



**RUSA 2.0**

**(Preparatory Grant)**

**Training Programm for Science**

**Faculties**

On

**Computer**

**Experiments Based Material/Nano-  
material's Innovations**

**9<sup>th</sup> March-14<sup>th</sup> March 2026**

Sponsored by  
State Project Office

**(Preparatory Grant)RUSA 2.0**

**Organized by**

**Department of Higher Education, CG**



**In association with**

**Govt.Kamladevi Rathi Mahila PG  
Mahavidyalaya Rajnandgaon**

**PATRON**

**Dr. Santosh Dewangan**

Commissioner

Higher Education Department

Govt. of Chhattisgarh

**Co-PATRON**

**Dr. Anjali Oudhia**

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Govt. Kamla College Rajnandgaon

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**Mr. Alok Kumar Joshi**

**Mrs. Tara Thakur**

**ORGANIZING COMMITTEE**

1. Dr. Omkarlal Shrivastava
2. Mr. M.K. Meshram
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4. Mr. Shivendra Kumar
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7. Mr. Amarnath Nishad
8. Dr. Chetna Gupta
9. Mr.Chandan sahu
- 10.Mrs. Sheela Raha
- 11.Mrs. Manjusha Sahu
- 12.Mrs. Shailja Tiwari

**Venue**

**Govt. Kamladevi Rathi Mahila PG Mahavidyalaya  
Rajnandgaon**

**ABOUT COLLEGE**

Government KamladeviRathiMahila PG Mahavidyalaya in Rajnandgaon, Chhattisgarh, stands as a trailblazing educational institution, dedicated to providing elevated learning opportunities for women across the entire Rajnandgaon district. Its inception in 1963, orchestrated by the NariShikshaSamiti in the cherished memory of Smt. Kamla Devi Rathi, signifies a profound commitment to female education. In 1981, the State Government assumed custodianship, reinforcing its role as an educational beacon. The college hosts a spectrum of academic pursuits, boasting eight postgraduate courses that encompass a distinguished Department of Psychology. Noteworthy is its accreditation as a recognized research center by the esteemed HemchandYadav University in Durg.

## Vision of the Program :

### Digitalization of Higher Education

The vision of the RUSA-supported program on **Digitalization of Higher Education** is to **transform higher education institutions into technology-enabled, inclusive, and learner-centric ecosystems** that enhance access, quality, equity, and governance through the strategic integration of digital tools and platforms.

Under the **RUSA's Vision**, this training program aims to empower science faculty with **on-computer experimental approaches for materials and nanomaterial's innovations** using digital simulation and virtual laboratory tools and also to **facilitate the establishment of advanced digital laboratories** equipped with **DFT and modeling-simulation facilities**

The program promotes **technology-enabled teaching and research**, cost-effective experimentation, and capacity building in alignment with **NEP 2020** and the **digitalization of higher education**

### OBJECTIVES

- To **accelerate materials and nanomaterial's research** by enabling science faculty to adopt **on-computer experimental methodologies**, including **DFT-based first-principles calculations** and **advanced modeling techniques**.
- To promote **innovation-driven research practices** by integrating computational experiments for **materials design, property prediction, and performance optimization**.
- To facilitate the **development of computational research infrastructure** that supports **high-quality publications, patents, and externally funded research proposals**.

- To strengthen **research capabilities and output** of institutions in the **Durg Division** through **collaborative computational research networks** under **RUSA 2.0**.
- To encourage **interdisciplinary research and translational innovation** in materials science, nanotechnology, and allied domains using **digital experimentation platforms**.
- To reduce research gestation time and experimental costs by **complementing physical laboratories with validated computer-based experimentation**.

### COURSE CONTENTS

The lecture sessions will focus on the **experimental and theoretical frameworks of novel material systems**, including **low-dimensional nanomaterial's, biomaterials, polymers, and related functional materials**, with emphasis on their **design, properties, and applications in opto-electronic and energy storage devices**.

The laboratory sessions will provide **hands-on computational training using SI-ESTA/TranSIESTA and advanced post-processing tools** for the **prediction and analysis of electronic, optical, and mechanical properties**, enabling participants to **accelerate materials research, validate experimental results, and generate high-impact research outcomes**.

### TARGET PARTICIPANTS

Faculty members interested in learning and implementing DFT in their research fields, preferably of Physics, Chemistry or any science stream of Government Colleges.

**NOTE:-Participant will report with their own Laptop (i5 onwards with 8 GB RAM Minimum).**

### EMINENT SPEAKER

1. **Dr. Anjali Oudhia, KDRM Rjn.**
2. **Dr. P.B. Deshmukh, Director SSTC College**
3. **Dr. Mohan L.Verma, SSTC Bhilai**
4. **Dr. Henu Kumar Verma, IIT Bhilai**
5. **Dr. Shubhra Mishra, Govt. Naveen College Gudhiyari**
6. **Mr. Alok Joshi, KDRM Rjn.**
7. **Dr. Dakeshwar Verma, DMV Rjn.**

### RESOURCE PERSON FOR HAND ON PRACTICES

1. **Dr. Mohan L.Verma, SSTC Bhilai**
2. **Dr. B.Keshav Rao, SSTC Bhilai**
3. **Dr. Kusumanjali Deshmukh, Govt. VYT PG College, Durg**
4. **Nayab UI Malik, Science College Bilashpur**

### REGISTRATION

Access the link for registration:  
<https://forms.gle/4M7ivDaa39dowiT28>

**There is no Registration fee.**  
**No TA,DA will be provided by organizers.**

### IMPORTANT DATES

Last Date of registration: **07.03.2026**.  
Confirmation to participants:**08<sup>th</sup>March 2026**  
Limited Seats: **30 Participants**

### CORRESPONDANCE

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