



Two days Hands-on Training Workshop
on

Upcycling of Solid waste into carbon nanomaterials and their characterization for various Applications (06-07 October 2023)



Organized by: Prof. Rajendra Singh Nanoscience and Nanotechnology (PRS-NSNT) Centre, Chemistry Department, DSB Campus, Kumaun University, Nainital, Uttarakhand.
Sponsored by: NMHS, Ministry of Environment, Forest & Climate Change (MoEF&CC), G. B. Pant National Institute of Himalayan Environment, Kosi-Katarmal, (UK), Government of India.

About the Workshop

This workshop aims to improve the research skills of promising postgraduate and young Ph.D. scholars from Institutes, Universities, and Colleges. The workshop will provide the following:

- ❖ Upcycling of solid waste (plastic and biomass waste) using Waste Recycling Machine.
- ❖ Synthesis of carbon nanomaterials including graphene.
- ❖ Synthesis of polymer nanocomposites using the polymer mixer.
- ❖ Characterization including UV-Vis, TGA, DSC, and thermal evaporator.
- ❖ Electrochemical testing of the nanomaterial.
- ❖ Supercapacitor device fabrication and its characterization using CV, GCD, and EIS techniques



There is **NO REGISTRATION FEE** for the workshop. The selected participants will be provided free boarding and lodging at Kumaun University Nainital for three nights.

Selection Criteria: Students who have been working in the relevant field of this workshop will be selected on a 'first-come- first- serve' basis.



Who can apply- M.Sc. and Ph.D. students who have been working in the relevant field and enrolled in any UGC-recognized University/institute/college within INDIA.

About Nainital: Nainital is located in the Kumaon foothills of the outer Himalayas. Situated at an altitude of 1,938m (6,358 ft) above sea level. The town is set in a valley containing an eye-shaped lake, approximately two miles in circumference, and surrounded by mountains, of which the highest is Naina Peak on the north.



INSTRUCTIONS FOR REGISTRATION

Interested candidates are required to Register on or before 26-9-23 through Google form link [APPLY ONLINE \(https://forms.gle/rEJqdd8GgoFHojfG7\)](https://forms.gle/rEJqdd8GgoFHojfG7) or through QR Code for any queries Please write on pavitram23@gmail.com

NOTE: There will be a poster competition for the participants on the theme of 'Upcycling of Solid Waste'. Interested participants can come up with a PowerPoint file of the poster and explain it in 3-5 min.



About the Host and Partnering Institutes

Kumaun University, NAAC 'A' Grade, residential-cum-affiliating university, established in 1973, boasts an area of 160 acres, 47 Government colleges, 50 Private institutes, and 01 Government Aided College are affiliated with the University. It is the biggest State University of the state (Uttarakhand) which caters to the needs of about 1,50,000 students by providing a high-quality educational experience in diverse learning environments and promoting the values and institutions of democracy that prepare students to lead lives of personal integrity and civic responsibility and service to in a global society.

About Chemistry Department: It is a DST-FIST-sponsored department, established in 1951. One of the most prestigious departments in the country that runs B.Sc., M.Sc. And Ph.D. programs. The department is well equipped with modern analytical facilities to enable research feasibility and continuity in the fields viz. the chemistry of natural products, soil chemistry, photocatalysis, chemical evolution, nanomaterials, and development of technology for waste plastic management, among several others.

Prof. Rajendra Singh Nanoscience and Nanotechnology Centre was established in Feb 2015 from the financial assistance provided by Hon'ble Member of Parliament (Rajya Sabha), Shri Tarun Vijay. This is a unique and world-class research center of Uttarakhand working in various horizons of nano research. It covers a gamut of topics ranging from solid waste management, fuel cells, biosensors, supercapacitors, biomaterials, drug delivery, and polymer nanocomposite to nanotechnology applications.

Atal Bihari Vajpayee-Indian Institute of Information Technology and Management (ABV-IIITM), Gwalior: Atal Bihari Vajpayee-Indian Institute of Information Technology and Management (ABV-IIITM), Gwalior, Madhya Pradesh is an autonomous institute set by the Government of India, MHRD (Presently Ministry of Education, Govt. of India) in 1997. This Institute was created to facilitate higher education, research, and consultancy in the cusp areas of Information Technology(IT), Management, and Applied Sciences. The only institution of its kind in India, IIITM is the precursor of imparting superior quality higher education and pertinent skills. The institute aims to take academics to unprecedented levels of brilliance and efficiency. The main focus areas of research are computational materials and device modeling in a variety of sectors, like health care, transport, aviation, Nanoelectronics, communication, waste management, IT applications, etc.

Kurukshetra University (NAAC A+ accredited) was established in 1956 as a unitary residential University, the foundation stone laid by the late Dr. Rajendra Prasad, the First President of India. Located in the holy city of Kurukshetra, its campus extends over an area of 400 acres. It is one of the premier centers of advanced study and research in the region. Starting with only the department of Sanskrit, it has grown into a multi-faculty university as one of the premier centers for advanced study and research in the region.

UPES (NAAC A accredited) university established in 2003 is one of the top-ranked, UGC-recognized, private universities. It offers industry-aligned and specialized graduate and PG programs through its eight schools. NIRF 2023, the Ministry of Education has ranked UPES 52 among Universities across India. In addition to this, the university was recently ranked 243 in Asia and the 3rd best private university in India by the QS World Rankings 2023. has received 5 stars on Employability (placements), by globally acclaimed QS Rating, with 90%+ placements over the last few years.

ORGANIZING COMMITTEE

Patron: Prof. Diwan Singh Rawat,
Hon'ble Vice Chancellor
Kumaun University, Nainital

Co-Patrons:

Prof. Sri Niwas Singh, Hon'ble Director
Atal Bihari Vajpayee-Indian Institute of Information
Technology and Management (ABV-IIITM), Gwalior

Prof. Som Nath, Hon'ble Vice Chancellor
Kurukshetra University, Kurukshetra (Haryana)

Dr. Ram Sharma, Hon'ble Vice Chancellor
UPES, Dehradun (Uttarakhand)

Chairman:

Prof. Chitra Pande,
Head, Chemistry Department,
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Dr. Mahesh Chandra Arya, Kumaun University, Nainital

