and the Mideast.</i>
2:50 p.m.	Dr. Seham K. Abdel-Aal, Cairo University, Egypt (PO-04) <i>Synthesis, crystal structure, IR spectroscopy and thermal properties of layered organic-inorganic 2D perovskite hybrid [NH₃(CH₂)₅NH₃]MnCl₄; 1,5 diammonium-pentane tetrachloromanganate</i>	3:10 p.m.	Prof. Lotfia El Nadi, Cairo University, Egypt <i>Philosophy of Science: General and Special</i>
		3:25 p.m.	Prof. Mesbahuddin Ahmed University Grants Commission Dhaka, Bangladesh <i>Science, Technology, Engineering, Mathematics, Education and Research (STEM ER) in Bangladesh</i>
3:00 p.m.	Mr. Abid Ahmad, Tsinghua University, China (PO-15) <i>Optical Dielectric and Magnetic Behaviours of Co-Doped BiFeO₃</i>	3:40 p.m.	Prof. Sultana Nahar, OSU, USA <i>STEM-ER in Universities in Saudi Arabia</i>
3:10 p.m.	Ms. Beenish, AMU Aligarh (PO-14) <i>Development of bioanode using entrapment technique for biofuel cells applications</i>	3:50 p.m.	Dr. K. Sabeeh, Quaid-i-Azam University, Pakistan
3:20 p.m.	Ms. Shakeeba Shaheen, AMU Aligarh (PO-23) <i>Determination of Ni(II) in water using Polyaniline Zr(IV) molybdophosphate Nanocomposite Ion Exchange Membrane Electrode</i>	4:00 p.m.	Prof. K. Khasanov, Moscow State University, Russia
3:30 p.m.	Mr. Mohamed Ezzat, Cairo University, Egypt <i>Bubble Array Formation on Silver Thin Films under Nanosecond UV Laser Irradiation</i>		
SESSION-14	<i>Venue: Conference room, Interdisciplinary Biotechnology Unit</i> Season Chair by: Dr. Tafseer Ali, Tibbiya College AMU, Aligarh		
3:40 p.m.	Prof. Manirul Islam, Univ. of Kalyani, Nadia, West Bengal <i>Highly efficient base catalyst and sulfide oxidation reactions over new functionalized mesoporous polymers</i>		

4:05 p.m.	Prof. Kamrul Alam Khan, Jagannath University Dhaka, Bangladesh <i>PKL Electricity Generation and Storage for Practical Utilization at the off – Grid Areas of Bangladesh</i>		
4:30 p.m.	Dr. S.I. Bozhko, Russian Academy of Sciences, Russia <i>Dynamic of molecules in ultrathin C60 film on WO₂/W(110) surface</i>	5:00-6:00 p.m.	STEM POSTER
4:55 p.m.	Prof. Ford Gaol, BINUS University Jakarta Barat, Indonesia xxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxx		
5:20 p.m.	POSTER PP71-onwards (Except STEM)		
TEA BREAK (5:20 p.m. – 5:40 p.m.)			
DINNER (8:00 p.m.)			

March 15, 2016 (Tuesday)	
BREAKFAST	
SESSION-4	Sessions 1, 9:00-10:30 am: Indo-US Consortium Session Chair by : Prof. L. El Nadi, Cairo University, Egypt
9:00 a.m.	Prof. A. Pradhan, OSU, USA
9:15 a.m.	Prof. S. Alim H. Naqvi, AMU, India
9:30 a.m.	Prof. L. Allen, Mercer University, USA
9:45 a.m.	Prof. H. Kamal, Aligarh Alumni Association
10:00 a.m.	Prof. V. Singh, Mumbai University, Mumbai
HIGH TEA (10:15 a.m. – 11:00a.m.)	
SESSION-5	Sessions 2, 11 am -12:30p.m., Proposals
11:00 a.m.	Prof. L.S. Shashidhara, IISER, Pune
12:00 noon	Panel Discussions on Indo-US Consortium: Chair by Prof. Nesar Ahmad
1:00 p.m.	Proposals, Funding Strategies: All participants: OSU, AMU, NSF, Assam, Kashmir, Mercer, etc
	Vote of Thanks
LUNCH (1:30 p.m. 2:50 p.m.)	
3:00 p.m.	Valedictory Session