

**UGC – Human Resource Development Centre  
Jawaharlal Nehru University, New Delhi**

**16<sup>th</sup> Refresher Course in Physical/ Nano Sciences  
27<sup>th</sup> August – 20<sup>th</sup> September, 2018**

**Course coordinators:**

**Dr. Brijesh Kumar**

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**Dr. Balaji Birajdar**

Special Centre for Nano Sciences, JNU

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**List of participants**

<b>Sr. No.</b>	<b>NAME</b>	<b>STATE</b>
1	ALAGERI LINGAPPA	KARNATAKA
2	ANANDRAO S. KULKARNI	KARNATAKA
3	ANIL OHLAN	HARYANA
4	ARAVIND DYAMA	KARNATAKA
5	DINESH KUMAR	HARYANA
6	I. SEHAR	TAMIL NADU
7	M SARATH BABU	DELHI
8	MANISH PRABHAKAR TIRPUDE	MAHARASHTRA
9	MUKESH KUMAR	UTTAR PRADESH
10	NIDHI JAST	HARYANA
11	POONAM MEHTA	DELHI
12	PRABWAL JYOTI PHUKON	ASSAM
13	PRASHANT PRABHAKAR JAGTAP	MAHARASHTRA

14	R. SUGARAJ SAMUEL	TAMIL NADU
15	RAJ KUMAR	UTTARAKHAND
16	RAJENDRA KUMAR	UTTAR PRADESH
17	RAJSHEKAR L. MADIVAL	KARNATAKA
18	RAJVEER SINGH	DELHI
19	RAKESH KUMAR	HARYANA
20	ROHITASH SINGH	UTTAR PRADESH
21	S. ALAGURAJA	TAMIL NADU
22	SAJJAN DAHIYA	HARYANA
23	SANJEEV KUMAR VERMA	DELHI
24	SHIVASHARANAPPA V. BIRADAR	KARNATAKA
25	SIDDHIRAM N. BAJANTRI	KARNATAKA
26	SUDARSAN TAMANG	SIKKIM
27	SUJIT KUMAR SHENDE	MADHYA PRADESH
28	SUNIL KUMAR	UTTAR PRADESH
29	SURENDER DUHAN	HARYANA
30	TENGURI DODDABASAVARAJA	KARNATAKA
31	UMA SHANKAR PATLE	MADHYA PRADESH
32	VINAY. V.KANNUR	KARNATAKA
33	X. HELAN FLORA	TAMIL NADU

## Schedule

### Week - I

DATE	9:30 am-10.30 am	10.30 am - 11.15 am Tea Break	11:30 am -12.30 pm	1:00 pm –2:00 pm Lunch Break	2:00 pm onwards		
Monday, August 27, 2018	Registration UGC-HRDC, JNU	Tea Break	Combined Inaugural Session Committee Hall, Convention Centre, JNU	Lunch UGC-HRDC, JNU	Interaction with the Course Coordinators		
DATE	9:30am -11:00am	11.00 am – 11.30 am Tea Break	11:30 am-1:00 pm	1.00 pm-2.00 pm Lunch Break	2.00 pm - 3.30pm	3.30 pm – 3.45 pm Tea Break	3:45 pm-5:15 pm
Tuesday, August 28, 2018	<b>Prof. Satyabrata Patnaik</b> <i>“On Material and Immaterial Science”</i>		<b>Prof. Bijoy Kumar Kuanr</b> <i>“Magnetic Nano-structures and Application to Microwave Devices”</i>		<b>Prof. Avinash Chandra Pandey</b> <i>“Climate Change”</i>		<b>Prof. Subir Kumar Sarkar</b> <i>“Statistical Mechanics with Penning Trap - I”</i>
Wednesday, August 29, 2018	<b>Prof. Ram Ramaswamy</b> <i>“The Synchronization of Nonlinear Dynamical Systems”</i>		<b>Dr. Sumit Mookerjee</b> <i>“Supercomputing in Physics-I”</i>		<b>Prof. Anirban Chakraborti</b> <i>“Introduction to Econophysics”</i>		<b>Prof. Subhasis Ghosh</b> <i>“Physics of Low Dimensional Systems - I”</i>
Thursday, August 30, 2018	<b>Prof. Subhasis Ghosh</b> <i>“Physics of Low Dimensional Systems - II”</i>		<b>Dr. Sumit Mookerjee</b> <i>“Supercomputing in Physics-II”</i>		<b>Prof. Anirban Chakraborti</b> <i>“Introduction to Sociophysics”</i>		<b>Prof. Subir Kumar Sarkar</b> <i>“Statistical Mechanics with Penning Trap - II”</i>
Friday August 31, 2018	<b>Prof. Satyabrata Patnaik</b> <i>“Recent Murmurs on New Superconducting Systems”</i>		<b>Dr. Pankaj Kumar</b> <i>“Time Sequencing the Past Using Ion Accelerator”</i>		Visit to IUAC (Inter University Accelerator Centre)		

**Week - II**

DATE	9:30am -11:00am	11.00 am – 11.30 am Tea Break	11:30 am-01.00 pm	1.00 pm-2.00 pm Lunch Break	2.00 pm - 3.30 pm	03.30 pm – 03.45 pm Tea Break	3:45 pm-5:15 pm		
Monday, September 3, 2018	HOLIDAY								
Tuesday, September 4, 2018	<b>Prof. Sameer Sapra</b>  <i>“Photoemission Spectroscopy of Nanomaterials”</i>		<b>Prof. Pankaj Sharan</b>  <i>“Historical Background to Relativity-1: Lorentz, Poincare, Einstein”</i>		<b>Prof. Subhasis Ghosh</b>  <i>“Physics of Low Dimensional Systems - III</i>		<b>Prof. Sobhan Sen</b>  <i>“Molecular Spectroscopy: Utility in Everyday Life”</i>		
Wednesday, September 5, 2018	<b>Dr. Pratima Solanki</b>  <i>“Nanostructured Materials for Biomedical Applications”</i>		<b>Dr. Balaji Birajdar</b>  <i>“Introduction to Electron Microscopy”</i>		<b>Prof. Himadri B. Bohidar</b>  <i>“Polymer Physics and Biophysics - I”</i>		Prof. Sobhan Sen  <i>“How to Observe Molecular Diffusion and Interaction in Solution at Single Molecule Level?”</i>		
Thursday, September 6, 2018	<b>Dr. Sankalpa Gosh</b>  <i>“Quantum Simulation with Ultra-Cold Atoms”</i>		<b>Prof. Pankaj Sharan</b>  <i>“Historical Background to Relativity-2: Gauss, Riemann, Einstein”</i>		<b>Dr. Anjana Dogra</b>  <i>“Thin Films”</i>		<b>Prof. Ashok K. Ganguli</b>  <i>“Chemical Synthesis of Nanomaterials”</i>		
Friday September 7, 2018	<b>Prof. Himadri B. Bohidar</b>  <i>“Polymer Physics and Biophysics - II”</i>		<b>Prof. Pankaj Sharan</b>  <i>“Historical Background to Early Quantum Theory: Wien, Planck, Einstein, Bohr</i>		VISIT TO AIRF, SCNS and SPS				

**Week - III**

<b>DATE</b>	<b>9:30am -11:00am</b>	<b>11.00 am – 11.30 am Tea Break</b>	<b>11:30 am-01.00 pm</b>	<b>1.00 pm-2.00 pm Lunch Break</b>	<b>2.00 pm - 3.30 pm</b>	<b>03.30 pm – 03.45 pm Tea Break</b>	<b>3:45 pm-5:15 pm</b>
Monday, September 10, 2018	<b>Dr. Manoj Munde</b> <i>“Biophysical Approaches for Drug Discovery”</i>		<b>Prof. K. Sreenivas</b> <i>“Magneto electric Measurements and Materials”</i>		<b>Dr. Subhadeep De</b> <i>“Precise Time Keeping using atomic Clocks and their applications”</i>		<b>Prof. Subhasis Ghosh</b> <i>“Physics of Low Dimensional Systems-III”</i>
Tuesday, September 11, 2018	<b>Dr. Kedar Singh</b> <i>“Quantum Dots: Synthesis, Characterization and Applications”</i>		<b>Prof. Debashis Ghoshal</b> <i>“Stephen Hawking (1942- 2018)”</i>		<b>Prof. Ashok K. Ganguli</b> <i>“Design of Nano- structured Materials for Photo-electrochemical Applications”</i>		<b>Dr. Pritam Mukhopadhyay</b> <i>“Weak Interactions and their applications to diverse molecular materials”</i>
Wednesday, September 12, 2018	<b>Dr. Tanuja Mohanty</b> <i>“Defects in 2D Transition Metal di- Chalcogenides”</i>		<b>Prof. Rupamanjari Ghosh</b> <i>“Manipulating Atoms by Light: Nonlinear Optics &amp; Quantum Technology”</i>		<b>Dr. Satyendra Singh</b> <i>“Fabrication of Porous Anodic Alumina for Controlled Growth of 1D Nanostructures”</i>		<b>Dr. Mohammed Ahsanul Hoda Ahsan</b> <i>“Computational Methods in Condensed Matter Physics-I”</i>
Thursday, September 13, 2018	<b>Prof T. R. Seshadri</b> <i>“Dynamics in Galaxies”</i>		<b>Dr. Anu Venugopalan</b> <i>“Concepts in Quantum Information-I”</i>		<b>Prof. Sanjay Puri</b> <i>“Kinetics of Phase Transitions”</i>		<b>Dr. Mohammed Ahsanul Hoda Ahsan</b> <i>“Computational Methods in Condensed Matter Physics-II”</i>
Friday September 14, 2018	<b>Prof. T. R. Seshadri</b> <i>“The Physics of Stars”</i>		<b>Dr. Anu Venugopalan</b> <i>“Concepts in Quantum Information-II”</i>		<b>Prof. Kirti Ranjan</b> <i>“Large Hadron Collider: A Window to the Universe”</i>		<b>Prof. Kirti Ranjan</b> <i>“Application of Silicon Detectors in Nuclear and Particle Physics Experiments”</i>

Week - IV

DATE	9:30am -11:00am	11.00 am – 11.30 am Tea Break	11:30 am-01.00 pm	1.00 pm-2.00 pm Lunch Break	2.00 pm - 3.30pm	03.30 pm – 03.45 pm Tea Break	3:45 pm-5:15 pm
Monday, September 17, 2018	<b>Prof. Sevi Murugavel</b> <i>“Broad Band Dielectric Spectroscopy and its applications in condensed Matter Physics”</i>	<b>GROUP PHOTO</b>	<b>Prof. Sevi Murugavel</b> <i>“Transport Properties at Mesoscale”</i>		Preparing for Group Presentation		Preparing for Group Presentation
Tuesday, September 18, 2018	MCQ		Group 10 Group 3 Group 9 Group 12		Presentations  Group 1 Group 4 Group 7		Presentations  Group 11 Group 13 Group 16
Wednesday, September 19, 2018	Presentation  Group 2 Group 5 Group 6		Presentation  Group 8 Group 14 Group 15				
Thursday, September 20, 2018	Feedback Session 09.00 am - 10.00 am	Combined Valedictory & Certificate Distribution 11.00 am onwards at Lecture Hall - 2, Convention Centre, JNU					