

## About the Conference

The National conference offers a common platform to the researchers/academicians/industry personnel to share their novel research and developments with profound discussions on the recent advancements in Mathematics and Scientific Computing. It is aimed to explore the innovative and creative ideas through interactive sessions of the keynote speakers and the participants from the different parts of the country. It is also an effort to motivate the young researchers from the different domain of Mathematics and Scientific Computing to contribute their novel ideas.

## Conference Themes

The organizing committee of the conference invites Abstract / Full paper / Poster submissions from researchers, academicians and scientist on the following areas which include and are not limited to:

- Algebra
- Operations Research/Optimization Techniques
- Mathematical Modelling and Simulation
- Differential Equations and Fluid Dynamics
- Analysis (Complex/Functional/Numerical)
- Differential Geometry
- Applied Mathematics
- Algorithms
- Theory of Computation
- Soft Computing
- Parallel Computing
- Data Analytics
- Discrete Mathematics and Graph Theory

## Call for Paper

Original/novel contributions are invited from the academicians, researchers and scientist associated with advanced/recent trends in Mathematics and Scientific Computing. Papers will be accepted for **RAMSC-2019**, after peer-review practice with subsequent publication process of proceeding with ISBN No. and extended paper will be published in the reputed journal. The Abstract/full-length paper needs to be submitted via **Email to: [ramsc2019@gmail.com](mailto:ramsc2019@gmail.com)** and the author can also submit the paper via **Easy Chair** web-portal using the following link: <https://easychair.org/conferences/?conf=ramsc2019>



## Patron

**Prof. S. N. Singh**

Hon'ble Vice Chancellor,  
Madan Mohan Malaviya University  
of Technology, Gorakhpur.

## Chairman

Dr. B. K. Pandey  
Head, Applied Science Department

## Convenor

Dr. V. K. Mishra, Associate Professor, ASD

## Coordinator(s)

Dr. Amit Barnwal & Dr. Harish Chandra,  
Assistant Professor(s), ASD

## Organizing Secretary

Dr. Ram Keval, Assistant Professor, ASD

## Executive Member

Dr. D. K. Dwivedi, Professor, ASD  
Dr. D. Kandu, Associate Professor, ASD  
Dr. Sudheer Narayan Singh, Associate Professor, ASD  
Dr. R. K. Yadav, Associate Professor, ASD  
Dr. P. P. Pande, Assistant Professor, ASD  
Dr. S. P. Singh, Assistant Professor, ASD  
Dr. Krishna Kumar, Assistant Professor, ASD  
Dr. Ravi Kumar Gupta, Assistant Professor, ASD  
Dr. Abhijit Mishra, Assistant Professor, ASD  
Dr. Abhishek Kumar Gupta, Assistant Professor, ASD

## National Advisory Committee

Prof. V. K. Singh	D.D.U. Gorakhpur University
Prof. Peeyush Chandra	IIT Kanpur
Prof. R. K. Sharma	IIT Delhi
Prof. R. C. Mittal	IIT Roorkee
Prof. Sumita Gakkhar	IIT Roorkee
Prof. A. K. Mishra	BHU Varanasi
Dr. Sandip Banerjee	IIT Roorkee
Dr. Malay Banerjee	IIT Kanpur
Prof. G. S. Seth	ISM Dhanbad
Prof P. N. Pandey	University of Allahabad
Prof. Shalabh	IIT Kanpur
Prof. Shiv Datt Kumar	MNNIT Allahabad
Prof. Vivek Sahai	Lucknow University
Prof. Manoj Kumar	MNNIT Allahabad
Dr. Joydip Dhar	IITM Gwalior
Prof. O. P. Misra	Jiwaji University, Gwalior
Prof. Meena Sahai	Lucknow University
Dr. Sidharth P. Chakrabarti	IIT Guwahati
Prof. R. K. Upadhyay	ISM Dhanbad



मदन मोहन मालवीय प्रौद्योगिकी विश्वविद्यालय, गोरखपुर  
Madan Mohan Malaviya University of Technology, Gorakhpur  
(तकनीकी शिक्षा की तपस्थली)

**National Conference  
on**

**RECENT ADVANCES IN MATHEMATICS  
AND SCIENTIFIC COMPUTING  
(RAMSC-2019)**

**April 05<sup>th</sup> -06<sup>th</sup>, 2019**

**Sponsored by TEQIP-III**



**Organized by**

**Department of Applied Science,  
Madan Mohan Malaviya University of  
Technology, Gorakhpur-273010(UP), INDIA**

### Important dates

Last date for the submission of full paper: 20/03/2019

Notification of acceptance of full paper: 22/03/2019

Last date of registration: 30/03/2019

Date of conference: **5-6 April, 2019.**

### Registration:

The enclosed registration form or its photocopy may be filled and sent with registration fee to the corresponding address as per the following details.

Participant	Registration fee (Rs.)
Faculty members	1000.00
Research scholars	500.00
Industrial personnel	1500.00

\*The registration for the conference will be confirmed only after receiving the demand draft/ copy of online transaction.

### Mode of payment

The payment for the registration fees can be made in the form of demand draft drawn in favour of “MMM University of Technology” payable at Gorakhpur or via Net Banking through detail given below:

A/C No: 33542824744  
Bank Name: State Bank of India  
Branch Name: MMMEC Gorakhpur  
IFSC code: SBIN0002578  
Branch Code: 2578

### Accommodation

Limited accommodation is available in university Hostel. However accommodation in the University Guest House /city hotel is available on payment basis. The charges of occupancy shall be born by the participant.

### Correspondence address:

Dr. Ram Keval

(Assistant Professor)

Department of Applied Science

**M. M. M. University of Technology**

**Gorakhpur– 273010, U.P. (India)**

Email: [ramkeval@gmail.com](mailto:ramkeval@gmail.com)

Mobile No: +918800716362

### About University

Madan Mohan Malaviya University of Technology, Gorakhpur (formerly Madan Mohan Malaviya Engineering College, Gorakhpur established in 1962, upgraded to University status in December, 2013) is a residential Technological University established by Government of Uttar Pradesh, with an aim to evolve and impart comprehensive higher education with focus on applied science, Engineering, Technology, Management and allied areas. The University is situated on state highway Gorakhpur-Deoria road about 8 km from Gorakhpur Railway and 5 Km from Gorakhpur air port. Website: <http://www.mmmut.ac.in>.

### About The Department

The Department of Applied Science was established in the year 1962. The Department comprises Physics, Chemistry, Mathematics and Humanities. It has well qualified, devoted and dedicated team of teaching staff. The faculty members of Applied Science are actively engaged in research activities. There are three major research projects running in the Department which are funded by National Agencies. The Department offers PG program in Physics, Mathematics and Ph.D. in all subjects including Physics, Chemistry, and Mathematics etc.

### About Gorakhpur

Gorakhpur which derives its nomenclature from the great ascetic saint Gorakhnath is an important city of eastern U.P. It is the head quarter of north-east railways and is well connected by rail and road to all important cities of India. It is also connected by air to the metro Politian cities as well. It is about 5-6 hours run by road from Lucknow and Varanasi. The city is famous for its well-known Gorakhnath Temple and Gita Press.

A number of historical, cultural and tourist sites lie in the vicinity of town. Kapilvastu, the home town of Lord Buddha, is about 90 km from here. The famous Buddhist site, Kushinagar, the nirvanasthal of Lord Buddha, lies at distance about 50 km. Maghar, the holy place of saint Kabir Das, is very near to Gorakhpur city and Nepal border is at a distance of only 60 km from it.



### National Conference on

### RECENT ADVANCES IN MATHEMATICS AND SCIENTIFIC COMPUTING (RAMSC-2019)

**April 05<sup>th</sup> -06<sup>th</sup>, 2019**

**Sponsored by TEQIP-III**

### REGISTRATION FORM

Full Name & Designation : .....

Organization : .....

Field of specialization : .....

Official address : .....

Email : .....

Mobile : .....

Educational qualification : .....

Accommodation required : .....

Registration categories : .....

Registration fee : Rs.....

Details of payment : DD/online transactions ID  
No.....

Bank name : .....

Dated : .....

Amount .....

(Demand Draft drawn in favour of “MMM University of Technology” payable at Gorakhpur or via Net Banking )

Signature : .....

Signature of sponsoring authorities

\* Limited accommodation is available in university Hostel. However, accommodation in the University Guest House /city hotel is available on payment basis. The charges of occupancy shall be born by the participant

## (RAMSC-2019 Paper Template)

### Full Paper Title in Title Case

Name Surname, Name Surname

My Institute/Company

Address, City, Country

First.Author@institution.org; Second.Author@institution.org

#### ABSTRACT

In this paper, the formatting requirements for the National Conference on Recent Advances in Mathematics and Scientific Computing are described. Some recommendations on writing for a worldwide readership are offered. Please review this document to learn about the formatting of text, table captions, references, and the method to include the indexing information. The conference proceedings will be published in an electronic format. The full paper in MS Word file shall be written in compliance with these instructions. At a later stage, it will be converted into Portable Document Format (PDF).

An abstract not exceeding 300 words should appear on the top of the first page, after the title of the paper in a section titled "ABSTRACT" (without section number), after the names of the authors.

**KEYWORDS:** 4 - 8 keywords

#### INTRODUCTION

It is expected that authors will submit carefully written and proofread material. Careful checking for spelling and grammatical errors should be performed. The number of pages of the paper should be from 4 to 8.

Papers should clearly describe the background of the subject, the authors work, including the methods used, results and concluding discussion on the importance of the work. Papers are to be prepared in English and SI units must be used. Technical terms should be explained unless they may be considered to be known to the conference community.

#### PAPER FORMAT

The uniform appearance will assist the reader to read paper of the proceedings. It is therefore suggested to authors to use the example of this file to construct their papers. This particular example uses an American letter format with 25 mm margins left, right, top and bottom.

All text paragraphs should be single spaced, with first line intended by 10 mm. Double spacing should only be used before and after headings and subheadings as shown in this example. Position and style of headings and subheadings should follow this example. No spaces should be placed between paragraphs.

#### Header, Footer, Page Numbering

Authors are asked to replace the "XXX" number (with the paper code that was assigned when the paper was accepted) on the header of the first page.

#### Fonts

Papers should use 11-point Times New Roman font. The styles available are bold, italic and underlined. It is recommended that text in figures should not smaller than 10-point font size.

## Tables and Figures

Figure captions and table headings should be sufficient to explain the figure or table without needing to refer to the text. Figures and tables not cited in the text should not be presented. The following is an example for Table 1.

Table 1 Title of the Table

Type of nanoparticles	Average size (nm)	Variance (nm)
CuO	47	4.2
NiO	35	6.4
Al <sub>2</sub> O <sub>3</sub>	42	2.1
SnO <sub>2</sub>	27	3.9

Tables and figures should be placed close after their first reference in the text. All figures and tables should be numbered with Arabic numerals. Table headings should be centred above the tables. Figure captions should be centred below the figures as shown in Figure 1.

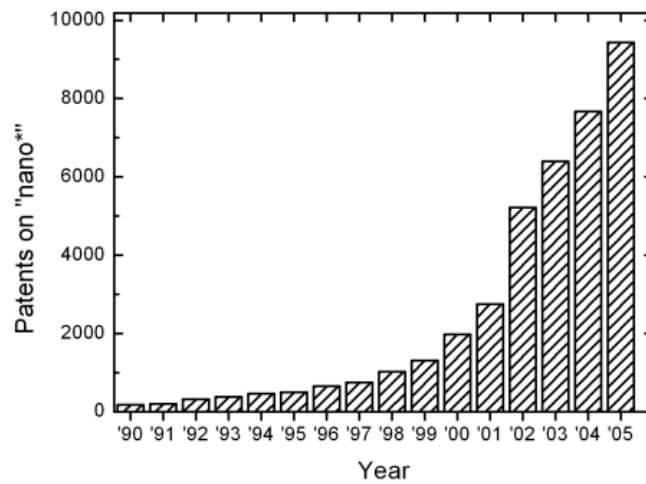


Figure 1: Number of patents on nanotechnology with time

## Equations

Each equation should be presented on a separate line from the text with a blank space above and below. Equations should be clear and expressions used should be explained in the text. The equations should be numbered consecutively at the outer right margin, as shown in Eqs. (1) - (2) below. Here is one example.

In this case, the governing system of equations can be written as follows:

$$\frac{\partial \rho}{\partial t} = -\nabla \cdot (\rho \mathbf{u}) \quad (1)$$

$$\rho \left( \frac{\partial}{\partial t} + \mathbf{u} \cdot \nabla \right) \mathbf{u} = -\nabla P + \rho \mathbf{g} + \frac{1}{c} \mathbf{J} \times \mathbf{B} \quad (2)$$

$$\rho \left( \frac{\partial}{\partial t} + \mathbf{u} \cdot \nabla \right) e = -P \nabla \cdot \mathbf{u} + \rho \mathbf{u} \cdot \mathbf{g} + \frac{1}{\sigma} \mathbf{J}^2 \quad (3)$$

## References

Proper references must be included throughout the text and the list of references must be provided in this section. The references inserted in the text and the list of references must be done as follow:

Reference citations: Citations in the main body, appendices, tables and figures are to be made using the last name of the author (both authors when only two; first author plus et al. when more than two). Example: "... as previously shown (Jones et al., 1989)," or "... as shown by Jones et al. (1989)." For two or more papers published in the same year by the same author(s), add a, b, c, etc. to the year such as (1980a) or (1980b) and cite jointly as Jones et al. (1980a, b).

List of references: List all cited references (including citations in tables, figures and appendices) in alphabetical order according to the first-named author. The titles of papers, patents and books or monograph chapters and the initial and final page numbers are to be included. Abbreviations of journal names should conform to the usage of Chemical Abstracts. Example for journal papers, book/monograph sections or chapters, and conference proceedings are given the reference section at the end of this document.

Referencing websites: With the increasing availability of useful information that can be found on the internet, website references must also be reported. At the end of the reference list, make a separate section of websites and the date consulted. However, to avoid very long website addresses, these references should be referred as Web-1, Web-2, etc. For example, in body of the report: "... it was shown that the heat transfer coefficient of nanofluids increased by 40% (Web-1) ...". In the reference list, provide the list of websites with the numeral values used in the text.

## CONFERENCE PROGRAM AND PROCEEDINGS

The extended abstracts and full manuscripts are compiled into the conference Proceedings DVD-ROM.

## CONCLUSION

Conclusions should state concisely the most important propositions of the paper as well as the author's views of the practical implications of the results.

## ACKNOWLEDGEMENTS

A short acknowledgement section can be written between the conclusion and the references. Sponsorship and financial support acknowledgments should be included here. Acknowledging the contributions of other colleagues who are not included in the authorship of this paper is also added in this section. If no acknowledgement is necessary, this section should not appear in the paper.

## REFERENCES

- Expert A. and Expert B.C. (2008). Polymer-Clay Nanocomposites. *Int. J. Nanotechnology and Applications*, 58, 171–176.
- Hall B. and Maisonneuve M. (2005). The Nature of Nanofiltration Membrane Porosity," in "Proc. 2<sup>nd</sup> Int. Conf. Sep. Sci. Technol.," M.H. Weir and S. Vijay, Eds., Toronto, ON, Canada, October 1–4, 2007, pp. 36–43.
- Plan Z.A., Lin R.T. and Richer J.A. Nanotechnology Devices. in "The World of Nanotechnology," G.E. Goodfellow and A.T. Mann, Eds., Butterworth Publishers, Boston, MA (1989), pp. 61–67.

Web sites:

Web-1: <http://www.cjche.ca/submissioninstructions.htm>, consulted 5 July 2009.

Web-2: <http://www.fisher.com/instruments.htm>, consulted 18 July 2009.

