

**Two days' Workshop
on
Recent Developments in Physics
and Materials Science**

**September 29-30, 2023
and
Alumni Meet on October 1st, 2023**

NAAC Accredited A⁺⁺



Organized by

**School of Studies in Physics
Jiwaji University, Gwalior**

About Jiwaji University

Jiwaji University, situated at Gwalior, was established by the MP University Act of 1964 as a state University with affiliated colleges of Gwalior and Chambal divisions of Madhya Pradesh. The University campus came up on 225 acres of land on Naulakha Parade Ground in the Mahalgaon area. The University celebrated its Golden Jubilee in 2014. Many departments of the University are recipients of the FIST, DST, New Delhi, RUSA, and SAP grants from UGC, New Delhi. University runs different courses in M.A., M.Sc., M.Phil. and Ph.D. University also has well-developed Central Instrument Facilities for the characterization of the synthesized material, such as XRD, FTIR, TEM, HPLC Particle Size Analyzer, etc.

*Recently, the university has been accredited A** grade.*

Gwalior City

Gwalior City is named after Rishi Galav. It has many ancient monuments and places. The historic fort atop the hill is proper in the middle of the city. The Gwalior Fort houses the prestigious Scindia School, Taili Ka Mandir, Sas-Bahu Ka Mandir, Gurudwara, Data Bandi Chhor, Maan Mandir (Raja Maan Singh's Palace), Jahangir Mahal and Karn Mahal, etc. The fort houses the Gujri Mahal and ASI Museum. The famous Tansen Samaroh is held yearly at the Mohommad Ghaus's Tomb and Tansen ki Samadhi. Gwalior was the capital city of the erstwhile princely state of Scindia, founded by the Late Mahada ji Scinde. Maharaj Bara, developed by the Late Maharaj Jiwaji Rao Scindia at the city's heart, boasts of a park, government printing press, theater, banks, and head post office. It is also the city's shopping heart line. A small Zoo and Phoolbagh are the city's heart, and an Italian garden and museum at the Jai Vilas Places are worth visiting. Rani Laxmi Bai's Chhatri symbolizes her martyrdom, and there are also cenotaphs of Scindias. Very ancient temples of the 10th century AD are situated around Gwalior at Bateshwar, Shani temple at Eti, Mitawali, Padawali and Kanak Math, etc.

Pitambra Peeth at Datia (75 km) and the famous Jain Tirth at Sonagir (65 km) are spiritual places, while Orchha and Agra (120 km) have their fame. About 125 km down south, the summer capital of Scindia is known as Shivpuri, where one can visit Madhav Nationa Park and Chandpata Lake.

Need of the workshop

The entire world was paralyzed due to covid-19 for more than two years. Later, Ukraine- Russia war divested the problems of human beings. In this Century, a new type of problem has emerged, i.e., fuel crises and increased cost of semiconductor chips. The ever-increasing fuel prices and food shortage due to drought are of significant concern. It is therefore desired to have clean fuel and stop the emission of greenhouse gases.

In this scenario, the role of the physicist has become crucial. It is therefore desired to look for new materials for the nation's future developments.

This workshop organizes expert lectures on hydrogen-powered systems, solar cells, polymer solar cells, piezoelectric generators, thermoelectric generators, the design of new experiments, and experimental techniques.

To detect greenhouse gases, it is desired to make sensitive sensors. In this area also, new materials like Graphene/nanoparticles are needed. Some expert lectures are also planned to detect these gases at low levels.

This workshop is proposed to help young faculty members/Scientists/Young Researchers to upgrade their knowledge and enhance their confidence by interacting with experts in the field. We are living in an era of new materials. Recent discoveries of carbon nanotubes and fullerenes have led to the development of material science. The new materials are used right, from dental implants to different applications in the field of electronic devices. We have recent discoveries in biosciences, lab on a chip, and environment sciences.

Looking at the above problems, an intensive workshop is planned. A two-day workshop is organized by the School of Studies in Physics, Jiwaji University. In this workshop, we plan to organize expert lectures on the following topics:

1. Alternate energy sources green energy, solar cells
2. Sensors CWA
3. Thermoelectric and piezoelectric generators
4. Design of new experiments
5. Nanomaterials and nanotechnology
6. Pollution detectors
7. Theoretical Modeling Computer Simulation
8. Experimental technique

Target Participants

The workshop is intended for Young Researchers and Faculty Members of various Universities/ Institutions, Scientists, Colleges, and Post Graduate (PG) Students. We are also planning to organize the poster session during the workshop. Interested participants can submit *an abstract of an unpublished paper* of at most 100 words without figures.

The abstract should include

Title: MS Word in Arial (size 16 points) in single space

Authors Name: MS Word in Arial (Size 14 points) **Affiliation:** MS Word in Arial (Size 12 Points)

Abstract: MS Word in Arial (Size 12 Points) in single space

The abstract should briefly include the purpose of the study, methods, results, and conclusions. At the top of the page, please indicate the category (thrust area). The abstract should be submitted through e-mail.

Important Dates

Last date for Abstract Submission: **15th September 2023**

Acceptance of Abstract: **20th September 2023**

Last date of registration: **20th September 2023**

The soft copy of the abstract may be submitted to physics.workshop.sept.29.30.2023@gmail.com

Registration Fee

For Research Scholars/Students: ₹500/-*

Faculty Members: ₹1000/-*

(* Only working LUNCH will be served)

Weather

During September, the temperature lies between 30-35°C at Gwalior, MP.

Travel

Gwalior is well connected by road, rail, and air. It is an important railway station of the North Central Railway. Almost every train stops here. The Railways Station and Bus Stands are 4 km from the University. The three-wheelers charges are about ₹50-70/-. The delegates may reach the venue/site independently or directly to the School of Studies in Physics.

Local Organizing Committee

Prof. Avinash Tiwari, Vice-Chancellor (*Patron*)

Prof. D.N. Goswami, Rector

Prof. Dinesh C. Gupta, Convener

Prof. S.K. Shrivastava

Prof. U.P. Verma

Prof. D.C. Tiwari

Prof. A.K. Shrivastava

Prof. Radha Tomar

Prof. J.N. Gautam

Prof. A.K. Singh

Prof. I.K. Patro

Prof M.K. Gupta

Prof. S.N. Mohapatra

Prof. G.B.K.S. Prasad

Prof. Nalini Shrivastava

Prof. Sanjay Kulshrestha

Prof. S.K. Gupta

Prof. H.K. Sharma

Prof. Suman Jain

Dr. Sukriti Ghosh

Dr. G.S. Raypuria

Dr. A.K. Baraiya

Dr. V. Chaturvedi

Dr. S. Dwivedi

List of Expert Speakers

✧ Prof. G.S. Tyagi, DEI (Deemed to be university), Agra

✧ Prof. Sanjay Tiwari, V-C, Bhoj (Open) Univ., Bhopal

✧ Prof. K.N. Panday, CIPET, Lucknow

✧ Dr. Gobardhan Lal, Scientist-F, DMSRDE, Kanpur

✧ Prof. M.S. Gaur, Hindustan College of Tech., Agra

✧ Dr. P. Dipak, ITM University, Gwalior

✧ Dr. Chandrashekhar, Director, CEERI, Pilani

✧ Prof. D.C. Tiwari

✧ Prof. P. Rajaram

✧ Prof. Neeraj K. Gaur, Barkatullah University, Bhopal

✧ Prof. H.C. Verma, IIT Kanpur

✧ Dr. Lalit Kumar

(Microwave devices)

(Solar System)

(Experimental Tech.)

(Sensors)

(Electrets)

(Sensors)

(Chief Guest)

(Microwave absorption)

(Thin-film Solar Cells)

(Magnetic Materials)

(Basic Physics)

(Microwave Tube)



School of Studies in Physics Jiwaji University, Gwalior

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Registration Form

Paper Title:

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Name:

Affiliation:

Status: (Students/Scientist/Faculty)

Designation:

Email:

WhatsApp/Mobile Phone No.:

I shall attend the workshop and present a Poster (**Yes / No**)

Accommodation required: (**Yes / No**) *Please tick the appropriate*

Accommodation: *Accommodation will be provided in the University Guest House and Hostel on an actual payment basis. If required, hotel accommodation can be arranged on request and advance payment of at least one night's room rent.*