



UGC-Human Resource Development Centre

यूजीसी-मानव संसाधन विकास केंद्र

Jawaharlal Nehru University, New Delhi

जवाहरलाल नेहरू विश्वविद्यालय, नई दिल्ली



ज्ञान-विज्ञान विमुक्तये

**18th Refresher Course in Physical Sciences & Nano Sciences (ONLINE
MODE)**

16th November – 28th November, 2020

Course coordinators:

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List of Resource Persons:

Name	Topic of Lecture/Talk	Contact Details
Dr. D K Aswal	<i>"Aswal Model of Inclusive Growth"</i>	Director, NPL, New Delhi National Physical Laboratory Dr. K.S. Krishnan Marg New Delhi – 110012 Email: dkaswal.npl@nic.in
Prof. Sanjay Puri	<i>"Kinetics of Phase Transitions"</i>	School of Physical Sciences Jawaharlal Nehru University New Delhi Email purijnu@gmail.com
Prof. Arun Pratap	<i>"Evolution of Condensed Matter Physics: from crystals to quasi-crystals & nano-crystals"</i>	Department of Applied Physics M S University of Baroda Email: apratapmsu@yahoo.com
Dr. Praveen Kumar	<i>Effect of Thermomigration-Electromigration Coupling on Mass Transport in Cu Thin Films"</i>	Department of Materials Engineering, IISc Bangalore, India Email: praveenk@iisc.ac.in

Prof. Bansi D. Malhotra	<i>“Fundamentals & Applications of Nanostructured Codes Based Metal Oxides Biosensors for Cancer Detection”</i>	Department of Biotechnology Jawaharlal Nehru University New Delhi - 110067 Email: bansi.malhotra@gmail.com
Prof. Vinay Gupta	<i>“Nitride based quantum well structures for short wavelength photonic devices”</i>	Department of Physics and Astrophysics, North Campus, University of Delhi, Delhi-110007 Email: drguptavinay@gmail.com
Dr. Suryanarayana Jammalamadaka	<i>“Nonvolatile memories for data storage and bio sensing”</i>	Department of Physics, Indian Institute of Technology Hyderabad, Telangana, India Email: surya@iith.ac.in
Prof. Bijoy K. Kunar	<i>Magnetic Nano-structures: 5G frequency band front-end devices</i>	Special Centre for Nanoscience Jawaharlal Nehru University New Delhi - 110067 Email: bk kuanr@gmail.com
Prof. S. Kannan	<i>“Nanofabricated hydrogel: A versatile platform for drug delivery and treatment of cancer”</i>	Pariyar University, Selam, TamilNadu Email: sk_protein@periyaruniversity.ac.in
Dr. Sobhan Sen	<i>“Fluorescence Spectroscopy and its Utility in Everyday Life: A Primer”</i>	School of Physical Sciences Jawaharlal Nehru University New Delhi - 110067 Email: sens@mail.jnu.ac.in
Dr. Rajendar S Dhaka	<i>Photoemission spectroscopy: what can we learn about materials and how?</i>	Department of Physics Indian Institute of Technology Delhi Email: rsdhaka@physics.iitd.ac.in
Prof. Sameer Sapra	<i>“2D nanomaterials for optoelectronic and catalytic applications”</i>	Department of Chemistry Indian Institute of Technology Delhi Email: sapra@chemistry.iitd.ac.in
Prof. S.K. Tripathi	<i>“Chalcogenide Glasses and its Optical Properties”</i>	Department of Physics Punjab University Chandigarh Email: surya@pu.ac.in

Dr. Anil Kumar	<i>“Introduction to Intellectual Property Right”</i>	National Institute of Immunology Aruna Asaf Ali Marg, New Delhi - 110067 Email: anilk@nii.ac.in
Prof. Chandra Shakher	<i>“Digital Holographic Interferometric Microscope for imaging of Biological Cells and Bacteria”</i>	Indian Institute of Technology New Delhi Email: cshakher@sense.iitd.ac.in
Dr. Balaji Birajdar	<i>“Nanoscale Characterization using Electron Microscopy”</i>	Special Centre for Nanoscience Jawaharlal Nehru University New Delhi - 110067 Email: balajibirajdar@gmail.com
Prof. C. Sekar	<i>“Engineered Metal oxides for Neurochemical Sensing Applications”</i>	Alagappa University Department of Bioelectronics & Biosensors Karaikudi, Tamil Nadu Email: sekar2025@gmail.com
Prof. P. K. Bhatnagar	<i>“Organic Light emitting diodes (OLEDs) and latest developments”</i>	Retired Professor, Guest Faculty Add: Department of Electronic Science, University of Delhi South Campus, Benito Juarez Road, New Delhi-110021
Prof. Kedar Singh	<i>“Semiconducting Quantum Dots: Fascinating Class of Materials for Spintronics and Photovoltaic Applications”</i>	Prof. Kedar Singh, School of Physical Sciences, JNU Email: kedar@mail.jnu.ac.in
Dr. Pankaj Poddar	<i>“Multifunctional platforms for multi-model cancer cell imaging, drug delivery: An in vitro and in vivo xenograft study”</i>	Academy of Scientific and Innovative Research (AcSIR) & Senior Principal Scientist Physical & Materials Chemistry Division CSIR-National Chemical Laboratory Dr Homi Bhabha Road, Pune 411 008, India Email: ppoddar@gmail.com
Dr. Priyanka Sabarwall	<i>“DNA nano probes based innovative diagnostics solutions for human health and environment”</i>	National Center for Nanoscience and Nanotechnology University of Mumbai, Kalina Campus Kalina, Santacruz (E), Mumbai 400098 Email: Priyanka.sabherwal@nano.mu.ac.in
Dr. Fouran Singh	<i>“Nanoscience using ion beams”</i>	Scientist - G Materials Science Group, Inter-University Accelerator Centre (IUAC),

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Prof. P Predeep	<i>“Perovskite solar cells: Principles and practices”</i>	Laboratory for Molecular Electronics & Photonics (LAMP) Department of Physics National Institute of Technology Calicut Kozhikode Kerala India 673 601 Email: predeep@nitc.ac.in
Dr. S. Angappane	<i>“Self-Cleaning Structural Colors by TiO₂/Ti Nanostructures”</i>	Scientist Centre for Nano and Soft Matter Sciences P. B. No. 1329, Prof. U. R. Rao Road Jalahalli, Bangalore - 560 013, India E-mail: angappane@cens.res.in , angappane@gmail.com
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Dr. P.V. Mohanan	<i>“Nanoparticles toxicity: Requirement of regulatory guidelines”</i>	Scientist-G & Head, Toxicology Division, Technical Manager, Biomedical Technology Wing, Sree Chitra Tirunal Institute for Medical Sciences and Technology An Institute of National Importance, Dept. of Science and Technology (Govt. of India) Poojapura, Thiruvananthapuram 695 012, Kerala, India. Email: mohanpv10@gmail.com
Prof. Satyabrata Patnaik	<i>“New ideas in materials science”</i>	School of Physical Sciences Jawaharlal Nehru University Email: spatnaik@mail.jnu.ac.in
Dr. Pradeep Kumar	<i>“2D materials: Synthesis, Properties and Applications”</i>	Senior Scientist & Assistant Professor Integrated Approach for Design & Product Development Division CSIR-Advanced Materials and Processes Research Institute (AMPRI) Hoshangabad Road, Bhopal - 462026, Email: Pkgangwar84@gmail.com

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Prof. Dinesh Mohan	<i>“Nanobiochar: A sustainable solution for agricultural and environmental applications”</i>	School of Environmental Sciences Jawaharlal Nehru University New Delhi – 110067 Email: dm_1967@hotmail.com
Dr. Satyender Singh	<i>“Design of Nano-Porous Anodic Alumina for Controlled Synthesis of 0D and 1D Nanostructures”</i>	Special Centre for Nanoscience Jawaharlal Nehru University New Delhi - 110067 Email: satyambd@gmail.com
Dr. Tanuja Mohanty	<i>Defect engineering studies in 2D materials</i>	School of Physical Sciences Jawaharlal Nehru University New Delhi - 110067 Email: tanujajnu@gmail.com
Dr. Sidharth Kumar Prasad	<i>“Exploring the early Universe Matter (Quark Gluon Plasma) via Heavy-Ion Experiments”</i>	Department of Physics Unified Academic Campus, Bose Institute, Kolkata Email: sprasad@jcbose.ac.in