



Càtedra de Sostenibilitat  
Empresarial



Real Academia  
de Ciencias Económicas y Financieras

**Department of Mathematics and Statistics**

**Announces**

**4<sup>th</sup> International Conference**

**on**

**Mathematical Modeling, Computational Intelligence Techniques and  
Renewable Energy  
(MMCITRE-2024)**

**in association with**

**RACEF Society, Barcelona, Spain**

**UCSC, Chile, UPTC Columbia**

**University of Barcelona, Spain**

**and**

**Forum for Interdisciplinary Mathematics (FIM)**

**May 29-31, 2024**

<https://mmcitre.com/>



**Organized by**

Department of Mathematics and Statistics

School of Basic Science, Manipal University Jaipur,

Dehmi-Kalan, Jaipur-Ajmer Expressway- Jaipur-303007

### **About the Jaipur, Rajasthan, India**

Jaipur, the capital of Rajasthan is popularly known as the Pink City with broad avenues and spacious gardens. Jaipur is steeped in history and culture. Here the past comes alive in magnificent forts and palaces, blushed pink, where once lived the maharajas. The bustling bazaars of Jaipur, famous for Rajasthan jewelry, fabric, and shoes, possess a timeless quality and are surely a treasure trove for shoppers. This fascinating city with its romantic charm takes you to an epoch of royalty and traditions.

### **About the Manipal University Jaipur**

Manipal University Jaipur established in the year 2011, is a multi-disciplinary private university in Rajasthan. The University campus is home to the best-in-class infrastructure including state-of-the-art research facilities and modern libraries. In line with Manipal University's legacy of providing quality education to its students, the campus involves the latest in technology to impart education. The university offers career-oriented courses at all levels, i.e., UG, PG, and Doctoral, and across diverse streams, including Engineering, Architecture, Planning, Fashion Design, Hospitality, Humanities, Commerce, Management, Communication, Basic Sciences, Fashion, and jewelry Design and Management, etc. As the first digital campus in the country, MUJ provides online academic information and support to students through an Academic Management System (AMS) and digital management system (DMS). The campus is fully Wi-Fi enabled with a 10 Gbps optical fiber backbone and has 100% surveillance through CCTV cameras.

### **About the School of Basic Sciences [SBS]:**

The School of Basic Sciences has been established with the objective of introducing new courses in Basic Sciences and of Computer Applications at UG, PG, and research levels. The school is well equipped to carry out both teaching as well as research through its various departments, namely Mathematics and Statistics, Physics, Chemistry, and Biosciences.

### **About The Department of Mathematics and Statistics**

The Department functions with excellence as its motto. In addition to teaching of courses in Mathematics and Statistics for UG and PG Programs, the Department also offers research-oriented P.G. Programs like M.Sc. by Research. The faculty is actively engaged in research in diverse fields such as Special function, Information Theory and Coding, Operations Research, Graph Theory, Fluid Mechanics, Reliability, Numerical Analysis, Cosmology, and Mathematical Modelling.

### **About the Forum for Interdisciplinary Mathematics**

The Forum for Interdisciplinary Mathematics (FIM) is a registered trust in India, founded in 1975 by Prof. Bhudev Sharma and a group of intellectuals from the University of Delhi. Serving as an India-based international society, FIM brings together scholars dedicated to advancing research in mathematical sciences and related fields. It has become a prominent platform for fostering interdisciplinary collaborations and promoting the application of mathematics in various scientific domains. The FIM series publishes high-quality monographs and lecture notes in mathematics and allied areas, catering to the growing demand among researchers working at the interface of mathematics and other scientific disciplines. Demonstrating its expanding influence, FIM has recently established its first chapter in India, under the capable leadership of Dr. Manoj Sahni as the President of the FIM Gujarat Chapter.

### **Objective of the Conference**

The objective of the conference is to create an intellectual constellation, where the brightest minds in the realms of computational techniques, mathematical modeling, energy systems, and applications of fuzzy sets come together to chart a pioneering course in the 4<sup>th</sup> International Conference on Mathematical Modeling, Computational Intelligence Techniques, and Renewable Energy (MMCITRE2024). Organized by Manipal University Jaipur in association with the visionary brilliance of the esteemed RACEF (Real Academia de Ciencias Económicas y Financieras) Society, an esteemed collaboration of the University of Barcelona, Spain, FIM, Gujarat Chapter, UCSC, Chile and UPTC, Columbia. This conference unveils a constellation of opportunities for researchers, academicians, and students alike. Embark on an odyssey of thought and discovery, where the constellations of knowledge converge, and new pathways illuminate the vastness of human potential.

### **Who can register:**

The faculty members from different Institutes, Colleges, Universities, Industries and all UG, PG/ Research Scholars are eligible to put forth their research papers for this conference.

### **Call for Papers**

All the accepted papers will be published in the abstract book and a copy of it will be supplied to all the participants on the day of the Conference. Only peer-reviewed accepted full-length papers will be published in the Indexed Conference Proceeding. All the submitted manuscripts will go through a plagiarism check before technical review.

- Fuzzy set theory and its generalizations
- Fuzzy Logic
- Neutrosophic sets of systems
- Computational intelligence techniques
- Information and coding theory
- Decision-making and expert systems
- Internet of Things (IoT)
- Boundary Element Method
- Dual Reciprocity Boundary Element Method (DRBEM)
- Numerics of PDEs
- Continuum Mechanics
- Number Theory
- Bioinformatics
- Integral transform and special function
- Graph Theory
- Operations research
- Computational Biology
- Hydrodynamics
- Computer Science
- Artificial Intelligence
- Machine Learning
- Cloud Computing
- Bio Mathematics
- Fractional & Differential Equations and its Applications
- Energy
- Optimization
- Computational Fluid Dynamics
- Blockchain
- Cosmology and astronomical science
- Analysis and applications
- Mathematical economics and green environment

**Conference Proceedings:** All submitted papers will be peer-reviewed and accepted papers will be published in a book of indexed proceeding.

#### Journal Publications (Post Conference)

Some of the selected papers, post-conference after peer review will be published in one of the following international journals.

- Journal of Thermal Engineering, **Scopus, ESCI**
- Structural Integrity and Life, **Scopus, ESCI**
- Sigma Journal of Engineering and Natural Sciences, **ESCI**

**Note:** More SCI / Scopus / ESCI / Google Scholar / UGC Care Journals will be added soon.

#### Important Dates (Tentative)

Call for Symposia	15/03/2024
Full paper submission	15/03/2024
Abstract without Full Paper Submission	15/03/2024
Acceptance of full-length paper	05/04/2024
Acceptance of Abstract	05/04/2024
Early Registration	15/04/2024

#### Registration Fee"

	Registration Fee
Students (India)	Rs. 5000/-
Faculty Members (India)	Rs. 7000/-
Participants from Industries	Rs. 10000/-
Faculties (Outside India)	200 USD
Students (Outside India)	150 USD
Attendees	Rs. 2000 / 50 USD
Presenter only without publication	Rs. 3000 / 80 USD

**\*Note: A 20 % discount will be given to the host Institute faculties and Students and the associated Universities and Societies.**

#### Accommodation

Limited accommodation on sharing on a payment basis will be available in the guest house subject to availability. Participants can also book their own accommodation outside the campus.

#### Contact Information:

##### Dr. Ram Naresh Saraswat

Phone: (+91)- 9783224681

Email. ID. [ramnaresh07nit@gmail.com](mailto:ramnaresh07nit@gmail.com)

##### Dr. Manoj Sahni

President FIM Gujarat Chapter, India

Phone: (+91)- 7874441820

Email. ID. [mmcitre2020@gmail.com](mailto:mmcitre2020@gmail.com), [manojahani117@gmail.com](mailto:manojahani117@gmail.com)

#### Conference website:

<https://www.mmcitre.com/>

#### Chief Patron

Mr. S. Vaitheeswaran

Chairperson, Manipal University Jaipur

#### Patron

**Prof. (Dr.) G. K. Prabhu**

President, Manipal University Jaipur

#### Prof. (Dr.) Thammaiah CS

Pro President, Manipal University Jaipur

#### Prof. (Dr.) Nitu Bhatnagar

Registrar, Manipal University Jaipur

#### Co-Patron

Prof. (Dr.) Lalita Ledwani, Dean FoS.

#### Program Chair

Prof (Dr.) Kalpana Sharma

Head, Department of Mathematics and Statistics

#### Conveners:

Dr. Ram Naresh Saraswat, **Manipal University Jaipur**

Dr. Manoj Sahni, **PDEU, Gandhinagar**

Dr. José M Merigó, **UTS, Australia**

Dr. Anna Maria Gil Lafuente, **Universitat de Barcelona, Spain**

Dr. Ernesto Leon Castro, **Universidad Católica de la Santísima**

**Concepción, Chile**

Dr. Rajkumar Verma, **University of Talca, Chile**

#### Co-Conveners

Dr. Mohd. Rizwanullah, **MUJ**

Dr. Laxmi Poonia, **MUJ**

Dr. Fabio Blanco Mesa, **Colombia**

#### Advisory Board Members

Prof. Dinesh Singh, K. R. Mangalam University, India

Prof. Florentin Smarandache, University of New Mexico, USA

Sr. José M. Coronas Guinart, RACEF Member, Spain

Dr. Vicente Liern Cartián, RACEF Member, Spain

Dr. José Antonio Redondo Lopez, RACEF Member, Spain

Dr. Arturo Rodríguez Castellanos, RACEF Member, Spain

Sr. Carles Gasòliba Bohm, RACEF Member, Spain

Prof. Oscar Castillo, Tijuana Institute Technology, Tijuana, Mexico

Prof. Vincenzo Piuri, University of Milan, Italy

Prof. Sree Hari Rao Vadrevu, SRTI, Hyderabad, India

Prof. G. P. Raja Sekhar, IIT Kharagpur, Kharagpur, India

Prof. Peide Liu, Shandong University, China

Prof. Humberto Bustince, Universidad Publica de Navarra, Spain

Prof. Enrique Herrera-Viedma, University of Granada, Spain

Prof. Zoran Radakovic, University of Belgrade, Belgrade

Prof. Luis Martínez López, University of Jaén, Jaén, Spain

Prof. Valentina Emilia Balas, University of Arad, Romania

Prof. Hiroshi Sakai, Kyushu Institute of Technology, Japan

Prof. Junzo Watada, Universiti Teknologi PETRONAS, Malaysia

Prof. Huchang Liao, Sichuan University, Chengdu, China

Prof. Nikhil Pal, Indian Statistical Institute, Calcutta, India

Prof. Charles Vincent, Queen's University Belfast, UK

Prof. Husham M. Ahmed, University of Technology, Bahrain

Prof. D.S. Hooda, GJUST, Hisar, India

Prof. Om Prakash, Guru Nanak Dev University, Punjab, India

Prof. K. C. Jain, MNIT Jaipur, India

Prof. H. C. Taneja, Delhi Technological University Delhi, India

Prof. Jagdish Chand Bansal, SAU, Delhi, India

Prof. Bal Kishan Dass, University of Delhi, India

Prof. Kusum Deep, IIT Roorkee, India

Prof. J. Balasubramaniam, IIT Hyderabad, India

Prof. Rajesh S. Prabhu Gaonkar, IIT, Goa, India

Prof. Aquil Ahmad, AMU, Aligarh, India

Prof. A.K. Lal, Thapar University, Patiala, India

Prof. M.K. Sharma, Thapar University, Patiala, India

Dr. Sarfaraz Hashemkhani Zolfani, Univ. Catolica del Norte. Chile

Dr. Danilo Pelusi, University of Teramo, Teramo, Italy

Dr. Arvind Kumar Gupta, IIT Ropar, India

Dr. Montserrat Guillén Estany, University of Barcelona, Spain

Dr. Sapna Sharma, Thapar University, Patiala, India

Dr. Rajesh Kumar Gupta, Central University of Haryana, India

Dr. Dharmendra Tripathi, NIT Uttarakhand, India

Dr. R.K. Pandey, IIT BHU, India

Dr. Mohd. Arshad, IIT Indore, India

Dr. Chandra Shekhar Nishad, IIIT, Naya Raipur, India

Dr. Saurabh Kapoor, Regional Institute of Education Bhubneshwar, India

Dr. Amit Kumar, Thapar University, Patiala, India

Prof. Mandeep Mittal, Bennett University, Greater Noida, India

Dr. Pankaj Thakur, ICFAI University, INDIA

Dr. Richa Sharma, JIIT, Noida, India

#### Committee Member:

Dr. Victor Alfaro Garcia, Univ. Michoacana de San Nicolas de Hidalgo, Mexico

Dr. Luis Fernando Espinoza Audelo, Tecnológico Nacional de Mexico, Mexico

Dr. Luis Perez Dominguez, Universidad Autonoma de Ciudad Juarez, Mexico

Dr. Mahendra Kumar Gourisaria, KIIT, Bhubaneswar, India

Dr. Pushpendra Kumar, JKLU Jaipur, India

Dr. Surender Singh, SVDU Jammu, India

Dr. Anand Chauhan, Graphic Era University, India

Dr. Parth Mehta, SIBM, India

Dr. Meghna Parikh, LJ University, India

Mrs. Shruti Rathod, PDEU, India

Ms. Falak Patel, Cornell University, USA

Ms. Aditi Soni, York University, Canada

Dr. Maricruz Olazbal Lugo, Universidad Autónoma de Occidente, Mexico

Dr. Luis Alessandri Perez Arellano, Univ. Autonoma de Sinaloa, Mexico

Dr. Amit Srivastava, IIIT Noida, India

Dr. Ritu Sahni, Kaushalya University, Gujarat, India

Dr. Anuja Arora, IIIT, Noida, India

Dr. Mukesh Kumar, Graphic Era University, India

Dr. Nayan Patel, Saskatchewan Polytechnic, SK, Canada

Dr. Sandeep Kumar Paul, LPU, India

Dr. Prashant Kumar, Boxen University Hyderabad

Mr. Sandeep Wankhade, PDEU, India

Mr. Krish Bhanusali, India Today, India

Mr. Dhairya Shah, Imperial College, U.K

Mr. Ishaan Pandya, PDEU, India

Ms. Priyanshi, University of Texas, Austin