



UGC-Human Resource Development Centre

यूजीसी-मानव संसाधन विकास केंद्र

Jawaharlal Nehru University, New Delhi

जवाहरलाल नेहरू विश्वविद्यालय, नई दिल्ली



ज्ञान-विज्ञान विमुक्तये

Website: <https://www.jnu.ac.in/hrdc>

19th Refresher Course in Physical Sciences and Nano Sciences (ONLINE MODE)

10th January – 22nd January 2022

Course coordinators:

Prof. Manish Kumar, School of Physical Sciences, JNU

Email: mkkashyap@mail.jnu.ac.in

Dr. Pratima Solanki, Special Centre for Nano Science, JNU

Email: partima@mail.jnu.ac.in

List of Participants

Sl. No	NAME
1	A. PRAKASAM
2	A.SHANTHI
3	AMBIKA RANI
4	AMIT TRIBEDI
5	ANKUR
6	ANUP KR NATH
7	BALAJI I. BIRAJDAR
8	CHINKHANLUN GUTE
9	DEEPA THOMAS
10	GURJEET SINGH
11	HARIBHAU MAHIPATI BORATE
12	JASPAL SINGH
13	JNANENDRA UPADHYAY
14	KAVITA
15	MANISH KUMAR
16	MANOJ KUMAR
17	MAYURKUMAR MANGALBHAI PATEL
18	MUKESH KUMAR
19	MUKHTIYAR SINGH
20	N.IYANDURAI

Sl. No	NAME
21	NIKHIL KUMAR
22	NILESH SURESHRAO UGEMUGE
23	POOJA RANI
24	PRAMOD KUMAR
25	PRIYA SACHIN DEOLE
26	RATAN DAS
27	RAVI PATHAK
28	REKHA SHARMA
29	RIZWAN UL HAQ ANSARI
30	RONALD BENJAMIN
31	S.UMA MAHESHWARI
32	SAMJEET SINGH
33	SANTOSH PRABHAKAR
34	SHREYASI PAL
35	TANUJ KUMAR
36	YOGENDRA KUMAR GAUTAM
37	ZAKIR KHAN SALAM KHAN



Combined Inaugural Programme

3rd Refresher Course in Philosophy
&

19th Refresher Course in Physical Sciences & Nano Sciences
(January 10- 22, 2022)

(Virtual Conference Room, Zoom Meetings App.)

(Date: January 10, 2022; Time: 11.30 AM*)

Our Esteemed Guests and Speakers



Time	Programme Details
10:00 - 11:00 hrs.	Registration
11:30 - 11:40 hrs.	Welcome Address by: Prof. Brajesh Kumar Pandey, Director, UGC-HRDC, JNU- New Delhi
11:40 - 11:45 hrs.	About the 3 rd Refresher Course in Philosophy by Course Coordinator
11:45 - 11:50 hrs.	About the 19 th Refresher Course in Physical Sciences & Nano Sciences by Course Coordinator
11:50 - 12:10 hrs.	Address by: Prof. M. Jagadeesh Kumar, Vice Chancellor, JNU- New Delhi
12:10 - 12:30 hrs.	Address by: Prof. Ramesh Chandra Sinha, Chairman, Indian Council of Philosophical Research, New Delhi
12:30 - 12:55 hrs.	Address by: Prof. Gurmeet Singh, Vice Chancellor, Pondicherry University
12:55 - 01:00 hrs.	Vote of Thanks by: Dr. Sanjeev Sharma, Assistant Director, UGC-HRDC, JNU-New Delhi

Course Coordinators:

3rd Refresher Course in Philosophy



Prof. Bhagat Oinam
Chairperson, Center for
Philosophy, SSS, JNU



Prof. Rajnish Kumar Mishra
School of Sanskrit and Indic Studies, JNU

19th Refresher Course in Physical Sciences & Nano Sciences



Prof. Manish Kumar
School of Physical Sciences, JNU



Dr. Pratima Solanki
Special Centre for Nano Sciences

Prof. Brajesh Kumar Pandey
Director
UGC-HRDC, JNU

(Participants are requested to join and login 10 minutes before the schedule time)



Combined Valedictory Programme

(Virtual Conference Room, Zoom Meetings App.)

(Date: January 22nd, 2022; Time: 03.30 pm - 05.00 pm)

Faculty Induction Programme - VII [December 27, 2021 to January 22, 2022]

&

3rd Refresher Course in Philosophy

&

19th Refresher Course in Physical Sciences & Nano Sciences [January 10 – 22, 2022]



Shri Jayant Sahasrabudhe
National Organising Secretary
Vijnana Bharati



Prof. Som Nath Sachdeva
VC-Kurukshetra University



Prof. M. Jagadeesh Kumar
VC- JNU, New Delhi



Prof. Brajesh Kumar Pandey
Director, UGC-HRDC, JNU

Time	Programme Details
15:30-15:35 hrs.	Opening Remarks and Welcome Address by: Prof. Brajesh Kumar Pandey, Director, UGC-HRDC, JNU- New Delhi
15:35-15:50 hrs.	Address By: Shri Jayant Sahasrabudhe, National Organizing Secretary, Vijnana Bharati
15:50-15:55 hrs.	Presentation of Brief Course Report by: Course Coordinators of Faculty Induction Programme - VII
15:55-16:00 hrs.	Presentation of Brief Course Report by: Course Coordinators of 3 rd Refresher Course in Philosophy
16:00 -16:05 hrs.	Presentation of Brief Course Report by: Course Coordinators of 19 th Refresher Course in Physical Sciences & Nano Sciences
16:05 -16:25 hrs.	Address By: Prof. M. Jagadeesh Kumar, Vice Chancellor, Jawaharlal Nehru University-New Delhi
16:25 -16:45 hrs.	Address By: Prof. Somnath Sachdeva, Vice Chancellor, Kurukshetra University, Kurukshetra -Haryana
16:45 -17:00 hrs.	Sharing Experiences by Participants [2 participants from each course (2 Min each)]
17:00 hrs.	Vote of Thanks by: Dr. Sanjeev Sharma, UGC-HRDC, Asstt. Director, UGC-HRDC, JNU-New Delhi

Course Coordinators: Faculty Induction Programme - VII



Prof. Rajiv Sijariya
ABVSM, JNU-New Delhi



Dr. Lokesh Jindal
ABVSM, JNU-New Delhi



Dr. Laxman Kumar Behera
SCNSS, SIS-JNU, New Delhi

3rd RC in Philosophy

19th RC in Physical Sciences & Nano Sciences



Prof. Bhagat Oinam
Center for Philosophy, SSS



Prof. Rajnish Kumar Mishra
School of Sanskrit and Indic Studies



Prof. Manish Kumar
School of Physical Sciences



Dr. Pratima Solanki
Special Centre for Nano Sciences

Prof. Brajesh Kumar Pandey
Director
UGC-HRDC, JNU

(Participants are requested to join and login 10 minutes before the schedule time)

Schedule

Week - 1

DATE	10:00- 11:00 am	11:00 am – 11:30 am	11:30 am – 01:00 pm	1:00 pm – 2:00 pm	2:00 pm - 03.00 pm	03.00 pm - 03.30 pm	03.30 pm - 05.00 pm
Monday, January 10, 2022	Registration	Tea Break	Combined Inaugural Session	Lunch Break	Interaction with the Course Coordinators	Tea Break	Prof. Yogendra K. Mishra <i>“Tetrapods based Smart Materials for Advanced Technologies”</i>
DATE	09.30 am - 11.00 am	11.00 am – 11.30 am	11:30 am-01.00 pm	1.00 pm-2.00 pm	2.00 pm - 3.30pm	3.30 pm – 3.45 pm	3:45 pm-5:15 pm
Tuesday, January 11, 2022	Dr. G. S. Vaitheeswaran <i>“Energetic Materials: Known to unknown”</i>	Tea Break	Dr. Gagan Kumar <i>“Frontier in Terahertz Plasmonics”</i>	Lunch Break	Prof. (Retd.) B. L. Ahuja <i>“Inelastic scattering to probe electronic and magnetic properties of materials”</i>	Tea Break	Prof. Sourin Das <i>“Surprising world of Quantum Mechanics”</i>
Wednesday, January 12, 2022	Prof. Satyabrata Patnaik <i>“New materials for Energy storage and Transmission”</i>		Dr. Pawan K. Kulriya <i>“Development of radiation tolerant ceramics for nuclear energy applications”</i>		Dr. Anurag Gaur <i>“Development of Hybrid Supercapacitors for Energy Storage Applications”</i>		Dr. Vijay Goel <i>“Structure-Based Rational Drug Design”</i>
Thursday January 13, 2022	Prof. Avinash C. Pandey <i>“Nuclear Shell Model and IUAC facilities”</i>		Prof. Sanjay Puri <i>“Kinetics of Phase Transition”</i>		Prof. Kedar Singh <i>“Diluted Magnetic Semiconducting Quantum dots: Synthesis, Investigation and Applications”</i>		Dr. Ram Prasad Prajapati <i>“Fusion Energy and Plasma Physics”</i>
Friday, January 14, 2022	Dr. Anil Kumar <i>“Intellectual Property Right and their Relevance to Science and Society”</i>		Prof. (Retd.) P. K. Ahluwalia <i>“Predictive Simulations: A Game Changer in Understanding Nature”</i>		Prof. Sunita Srivastava <i>“Topological properties of ABX Bismide compounds”</i>		Prof. Ram Sagar <i>“A versatile carbohydrate based gelator for the oil water separation, nanoparticles synthesis and dye removal”</i>
Saturday January 15, 2022	Project Work Research Design		Project Work Data tabulation & Analysis		Project Work Report Preparation		Project Work Presentation Preparation

Week - 2

DATE	09.30 am - 11.00 am	11.00 am – 11.30 am	11:30 am-01.00 pm	1.00 pm- 2.00 pm	2.00 pm - 3.30pm	3.30 pm – 3.45 pm	3:45 pm-5:15 pm
Monday, January 17, 2022	<i>Interaction with the Course Coordinators: feedback of the first week from Session In charge/ Participants</i>		Prof. P.K. Bhatnagar <i>“Organic Electronics with special reference to Organic Light Emitting Diodes (OLEDs)”</i>		Dr. Satyabrata Mohapatra <i>“Ion beam engineering of multifunctional hybrid nanostructures and plasmonic nanocomposites”</i>		Prof. Anchal Srivastava <i>“A journey from eye to electron microscope”</i>
Tuesday, January 18, 2022	Dr. Bipin Gupta <i>“Nanotechnology and Importance of 2D materials”</i>		Dr. Sobhan Sen <i>“Molecular Spectroscopy and its utility in Everyday Life: A Primer”</i>		Dr. Zeenath Iqbal <i>“Design thinking based nanomedicine research: opening new vistas”</i>		Prof. Chandra Shakher <i>“Digital Holographic Interferometric Microscope for Imaging of Biological Cells and Bacteria”</i>
Wednesday, January 19, 2022	Dr. P.V.Mohanan <i>“Toxicity of Bulk and Nanoparticles”</i>		Dr. Sasank Daka <i>“Nanomaterials and their use in Electrochemical water splitting- Hydrogen/oxygen evolution”</i>		Dr. Santiswarup Singha <i>“Tentatively: Nanoparticles for modulating immune responses”</i>		Prof. Bijoy K. Kunar <i>“Magnetic Nnaostructure and Nano-devices“</i>
Thursday, January 20, 2022	Prof. Naresh Padha <i>“Materials Engineering for photovoltaic and optoelectronic device applications”</i>		Prof. S.S. Islam <i>“2D Materials and their Potential Application as healthcare Devices”</i>		Dr. Chetna Dhand <i>“Nanotechnology enabled antimicrobial solutions for Infection control and Management “</i>		Evaluation Group - 1
Friday, January 21, 2022	Prof. Ravindra Pandey <i>“Computational modeling of materials at nanoscale”</i>		Evaluation Group - 2		Evaluation Group - 3		Evaluation Group - 4
Saturday, January 22, 2022	Evaluation Group - 5		Dr. R.Satheesh Thampi <i>“Mass Spectrometry and its application to Space Science”</i>		Feedback Session & Group Discussion among participants 2.00 PM to 03.00 PM		Combined Vaedictory Session 03.30 PM- 5:00 PM