

## Preamble

National Education Policy (NEP) 2020 aims at innovative and multidisciplinary learning. AICTE is establishing IDEA LAB in different institutions across India to increase multidisciplinary approach among faculty and students. As a common facility embedded in the institution, the IDEA Lab will make students, faculty and researchers more imaginative and creative, besides getting basic training in the 21st-century skills like- critical thinking, problem-solving, research, collaboration, communication, lifelong learning, etc. The IDEA Lab also intends to encourage teachers to conduct “multidisciplinary education and research” emphasized in the NEP 2020.

Being the part of IDEA lab initiative by AICTE, this online conference is aiming at exploring MULTIDISCIPLINARY RESEARCH IDEAS IN SCIENCE, ENGINEERING AND MANAGEMENT through innovative research.

## The Institute

Bhilai Institute of Technology, Durg is initiated by notable stalwarts of central India in 1986 with a vision to become one of the Premier Technical and Management Educational Institutions in the Country, delivering excellent professional education, creating value based globally competitive professionals and achieving excellence in all our endeavors.

BIT campus has a conducive and supportive academic ambience facilitating high quality education and research for more than 4000 students of bachelors, masters and doctoral programs. BIT, Durg is the first technical institute in the state to be conferred Autonomous Status by UGC, Government of India. Seven of its undergraduate programs have been accredited by NBA and the institute itself has been “A” grade accreditation by NAAC. The institute stands in NIRF 2020 Rank-band: 251-300 in the category of Engineering. Under AICTE Margdarshan Scheme, the institute is mentoring ten technical institutions to encourage best practices. BIT, Durg is selected by AICTE to establish IDEA Lab in 2021. BIT, Durg is introducing two new under graduate courses B. Tech (CSE) in Data Science and B. Tech (CSE) in Artificial Intelligence from the academic session 2021-22.

## The Department

The department was conceived in the year 1986 along with the inception of the Institute with an aim to provide scopes to build the foundation stones for higher studies in Engineering and other allied fields. The laboratories are well equipped with modern experimental and computational facilities. The R&D lab has been recognized as first approved research centre in applied Physics for Ph.D. programme by CSV Technical University Chhattisgarh state. Many students in our department are doing research work for their Ph.D. Learned faculty members act as an author and a reviewer in reputed international and national journals and their project work are supported by CCOST and UGC-DAE Consortium for Scientific Research. Through scientific and technical excellence, they are committed towards enhancing the Nation's ability to compete globally.

## Conference Objective

Advances in fabrication of smart and efficient nanomaterials for various technological applications are directly related to the development in nanotechnology. The proposed national conference aims to bring together scientists, academicians, industrial professionals, researchers and students to exchange their knowledge and ideas in cutting edge of development of nanomaterials and their characterization technology for future applications including Solar cells, Photoconductive devices, Nano-electronics, Nano-mechanics, Nano-medicine and especially Nano-energy. This conference provides opportunities for the research community to exchange new ideas and applied experiences, to establish research relations for development of advanced smart nanomaterials and their characterization. Also, the research students working on state of the art of nanotechnology and material science and any other area of physics will get a chance to share their problems with renowned scientists in this field.

## Themes and Sub Themes

The theme of the conference hosted by Department of Physics would be “Advances in Smart Nano Materials” to Combat Current Challenges” in tune with the main theme “Multidisciplinary Research Ideas in Science, Engineering and Management” but not limited to.

- ❖ Nano structured Materials / Novel Synthesis
- ❖ Semiconductors / Thin Films / Composites
- ❖ Materials Science / Materials Characterization
- ❖ Magnetic Materials / Dielectric Materials
- ❖ Nanotechnology / Phosphors for Solar Cell
- ❖ Luminescent Materials / Nano Phosphors
- ❖ Optical Properties of Nano Materials
- ❖ Quantum Dots and Wires
- ❖ Biomaterials and Sensors

# BITCON 2021

*Multidisciplinary Research Ideas in Science, Engineering and Management*

**NATIONAL CONFERENCE  
ON**

**Advances in Smart Nano Materials**

*Conducted By  
Department of Physics*

**22<sup>ND</sup> & 23<sup>RD</sup> October 2021**

## REGISTRATION FORM

Name : .....

Designation : .....

Organization : .....

Mailing Address : .....

E-mail : .....

Phone : .....

### Details of Registration Fees:

DD Drawn on:  
Amount (in Rs.):  
Demand Draft No.:  
Date:

**Date:**

**Place:**

**Signature of Applicant**

The applicant is sponsored for the conference. He/She is permitted to attend the conference.

**Date:**

**Place:**

**Signature and Seal of Sponsoring Authority**

## Chief Patrons

**Shri Vijay Kumar Gupta** *Chairman (Governing Body), BIT Trust*  
**Shri I.P. Mishra** *Ex-GM, Bhilai Steel Plant & Member Secretary, BIT Trust*

## Patron

**Dr. Arun Arora** *Director, BIT, Durg.*  
**Dr. Mohan Kumar Gupta** *Principal, BIT, Durg.*  
**Dr. Manisha Sharma** *Vice-Principal, BIT, Durg.*

## Coordinator

**Dr. M.V. Padmavati** *Dean (R&D), BIT, Durg.*

## Co-coordinator

**Dr. Pawan Patnaik** *Associate Professor, BIT, Durg.*

## Advisory Committee

**Dr. M. K. Verma** *Vice Chancellor, CSVTU, Bhilai*  
**Dr. R. P. Dubey** *Vice Chancellor, CVRU, Bilaspur*  
**Dr. R. P. Vasani** *Director, SAL Technical Campus, Ahmedabad*  
**Dr. R. L. Shrivastava** *Professor, YCCE Nagpur*  
**Dr. G. V. V. Sharma** *Professor, IIT Hyderabad*  
**Dr. Souradyuti Paul** *Professor, IIT, Bhilai*  
**Dr. Deepak Garg** *Professor, Bennett University, Noida*  
**Dr. Dillip Singh Sisodia** *Professor, NIT, Raipur*  
**Dr. Santosh Sar** *Dean (Students Welfare), BIT, Durg*  
**Dr. Sumita Soni** *Dean (IT Development), BIT, Durg*

## Coordinating Committee

**Dr. Manoj Pal** **Dr. Daljeet Singh Wadhwa**  
**Prof. Amit Kumar Biswas** **Prof. Shraddha Kaushik**  
**Dr. Nishant Yadav** **Prof. Gargi Mishra**  
**Dr. Rajesh Lalwani** **Prof. Vikas Pandey**  
**Dr. Santosh Mishra** **Prof. Kauleshwar Prasad**  
**Prof. Jitendra Chauhan** **Prof. Sargam Gupta**  
**Dr. Anindita Chakraborty**  
**Dr. Prashant Sahu**

## Convener

**Dr. Samit Tiwari** *Professor & Head, Dept. of Physics*

## Organizing Secretary

**Dr. Rajesh Lalwani** *Associate Professor*

## Organizing Committee

**Dr. (Mrs.) Ruby Das,**  
**Mr. C. S. Robinson,**  
**Dr. Prashant Kumar Sahu,**  
**Dr. Raunak Kumar Tamrakar**

## Important Dates

Submission of full length papers : 1<sup>st</sup> October 2021  
Intimation of acceptance deadline : 07<sup>th</sup> October 2021  
Receipt of registration fees : 15<sup>th</sup> October 2021

## Registration Fees

Research Scholar/PG student : Rs. 500  
Faculty Member : Rs. 800  
Professional from Industry : Rs. 1000  
UG Student : Rs. 200

**Participation certificate will be issued only to registered candidates.**

1. All the payments should be made by a crossed Demand Draft in favor of "Bhilai Institute of Technology" payable at "Durg".
2. NEFT or at Bank Counter

**Beneficiary Account Number:** 32471126372

**Beneficiary Name:** Bhilai Institute of Technology, Durg

**Bank:** State Bank of India, Sector-10, Bhilai

**Address:** Alka Departmental Stores, Sector-10, Bhilai (C.G.)

**IFSC Code:** SBIN0006942

*(No TA/DA will be paid from the Institute)*

## Address for Correspondence

### Dr. Rajesh Lalwani

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[rajeshlalwani@bitdurg.ac.in](mailto:rajeshlalwani@bitdurg.ac.in)

## Eligibility

Academicians, Consulting Engineers, R&D Institutes, Government Departments and Agencies, Private Companies, Research Scholars and P.G. Students.

## Call for Papers

The template for preparation of manuscript for BITCON 2021 is available at [www.bitdurg.ac.in/BITCON](http://www.bitdurg.ac.in/BITCON). Papers in proper format and with plagiarism similarity score not more than 35% will only be included in the BITCON 2021 proceedings.

Selected papers with plagiarism similarity score not more than 10% will be sent for publication in reputed journals. Such manuscripts may have to be revised, initially as per the format of the journal and later as per reviewer comments (if any).

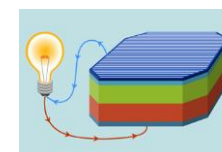
# BITCON 2021

*Multidisciplinary Research Ideas in Science, Engineering and Management*

## NATIONAL CONFERENCE ON

## Advances in Smart Nano Materials

**22<sup>ND</sup> & 23<sup>RD</sup> October 2021**



*Organized By*  
**Department of Physics**



ASPIRE TO EXCEL

## BHILAI INSTITUTE OF TECHNOLOGY, DURG

(Seth Balkrishan Memorial)

BHILAI HOUSE, DURG 491001 (C.G.) INDIA

1<sup>st</sup> Autonomous Technical Institution in Chhattisgarh

Accredited with 'A' Grade by NAAC

NIRF 2020 RANK-BAND: 251-300

Website: <http://www.bitdurg.ac.in/>

Phone: (0788) 2359424

Conference Website: <http://www.bitdurg.ac.in/BITCON>

