
CONFERENCE BOOKLET

**2nd International Conference on Applied Mathematics and
Computational Sciences-2022**



October 12th–14th, 2022

(Virtual Mode)

ORGANIZED BY

DEPARTMENT OF MATHEMATICS
SCHOOL OF PHYSICAL SCIENCES



DIT UNIVERSITY, DEHRADUN–248009, UTTARAKHAND, INDIA

WWW.DITUNIVERSITY.EDU.IN



Overview

Mathematics is all around in the nature and it is an integral part of everyday live, with applications ranging from investing money, predicting costs, and comprehending computers to building mathematical models of complicated problems and solving them using computational tools. Many new tools and approaches have been developed over time to solve a wide range of real-world problems that were previously difficult to solve analytically. Applied Mathematics and Computational Sciences is one such recent highly popular and well - known interdisciplinary field. The two subjects have applications in every field of science, engineering, technology, and industry, but combining them yield new powerful techniques. These techniques can solve problems in a variety of fields, such as finance, computing, insurance, industries, medical, research and development, public service, aircraft, auto-mobiles, textiles, communication systems, biological-physical-mathematical & biomedical sciences, earth-atmosphere-environmental sciences, and so on. This multidisciplinary field has expanded opportunities not only in humanities and creative arts, but in social sciences, archaeology, architecture, music, and the visual arts also .

In a nutshell, applied mathematics and computational sciences play a critical role in a wide range of interrelated areas and hence a review of the various aspects of the field, recent advancements, and achievements is the need of hour.

The purpose of this International Conference is to provide:

- a global platform for research scholars, academicians, scientists, and industry people engaged in different fields of mathematics and computer science around the world, where the participants can interact and express their thoughts, challenges, recent developments and innovative ideas of this rapidly growing field and can share their knowledge.
- a stage where experts will share their research findings allowing participants to gain a comprehensive understanding of this interdisciplinary subject through various sessions of the conference, which will assist, guide, and motivate them, particularly young research scholars, to pave their path in this field.
- an exposure to participants of different regions and foster interactions among them to facilitate their growth in the chosen research field.
- an interactive forum which may lead to an opportunity for new collaborations.

The conference will feature keynote address, a number of plenary talks, invited lectures, contributory lectures and poster presentations.

Conference Theme

ICAMCS-2022 is a specialized conference on mathematics and its real world applications in various branches of science.

Track 01

- Mathematical Modelling
- Mathematical Biology
- Theory of Differential Equations
- Stability of Flows, Fluid Mechanics
- Partial Differential Equations
- Dynamical Systems

Track 02

- Numerical Solution ODEs, Numerical Solution PDEs (inc. BVPs)
- Stochastic Differential Equation
- Numerical Linear Algebra, Numerical Integral Equations
- Approximation Theory & its applications
- Difference Equations

Track 03

- Computational Physics
- Computational Mechanics
- Computational Chemistry
- Environmental Science & its applications
- Problems emerging from Nanotechnology

Track 04

- Machine Learning with Mathematical Approach
- Cryptography & Network Security
- Image Processing with mathematical Tools
- Decomposition and Reconstruction Algorithms, Subdivision Algorithms
- Big Data Analytics
- Computational Intelligence (Fuzzy Systems, Evolutionary Computing)
- Data Structures, Data Science
- Optimizations
- Graph Theory
- Algorithm Design and Analysis
- Neural Networks, Genetic Algorithms, Game Theory
- Applied Discrete Mathematics

**** Peer-reviewed articles will be published in special issue journal (SCOPUS/WOS) with AIP Publishing.**

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Keynote Speaker(s)

- Prof. O. D. Makinde Stellenbosch University, South Africa
- Prof. P. G. Siddheshwar Formerly at Bangalore University, Bangalore
- Prof. D. Baleanu Cankaya University, Ankara, Turkey

Speaker(s)

- Prof. Md. Shafiqul Islam University of Dhaka, Bangladesh
- Prof. Carlo Cattani University of Tuscia, Italy
- Prof. Ali Akgul Siirt University, Yeni, Turkey
- Prof. Abdelhaleem Abdelaty University of Bisha, Saudi Arabia
- Prof. Kanchana University of Tarapaca, Chile
- Prof. Mahesha Narayana The University of West Indies, Jamaica
- Prof. Satya Deo Harish-Chandra Research Institute, Jhansi
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- Prof. R. C. Mittal Formerly at IIT Roorkee, Roorkee
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- Prof. M. K. Kadalbajoo Formerly at IIT Kanpur, Kanpur
- Prof. Amitabha Bagchi IIT Delhi, Delhi
- Prof. Sanjay Kumar Singh IIT-BHU, Varanasi
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- Prof. Rajesh Pandey IIT-BHU, Varanasi
- Prof. Dharmendra Tripathi NIT Uttarakhand
- Prof. Harendra Singh P. G. College Ghazipur, U.P., India

ABOUT DIT UNIVERSITY

DIT was established in 1998 as Dehradun Institute of Technology by Unison Group, which later was given the status of autonomous body in 2012 by UGC. Further, in 2013 it was conferred the status of University under act no. 10 of 2013 by Uttarakhand State Government and recognized by UGC under section 2(F) of UGC act 1956, due to its excellence in Education and Research. The University offers various programs at undergraduate and postgraduate level which includes Engineering, Pharmacy, Architecture, Management, Science and Humanity & Liberal Arts Courses.



ABOUT MATHEMATICS DEPARTMENT

Department of Mathematics was established since the inception of Dehradun Institute of Technology in 1998 and was given an independent status in 2013 as Department of Mathematics. The Department provides an outstanding research environment complemented by excellent teaching which facilitates the students to flourish in different areas of academics and industry. The department, equipped with highly qualified faculty, offers academic programs leading to the award of Ph. D. degree.

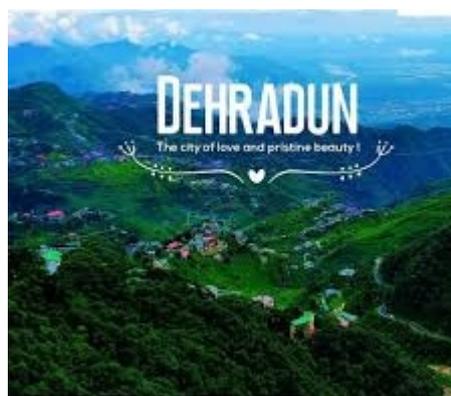
The thrust areas in which faculty members working are:

Special Functions, Numerical Analysis, Algebra, Coding Theory, Thermal Instability in Incompressible Fluids, Fuzzy Logics & applications, Optimization, Fluid Dynamics, Tensor Analysis, Cosmology and Differential Geometry.

ABOUT THE CITY DEHRADUN

Nestled in the Doon Valley in the foothills of the great Himalayas and flanked by two very beautiful as well as mighty rivers the Ganges and the Yamuna on its eastern and western side, Dehradun is one of the most ancient cities of India. Dehradun, the capital of Uttarakhand, got its name by the union of two words 'Dera' and 'Dun' that means Camp in the Valley.

Dehradun is a trendy hilly tourist destination with its impeccable beauty and charismatic sceneries. Along with tourist spots, famous scientific museum and lush green sprawling parks, Dehradun is adorned with several famous historic buildings that have great architectural value, and a number of temples that have spell binding beauty and at the same time are considered to be very auspicious.



The weather in Dehradun in the month of October remains pleasant with temperature varying between $17^{\circ}C$ to $29^{\circ}C$. The city also receives a good amount of snowfalls during winters which is a

major attraction of tourist.

Key Dates

- Registration & Abstract/Paper submission opens: 20th May , 2022
- Deadline for Registration & Abstract/Paper submission: 30th August , 2022
- Notification of acceptance: 20th September , 2022
- Conference Dates: October 12th-14th , 2022

Registration Fee

- Research Scholar: ₹700/-
- Faculty & Industry persons: ₹1000/-
- Article Publication Charges*: ₹5,500/-
- International Students: \$ 50
- International Faculty: \$ 75
- Article Publication Charges*: \$ 250

Conference Website

<https://www.dituniversity.edu.in/icamcs2022>

Bank Details

Registration Link: <https://bit.ly/ICAMCS2022>

Last date for registration: 30th August, 2022.

The registration fee may be sent through bank transfer. The bank details are as follows:-

Name of the Bank : Punjab National Bank

Account No. : 15262413000051

IFSC Code : PUNB0152610

MICR Code : 248022016

SWIFT Code : PUNBINBBDPR

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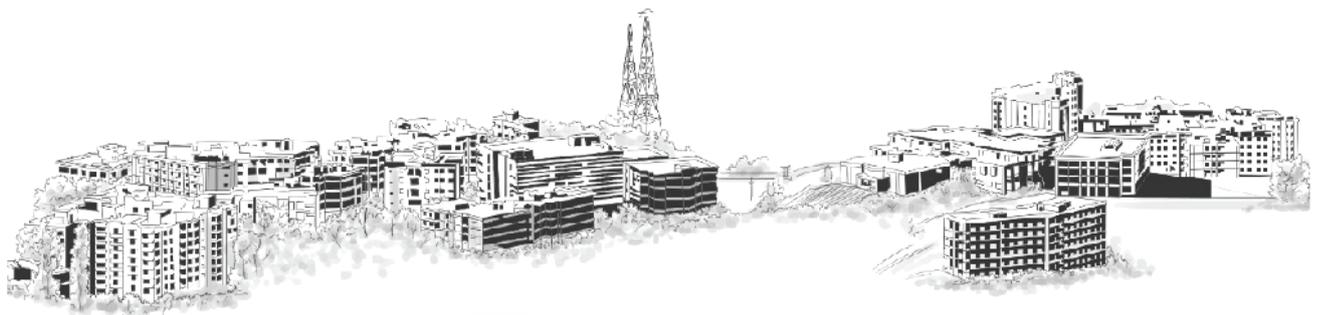
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