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Co-Patron

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Conveners

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Dr. Vivek Prakash Malviya

Department of Applied Geology

Organizing Secretary

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Department of Applied Geology

Co-organizing Secretary

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Centre for Advanced Research (CAR)

Co-ordinator

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Centre for Advanced Research (CAR)

Shri Shivprakash Solanki

Centre for Advanced Research (CAR)

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Shri Aravind Chadar, CAR

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and Shri Mohit Rathore, Shri Heera Lal Kewat,

Shri Ishfaq Abdullah Wani, Shri Lavkesh Kumar

and Punam Chorasias, Ashwini Waghmare, Laxmi Kurmi

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NAAC A+
Accredited University

ROYAL SOCIETY OF CHEMISTRY

National Workshop On High Resolution Microscopy and Faculty Development Programme (FDP)

in remembrance of Acharya Prafulla Chandra Ray

Sponsored by: Royal Society of Chemistry

20th – 24th August, 2024



Important Dates

Last Date of Registration: 12th Aug, 2024

Last Date of Payment of Registration Fee: 12th Aug, 2024

Workshop Dates: 20th Aug 2024 to 24th Aug, 2024

The candidates will be informed through e-mail after the completion of registration and payment process

Organized by

Centre for Advanced Research (CAR)

Doctor Harisingh Gour Vishwavidyalaya

Sagar 470 003 [M.P.]

(A Central University)

In association with

Mahakoshal Vigyan Parishad (Provincial Unit of Vigyan Bharati)

The University

Doctor Harisingh Gour Vishwavidyalaya Sagar (A Central University), formerly University of Saugor, was established on 18th July 1946 by Dr. Sir Hari Singh Gour (Nov. 26, 1870 – Dec. 25, 1949) by his lifetime savings. This 18th University of India and the oldest and the biggest University of Madhya Pradesh has perhaps the singular distinction of being founded by the munificence of a single person's hard-earned money of about two crores of rupees. Apart from being a great jurist and legal luminary par excellence, he was a great Patriot, Philanthropist, Educationist and Social Reformer.

Dr. Hari Singh Gour was the first Vice-Chancellor of University of Delhi (1922 to 1926) and first Dean (1924) of The Faculty of Law in the University of Delhi. The University is situated 5 Km east of Sagar city and its campus covers an area of 1312.89 acres over Pathariya hills connected to the Vindhya Range, surrounded by lush green forest (about 100 acres) within its campus and has effectively contributed to the maintenance and preservation of ecosystem and its biodiversity. It is one of the finest picturesque campuses in India.

It has 36 University teaching departments (number keeps adding) 11 schools and 19 affiliated colleges covering various districts of M.P. There are 4 hostels for boys (940 seats) and two hostels for girls (app. 400 seats). The Jawaharlal Nehru Library of the University has more than 4,00,000 books. As many as 26 departments have their own departmental libraries. The NAAC appointed by UGC has awarded 'A+' Grade re-accreditation to this University. This University got Central University status w.e.f. 15th Jan 2009.

About CAR

The CAR at the Dr. Harisingh Gour Vishwavidyalaya, Sagar is equipped with around 30 cutting-edge sophisticated instruments like Nuclear Magnetic Resonance Spectrometer, Single Crystal X-Ray Diffraction, Powder XRD, LC-Mass Spectrometer, Scanning and Transmission Electron Microscope, Nanospary Drier, Particle Size Analyzer, Q-PCR and many more such instruments. Under devoted technical staff with multidisciplinary expertise, the Centre has made significant contributions to material characterization and till date trained several hundreds who are carrying out excellent work elsewhere. This facility was developed with support from UGC, New Delhi, and the DST-PURSE scheme. Since its inception in 2014, a number of high-impact research publications have been published with the help of instruments available at CAR.



About the National Workshop

It is an effort to popularize the benefits of scientific knowledge and material characterization using high resolution imaging methods. Electron Microscopy and Confocal Microscopy are two important microscopy which are prominently used by wide range of scientific communities ranging from basic researchers to biologists, medical professionals, material scientists etc. This workshop will serve as a common training platform for the participation of experts, dynamic researchers from Academia, Research organizations and Industry. It will provide a knowledge sharing platform for gaining an insight into the current scientific and technological advancements in the field of high-resolution microscopy: Specially for Scanning Electron Microscope (SEM); Transmission Electron Microscope (TEM) and Confocal Laser Scanning Microscope (CLSM). Pioneer scientists and great visionaries are being invited to deliver keynote lecture, invited and special lectures on various facets of these microscopy along with hands-on training in sample and material characterization. The workshop will also provide a platform to make a strong bridge between academia, research organizations and industry. This workshop will highlight the thrust areas of materials characterizations specially via electron microscopy and confocal microscopy for Chemical, Biological, Geological and Environmental Sciences.

In addition, to remember the seminal contribution of **Acharya Prafulla Chandra Ray** in modern Indian Science, we will celebrate his birthday to motivate younger students (**Specially School students of the 10th or 12th Standard**) to the enlightened avenue of science and innovation through popular scientific lectures, Quiz on Acharya Prafulla Chandra Ray, Indian Scientists, and these advanced microscopies.

Program Highlights

Basic theories and functions of various microscopy techniques with special emphasis on high resolution Microscopy (SEM, TEM, CLSM) for material characterization. Besides this other topics which will be covered are:

- On the first day, popular lectures, quizzes etc. will be organized in remembrance of seminal contribution of Acharya PC Ray. School students (10th or 12th standard) from local schools of Sagar area will be invited to participate along with registered participants for workshop.
- A tour to the other scientific instruments of CAR (almost ~25 in number) will be organized.
- Introduction to Electron Microscopy (SEM, TEM) and its application in various disciplines of Science & Technology.
- Hands-on training in SEM/TEM involving sample preparation and working with various detectors.
- Imaging principle of Confocal Laser Scanning Microscopy (CLSM).
- Data processing and image analysis.
- Lectures on High Resolution Microscopy by National Experts.

Who can participate:

- a) Faculty / Researcher / Postdoctoral fellow / P.G. Student / Scientist/ Industry personnel from fields of Biological Sciences, Pharmaceutical Sciences, Chemistry, Microbiology, Geology, Environmental Sciences or any relevant background are highly encouraged to participate in the workshop. Faculties at various levels are greatly welcome to join and enhance the level of the program.
- b) School students (10th or 12th standard) from local schools of Sagar will be invited to participate in the first day of Workshop.

Maximum number of participants is limited to **50 first come first serve basis** (Registered participants for the five-day workshop) and **~100 school students** (10th or 12th standard) **only for the first day of programme.**

Registration Details

For School students (10th or 12th standard) for the First day's programme, registration fees will be free.

For workshop

PG Students	Rs. 2000/-
Research Scholars/ Ph.D. Students/ Postdoctoral fellows	Rs. 2500/-
Faculty, Delegates from Academic and Research Institutions	Rs. 5000/-
Industry Personnel	Rs. 6000/-

*The registration fee includes registration kits, foods during working time of the workshop. However, accommodation may be provided on payment basis, in university guest house or nearby hotels on request.

Registration Link

<https://forms.gle/vipvnLX5R7toL98r5>

Bank Details for Registration Fee (To be paid by online Bank Transfer)

Account Name Centre for Advanced Research

Account Number 41487942215

Bank Name STATE BANK OF INDIA

Branch SAUGOR University

IFSC SBIN0001143



About Sagar City

Sagar (M.P.) is a divisional head quarter and well connected by rail and all-season roads. The weather in Sagar in August is pleasantly warm with a gentle breeze and rainfall, with average highs of 35°C and lows of 22°C. Sagar railway station is mentioned as Saugor (SGO) in Railway time table. Saugor station is located on Bina-Katni section of West Central Railway. It is directly connected by train to Bina Jn (75 Km), Bhopal (215 Km), Jabalpur (279 Km) and Jhansi (200 Km). Nearest airport- Bhopal (200 Km), Khajuraho (215 Km).