















THIRD INTERNATIONAL MULTIDISCIPLINARY CONFERENCE ON

AEROSOLS, AIR QUALITY AND CLIMATE CHANGE (IMCAAC-2025)
OVER THE HIMALAYAN REGION

(ALIGNED WITH THE OBJECTIVES AND THEMES OF BHARAT'S NATIONAL EDUCATION POLICY 2020)"

हिमालयी क्षेत्र में एरोसोल, वायु गुणवत्ता और जलवायु परिवर्तन पर तृतीय बहुविषयक अंतरराष्ट्रीय संगोष्ठी-(भारत की राष्ट्रीय शिक्षा नीति २०२० के उद्देश्य और विषयवस्तु के अनुरूप)"

4th - 6th October 2025

Venue: Swami Manmathan Auditorium, Chauras Campus, HNBGU Srinagar Garhwal.

Organized by

Department of Physics

Hemvati Nandan Bahuguna Garhwal University (A Central University)

Srinagar Garhwal Uttarakhand

In Association with

Aerosols, Air Quality and Climate Change Research Society (AACCRS), Srinagar

School of Sciences, School of Life Sciences, School of Education, School of Arts, Communication and Languages, School of Social Sciences and Humanities, School of Engineering & Technology, School of Agriculture and Allied Sciences, School of Earth Science,

of

Hemvati Nandan Bahuguna Garhwal University, Srinagar

In collaboration with

Shri Raghunath Kirti Campus, Central Sanskrit University, Devprayag,
Pauri Garhwal, Uttarakhand

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ABOUT THE CONFERENCE

Atmospheric aerosols, comprising solid and liquid particles suspended in the air, originate from natural sources such as wind-borne dust, sea spray, volcanic debris, and biogenic emissions, as well as anthropogenic activities including industrial emissions, agricultural practices, fossil fuel combustion, waste burning, and biomass burning. These aerosols significantly impact regional and global climate by influencing air quality, cloud formation, atmospheric chemistry, the greenhouse effect, and Earth's radiation balance. Moreover, aerosols pose serious health risks, contributing to chronic respiratory diseases and asthma. In recent decades, anthropogenic aerosol emissions have surged due to increasing vehicular emissions, urbanization, and industrial growth. Studies, both national and international, have reported elevated air pollution levels across the Indo-Gangetic Plain (IGP) and Brahmaputra Valley regions of India. Northern India experiences severe winter smog episodes driven by stubble burning, industrial emissions, and vehicular pollution. According to a World Health Organization survey, Delhi has the poorest air quality among major global cities. Pollutants from these regions are transported by air masses from the southwest during pre-monsoon and winter seasons, reaching high-altitude Himalayan areas, including Nepal and Tibet, via valley corridors. This transboundary pollution affects weather patterns and climate in the ecologically sensitive Himalayan region. Locally, in Uttarakhand, rising tourism, urbanization, and forest fires further exacerbate aerosol emissions. To address these challenges, Hemvati Nandan Bahuguna Garhwal University (HNBGU), Srinagar-Pauri Garhwal, Uttarakhand, is organizing an international conference titled "THIRD INTERNATIONAL MULTIDISCIPLINARY CONFERENCE ON AEROSOLS, AIR QUALITY AND CLIMATE CHANGE (IMCAAC-2025) OVER THE HIMALAYAN REGION (ALIGNED WITH THE OBJECTIVES AND THEMES OF BHARAT'S NATIONAL EDUCATION POLICY 2020)" हिमालयी क्षेत्र में एरोसोल, वायु गुणवत्ता और जलवायु परिवर्तन पर तृतीय बहुविषयक अंतरराष्ट्रीय संगोष्ठी - (भारत की राष्ट्रीय शिक्षा नीति 2020 के उद्देश्य और विषयवस्तु के अनुरूप)". The event, hosted by the Department of Physics, School of Science, HNBGU, Srinagar (Garhwal), India, will take place from 04-06 October 2025. The conference aims to foster interaction and promote the adoption of innovative techniques to mitigate air pollution and its impacts on the Himalayan region.

The main objectives of the conference the above-mentioned conference are:

- 1. To promote multidisciplinary research by integrating atmospheric science, climatology, and environmental studies to address regional challenges, with an emphasis on fostering critical thinking and research to solve complex problems.
- 2. To encourage innovation and technological advancement in research, aligning with NEP's focus on promoting cutting-edge technologies and fostering a culture of innovation in higher education institutions.
- 3. To support the development of collaborative, multidisciplinary ecosystems, aligning with NEP's vision of sustainable development by addressing environmental challenges through policy frameworks and regional cooperation.
- 4. To integrate environmental science with public health, reflecting NEP's holistic and multidisciplinary approach to education and its focus on societal well-being through research addressing local needs.
- 5. To facilitate global and regional collaboration by creating a platform for knowledge exchange, in alignment with NEP's vision of fostering international partnerships and multidisciplinary research ecosystems.
 - In this conference, the total participant will be more than 500 including thirty from HNBGU, Srinagar and around fifty from National research organizations and universities (IITs, IISER, IITM, PRL, NPL, IMD, Bose Institute, JNU, BHU, and Indian Universities)

H.N.B.GARHWAL UNIVERSITY (A CENTRAL UNIVERSITY) SRINAGARGARHWAL, UTTARAKHAND

Established under the U.P. State Universities Act (1973), then named Garhwal University, it was founded in December 1973. It was rechristened in 1989 as Hemvati Nandan Bahuguna Garhwal University. Today, this university is among the ten largest universities in the country, with 3 campuses and more than 180 affiliated colleges and institutes (both state-run and self-financed). Since its inception, despite limited resources and various geographical constraints, the university has charted a course of growth and development to gain important recognition as one of the better universities in India. As a mark of appreciation for its academic achievements, HNB Sub Garhwal University was upgraded as a Central University under the Central Universities Act, 2009. The university is located at Srinagar (105 km from Rishikesh) on the banks of the river Alaknanda, one of the major tributaries of the river Ganga. The serene environment presents a near-perfect setting for intellectual pursuits. University Website: https://hnbgu.ac.in

ABOUT THE DEPARTMENT OF PHYSICS

Physics department was established in the year 1962 as one of the Science departments of Birla Government Degree College, Srinagar (Garhwal). This was upgraded to Post Graduate level in the year 1972. The department in Pauri and Tehri Campus was established in 1972 and 1973 respectively with an undergraduate course in Physics. In 1992 post-graduate course was started with specialization in electronics at Pauri campus, whereas it was started at Tehri campus in 1990. University took over the Department of Physics as Centre for under graduate, Post graduate teaching and research activities in Physics. Research in Solid state Physics, Mathematical Physics and Spectroscopy began with the establishment of Garhwal University. The Department has been identified under DST-FIST programme for strengthening the research facilities and established a Computer Lab. Various research schemes under DST, UGC, MNES, UCOST etc. have been completed in the Department. Faculty members of the department are actively engaged in research in the different fields namely (a) Condensed Matter Physics/Materials Science Experimental Studies preparation, characterization and measurements ferroelectric systems/Poly crystals, ultrasonic investigations of Polymers and liquids; Theoretical studies of dielectric and ferroelectric properties of crystals; Theoretical studies of high temperature superconductors; theoretical studies of thermal properties of ferroelectrics, (b) Fluorescence spectroscopy- energy transfer, Solar Photothermal and Photovoltaic devices, (c) Nuclear and Particle Physics/Astroparticle Physics- Theoretical studies of monopoles, Gauge theory, Supersymmetry and cosmology etc. and (d) Mathematical Physics-Theoretical studies and Simulation techniques (e) Atmospheric Physics and Space Science. The department is well equipped for research work with instruments like Fluorescence Spectro Photometer (Perkin Elmer), UV and Visible Spectroscope (Perkin Elmer), Ultrasonic interferometer, High Temperature Furnace, Mossbauer Effect, Sulphur dioxide analyser, Automatic weather station, and Gamma ray spectrometer.

ABOUT THE SCHOOL OF SCIENCE

The School of Sciences comprises seven departments, namely Pharmaceutical Sciences, Pharmaceutical Chemistry, Chemistry, Home Sciences, Mathematics, Statistics, and Physics. Each department of the School of Sciences offers UG, PG, and PhD courses and is deeply involved in ground-breaking research in its domain for the benefit of society and the growth of the nation's economy.

ABOUT THE SCHOOL OF LIFE SCIENCE

School of Life Sciences, HNB Garhwal University, consists of 7 departments (Botany, Zoology, Microbiology, Biotechnology, Biochemistry, Environmental Sciences, and Himalayan Aquatic Biodiversity). Each department offers UG/PG/

ABOUT THE SCHOOL OF EARTH SCIENCE

School of Earth Science, HNB Garhwal University consists of 04 departments (Geography, Geology, Defence, Strategic and Geopolitical Studies, and Remote Sensing and GIS). Each department offers Undergraduate (UG), Postgraduate (PG), and PhD courses, and all the departments are continuously carrying out research work on various subjects related to the Himalaya through traditional knowledge and modern research methods, thereby giving a new dimension to regional understanding and sustainable development.

ABOUT THE SCHOOL OF ARTS, COMMUNICATION AND LANGUAGES

HNB Garhwal University's School of Arts, Communication, and Languages offers UG, PG, and Ph.D. programs across eight departments: Hindi, English, Sanskrit, Music, Drawing & Painting, Journalism, Performing Arts, and Library Science, fostering academic excellence and innovative research

ABOUT THE SCHOOL OF HUMANITIES AND SOCIAL SCIENCES

School of Humanities and Social Sciences, HNB Garhwal University consists of 07 departments (Anthropology, Economics, History, IAIHC and Archaeology, Philosophy, Political Science and Sociology, and Social Work). Each department offers Undergraduate (UG), Postgraduate (PG), and Ph.D. courses, and all the departments are continuously carrying out research work on various subjects.

ABOUT THE SCHOOL OF EDUCATION

The School of Education, HNB Garhwal University, consists of three departments (Education, Naturopathy and Yoga, and Physical Education). The Department of Education is one of the oldest departments at H.N.B. Garhwal (A Central) University, Srinagar Garhwal, Uttarakhand. Since its inception in the academic year 1973-74. Courses we offered - U.G. (B.Ed.) P.G.(M.Ed.), Ph.D., and from 2023 we have offered a Course I.T.E.P. (B.A. B.Ed., B.Com. B.Ed. & B.Sc. B.Ed). The Journey of Yoga: Story of the Department of Naturopathy and Yoga. Since 1998, the Department of Naturopathy and Yoga has been a pioneer in promoting yogic science and its applications. With a strong foundation in research and education, the department offers a range of courses, including M.A., M.Sc., BSc, P.G. Diploma, and Ph.D. in Yogic Science. Each department offers UG/PG/ and PhD courses, and is engaged in cuttingedge research in their respective fields.

ABOUT THE SCHOOL OF ENGINEERING & TECHNOLOGY

The School of Engineering and Technology at HNBGU promotes innovation and technical excellence through its diverse academic offerings. It provides B.Tech. programs in CSE, IT, ECE, ME, and IE. The school also offers PG programs such as M. Tech. in CSE, MCA, and Ph.D. degrees, with a strong emphasis on research, skill development, and industry collaboration. Located in the picturesque Garhwal region, the school combines academic rigor with holistic student growth, shaping engineers who are ready to meet the challenges of the future.

ABOUT THE SCHOOL OF AGRICULTURE AND ALLIED SCIENCES

School of Agriculture and Allied Sciences, HNB Garhwal University consists of 05 departments (Forestry, Horticulture, Rural Technology, Seed Science & Technology, HAPPRC). Each department offers Undergraduate (UG), Postgraduate (PG), and Ph.D. courses, and all the departments are continuously carrying out research work on various subjects.

ABOUT THE SHRI RAGHUNATH KIRTI CAMPUS, CENTRAL SANSKRIT UNIVERSITY, DEVPRAYAG

Shri Raghunath Kirti Campus is one of the 13 campuses of Central Sanskrit University with 6 departments is devoted for the promotion of Vedic Sciences. NEP 2020 is completely implemented in this institute and the main focus of the campus is on integration of modern science with the Indian Knowledge Systems.

ABOUT THE DR. B.R. AMBEDKAR GOVT. DEGREE COLLEGE, MAINPURI(UP)

Established on 26th February 2009, Dr. B.R. Ambedkar Rajkiya Mahavidyalaya, Mainpuri (UP), is the first government college in the district, affiliated with Dr. B.R. Ambedkar University, Agra since 2012. Spread across 3 acres, the college offers undergraduate courses in Arts, Science, and Commerce. It features modern facilities including smart classrooms, laboratories, e-learning park, seminar hall, and Wi-Fi campus. Recognized under UGC 2(f) & 12(B), the college actively conducts research, social outreach through NSS, and hosts various academic and cultural programs. With dedicated faculty and ongoing government-funded research projects, the institution emphasizes academic excellence, skill development, innovation, and holistic student development.

CONFERENCE AWARDS

The Governing Council of the Aerosol, Air Quality and Climate Change Research Society (AACCRS, associated with NITI Aayog, Government of India), Srinagar Garhwal, in collaboration with Dr. B. R. Ambedkar Government Degree College, Mainpuri (Department of Uttar Pradesh Higher Education, Government of Uttar Pradesh), will confer awards for outstanding contributions in science, society, and innovation during the conference scheduled from 04–06 October 2025, in the esteemed presence of National and International dignitaries.

For more details, please contact:

<u>Dr. Alok Sagar Gautam</u> - 9997138763

<u>Dr. Surendra Pratap Singh</u> - 9528204088

SESSIONTHEMES

- Advancement in Basic, Applied Sciences, and Fundamental Research
- Sustainable Future: Bridging Disciplines for Innovations
- Climate, Conflict, and Care: Health, Hydrology, and Human Security in the Himalayan Frontier
- The Living World Under the Lens: Innovations in Life Sciences for Global Well-being and Sustainable Future
- Artificial Intelligence & Machine Learning in Engineering
- Integrating Traditional Knowledge with Modern Science for Environmental Sustainability
- Impact of climate change on Himalayan medicinal plants and Agroforestry with respect to human health, livelihood security and Biodiversity conservation.
- Local communities perceive health risks associated with air pollution, and how awareness programs can effectively reduce these risks
- Navigating Environmental Challenges: Impacts on Health, Well-Being, and Educational Systems in the 21st Century
- Nature in Vedic literature and inter relative descriptions of nature and living beings
- Physical and chemical characteristics of atmospheric aerosols
- Optical and Radiative Characterization of Atmospheric Aerosols
- Study of aerosols by various Remote Sensing Techniques
- Impact of Aerosols on Human Health
- Impact of aerosols on agriculture
- Impact of aerosols on climate over the Himalayan region
- Aerosol System over High-Altitude Himalayas from observations and modeling, and their possible effects on glaciers and radiation budget.
- Role of Aerosols on Water-Energy Resources and Development of Hydropower in Uttarakhand
- Artificial Intelligence and Machine Learning (AI/ML) Applications in Aerosol Science

CALL FOR PAPERS

Registered participants must submit an extended abstract (template in Word) at https://docs.google.com/forms/d/1gR3KEa-jy_puir-axAfQa6hvk2TkqEsyJHo6lS3I7qY/ edit by Sep 1, 2025. Participants are requested to write "Abstract for IMCAAC-2025, Participant ID» (the Participant ID will be assigned during registration through email) in the subject line while sending the extended abstracts by email. It is proposed to bring out the proceedings of the Conference. Acceptance notification will be communicated to authors by Sep 10, 2025, with a request to submit the soft copy of the final abstract in cameraready form by Sep 15, 2025. IMCAAC 2025 will endeavor to give preference to papers that deal with new advancements, applications and developments in the aforesaid areas. All papers submitted for presentation in the Conference must be original and should not have been presented elsewhere. All papers will be subjected to review and decisions will be conveyed to the authors accordingly. Selected conference papers will be published in International/National Journals. *Procedure to publish the research papers will be communicated later (http://aachnbgu.aaccrs.org/).

ACCOMMODATION

There are many hotels, including budget options, and lodges available in Srinagar Garhwal.

For accommodation details, please visit:

In addition to this, the AAC-2025 Organizing Committee will arrange shared accommodation at the Hotels at Srinagar Garhwal, Garhwal Mandal Vikas Nigam (GMVN) and University Guest House for a nominal payment (Preference will be given to Research Scholars (Without Stipend), on a first-come, first-served basis. Interested delegates may send their accommodation requests to: aachnbgu2018@gmail.com by 10th September 2025.

For Further details please contact: Dr. Amar Deep - 9808472270 &

Mr. Ajay Kumar - 7060935880

VALEDICTORY SESSION FOLLOWED BY FIELDTRIP TO BADRINATH

On the third day of the conference, the valedictory session will be held at the sacred site of Badrinath, highlighting the diverse geographical features along the route. Badrinath, located at an altitude of 3,133 meters, is approximately 200 km from Srinagar, Uttarakhand. Participation is on a payment basis, i.e., ₹2000 per person. Interested participants are requested to send their confirmation to aachnbgu2018@gmail.com by 20th September 2025. For further details, please contact: Dr. Alok Sagar Gautam − +91 99971 38763

CONFERENCE CONVENER

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Prof. (Dr.) Surendra Pratap Singh,
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REGISTRATION FEE

The following Conference registration fees* is payable by different categories of delegates:

Registration Excluding Field Trip to Badrinath				
Up to 10 September 2025				
Indian Delegates - 4000				
Students/PhD Scholars - 2000				
Foreign Delegates – 250 USD				
After 10 September 2025 till the conference Date				
Indian Delegates - 6000				
Students/PhD Scholars - 3000				
Foreign Delegates – 250 USD				

The registration fee covers the registration kit, as well as breakfast, lunch, and dinner coupons for all conference days.

*Procedure to pay the registration fee will be communicated later on the website (https://aachnbgu.aaccrs.org/#registration)

Registration Link:

https://docs.google.com/forms/d/1gR3KEa-jy puir-axAfQa6hvk2TkqEsyJHo6lS3I7qY/edit

QR CODE:



Account Details:

Account Holder's Name - NCAA 2018FOHNBGU

Account Number - 3485101001985

IFSC Code - CNRB0003485

Bank - CANARA BANK

Branch - Srinagar, Uttarakhand

Branch Address - CANARA BANK, Agrawal Complex,

Gola Bazar, Pin Code - 246174

SELECTION CRITERIA: FIRST COME FIRST SERVE

Important Dates

Last Date for abstract Submission/registration : 01st September, 2025 Abstract acceptance notification : 15th September, 2025

CONTACT DETAILS

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NOTE:

Scan the QR code for registration/nomination form or just click on https://docs.google.com/forms/d/1gR3KEa-jy_puir-axAfQa6hvk2TkqEsyJHo6lS3I7qY/edit











