UGC thrice. It was accredited with Grade 'A' by NAAC in 2005 and in 2011 reaccredited with Grade - 'A' and again in 2017 accredited as Grade 'A' with CGPA 3.27/4. The College has also been accorded the status of Star College by DBT, Govt, of India and stood rank 37<sup>th</sup> in Science Stream in India and 1<sup>st</sup> in eastern states by "India Today – MDRA" rankings.

The college is fully attuned to face challenges posed by growing demands in the field of higher education and is a co-educational and multi-disciplinary college. The college has 27 departments including Science, Arts, Humanity, Vocational, Professional, Education and Language courses. Most of these departments run U.G., P.G. and Ph.D. Courses. The college is conducting pioneering research works with funds provided by agencies like UGC, DST, DBT, NEERI, UNICEF, CSIR, UGC-DAE, Erasmus programs, Royal Society programs, DFG Germany research programs, French Industrial program and various distinguished agencies from U.K. and Europe. Researches in Arsenic, Fluoride, Materials Science, Physical, Chemical, Biological Sciences and Electronics, Social Science and humanities have been internationally acclaimed.

The college has been a distinguished partner of different "Erasmus Mundus" Academic Exchange Programme, EUR India, India 4 EU, NAMASTE, SVAGATA, HERITAGE and Experts Asia Programme sponsored by European Economic Commission and U.K.-India Education Research Initiatives (UKIERI). The college has numerous collaborations, , with universities of Europe, U.S.A. and South Korea.

> Address of the College : A. N. College, Boring Road, Sri Krishnapuri, Patna- 800013.

#### **Registration, Author Information & Abstract Specification :**

#### Please Visit https://old.ancpatna.ac.in/icema-2022

(Included conference kit, tea & Lunch)

- Research Scholar : INR 1000
- Faculty Members : INR 2000
- : INR 5000 Industries
- Foreign Students : USD 100
- : USD 150 Foreign faculty

#### **Mark Your Calendars**

ABSTRACT SUBMISSION DATE	: May 17, 2022 to August 12, 2022
REGISTRATION DATE	: May 17, 2022 to August 22, 2022
LAST DATE OF ACCEPTANCE	: August 16, 2022
DEADLINE FOR EARLY BIRD REGISTRATION	: July 22, 2022

#### Topics

- >> T1 : Smart electronic materials for sustainable future
- >> T2 : Emerging trends and future aspects of microelectronics and optoelectronics
- >> T3 : Future aspects of emerging technologies with 5G, AI and IoT
- >> T4 : Renewable energy and Storage devices
- T5 : Green technologies and its applications

#### Co-convenors

#### Dr. Santosh Kumar Department of Physics, College of Commerce Arts and Science, Patna

Dr. Dhirendra Kumar Department of Physics, G. J. College, Rambagh, Bihta

#### Treasurer

Dr. Ratnesh Kumar Department of Chemistry, A. N. College Patna

#### **Local Organising Committee**

- >> Dean Students Welfare, Patliputra University (PPU), Patna
- » Registrar, Patliputra University, Patna
- >> OSD (Ph.D.) Patliputra University, Patna
- >> Dean, Faculty of Science, PPU, Patna
- >> PG Head, Physics, PPU, Patna
- >> PG Head, Chemistry, PPU, Patna
- >> Dr. Nawnit Kumar, Department of Physics, M.D. College Naubatpur
- >> Dr. Shailesh Kumar Singh, Department of Physics, RLSY College, Bakhtiyarpur
- >> Dr. Pankaj Modi, Department of Physics, College of Commerce, Art & Science, Patna
- >> Dr. Nisha Kumari, Department of Chemistry, A.N. College, Patna
- >> Dr. Rajnish Kumar, Department of Physics, College of Commerce, Art & Science, Patna
- >> Dr. Amrita Chakraborty, Department of Chemistry, A.N. College, Patna







# International Conference

**Electronic Materials and Applications 2022** 

# **(ICEMA 2022)**

September 16-17, 2022

Organizer

A.N. College, Patna, India

# (Patliputra University, Patna, India)

Web : https://old.ancpatna.ac.in/icema-2022 E mail : icema-2022@ancpatna.ac.in



**Chief Patron** Prof. R. K. Singh Vice-Chancellor, Patliputra University, Patna

#### Convenor

Dr. Seema Sharma Department of Physics, A.N. College, Patna



Patron Prof. S. P. Shahi Principal, A. N. College, Patna

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Dr. Ayan Mukherjee

College of Commerce Arts

Department of Physics

and Science, Patna

**Organizing Joint Secretaries** 

State Tax (GST), Patna

# Dr. Dinkar Prasad Joint Commissioner,



#### DR. S.N.JHA

Scientific Officer 'H', RRCAT, Indore, India Topic : Synchrotron Radiation Sources a Powerful Tool for Research & Technology

#### **Invited Speakers**

**Keynote Speaker** 



# Dr. R. J. Choudhary Scientist-G, UGC-DAE-CSR, Indore, India

Topic : Tuning the Electronic and Magnetic Properties of Functional Magnetic Oxide System via Strain



#### Dr. Chandra Shekhar

Senior Group leader Max Planck Institute for Chemical Physics of Solids, Dresden, Germany Topic: Topology in Materials



#### Prof. Naveen Kumar Nishchal

Department of Physics, IIT Patna, India Topic : Opta-electronic, Asymmetric Cryptosystem



#### Dr Louisa Reisseg

Institute of Experimental Physics Freie University, Berlin, Germany Topic: Borrowing Nature's Material and Strategies in the Design of Future Photodetectors



#### Mr. Mrigesh Parashar

Founder & Chief Product Officer, Trillbit, Boston, USA Topic: Future of Internet of things : The Good, the Bad and Beyond Imagination



#### Prof. Jawar Singh

Department of Electrical Engineering, IIT Patna, India **Topic : Neuromorphic Computing : Devices and Circuites** 



#### Dr Rajib Nath

Department of Physics, SKB University, West Bengal, India Topic: Fabrication and Measurement of Functional Material Based Electronic Devices



#### Prof. Ziyauddin Khan

Department of Science & Technology, (ITN), Principal Research Engineer, Linkoping University, Sweden **Topic: Sustainable Batteries** 

School of Chemical and Process Engineering

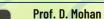
#### Dr. G. Kale



#### Dr. Tanu Preet Singh Chief Technical Officer.

Leeds University, UK

Mycondolink Inc Company, Toronto, ON, Canada Topic : To be announced





Former Head, Dept of Civil Engg, IIT, BHU Varanasi, India Title: Arsenic Removal from Water Employing Nano-particles Produced Through an Environment –Friendly Approach

Topic : Alginate Mediates Environmentally Sustainable Green

Process for the Preparation of Functional Ceramic Nano-Powder

#### **Plenary Speaker**



Dr. Arun Kumar Prof and Head, (retd.) Department of Electronics & Physics, A.N. College, Patna Topic: Science and Technology as a Vector of Social

**Change-Paradigm Shift** 

### **Overview**

International Conference on Electronic Materials and Applications 2022 (ICEMA 2022) is a two-day international conference from September 16-17, 2022, focused on electronic materials and their applications in electronics, electrochemical, electromechanical, magnetic, dielectric, biological, artificial intelligence tools, optical components, devices and systems. This conference will be held in hybrid mode and is organized by A. N. College, Patna, Patliputra University, Patna, India.

#### Aim & Scope



ICEMA 2022 provides an enabling platform for Electronics, Metallurgy, and Materials Science Engineering experts to exchange novel ideas and explore opportunities for comprehensive research in electronic materials and their applications. This conference is intended to promote establishment of business

and/or research relations among global partners for future collaborations. The aim

of this conference is to exchange information regarding emerging technological innovations, entrepreneurship, share experiences and research results pertaining to electronic materials and their applications. It will also provide platform for the young generation to show case their talents through creative pursuits for inspired researches for solving growing demands and aspirations of the society in unlocking and harnessing new vistas of knowledge and innovative ideas directed towards societal progress and amelioration.

The technical programs include keynote address, invited lectures, contributed papers, oral/poster presentations, and open discussions. ICEMA 2022 features technical sessions focused on recent and future aspects in electronic materials and its applications in Smart Electronic materials, Microelectronics, Optoelectronics, and Artificial Intelligence in electronic communication systems. It will emphasize broader themes covering processing, microstructure evolution, and integration; effects of surfaces and interfaces on processing, transport properties advanced characterization and computational design of electronic materials. ICEMA includes several networking opportunities to facilitate collaborations for scientific and technical advances related to materials, components, devices, and systems in the fields of communication systems and electronic systems.

# **About The University**

Bifurcated from erstwhile Magadh University, Bodh Gaya, Patliputra P University, Patna, India was established on 18th March, 2018. All the colleges of Patna and Nalanda districts, Bihar (India), fall under the jurisdiction of the Patliputra University except those attached to the Patna University. The University has control over 25 constituent colleges, two government girls colleges, three minority colleges and a number of affiliated colleges. Many of these colleges are running university-approved post-graduate centers in various subjects besides skill-oriented courses in vocational and technical/professional areas. The ambience of the university is being developed with radical ideas having global perspective in the domain of Education. The students in our colleges are from different corners of the state/region. In order to achieve academic excellence, we strive to create a student-centric atmosphere that is sensibly conducive to all stakeholders-viz-students, researchers, academicians, teachers, parents, society, institutions, research organizations, industries, govt agencies and employers. The university aspires to collaborate with several national and international academic bodies, research organizations, universities, industries, govt. agencies & non-government organizations. The headquarter of Patliputra University is in Patna having its present address as "Old bypass Road, Kankarbagh, Patna-800 020, Bihar (India)."

## **About The College**



A. N. College, Patna, (a constituent unit of Patliputra University, Patna) was established in 1956 in the name of a sagacious and visionary leader, a freedom fighter, a statesman and an able administrator "Bihar Vibhuti" Dr. Anugrah Narayan Sinha. This college, since 2005 has been accorded "College with Potential for Excellence (CPE) status by