

# ICACE

20-22 DEC 2022

## International Conference on Advances in Civil Engineering 2022

Virtual Conference



ESTD - 1928

LSKBJ College of Engineering,  
Chandwad, Nashik, India



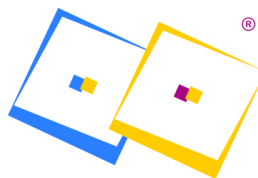
Chaitanya Bharathi Institute of  
Technology (A), Hyderabad, India



Sant Gajanan Maharaj College of  
Engineering, Mahagaon, India



Accra Technical University, Ghana



Technology Research and Innovation  
Centre, India



Academy of Nanotechnology and Waste  
Water Innovations, Johannesburg, SA

Conference Email: [info@icace.in](mailto:info@icace.in)

## About ICACE 2022

First International Conference on Advances in Civil Engineering 2022 (ICACE 2022) is hosted by Department of Civil Engineering, LSKBJ College of Engineering, Chandwad, Nashik, India (affiliated to Savitribai Phule Pune University, Pune) and organized by Technology Research and Innovation Centre, India in association with Chaitanya Bharathi Institute of Technology (A), Hyderabad, India | Civil Engineering Department, Sant Gajanan Maharaj College of Engineering, Mahagaon, Maharashtra, India (affiliated to Shivaji University, Kolhapur) and Civil Engineering Department, Accra Technical University, Ghana on 20-22 December 2022.

ICACE 2022 is providing a platform for various worldwide researchers, scientists and academicians working in the field of civil engineering. We aim to receive only original high quality research papers for this conference.

Accepted papers will be presented through **ONLINE mode**.

## Call for Papers

The ICACE 2022 invites original research and review papers in the field of civil engineering in following conference tracks (but are not limited to),

- ❖ Materials and Structural Mechanics
- ❖ Fluid Engineering
- ❖ Energy, Environment and Sustainable Development
- ❖ Smart Technologies in Civil Engineering
- ❖ Transportation and Geology
- ❖ Construction Engineering and Management
- ❖ Surveying and Planning
- ❖ Computational Analysis
- ❖ Optimizations in Civil Engineering
- ❖ Miscellaneous Topics in Civil Engineering

## Keynote Speakers



**Dr. Pijush Samui**

National Institute of Technology,  
Patna, India



**Dr. Mo Kim Hung**

University of Malaya, Kuala Lumpur,  
Malaysia



**Dr. Rita Yi Man Li**

Hong Kong Shue Yan University,  
North Point, Hong Kong



**Prof. Phoebe Koundouri**

Athens University of Economics and  
Business, Athens, Greece



**Dr. Selda Oterkus**

University of Strathclyde  
Glasgow, United Kingdom



**Dr. Ilenia Farina**

University Parthenope of Naples  
Naples, Italy

## Important Dates

- ❖ Abstract Submission : 20 Nov 2022 (Round 3)
- ❖ Early Bird Registration : 25 Sep 2022
- ❖ Mid Term Registration : 30 Oct 2022
- ❖ Regular Registration : 30 Nov 2022

Please visit conference website for updated dates

## Publications

Selected papers will be published in different journals and will be submitted for indexing in major indexing services such as Scopus, Web of Science, Google Scholar, etc.



**AIP**  
Conference Proceedings

International Conference on  
**Advances in Civil Engineering 2022**

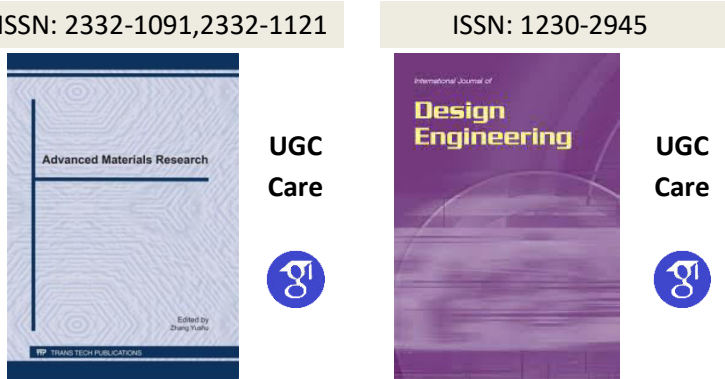
ISSN:0094-243X, 1551-7616



INTERNATIONAL CONFERENCE ON ADVANCES IN CIVIL ENGINEERING  
FACULTY OF CIVIL ENGINEERING  
COMMITTEE FOR CIVIL AND WATER ENGINEERING

**ARCHIVES OF CIVIL ENGINEERING**

ISSN: 1054-853X



Advanced Materials Research

**UGC Care**

ISSN: 2332-1091, 2332-1121



Journal of Polymer & Composites

**UGC Care**

ISSN:1022-6680, 1662-8985



**OPEN ENGINEERING**

ISSN: 2391-5439

## Registration

It is necessary that at least one author should register and present the paper in the conference. Each additional paper needs to register. Conference registration fee includes paper presentation through online mode, online entry to all sessions and keynote speeches, conference presentation certificate and publication in the conference proceedings. The transaction charges if any, will be borne by the author. The registration dates mentioned are applicable for conference registration and authors need to complete the registration after the acceptance of abstract. The conference fee once paid is non-refundable.

Category	Registration Fee (INR / USD)		
	Early Bird 20 Sep 2022	Mid Term 20 Oct 2022	Regular 20 Nov 2022
<b>Students</b>	1000 / 15	1500 / 20	2000 / 30
<b>Academicians</b>	1250 / 20	1750 / 25	2500 / 40
<b>Industry</b>	2500 / 40	3500 / 50	5000 / 80
<b>Attendee</b>	1000 / 15	1500 / 20	2000 / 30

No additional publication cost for,

- ❖ International Journal of Energy, Environment, and Economics (**Scopus**)
- ❖ International Journal of Design Engineering (**UGC**)
- ❖ Conference Proceedings by Organizer (with DOI, ISBN, will be submitted to the major indexing services)
- ❖ International Journal of Sustainable Real Estate and Construction Economics.

The additional publication cost of **INR 8850 / USD 125** will be applicable to **AIP Conference Proceedings (Scopus)**.

Interested authors may contact us for details about publication fee for other journals.

Decision about paper acceptance for the final publication will be entirely taken by the Chief Editor. Conference organizers and or journal editors reserve the right to remove the paper at any stage from the publication process because of non-ensuring the paper quality and or ethical guidelines by the authors.

## Organizing Committees & Members

### Patrons

**Shri. Dineshkumar Bhagchand Lodha**, Vice Chairman, Board of Trust and coordinator, SNJB, Chandwad, Nashik, India  
**Shri. Zumarlal Hiralal Bhandari**, Joint Hon. Secretary, Prabandh Samiti and coordinator, SNJB, Chandwad, Nashik, India  
**Shri. Sunilkumar Mohanlal Chopda**, Member, Prabandh Samiti and coordinator, SNJB, Chandwad, Nashik, India  
**Adv. Annasaheb D. Chavan**, Chairman, Sant Gajanan Maharaj Education Group (SGMEG), Mahagaon, India  
**Dr. Yashwant A. Chavan**, Trustee, SGMEG, Mahagaon, India  
**Dr. Sanjay A. Chavan**, Trustee SGMEG, Mahagaon, India  
**Prof. Dr. Mahadeo D. Kokate**, Principal, SNJB's Late Sau K B Jain College of Engineering, Chandwad, Nashik, India  
**Prof. Dr. P Ravinder Reddy**, Principal, Chaitanya Bharathi Institute of Technology (A), Gandipet, Hyderabad India  
**Prof. Dr. Sanjay H. Sawant**, Principal, Sant Gajanan Maharaj College of Engineering, Mahagaon, Maharashtra, India  
**Prof. Dr. Amevi Acakpovi**, Professor, Accra Technical University, Ghana  
**Prof. Dr. Felix Kutsanedzie**, Dean, Faculty of Engineering, Accra Technical University, Ghana

### Chairpersons

**Dr. Yuvaraj L. Bhirud**, Professor and Head, Department of Civil Engineering, LSKBJ College of Engineering, Chandwad, India  
**Dr. K. Jagannadha Rao**, Professor and Head, Department of Civil Engineering, Chaitanya Bharathi Institute of Technology (A), India  
**Dr. Tina D. Wemegah**, Head of Department of Civil Engineering, Faculty of Engineering, Accra Technical University, Ghana

### Conveners

**Dr. S. A. Patare**, LSKBJ College of Engineering, Chandwad, India  
**Dr. N R Dakshina Murthy**, CBIT (A), Gandipet, Hyderabad, India  
**Dr. Eric Adjei**, Accra Technical University, Ghana  
**Mr. Sachin N. Sanadi**, SGM COE, Mahagaon, Maharashtra, India

### Technical Program Committee

**Dr. Sandip A. Kale**, Technology Research and Innovation Centre, India  
**Dr. Basuraj Bhowmik**, Indian Institute of Technology, Varanasi, India  
**Dr. K. Jagannadha Rao**, CBIT (A), Gandipet, Hyderabad, India  
**Dr. Yuvaraj L. Bhirud**, LSKBJ COE, Chandwad, Nashik, India

### Organizing Committee Members

#### LSKBJ College of Engineering, Chandwad, Nashik

Mr. P. M. Yeole	Ms. M. S. Dhomase	Ms. A. J. Mali
Mr. L. B. Pawar	Mr. H. A. Shirsath	Mr. N. B. Aher
Mr. O. V. Vaidya	Mr. R. S. Sonawane	Mr. S. S. Khairnar
Mr. A. K. Thakare		

#### Chaitanya Bharathi Institute of Technology (A), Hyderabad

Prof. P. S. Sarma	Smt. Aswari S. Begum	Sri G. Viswanath
Prof. A Balaji Rao	Sri E. Maheshwar Reddy	Smt N. Lalitha Kumari
Smt. K Manasa	Sri Ramanarayan Sankriti	Dr. Mohd. Aamir
Sri R. R. Reddy	Dr Jnana Ranjan Khuntia	

#### Sant Gajanan Maharaj College of Engineering, Mahagaon

Mr. S. P. Narvekar	Mr. Abhishek Sutar	Ms. Swati S. Patil
Mr. L. A. Doddamani	Ms. Ashwini A. Kodoli	Mr. Mallikarjun Khot
Mr. S. L. Gawade	Mr. Ajit A. Dewarde	Mr. Amar Powar

#### Accra Technical University, Ghana

Mr. David Amoah	Dr. Sarah F. H. Duncan	Mr. Mark Nyameche
Ing. Bright Aforla	Mr. David Dzitse- Awuku	Mr. John B. Nkansah
Mr. Jonathan Sasah	Mr. Archibald N. A. Quaye	

## Scientific Committee Members

**Dr. A. S. Sayyad**, Sanjivani College of Engineering, India  
**Dr. Abdelaziz Meddah**, University of M'sila, Algeria  
**Dr. Aditya Parihar**, Thapar Institute of Engg. & Tech Patiala, India  
**Dr. Antonio Formisano**, University of Naples 'Federico II', Italy  
**Dr. C. Chella Gifta**, National Engineering College, Kovilpatti, India  
**Dr. Charles Atombo**, Accra Technical University, Ghana  
**Dr. Christian Paglia**, Uni. of Applied Sci. of Southern Switzerland  
**Dr. D. Sreenivasulu**, Annamacharya IoTs, Rajampet, India  
**Dr. Didem Güneş Yılmaz**, Bursa Technical University, Turkey  
**Dr. Dipjyoti Baglari**, Jorhat Institute of Sci. & Tech. Jorhat, India  
**Dr. Eric Adjei**, Accra Technical University, Ghana  
**Dr. Hanuman Chalak**, NIT, Kurukshetra, India  
**Dr. Heaven Singh**, Thapar Institute of Engg. & Tech. Patiala, India  
**Dr. Hemanta Medhi**, Tezpur University, Tezpur, Assam, India  
**Dr. José R. Barboza**, Applied Sci. Peruvian University, Lima, Peru  
**Dr. K. B. Ladhane**, Government Polytechnic Nashik, India  
**Dr. K. Srikanth**, Chaitanya Bharathi Institute of Tech. (A), India  
**Dr. Kalyana Rama Jyosyula**, Mahindra University, India  
**Dr. Kamalini Devi**, Vidya Jyothi Institute of Tech. Hyderabad, India  
**Dr. Kumar Pallav**, Cape Peninsula University of Tech. South Africa  
**Dr. Leticia Osaé Adum**, Accra Technical University, Ghana  
**Dr. M. V. Krishna Rao**, Chaitanya Bharathi Inst. of Tech. (A), India  
**Dr. Manjurali Balya**, Govt. Engg. College, Patan, Gujarat, India  
**Dr. Martins Suta**, Primekss Group, Riga, Latvia  
**Dr. Mirka Mobilia**, Università degli Studi di Salerno, Salerno, Italy  
**Dr. Mohammed Latif Kikaa**, Accra Technical University, Ghana  
**Dr. N. U. Mate**, Amrutvahini COE, Sangamner, India  
**Dr. Prachi Singh**, MITS, Gwalior, Madhya Pradesh, India  
**Dr. Priyanka Salunkhe**, Terna Engg. College, Navi Mumbai, India  
**Dr. Prodeo Agbotui**, Accra Technical University, Ghana  
**Dr. Rajeev Jain**, Samrat Ashok Tech. Inst. Vidisha, MP, India  
**Dr. Rajendra P. Tiwari**, Rewa Engg. College, Rewa, MP, India  
**Dr. Ravi Kottur**, Sant Gajanan Maharaj COE, Mahagaon, India  
**Dr. Reena Popawala**, C.K. Pithawala COET, Surat, India  
**Dr. S. A. Patare**, LSKBJ College of Engineering, Chandwad, India  
**Dr. S. B. Mule**, Sandip University, Nashik, India  
**Dr. S. Selvaraju**, Salalah College of Tech Sultanate of Oman  
**Dr. Salah Oudjertli**, Research Center In Ind. Tech. Algiers, Algeria  
**Dr. Snehal Kaushik**, GCIMT, Guwahati, Assam, India  
**Dr. Snehal Popli**, G H Patel COET, Vallabh Vidyanagar, Gujarat  
**Dr. Soumen Maji**, Central Institute of Tech. Kokrajhar, India  
**Dr. Soumita Bid**, C. K. Pithawala COET, Surat, Gujarat, India  
**Dr. T. Chaitanya Srikrishna**, Chaitanya Bharathi Inst of Tech India

## Organizers

### LSKBJ College of Engineering, Chandwad, Nashik, India



The LSKBJ College of Engineering, Chandwad, Nashik from Jain Gurukul campus is approved by AICTE, New Delhi and Government of Maharashtra and affiliated to the Savitribai Phule Pune University, established in 2004 with four branches viz. Mechanical Engineering, Computer Engineering, Electronics & Telecommunications Engineering and Civil Engineering with assimilation of MBA in the year 2010. In year 2020 keeping pace with time, the Institute started new branch Artificial Intelligence and Data Science to cater the needs of IT industry.

The college has a fascinating infrastructure, well-furnished and well-equipped laboratories. A technologically full-fledged auditorium, spacious classrooms, well developed central library. Faculty members adhering to the mission of Institute of Nation development by transfer of suitable technological help to rural area, the research activities are directed towards it.

### Chaitanya Bharathi Institute of Technology (A), Hyderabad, India



Chaitanya Bharathi Institute of Technology, established in the Year 1979, esteemed as the premier engineering institute in the states of Telangana and Andhra Pradesh. The Institute, committed to education and innovation and over the 42 years, has emerged as a dream destination for students with a rewarding career and corporates to source well-rounded engineers. Best academic practices with quality education enabled the Institute to establish its Identity in the Technical Education and is Ranked No. 1 amongst the Private Engineering Colleges in both the Telugu Speaking States. The great learning experiences in the institute have enriched the lives of students and helped them to develop into a multi-skilled and multi-tasking personalities that ensured success in their careers and occupations. With the students being the singular objective, the institute has established excellent infrastructure such as state-of-the-art laboratories, spacious library with printed and digital collection of books and journals, sports, hostel, and other infrastructure for extra and co-curricular engagements with a total built-up area of about 57,714 m<sup>2</sup> in the serene ambience of 50 acres to inspire, encourage and pursue academics. In its relentless strive for Academic excellence, CBIT has scaled great heights both nationally and internationally in industry and global universities.

### Sant Gajanan Maharaj College of Engineering, Mahagaon, Maharashtra, India



Sant Gajanan Maharaj College of Engineering, Mahagaon is established in the year 2012 under the umbrella of SGMRH & RC Mahagaon. It has 50 acres of serene environment. Better exposure to students with the latest developments and technology has resulted in strengthening of industry institute alliance seen by our students recruitment in leading industries. SGM COE is providing high quality education to the students to build their capacity and enhancing their skills to make them globally competitive mechanical engineers. The department is conducting a Finishing School Program under which the real world problems of industry and the Society are analyzed and solved.

### Accra Technical University, Ghana



The Accra Technical University is a government institution, first established in 1949 as a Technical School and commissioned in 1957 as Accra Technical Institute. In 1963, the Institute was renamed Accra Polytechnic, and recently in 2016, the Institution was upgraded to a Technical University By the provisions of the Technical University Act 2016 (Act 922) as amended, the University is mandated to provide higher education in engineering, science and technology-based disciplines, applied arts and related disciplines. The ATU academic philosophy is that we believe in education and training that develop the competencies and skills of our students to make them relevant to industry and competitive in the job market. Our vision is to be recognized as the top Technical University in Ghana, with strong regional influence. Our vision is to advance technical knowledge by creating a conducive environment for applied research, quality teaching and competency-based training, with a high impact on industry and business creation.

### Technology Research and Innovation Centre, India

Technology Research and Innovation Centre is established to be a premier NON PROFIT organization and to provide appropriate sustainable solutions to root level topics in domestic, agricultural and energy sector. TRIC is trying to bring various institutes, organizations and industries together in order to walk ahead to meet the goals of sustainable developments.

### Abstract Preparation and Submission

Please prepare your abstract on A4 size paper as per the [template](#) provided. The abstract should consist of strictly 150 to 250 words and may include the Background or Introduction, Objectives, Methods, Results, Conclusion in the brief (may be 2-4 sentences about each) and 3 to 5 Keywords. All abstracts and papers will be accepted through EasyChair only.

Click [here](#) to submit the abstract/paper.

### Ethics for authors

When submitting a new abstract / draft paper, it is expected to follow the guidelines as listed below,

- ❖ An abstract / paper describing essentially the same research has not been submitted to several journals to avoid multiple or redundant publication. The paper is original; all the work and wording which was taken from others is appropriately cited
- ❖ People identified as co-authors fully qualify for authorship. All the co-authors give their consent to submit the final version of the manuscript
- ❖ The paper should be written in correct English.
- ❖ All the parties contributing to a paper are mentioned in the acknowledgments.
- ❖ Sufficient detail and references are provided to permit others to replicate the experiments; raw data is available for checking if needed
- ❖ Conflict of interest, if any, should be disclosed

### Plagiarism

- ❖ Using any other author's previously published content without permission, recognition, or acknowledgment is considered as plagiarism. The ICACE 2022 do not allow any such plagiarized content. The authors need to ensure that they have written completely original works and wherever required, citations are placed appropriately.
- ❖ Papers must have similarity less than 10 % excluding references (and less than 20 % including references). Self-Plagiarism is not acceptable.

Please visit and refer following conferences and share brochure to interested researchers from your network.



Online  
**Third International Conference on  
 Advances in Materials Science 2023**  
 23 - 24 Feb 2023  
 Publication in Trans Tech Publication Journals  
 Scopus Clarivate Analytics  
[www.icams.in](http://www.icams.in)



International Conference on Online  
**Advances and Creations in Mechanical Engineering 2022**  
 ICACME  
 20-22 DEC 2022  
 ■ 10 Conference Tracks  
 ■ Online Presentations  
 ■ 3 Keynote Speeches  
 ■ 7 Publication options  
 ■ Best Paper Awards  
[www.icacme.com](http://www.icacme.com)  
 Scopus Clarivate Analytics

**Invitation to join Scientific Committee is open.**

Please express your interest through an [Online Form](#) or write us at [info@icace.in](mailto:info@icace.in)

**ICACE**  
 20-22 DEC 2022