

National Awareness Workshop on UGC-DAE CSR Facilities



Workshop Report

November 9 – 12, 2020

Organized by UGC-DAE CSR Mumbai Centre,
BARC Campus, Mumbai and SWAYAM Cell, HNB
Garhwal University (HNBGU), Srinagar Garhwal,
Uttarakhand



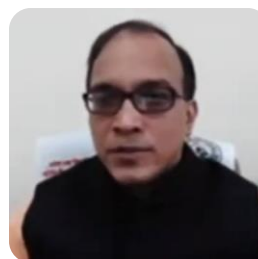
Online

National Awareness Workshop On UGC-DAE CSR Facilities

Organized by UGC-DAE CSR Mumbai Centre, BARC Campus, Mumbai and SWAYAM Cell, HNB Garhwal University (HNBGU), Srinagar Garhwal, Uttarakhand

Organizing Secretary

Dr Ajay Semalty (University SWAYAM Coordinator)
SWAYAM Cell,
HNB Garhwal University (A Central University)
Srinagar Garhwal, Uttarakhand
www.swayamhnbgu.ac.in
www.swayamhnbgu.in

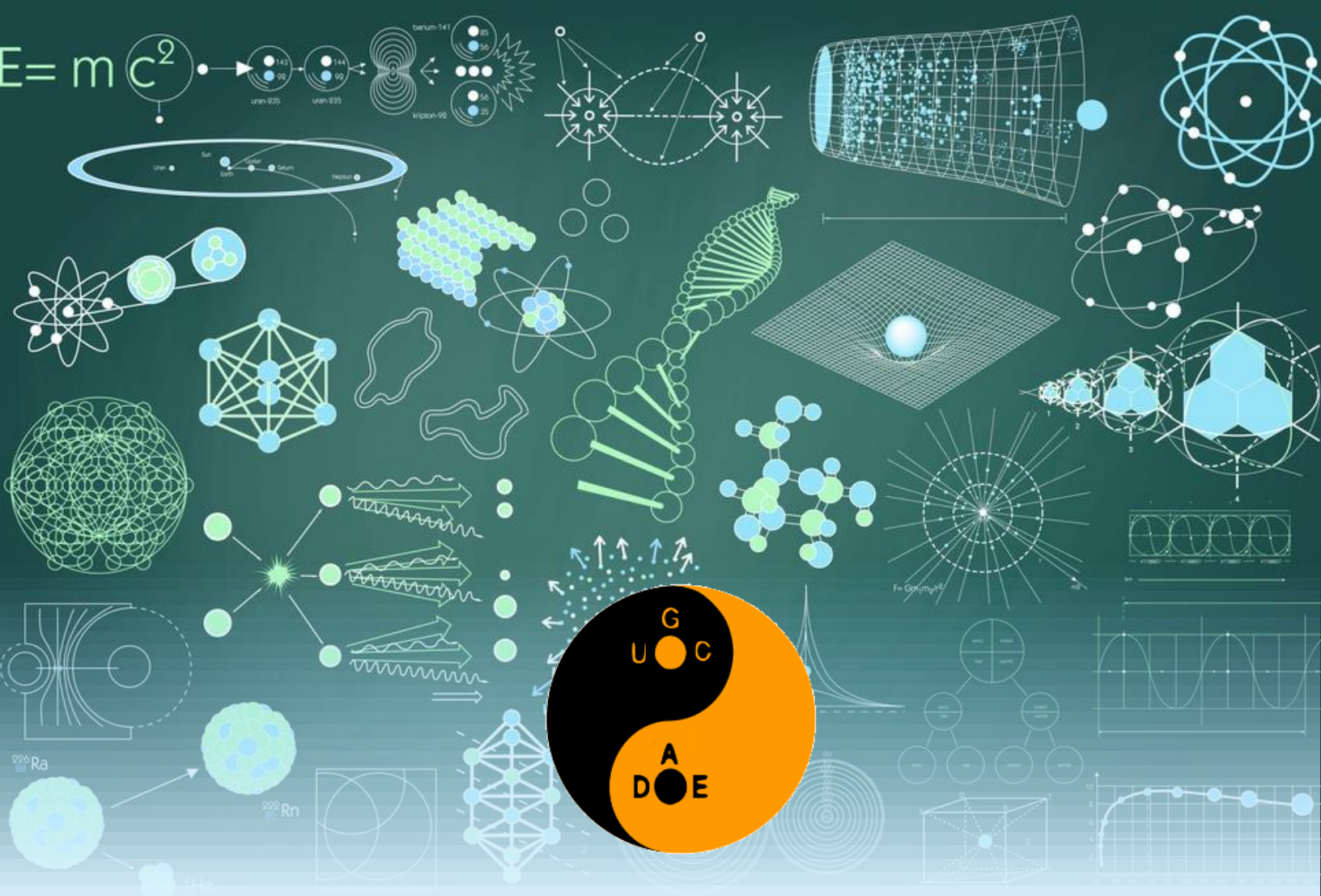


Dr. Sudhindra Rayaprol
Scientist - F
UGC-DAE Consortium For Scientific Research
Mumbai Centre,
R#246C-Common Facility Building (CFB),
BARC Campus, Trombay, Mumbai - 400085
Maharashtra (INDIA)
web: www.csr.res.in



WITH

UGC DAE CSR Team (Indore, Mumbai, Kolkata, Kalpakkam, RRCAT, BARC)



***“Do not just do Science,
learn how to do Science with UGC DAE CSR”***



Online National Awareness Workshop On UGC-DAE CSR Facilities

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Organized by UGC-DAE CSR Mumbai Centre, BARC Campus, Mumbai and SWAYAM Cell, HNB Garhwal University (HNBGU), Srinagar Garhwal, Uttarakhand

About the Workshop

UGC-DAE CSR Mumbai Centre, Mumbai and SWAYAM Cell, HNBGU (A Central University), Uttarakhand are organizing a national awareness workshop on the utilization of advanced research facilities available through UGC DAE CSR. The workshop will address the basic concepts and applications of the large-scale facilities of DAE like INDUS Synchrotron, DHRUVA Reactor, VECC Kolkata etc. Overview of facilities at Mumbai, Indore and Kolkata Centres and at the Kalpakkam Node of CSR at IGCAR will also be presented.

Who Should apply

Researchers from Universities and Institutes, working in the fields of Physics, Chemistry, Pharmaceutical Sciences, Biophysics, Nanotechnology, etc.

About UGC-DAE CSR

UGC-DAE Consortium for Scientific Research is an autonomous institute of University Grants Commission (UGC), which provides specialized training and advanced characterization facilities for university researchers and also making facilities of DAE accessible to them. With its centres at Indore, Mumbai, Kolkata and Kalpakkam Node, the institution is extending its expert services and facilities to all academic researchers of India.

About HNB Garhwal University (HNBGU)

HNBGU, located in the lap of Himalayas, is focused on excellence in higher education and research relevant to both nation, as a whole, and the hill states, including Uttarakhand, in particular, and aims to promote innovations in teaching-learning process and inter-disciplinary studies and research.

Patrons

Prof. Annpurna Nautiyal

Vice-Chancellor
HNB Garhwal University

Director

UGC-DAE CSR

Guidance

Dr. Vasudeva Siruguri

UGC-DAE CSR Mumbai Centre

Dr. Abhijit Saha

UGC-DAE CSR Kolkata Centre

Dr. D.M. Phase

UGC-DAE CSR Indore Centre

Dr. N.V. Chandra Shekar

UGC-DAE CSR, Kalpakkam Node

Coordinators

Dr. Ajay Semalty

HNB Garhwal University

Dr. S. Rayaprol

UGC-DAE CSR Mumbai Centre

Register at

<http://tiny.cc/CSRHNB>

Last Date:

7th November 2020

REACH US AT

csrworkshop@swayamhnbgu.in

www.swayamhnbgu.in

www.csr.res.in

Online National Awareness Workshop on UGC-DAE CSR Facilities



Organized by

UGC-DAE Consortium for Scientific Research,
Mumbai Centre

&

SWAYAM Cell, HNB Garhwal University,
Srinagar-Garhwal, Uttarakhand

Duration

November 9-12, 2020

SCHEDULE OF THE EVENT

Day 1, 9th November 2020 (Monday)

10 AM - 1 PM

Welcome:

Dr. S. Rayaprol & Dr. Ajay Semalty

Inauguration:

Prof. Annpurna Nautiyal, Hon'ble Vice Chancellor, HNB Garhwal

University

Opening Remarks:

Dr. V. Siruguri, Director (Officiating), UGC DAE CSR

Technical Session

Lecture 1:

Neutrons as Probes of Condensed Matter

Dr. V. Siruguri, UGC DAE CSR Mumbai Centre

Break for 10 minutes

Lecture 2:

Neutron Diffraction: A tool for Studying Chemical and Magnetic
Structures - Dr. S. Rayaprol, UGC DAE CSR Mumbai Centre

Moderators for both lectures

Dr. Ajay Semalty

Dr. S. D. Kaushik

Dr. S. Mukherjee

Online National Awareness Workshop on UGC-DAE CSR Facilities



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&

SWAYAM Cell, HNB Garhwal University,
Srinagar-Garhwal, Uttarakhand

Duration

November 9-12, 2020

SCHEDULE OF THE EVENT

Day 2 - 10th November 2020 (Tuesday)

10 AM - 1 PM

Lecture 3:

Overview of Research Facilities and Activities at UGC-DAE CSR
Indore Centre - [Dr. V. R. Reddy, UGC DAE CSR Indore Centre](#)

Break for 10 minutes

Lecture 4:

INDUS Synchrotron: opportunities for research in Condensed Matter
Physics - [Dr. D. M. Phase, UGC DAE CSR Indore Centre](#)

Moderators for both lectures

Dr. Ajay Semalty

Dr. S. Rayaprol

Dr. S. D. Kaushik

Dr. S. Mukherjee

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Duration

November 9-12, 2020

SCHEDULE OF THE EVENT

Day 3 - 11th November 2020 (Wednesday)

10 AM - 1 PM

Lecture 5: Overview of Research Facilities and Activities at UGC-DAE CSR
Kolkata Centre - [Dr. S. S. Ghugre, UGC DAE CSR Kolkata Centre](#)

Break for 10 minutes

Lecture 6: Overview of Research Facilities and Activities at UGC-DAE CSR
Kalpakkam Node - [Dr. N. V. Chandra Shekar, UGC DAE CSR Kalpakkam Node](#)

Moderators for both lectures

Dr. Ajay Semalty

Dr. S. Rayaprol

Dr. S. D. Kaushik

Dr. S. Mukherjee

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**UGC-DAE Consortium for Scientific Research,
Mumbai Centre**

&

**SWAYAM Cell, HNB Garhwal University,
Srinagar-Garhwal, Uttarakhand**

Duration

November 9-12, 2020

SCHEDULE OF THE EVENT

Day 4 - 12th November 2020 (Thursday)

10 AM - 1 PM

Lecture 7: **Small Angle Neutron Scattering: For Physics, Chemistry and Biological Sciences - [Dr. V. K. Aswal, BARC, Mumbai](#)**

Break for 10 minutes

Lecture 8: **Facilities of UGC-DAE CSR as Multidisciplinary Research Support for University researcher - [Dr. Ajay Semalty, HNBGU Srinagar Garhwal](#)**

Moderators for both lectures

Dr. S. Rayaprol

Dr. S. D. Kaushik

Dr. S. Mukherjee

Valedictory Ceremony

Report

Chief Guest

Concluding Remarks:

Vote of Thanks:

Dr. S. Rayaprol, Coordinator, CSR Workshop, UGC DAE CSR Mumbai

Prof. MSM Rawat, Adviser, Higher Education, Govt. of Uttarakhand

Dr. V. Siruguri, Director (Officiating), UGC DAE CSR

Dr. Ajay Semalty, Coordinator University SWAYAM Cell

Day 1



Online National Awareness Workshop on UGC-DAE Consortium for Scientific Research Facilities



SCHEDULE OF THE EVENT

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10 AM - 1 PM

Welcome:

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Opening Remarks:

Dr. V. Siruguri, Director (Officiating), UGC DAE CSR

Followed by

Lecture 1:

Neutrons as Probes of Condensed Matter

Dr. V. Siruguri (Duration: 1 hr)

Break for 10 minutes

Lecture 2:

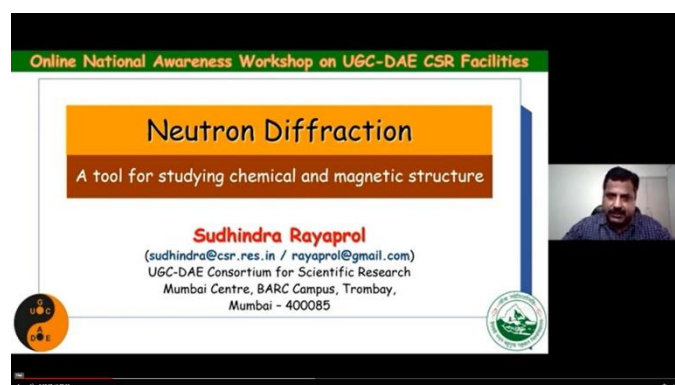
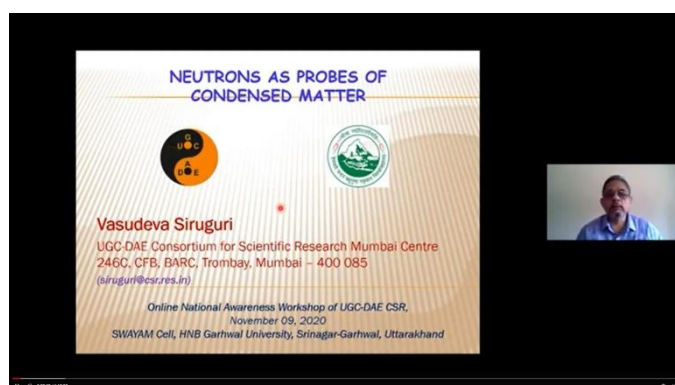
Neutron Diffraction: A tool for Studying Chemical and Magnetic Structures
- Dr. S. Rayaprol (Duration: 1 hr)

Moderators for both lectures

Dr. Ajay Semalty

Dr. S. D. Kaushik

Dr. S. Mukherjee



Inaugural Ceremony

A four-day online National awareness workshop was organized by SWAYAM Cell of HNB Garhwal University (A Central University) Srinagar Garhwal, Uttarakhand in association with UGC- Department of Atomic energy Consortium for scientific research (UGC DAE CSE). The four-day workshop started on 9th November with more than 1000 registered participants across the country. Dr Ajay Semalty, organizing secretary and workshop coordinator, greeted all the participants and the entire team of UGC DAE CSR.

In the opening remark, Dr Vasudev Siruguri, Director (officiating), UGC DAE CSR told that UGC-DAE Consortium for Scientific Research is an autonomous institute of University Grants Commission (UGC), which provides specialized training and advanced characterization facilities for university researchers and also making facilities of DAE accessible to them. Dr Siruguri briefed about the mega state of the art facilities provided by its various centres to Academic researchers and research scholars. Dr Siruguri said that this kind of awareness workshop are conducted by the centre in various universities time to time.

The workshop was inaugurated by Prof. Annpurna Nautiyal, Vice Chancellor, HNB Garhwal University. Prof Nautiyal welcomed the entire UGC DAE CSR Team and acknowledged the role of the centre in providing the vital support to academic research

through the mega facilities available at its Mumbai, Indore, Kolkata, Kalpakkam, Raja Ramanna Centre of Advanced Technology Indore and the facilities of Bhabha Atomic Research Centre Mumbai. Prof Nautiyal requested the centre to provide the exclusive research support to all the universities of all Himalayan states. She stressed on the improvement in STEM research which has also been focused in New Education Policy by Ministry of Education. The organizing secretary Dr Ajay Semalty, University SWAYAM coordinator thanked the entire team of UGC DAE CSR for giving consent for organizing the workshop and the valuable time. Dr Semalty informed that the experts and well-known scientists from all the centres would be addressing the 4-day workshop. The awareness workshop aimed to attract the pool of users for the facilities provided by the centre. This is to note that all the facilities are extended free of cost to Academic researchers/ scholars and that to with some financial support.



<https://youtu.be/397ljsPoET4>

Technical Session

On the day 1, the first technical session was taken by Dr Vasudev Siruguri, Centre Director, UGC DAE CSR, Mumbai centre. Dr Siruguri delivered his talk on "Neutron as probes for condensed matter". Dr Siruguri elaborated the properties of neutron and its applicability for characterization of condensed matter. The facilities provided by UGC DAE CSR Mumbai Centre, BARC Campus were presented. Dr Siruguri stated that the centre provides a variety of facilities apart from neutron based experimental facility. These facilities include rheology, material synthesis, dielectric relaxation spectroscopy, XRD etc.

The second lecture was delivered by Dr Sudhindra Rayaprol of UGC DAE CSR Mumbai centre. Dr Sudhindra, senior scientist, also executed the responsibility of workshop coordinator from the centre. Dr Sudhindra discussed the neutron diffraction facilities of India's pride DHRUVA reactor at BARC Mumbai. These facilities are extended to the researchers freely on the basis of request and time slot available.



<https://youtu.be/nAnt5gSbs-4>



<https://youtu.be/MZtS3jg43M8>

Day 2



Online National Awareness Workshop on UGC-DAE Consortium for Scientific Research Facilities



Day 2 - 10th November 2020 (Tuesday)

10 AM - 1 PM

Lecture 3: Overview of Research Facilities and Activities at UGC-DAE CSR Indore Centre - **Dr. V. R. Reddy** (Duration: 1 hr)

Break for 10 minutes

Lecture 4: INDUS Synchrotron: opportunities for research in Condensed Matter Physics - **Dr. D. M. Phase** (Duration: 1 hr)

Moderators for both lectures

Dr. Ajay Semalty

Dr. S. Rayaprol

Dr. S. D. Kaushik

Dr. S. Mukherjee

the Collaborative Research Scheme (CRS) whereby research support is extended to the university users-groups in two modes: the CRS-Direct-Mode and/or in the CRS-Project-Mode.

Local hospitality and travel support will be provided to the researchers

<https://csruserportal.com/>

User Portal of UGC-DAE CSR, Indore

After acceptance of a proposal by facility in-charge, samples should be sent by post to: User Office (Kind Attn.: Facility In-Charge), UGC-DAE CSR, Indore, University Campus, Khandwa Road, Indore 452 001.

It must be noted that the number of samples must not exceed as agreed by the facility in-charge.

The User Office will sanitize samples and distribute to facility in-charge.

Samples should be packed properly to ensure that they do not get damaged during the transit or during the sanitization process.

Separate samples must be sent for utilization of each facility. It may not be possible to return samples.

National Awareness Workshop of UGC DAE CSR: Day 2

What is Synchrotron source?

- Synchrotron source is the electromagnetic radiation emitted when electrons, moving at velocities close to the speed of light, are forced to change direction under the action of a magnetic field.
- The electromagnetic radiation is emitted in a narrow cone in the forward direction, at a tangent to the electron's orbit.
- Synchrotron light is unique in its intensity and brilliance and it can be generated across the range of the electromagnetic spectrum: from infrared to x-rays.

National Awareness Workshop of UGC DAE CSR: Day 2

On day 2, from Indore centre, Dr VR Reddy and Dr DM Phase delivered lectures on research activities/ facilities at UGC DAE CSR Indore Centre and RRCAT, Indore, respectively. Dr Reddy presented the overview of research facilities and activities at UGC-DAE CSR Indore Centre. Dr Reddy told that UGC DAE CSR Indore, the head quarter of the UGC DAE CSR, is equipped with various diverse facilities like MOKE, HRXRD, LTHMF XRD, DSC, ESCA, SEM, TEM, LTHM scanning probe microscope, Cryogenic lab, Raman spectroscopy, XPS, Mossbauer spectroscopy, FTIR etc. The centre takes up Ph D students through JEST.

In the second lecture of Day 2, Dr DM Phase, Director Indore Centre, presented his lecture on “INDUS Synchrotron: Opportunities for research in condensed matter physics”. Dr Phase explained about this state-of-the-art facility available through Raja Ramanna Centre of Advanced Technology (RRCAT) Indore. RRCAT provides two beamlines (INDUS I & INDUS II) for experimental work. Recently, accelerator has also been started in RRCAT. Now the neutron scattering/ diffraction experiments can also be done in RRCAT. The RRCAT provides an automated online system for users for applying for the beam time and/or other experimental facilities.



<https://youtu.be/ImVh3zuBdM0>

Day 3



Online National Awareness Workshop on UGC-DAE Consortium for Scientific Research Facilities



Day 3 - 11th November 2020 (Wednesday)

10 AM - 1 PM

Lecture 5: Overview of Research Facilities and Activities at UGC-DAE CSR Kolkata Centre - [Dr. S. S. Ghugre](#) (Duration: 1 hr)

Break for 10 minutes

Lecture 6: Overview of Research Facilities and Activities at UGC-DAE CSR Kalpakkam Node - [Dr. N. V. Chandra Shekar](#) (Duration: 1 hr)

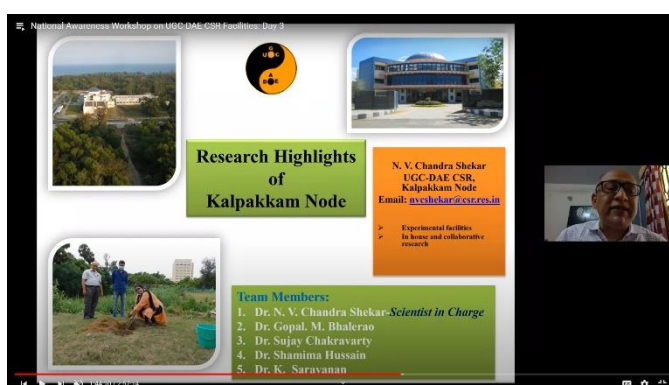
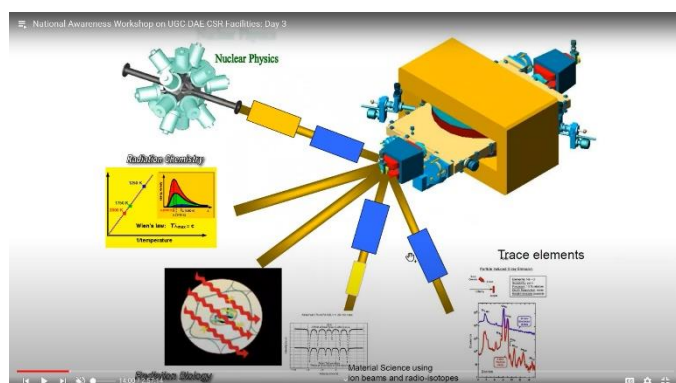
Moderators for both lectures

Dr. Ajay Semalty

Dr. S. Rayaprol

Dr. S. D. Kaushik

Dr. S. Mukherjee



On day 3. the “Overview of research facilities and activities of Kolkata centre” was presented by Dr SS Ghugre. Dr Ghugre in his expert talk stated that Kolkata centre provides diverse facilities for multidisciplinary researchers of nuclear physics/condensed matter physics, macromolecular/radiation chemistry, radiation biology, engineering and biomedical field. The facilities include The INGA setup at VECC supported by the digital pulse processing & data acquisition system, HRXRD, Low temperature High Magnetic Field (LTHF), FTIR, Laser Raman Spectrometer, other spectrometers, PLC based Gamma irradiation System, DLS, ECXRF and sample preparation facilities etc.

In the second lecture on Day 3, Dr NV Chandra Shekar, provided “Overview of Research Facilities and Activities at UGC-DAE CSR Kalpakkam Node”. Dr Chandra Shekar stated that the Kalpakkam node is a very environment friendly centre which provides the facilities like HRXRD, XPS, NMR, Hot Isostatic Press, High Energy Ball Milling, IRFZ Single Crystal Growth Furnace, SUPRA 55 FESEM/ EDX etc.



<https://youtu.be/UcO6WO1dY5g>

Day 4



Online National Awareness Workshop on UGC-DAE Consortium for Scientific Research Facilities



Day 4 - 12th November 2020 (Thursday)

10 AM - 1 PM

Lecture 7: **Small Angle Neutron Scattering: For Physics, Chemistry and Biological Sciences - Dr. V. K. Aswal** (Duration: 1 hr)

Break for 10 minutes

Lecture 8: **Facilities of UGC-DAE CSR as Multidisciplinary Research Support for University researcher - Dr. Ajay Semalty** (Duration: 1 hr)

Valedictory Ceremony:

Concluding Remarks: **Prof. M. S. M. Rawat**, Advisor Department of Higher Education, Government of Uttarakhand
Dr. V. Siruguri, Director, UGC-DAE CSR
Dr. Ajay Semalty, HNBGU

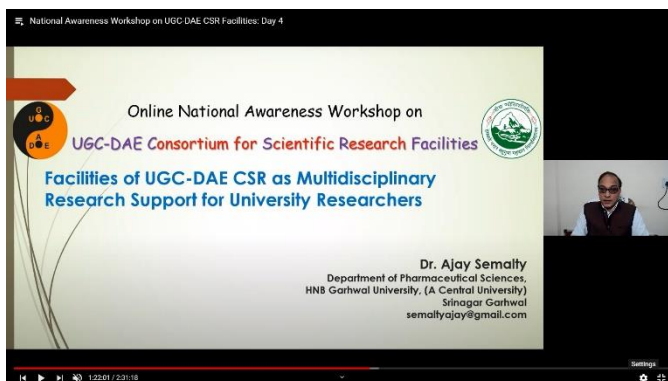
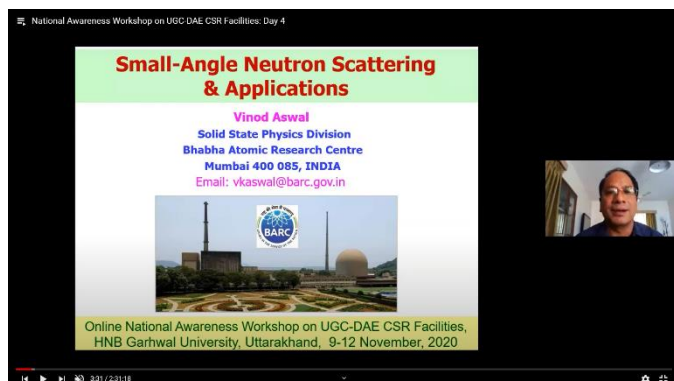
Vote of Thanks:

Moderators for both lectures

Dr. S. Rayaprol

Dr. S. D. Kaushik

Dr. S. Mukherjee



On Day 4, Dr VK Aswal (recently listed in World's top 2% researchers) from Bhabha Atomic Research Centre, Mumbai delivered his lecture on use of Small Angle Neutron Scattering (SANS) for analysing the structure and shape of nanomaterials or nanocomposites. Dr Aswal explained the the basis of neutron scattering. He briefed the SANS facilities available at DHRUVA research reactor at BARC, Mumbai. Dr Aswal explained the application of SANS in various field of research including chemistry, physics, biological and biomedical research. Dr Aswal invited all the researchers to avail this world class indigenous research facilities for the well defined problems.

The last lecture was delivered by Dr Ajay Semalty from HNB Garhwal University Srinagar Garhwal. Dr Semalty shared his experience as user of the research facilities of UGC DAE CSR centres. Dr Semalty briefed the use of solid state characterization for phospholipid and cyclodextrin composites of micro and nano range. Dr Semalty emphasized utilizing the facilities with good planning, prior experimental work, sample planning and prior discussion with concerned scientists of CSR centres. He stated that a major part of his publications are out of the support of the centre only (out of 75 papers, 27 research papers from the support of centre). Dr Semalty also underlined the passion of Centres' scientist in teaching, experimenting and learning Science.

Valedictory Ceremony

In the valedictory session, Dr Sudhindra Rayaprol, Coordinator CSR workshop presented the detail report of the workshop. The Chief Guest of valedictory session, Prof MSM Rawat, Adviser, Department of Higher Education, Government of Uttarakhand requested UGC DAE CSR to extend the support to colleges and universities of Uttarakhand. Prof Rawat also invited UGC DAE CSR for conducting the similar workshop for state University and PG colleges of Uttarakhand. Dr Siruguri ensured Prof Rawat to extend the support to Uttarakhand and for conducting the awareness workshop for researchers. In his concluding remark Dr Siruguri thanked Prof Annpurna Nautiyal, VC, HNB Garhwal University for her inaugural address. Dr Siruguri said that the workshop will generate a new pool of users of research facilities. He invited researchers to avail the facilities and ensured the full support from the centre to researchers. At the end, Dr Siruguri thanked Dr Ajay Semalty and his entire team for conducting the workshop. The vote of thanks was presented by Dr Ajay Semalty. Dr Semalty thanked Dr Siruguri, Dr Sudhindra, and all the speakers of the awareness workshop for giving their expert lecture. Dr Semalty thanked Dr Kaushik and the entire team of UGC DAE CSR for coordinating the workshop. The enthusiasm and overwhelming response of huge number of participants from various disciplines of research was warmly acknowledged. Dr Semalty invited UGC DAE CSR to the University for physically conducting the

workshop for researchers. The workshop was conducted on Microsoft Live Event and the lectures of workshop were made available through YouTube (<http://tiny.cc/CSRHNBGU>). Every lecture was followed by a Q&A session in which the participants got the answers of the queries by the experts and got the new and priceless insight to STEM Research.



<https://youtu.be/Ri2eCVV1N8Q>

Annexure I

Media Coverage

1. Dainik Jagran, Nov. 10, Grahwal edition, हिमालयी राज्यों में शोध को बढ़ावा देने की जरूरत
https://www.jagran.com/uttarakhand/pauri-garhwal-reserch-mandate-in-himalaya-21047349.html?utm_source=referral&utm_medium=WA&utm_campaign=amp_social_share
2. Hindustan, Nov. 10., Dehradun Edition, विज्ञान के क्षेत्र में बड़े स्तर पर शोध की आवश्यकता: वीसी
<https://m.livehindustan.com/uttarakhand/srinagar/story-need-for-large-scale-research-in-science-vc-3620253.html>
3. Satyawani.in National awareness workshop by HNB Garhwal University Srinagar,
<https://www.satyawani.in/2020/11/national-awareness-workshop-by-hnb.html>
4. Rashtriya Sahara, Nov. 10, 2020.
5. The Daily Pioneer, Nov. 11, Dehradun Edition, Online awareness workshop at HNB Garhwal University, <https://www.dailypioneer.com:443/2020/state-editions/online-awareness-workshop-at-hnb-garhwal-university.html>
6. Dainik Jagran, Nov. 13, Grahwal edition, शोध कार्यों में वैज्ञानिकों का सहयोग करेगा सीएसआर
https://www.jagran.com/uttarakhand/pauri-garhwal-csr-will-help-in-research-work-21056646.html?utm_source=referral&utm_medium=WA&utm_campaign=amp_social_share
7. गढ़वाल विश्वविद्यालय की ऑनलाइन कार्यशाला सम्पन्न, परमाणु वैज्ञानिक ने समझाई स्माल एंगल न्यूट्रॉन स्कैटिंग तकनीकी <https://shabdrath.com/garhwal-university-seminar-is-over-today/>
8. गढ़वाल केंद्रीय विश्वविद्यालय में राष्ट्रीय कार्यशाला का समापन, शोध को बढ़ावा देने पर दिया , जोर
<https://www.satyawani.com/2020/11/National-workshop-concludes-in-HNB-University.html>

9. Hindustan, Nov. 13., Dehradun Edition

10. Rashtriya Sahara, Nov. 13, 2020

11. YouTube Playlist: <http://tiny.cc/CSRHNBGU>

विज्ञान के क्षेत्र में बड़े स्तर पर शोध की जरूरत: वीसी

श्रीनगर | हमारे संवाददाता

गढ़वाल विवि के स्वयं प्रकोष्ठ की ओर से यूजीसी डिपार्टमेंट ऑफ एटॉमिक एनर्जी कंसोशियम ऑफ साइंटिफिक रिसर्च सेंटर के तत्वाधान में चार दिवसीय ऑनलाइन राष्ट्रीय कार्यशाला का शुभारंभ हुआ।

इस मौके पर बतौर मुख्य अतिथि गढ़वाल विवि की कुलपति प्रो. अन्नपूर्णा नौटियाल ने स्टेम क्षेत्र में यूजीसी सीएसआर के कार्यों और विश्वविद्यालयों के शोध में महत्वपूर्ण सहयोग के लिए सीएसआर का धन्यवाद किया। कुलपति ने कहा कि हिमालयी राज्यों में विज्ञान के शोध कार्यों के लिए सीएसआर से विशेष सहयोग का आग्रह किया गया है। प्रो. नौटियाल ने कहा कि विवि विज्ञान के शोध कार्य हेतु विभिन्न

संस्थानों से सहभागिता कर रहा है। विज्ञान के क्षेत्र में बृहद रूप में शोध कार्यों की आवश्यकता को रेखांकित किया। यूजीसी डिपार्टमेंट ऑफ एटॉमिक एनर्जी कंसोशियम ऑफ साइंटिफिक रिसर्च सेंटर के निदेशक डा. वासुदेव सिरुगुरी ने कंडेस्ट मैटर के लिए न्यूट्रॉन प्रोक्स के बारे में विस्तार से जानकारी दी।

उन्होंने कार्यशाला के माध्यम से संस्थान में उपलब्ध आधुनिक उपकरणों एवं तकनीकी ने वैज्ञानिकों, छात्रों, शिक्षकों एवं शोध छात्रों को अवगत कराया। आयोजन सचिव डॉ. अजय सेमल्टी ने बताया कि कार्यशाला में भौतिक रसायन, फॉर्मिसी, इंजीनियरिंग, लाइफ साइंसेज आदि विषयों के छात्रों, शिक्षकों एवं वैज्ञानिकों ने प्रतिभाग किया है।

विज्ञान के क्षेत्र में बृहद स्तर पर शोध कार्य की जरूरत : प्रो. नौटियाल

■ श्रीनगर/एसएनबी।

हेमवती नंदन बहुगुणा गढ़वाल विश्व विद्यालय के स्वयं प्रकोष्ठ द्वारा यूजीसी डिपार्टमेंट ऑफ एटॉमिक एनर्जी कंसोशियम ऑफ साइंटिफिक रिसर्च सेंटर के तत्वाधान में एक बृहद राष्ट्रीय ऑनलाइन कार्यशाला का आयोजन किया गया।

कार्यशाला का उद्घाटन करते हुए हेमवती नंदन बहुगुणा गढ़वाल विश्वविद्यालय की कुलपति प्रो. अन्नपूर्णा नौटियाल ने कहा कि हिमालय राज्यों में विज्ञान के शोध कार्यों के लिए सीएसआर से विशेष सहयोग का आग्रह किया है। विश्वविद्यालय विज्ञान के शोध कार्य के लिए विभिन्न संस्थानों से सहभागिता कर रहा है। राष्ट्रीय शिक्षा नीति के संदर्भ में कुलपति ने विज्ञान के क्षेत्र में बृहद रूप में शोध कार्यों की आवश्यकता को

रेखांकित किया।

प्रो. नौटियाल ने स्टेम क्षेत्र में यूजीसी सीएसआर के कार्यों और विश्व विद्यालयों के शोध में महत्वपूर्ण सहयोग के लिए सीएसआर का धन्यवाद किया। कार्यशाला के लिए संपूर्ण भारत से एक हजार से भी अधिक प्रतिभागियों ने पंजीकरण करवाया है। यह कार्यशाला 9 से 12 नवम्बर तक आयोजित की जायेगी।

कार्यशाला में यूजीसी डिपार्टमेंट ऑफ एटॉमिक एनर्जी कंसोशियम ऑफ साइंटिफिक रिसर्च सेंटर के मुंबई, इंदौर, कोलकाता, कलपक्कम केन्द्रों के वैज्ञानिकों के साथ ही राजा रमन्ना सेंटर ऑफ एडवांस्ड टेक्नोलॉजी, इंदौर एवं भाभा परमाणु अनुसंधान संस्थान के जाने माने वैज्ञानिक अपने विचार रखेंगे।

प्रथम दिवस पर डा. सिरुगुरी ने कंडेस्ट मैटर के लिए न्यूट्रॉन प्रोक्स के बारे में विस्तार से बताया। सीएसआर ध्रुव रिपेक्टर के माध्यम से न्यूट्रॉन आधारित प्रयोगों की सुविधा शोधार्थियों एवं अकेडमिक वैज्ञानिकों को प्रदान करता है।

दूसरे तकनीकी सत्र में डा. सुधीर राय ने केमिकल और मैग्नेटिक सर्नचों के लिए न्यूट्रॉन डिफरेंस के बारे में विस्तार से तकनीकी जानकारी

प्रतिभागियों को दी। आयोजन सचिव डा. अजय सेमल्टी ने बताया कि इस कार्यशाला में भौतिक, रसायन, फॉर्मिसी, इंजीनियरिंग, लाइफ साइंसेज इत्यादि सभी विषयों के छात्रों, शिक्षकों एवं वैज्ञानिकों ने प्रतिभाग किया है। मुंबई केन्द्र के डा. सुधीर संस्थान की ओर से संयोजक की भूमिका में रहे।

चार दिवसीय राष्ट्रीय कार्यशाला शुरू

क्वालिटी रिसर्च पर ध्यान देने पर दिया जोर

श्रीनगर | हमारे संवाददाता

हेमवती नंदन बहुगुणा गढ़वाल केंद्रीय विवि के स्वयं प्रकोष्ठ व यूजीसी डिपार्टमेंट ऑफ एटॉमिक एनर्जी कंसोशियम ऑफ साइंटिफिक रिसर्च सेंटर के तत्वाधान में आयोजित राष्ट्रीय ऑनलाइन कार्यशाला का समापन हो गया है।

कार्यशाला में पूरे देश से एक हजार से भी अधिक प्रतिभागियों ने भाग लिया है। कार्यशाला में क्वालिटी रिसर्च पर ध्यान देने की आवश्यकता पर जोर दिया गया। कार्यशाला के अंतिम दिन उत्तराखंड के गौरव व जाने-माने परमाणु

वैज्ञानिक डा. विनोद अस्वाल ने स्माल एंगल न्यूट्रॉन स्कैटिंग तकनीकी के बारे में विस्तार से बताया।

डा. अस्वाल ने भाषा परमाणु शोध संस्थान में स्थित ध्रुवा रिपेक्टर में उपलब्ध इस मेगा एक्सपेरिमेंटल सिस्टम के विभिन्न शोध कार्यों में उपयोग को रेखांकित किया। दूसरे सत्र में गढ़वाल विवि के डा. अजय सेमल्टी ने यूजीसी डीएईसीएसआर के सहयोग से किए गए अपने विभिन्न शोध कार्यों को प्रस्तुत किया। समापन सत्र में डा. सिरुगुरी ने गढ़वाल विवि स्वयं सेल और डा. सेमल्टी को कार्यशाला के आयोजन की बधाई दी।

capital 02

Online awareness workshop at HNB Garhwal University

PNS ■ DEHRADUN

An online National awareness workshop for advanced instruments and technology is being organized by SWAYAM Cell of HNB Garhwal University Srinagar Garhwal Uttarakhand in association with UGC- Department of Atomic Energy Consortium for scientific research. The workshop was inaugurated by Vice Chancellor (VC) of HNB Garhwal University, Annapurna Nautiyal on Monday. Speaking on the occasion, Nautiyal acknowledged

the role of the centre in providing the vital support to academic research through the mega facilities available at its Mumbai, Indore, Kolkata, Kalpakkam, Raja Ramanna Centre of advanced technology Indore and the facilities of Bhabha Atomic Research

Centre Mumbai. The organising secretary, Ajay Semalty said that experts and scientists would address the four day workshop. He claimed the workshop will be a milestone in improving the pool of users for the facilities provided by the centre.

University SWAYAM Cell

HNB Garhwal University (A Central University),
Srinagar Garhwal



About:

With the kind approval of Hon'ble Vice Chancellor Prof. Annpurna Nautiyal, the SWAYAM cell was started in January 2019 at the University for promoting and adopting SWAYAM MOOCs and digital learning.

SWAYAM is a programme initiated by Government of India and designed to achieve the three cardinal principles of Education Policy viz., access, equity and quality. The objective of this effort is to take the best teaching learning resources to all, including the most disadvantaged. SWAYAM seeks to bridge the digital divide for students who have hitherto remained untouched by the digital revolution and have not been able to join the mainstream of the knowledge economy.

Important links for digital learning study Material:

HNBGU OER repository	www.swayamhnbgu.in/repo
SWAYAM Online Courses	www.swayam.gov.in https://storage.googleapis.com/uniquecourses/online.html
UG/PG MOOCs	http://ugcmoocs.inflibnet.ac.in/ugcmoocs/courses.php
e-PG Pathshala	www.epgp.inflibnet.ac.in
e-Content UG subjects	http://cec.nic.in/
SWAYAMPBABHA	https://www.swayampbabha.gov.in/
CEC-UGC YouTube channel	https://www.youtube.com/user/cecedusat
National Digital Library	https://ndl.iitkgp.ac.in/
Shodhganga	https://shodhganga.inflibnet.ac.in/
e-Shodh Sindhu	https://ess.inflibnet.ac.in/
ICT initiative by MHRD	https://mhrd.gov.in/ict-initiatives
Vidyamitra youtube Channel	https://www.youtube.com/channel/UCCUr096WDp86n62CXBeHIQw
Youtube Playlists	http://tiny.cc/AWSemalty http://tiny.cc/SWAYAM
Academic Writing	https://swayam.gov.in
Industrial Pharmacy	https://swayam.gov.in

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