



Vichar Vikas Mandal's

**Mahatma Gandhi Mahavidyalaya,  
Ahmedpur, Dist.Latur, Maharashtra, India.**



**Department of Mathematics**

**ATR**

*National Conference on Mathematical  
Mathematical Techniques and Its Applications  
(NCMTA2021)  
(December 21, 2021)*

**By**

**Mr. Audumbar. K. Mule**

**Head**

**Department of Mathematics**

**Mahatma Gandhi Mahavidyalaya, Ahmedpur, Dist. Latur  
Maharashtra, India.**

**Web: [www.mgmahmedpur.org](http://www.mgmahmedpur.org)**

**Phone no: 9970572627, Pin: 413515**

**Email: [maths.mgma@gmail.com](mailto:maths.mgma@gmail.com)**



## Event: National Conference

Sr. No	Title	Information
1.	Name of Department	Mathematics
2.	Title of Event	National Conference on Mathematical Techniques and Its Applications (NCMTA2021)
3.	Date or Duration	21 December 2021
4.	Venue of the Event	Auditorium, Seminar hall, Mathematics Dept.
5.	Sponsor/ Collaboration	SRTMUN, and Vichar Vikas Mandal, Ahmedpur
6.	Level of Event	National
7.	Aims/Objectives of the Event	The main aim of this conference is to provide impetus, and motivation and to bring together Researchers and Scientists working in the field of mathematics and its applications by providing a forum for the academic exchange of ideas and recent research works
8.	Beneficiaries/ Participants	Teachers, Research Scholars, PG students
9.	Number of Participants	112
10.	Name of the keynote speaker	Dr. D.D. Pawar
11.	Name of Organizing Secretary	Mr. Audumbar. K. Mule
12.	Photographs	Attached
13.	Evidence Produced	<ul style="list-style-type: none"> <li>• Sanction Letters</li> <li>• Certificates</li> <li>• Paper Cut List of students</li> <li>• Photographs</li> <li>• Information</li> </ul>



## Background

**ABOUT DEPARTMENT:** The Department of Mathematics is one of the pioneering and most distinguished departments in the college, actively involved in research and in carrying out preside teaching. The Department was established with the opening of the college in the year 1969 most of the principals of the college have been from the subject of Mathematics. The Dept. has a Mathematics research centre and several students have completed their research work leading up to a Ph.D. degree in Mathematics. By Dept. established SWAYAM/NPTEL Local Chapter with the help of IIT Madras. It also has an IIT JAM cell conducting free online classes permitting different college students. The vision of the department is to become centre of excellence in Mathematics through high-quality research and teaching.

**ABOUT CONFERENCE:** The aim of this conference NCMTA-2021 is to bring together learned mathematicians, scientists, engineers, researchers from industry and research scholars working in the different areas of mathematics at a common platform. This will facilitate the exchange of ideas regarding the research findings and new advances in mathematics in the wide area of mathematics, sciences and engineering and to discuss the practical challenges encountered in the different domains of applications and the solutions adopted. Further, it will provide an opportunity to enhance collaboration among.

## Aims / Objectives:

1. NCMTA 2021 aims to bring academics, professionals, and scientists to share and present the latest developments in the field of mathematics.
2. The main aim of this conference is to provide impetus, and motivation and to bring together Researchers and Scientists working in the field of mathematics and its applications by providing a forum for the academic exchange of ideas and recent research works.
3. At this Conference the participants will be able to present their research findings and share their experiences in the fields of Mathematical Sciences.
4. This Conference will provide an outstanding opportunity to experience the latest development in the field of Mathematics.
5. In this conference we shall make a platform for the Indian scientist and foreign scientist for the further research and new syllabus communication.
6. The purpose of this Conference is to communicate the current research in mathematics and its application for other branches of Science. Also its is essential to Indian Universities to adopt the new technology for the solution of nonlinear problems in mathematics by using the software such as MATLAB, Farewell, LINGO, MAPLE, MATHEMATICA, CIPLEX, SCILAB etc. this electronic technology is now days using various universities for finding the solution of problems of mathematical analysis.
7. Differential equations have a lot of applications in different scientific fields. This conference wi devoted to such applications.
8. A number of phenomena in nature (physics, chemistry, biology) and in society (economic) result in problem leading to study of linear and Nonlinear differential equations.
9. This Conference is aimed to bring researchers and professionals to discuss recent developments in both theoretical & applied mathematics and to create a professional knowledge exchange platform between mathematicians.

**Taking into consideration the guidelines of the programme, the Conference was planned with the following goals:**



- To continue outreach activities with the goal of establishing a Research culture in the departments and Researchers.
- To identify ways to bridge the gap between the old and new research in mathematics
- To identify ways and mechanisms to support in the region, using the conference and workshop mechanism
- To obtain consensus on strategies about the applications of recent research in mathematics in India
- The numerical and geometrical solution will express the details of the nature of the functions for the researchers and one can take the applications related to the variations problems in the various field. One of the outcomes of our Conference that we will discover the MATLAB programs for finding the nature of the nonlinear types problems. Such lot of problems is available in the literature which we can solve by the MATLAB programming in geometrical solutions.

### **The proposed results were:**

- To increase the quality research in mathematics.
- To receive guidance on the recent research in mathematics and application for researchers.

To achieve the goals and proposed outcomes, an operational structure for the conference was set up combining presentations and panels during plenary sessions and group sessions to discuss specific issues that the Organizing Committee had identified as relevant. . The identification and subsequent selection of speakers and topics for discussion in group sessions were done by the Organizing Committee.

The conference brought together experts from the mathematics, various branches of mathematics. Hence, the conference met the goal to bring together representatives of the mathematicians, research students from the various universities.

### **Participants**

The conference brought together more than 112 (Offline +Online) representatives from various institutions in states and universities from India . The Vice-Chancellor of the SRTMU, Nanded is Dr. Uddhav Bhosle attended the conference as Chief Guest of the inaugural function. Dr. D. D. Pawar and Dr. R N Ingale acted as Chief Guest of the valedictory function and President, Hon. Adv Kishanrao Bendkule (President, Vichar Vikas Mandal, Ahmedpur) of this conference. Various academics, professionals, practitioners and researchers and experience one of the leading Conferences attended by participants from all over the India.

The event brought together representatives from various universities BOS members HOD of mathematics, Teachers in mathematics, and Research students from: Dr. Babasaheb Marathwada University Aurangabad, Swami Ramanand Teerth Marathwad University Nanded, etc universities. The event benefited from the participation of experts Different mathematics teachers, Researchers, and Research students

It is important to emphasize that the financial support provided by Swami Ramanand Teerth Marathwad University Nanded.

### **Inauguration and Plenary Presentations**



The inauguration of the workshop was conducted by the following authorities:

- President: Hon. Kishanrao Bendkule (President, Vichar Vikas Mandal, Ahmedpur.)
- Chief Guest: Hon. Prof. Dr. Udhav Bhosle (Vice Chancellor, SRTMU, Nanded.)
- Keynote Speaker: Prof. Dr. D.D Pawar (SRTMU Nanded)
- Special Invitees: . Dr L M Waghmare (Dean Science and Technology SRTMUN.)  
Dr J.N Salunke (Former director school of mathematical Sciences SRTMUN)

The Keynote addresses were made by Prof. Dr. D.D. Pawar (SRTM University.), . In the keynote address Prof. Dr. D D Pawar Speeches on Fractional Calculus.

### **Valedictory function and feedback:**

At the end of the conference valedictory function was held. In this valedictory function many mathematician give the feedback on the overall workshop.

President: Dr Sarjerao Shinde (Registrar SRTMUN.)

Special Invitees: Hon. Uddhavrao Narsingrao Deshmukh (Joint Secretary, VVM, Ahmedpur)

Convener: Dr A.M Shinde (Principal, Mahatma Gandhi Mahavidyalaya, Ahmedpur.)

Organizing Secretary: Mr Audumbar K.Mule (HOD, MGM Ahmedpur)

### **Outcomes of This Conference:**

1. Due to this conference our rural area's faculties are now turn towards research apart from regular mathematics teaching.
2. This conference provided an important knowledge and new ideas about Applied Mathematics & Modeling, Statistics & its Applications, Analysis & its Applications and Geometry & its Applications etc. to the participants.
3. Due to the fparticipants involvement in this conference and their knowledgeable talks we have got the understanding of mathematics and their applications in various branches of sciences.
4. The teachers and research students of mathematics got the knowledge about MATLAB, SCILAB, LATTEX, MAPLE, MATHEMATICA, CIPLEX, LINGO, Mathematical Computational Techniques and various mathematical software.
5. With the help of such software in mathematics we can develop the new methodology for solving the problems.
6. The present conference gave the opportunity for researchers, teachers and professionals to present their research papers, new ideas and their experiences about their various topics in mathematics.
7. Graduate and Post Graduate students have got the idea about paper presentation and research.
8. This conference helps to motivate students, teachers, research scholars and professionals with new innovative idea and to create knowledge and recent works in the various fields of mathematics.
9. This conference provided an outstanding opportunity to experience the latest development in the field of mathematics to the participants.



10. During this conference the participants got the ideas and knowledge about both theoretical and applied mathematics.
11. This conference deeply knowledgeable for the researchers in the field of Mathematical and its application
12. During this conference the participants got the new innovative ideas about Mathematical Physics which covered the topics as Fluid Mechanics, Classical Mechanics etc.
13. Differential equations have a lot of applications in different scientific fields. This conference provided an immense application of differential equations to the participants.
14. This conference discussed recent developments in and latest research on mathematics, statistics and their applications

### **Conference Schedule:**



**Vichar Vikas Mandal's**  
**Mahatma Gandhi Mahavidyalaya,**  
 Ahmedpur, Dist-Latur (Maharashtra)  
**National Conference on Mathematical Techniques and Applications**  
**NCMTA-2021**  
 (Under National Mathematics Day 2021 Celebration)  
**Sponsored By**  
 Swami Ramanand Teerth Marathwada University, Nanded  
**Organized By**  
 Department of Mathematics  
 Mahatma Gandhi Mahavidyalaya, Ahmedpur Dist.-Latur  
**21<sup>st</sup> December 2021**

**Schedule**

Time	Programme	Venue
09:00 am to 10:00 am	Registration	In front of Sport Department
10:00 am to 10:45 am	Inaugural Function	Auditorium Hall
10:45 am to 11:30 am	Keynote Address Keynote Speaker: Dr. D. D. Pawar Chair Person: Dr. B. B. Kulkarni	Auditorium Hall
11:30 am to 12:00 noon	Invited talk-01 Invited Speaker: Dr. B.R. Sontakke Chair Person: Dr. S. M. Jogdand	Seminar Hall
12:00 noon to 12:30 pm	Invited talk-02 Invited Speaker: Dr. J. N. Salunke Chair Person: Dr. R. N. Ingle	Seminar Hall
12:30 pm to 1:00 pm	Invited talk-03 Invited Speaker: Dr. S. M. Jogdand Chair Person: Dr. D. S. Palimkar	Seminar Hall
1:00 pm to 2:00 pm	Lunch Break	Hotel Dwarka, Sanskriti Gardan Hall
<b>2:00 pm to 4:00 pm</b>	<b>Technical sessions (Offline mode)</b>	
2:00 pm to 2:30 pm	Invited talk-04 Invited Speaker: Dr. B. D. Karande Chair Person: Dr. S. S. Bellale	Seminar Hall
2:30 pm to 4:00 pm	Oral Paper Presentation Chairpersons Dr. J. N. Salunke Dr. R. G. Metkar Moderator: Dr. S. B. Chavan	Seminar Hall
4:00 pm to 4:10 pm	Tea Break	Tea Point
4:10 pm to 5:00 pm	Valedictory Function	Auditorium Hall
5:00 pm	Certificate Distribution	Auditorium Hall





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 Mahatma Gandhi Mahavidyalaya, Ahmedpur Dist-Latur

**Parallel Technical sessions (Online mode)**

Time	Programme	Venue
2:00 pm to 2:30 pm	Invited talk-01 Invited Speaker: Prof. Bivudutta Mishra Chair Person: Dr. V. C. Borkar Moderator : Dr. S. R. Holkar	Online Mode Platform Google Meet
2:30 pm to 3:00 pm	Invited talk-02 Invited Speaker: Dr. Vinod Kumar Chair Person: Dr. Sharad Jagtap Moderator : Dr. Yogesh Muley	Online Mode Platform Google Meet
3:00 pm to 3:30 pm	Invited talk-03 Invited Speaker: Dr. B Krishna Reddy Chair Person: Dr. B Surendranath Reddy Moderator : Mr. Prashant Waghmare	Online Mode Platform Google Meet
3:30 pm to 4:30 pm	Online Oral Presentations Chairperson : Dr. V. N. Mishra Moderator: Dr. M. N. Menkudle	Online Mode Platform Google Meet
4:30 pm to 5:30 pm	Online Oral Presentations Chairperson : Dr. Adesh Kumari Moderator: Dr.V.D.Borgavkar	Online Mode Platform Google Meet

### Acknowledgments

It has been our pleasure to host the participants of the conference at Mahatma Gandhi Mahavidyalaya, Ahmedpur . I am thankful to all the participants for coming to attend the conference. We have been fortunate to have some of the eminent person from the India. I am sure that the participants must have benefited by attending this confer

Mr. Audumbar K Mule  
 (Organizing Secretary-NCMTA 2021)  
 Head, Dept. of Mathematics,





Vichar Vikas Mandal's  
**Mahatma Gandhi Mahavidyalaya,**  
 Ahmedpur, Dist. Latur (Maharashtra)  
 (NAAC Re-accredited with 'A' Grade)

**National Conference on Mathematical  
 Techniques and Applications**  
 (Under National Mathematics Day 2021 Celebration)



**NCMTA – 2021**  
 (21<sup>st</sup> December, 2021)

SPONSORED BY  
**SWAMI RAMANAND TEERTH MARATHWADA  
 UNIVERSITY, NANDED.**



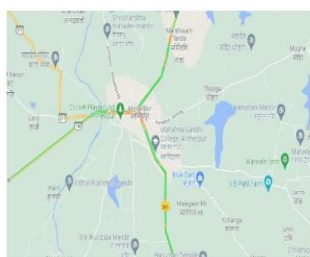
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**Department of Mathematics**  
 Mahatma Gandhi Mahavidyalaya, Ahmedpur-  
 413515, Dist. Latur (Maharashtra) India  
[www.mgmahmedpur.org](http://www.mgmahmedpur.org)



**ABOUT COLLEGE:** Vichar Vikas Mandal has established the Mahatma Gandhi Mahavidyalaya in June 1969 to fulfill the needs of higher education of the students coming from rural area and to provide educational facilities suitable to achieve agricultural and industrial development. To keep pace with time, the college has introduced new courses to meet the growing needs of the students for higher education in different fields.

For the dissemination of knowledge among the students, the college implements various curricular, co-curricular & extracurricular activities. This also helps to students to achieve all-round development & to raise their academic standard. The college has also implemented various schemes & provided research facilities. National Assessment and Accreditation Council has given 'A' Grade to this college.



**ABOUT DEPARTMENT:** The Department of Mathematics is one of the pioneering and most distinguished departments in the college, actively involved in research and in carrying out preside teaching. The Department was established with the opening of the college in the year 1969 most of the principals of the college have been from the subject of Mathematics. The Dept. has a Mathematics research center and several students have completed their research work leading up to a Ph.D. degree in Mathematics. By Dept. established SWAYAM/NPTEL Local Chapter with the help of IIT Madras. It also has an IIT JAM cell. From the academic year 2022-23 Dept. will offer M.Sc. Mathematics. The vision of the department is to become a center of excellence in Mathematics through high-quality research and teaching.

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researchers not only from the various parts of the country but also with those from abroad. The scientific program will consist of Keynote/plenary/invited lectures and parallel sessions for contributed presentations. The main emphasis will be on the vibrant implicational aspects of applied mathematics in relation to diverse areas of engineering and sciences.

**Theme of the NCMTA-2021** (But not limited to)

Algebra, Analysis, Applied Probability and Stochastic Process, Cryptography and network Security, Information theory and Application, Coding Theory, Fluid Dynamics and Solid Mechanics, Relativity Theory, Fuzzy Set Theory and Application Graph Theory and Application, Operations Research and Optimization, Techniques, Fractals, Financial Mathematics, Dynamics System, Mathematical Modeling, Mathematical Biology, Mathematical Physics, Numerical analysis, Differential Equations, Fractional Calculus, Integral Transforms, Number Theory, Mathematical and computational Chemistry.

**Call for Papers and Publication of Research Paper**

Interested participant are requested to submit the abstract of their research paper in MSWord 2007 or MS-Word 2010 including paper title, names of all the authors along with their affiliation and email address of the corresponding author. The font for text should be Times New Roman with font size 12 and 1.5 line spacing. The title should be 14 font sizes. The abstract should not exceed the limit of 300 words & send abstract on national conference email id [ncmta2021@gmail.com](mailto:ncmta2021@gmail.com) on or before 15 December, 2021. The articles in the national conference will be published in peer-reviewed scientific journal. *Balaghat Mathematical Sciences Development Societies, International Journals of Universal Print*. This journal is committed to the highest ethical publishing standards, **there is no Publication or processing fee** for details contact to Editorial Board **Dr. S.S. Bellale (+919405417417)**

**Link for Registration:**

<https://forms.gle/jKiUucG2teGCGQK1A>

**Fees Payment Details:**

Registration Fee: Rs 500 (For Presenter) &  
 Rs 300 (For Attendee)

Account Name: Principal MGM Ahmedpur,  
 Bank Name: Maharashtra Gramin Bank,  
 Branch Name: Ahmedpur,  
 Account Number: 80015395439  
 IFSC Code: MAHG0004324





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- **Dr.S.S.Bellale**  
Vice Principal Dayanand Science  
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Vice Principal

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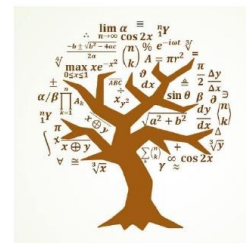
Coordinator IQAC

### Organizing Secretary

**Mr. Audumbar K. Mule**

**Mob: +919970572627**

Email: [ncmta2021@gmail.com](mailto:ncmta2021@gmail.com)



### Principal and Convener

**Smt.Dr.Capt.A.M.Shinde**





INVITATION



Vichar Vikas Mandal's  
**Mahatma Gandhi Mahavidyalaya,**  
Ahmedpur, Dist. Latur (Maharashtra)  
( NAAC Re-accredited with 'A' Grade)

## National Conference on Mathematical Techniques and Applications

(Under National Mathematics Day 2021 Celebration)

SPONSORED BY

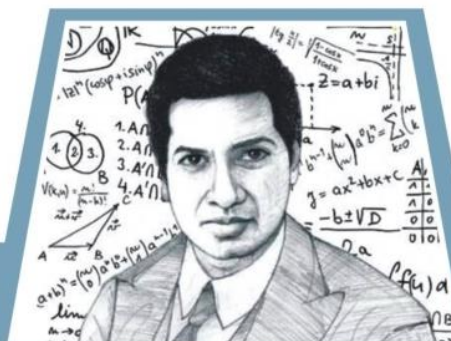


**SWAMI RAMANAND TEERTH MARATHWADA UNIVERSITY, NANDED.**

**NCMTA-2021**

**(21<sup>st</sup> December, 2021)**

Organized by  
**Department of Mathematics**  
**Mahatma Gandhi Mahavidyalaya, Ahmedpur-413515,**  
Dist. Latur (Maharashtra) India  
[www.mgmahmedpur.org](http://www.mgmahmedpur.org)





## INAUGURAL PROGRAMME

Tuesday, 21/12/2021 Time 10 AM

Department of Mathematics Mahatma Gandhi Mahavidyalaya, Ahmedpur Cordially invite you to the inaugural function of National Conference on Mathematical Techniques and Applications (NCMTA-2021) Organized by Department of Mathematics Sponsored by Swami Ramanand Teerth Marathwada University Nanded.



Inaugurator

**Hon. Dr. Uddhav V. Bhosale**  
Vice Chancellor, S.R.T.M. University Nanded.



President

**Adv. Shri. Kishanrao Bendkule**  
President, Vichar Vikas Mandal Ahmedpur.

Guest of Honor



**Shri. Yuvraj Tatesaheb Patil**  
Vice president, V.V.M.



**Shri Vasantrao Dnyanoba Phad**  
Joint secretary, V.V.M.



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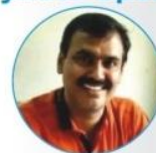
Special Invitee



**Dr. L.M. Waghmare**  
Dean Science and Technology,  
S.R.T.M.U.N.

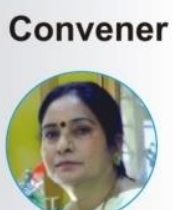


**Dr. J.N. Salunke**  
Former Director School of Mathematical  
Sciences, S.R.T.M.U.N.



**Dr. D.D. Pawar**  
Director School of Mathematical Sciences,  
BOS Chairman .S.R.T.M.U., Nanded.

Keynote Speaker



**Capt. Dr. Anita M. Shinde**  
Principal



**Prof. Bivudutta Mishra**  
Department of Mathematics Birla Institute  
of Technology & Science- Pilani, Hyderabad Campus



**Dr. B.R. Sontakke**  
BOS Chairman, Dr. B.A.M.U., Aurangabad



**Dr. B Krishna Reddy**  
Department of Mathematics Osmania University,  
Hyderabad.



**Dr. S. M. Jogdand**  
Senate Member, S.R.T.M.U. Nanded



**Dr. B.D. Karande**  
Maharashtra Udaygiri M. Udgir  
BOS & Academic Council Member S.R.T.M.U. Nanded



**Dr. Vinod Kumar**  
PGDAV College, University of Delhi, New Delhi



**Dr. S.S. Bellale**  
Vice Principal Dayanand Science College, Latur [MS]

Convener

Invited Speakers



## Valedictory Programme

Time 04 PM



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 (Online/ Offline) held at this college on 21<sup>st</sup> December, 2021

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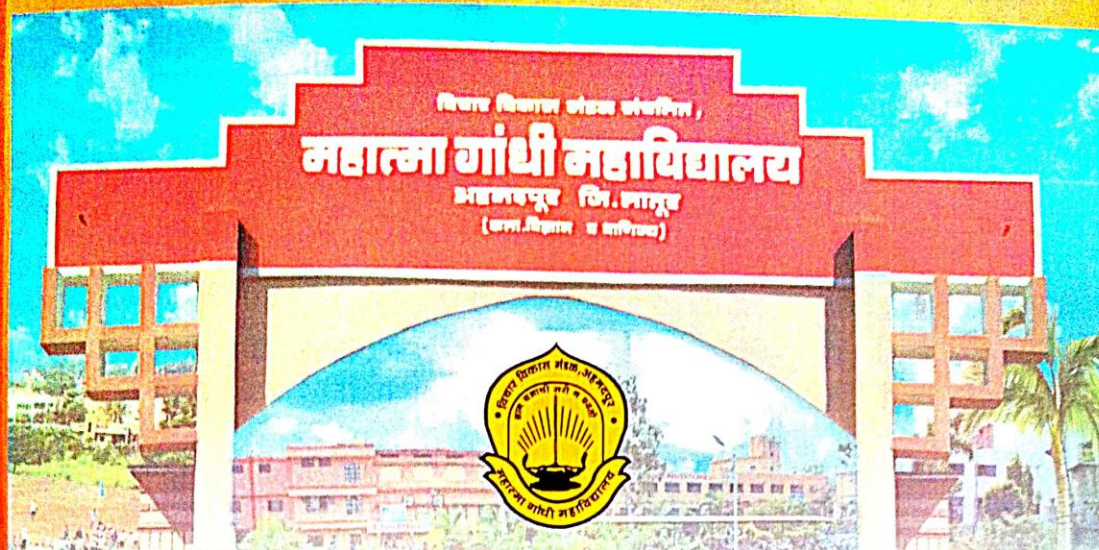
  
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## I N D E X

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<b>Invitee Talk</b>			
01	IT-01	Application of sumudu transform on fractional kinetic Equation	D. D. Pawar
02	IT-02	Non-metricity gravity and the models in cosmological scenario	B. Mishra
03	IT-03	Some Results in Graph Theory using Induction	J.N. Salunke, S.S. Bellale
04	IT-04	Mathematical Model for COVID-19 with Fractional Order Modified Euler Method	D. D. Pawar, S. G. Hiwale
05	IT-05	Basic developments in fractional calculus	Bhausahab R. Sontakke
06	IT-06	Fixed point results $\Psi_\alpha$ of contraction self-maps in non-or comedian fuzzy metric spaces	Dr. B Krishna Reddy
07	IT-07	Fractional Order Differential Equation and Fixed point Theory	B.D.Karande
08	IT-08	Blockchain, Security and Privacy	Vinod Kumar
09	IT-09	Kulkarni Constant	B.B. Kulkarni
10	IT-10	Applications of Differential Equations in the study of Soil Moisture Diffusion Equations.	Chakradhar Shringare, Dr. Jogdand S.M.
<b>Contributory Talk</b>			
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02	CT-02	Exact Solution of Two Dimensional Time-Space Fractional Order Partial Differential Equations by Adomian Decomposition Method	Bhausahab R. Sontakke, Vidya N. Bhadgaonkar
03	CT-03	A new integral transform and its applications	Momin Fasiyoddin Inayat
04	CT-04	Existence the Extremal Solution for Fractional order Integral inclusion in Banach Algebras	B. D. Karande, A. F. Siddiqui





05-07	CT-05,6,7	<u>A study on Structure of k-Chromatic Graphs</u>	BHARATHI S N
08	CT-08	Recognizing Images Using Convolutional Neural Network (CNN) Deep Learning Technique	Mr. Tukaram V. Navghare, Dr. Vinayak A. Jadhav, Dr. Aniket A. Muley
09	CT-09	Existence and Uniqueness of Solution of Fractional order Differential Equation of Finite Delay in Cone Metric Space	V. D. Mathpati, S. S. Zampalwad, Y. H. Shirole
10	CT-10	Existence and Uniqueness of Solution of Conformable Fractional Differential Equation	R. S. Teppawar, R. N. Ingle
11	CT-11	A Study of Authenticated Framework for Vehicle-to-Grid (V2G) communication using Elliptic Curve Cryptography	Lalit Kumar Som , Musheer Ahmad, Vinod Kumar, and Audumber Kumar Mule
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14	CT-14	Solution of some Partial differential equations Double Sadik transform	Mohmed Zafar Mohmed Saber
15	CT-15	Existence, uniqueness, continuous dependence and ulam stability of mild solutions for an iterative Fractional differential equation	Siddharth Sudhakar Rao Howal
16	CT-16	A Study of Authenticated EHR Framework using Blockchain Technology for IoMT	Ram Baksh, Musheer Ahmad, Vinod Kumar, and Audumber Kumar Mule
17	CT-17	Role of Some Integral transforms in Cryptography	Dr. Hemant K. Undegaonkar
18	CT-18	Title:- New definition of conformable fractional derivative	Mr. Rajratana Maroti Kamble
19	CT-19	The Latest Trends and Difficulties in Blockchain Technology for Smart Cities and Smart Tourism	Samiulla Itoo, Vinod Kumar , Musheer Ahmad and Adesh Kumari
20	CT-20	Williamson-Hall (W-H) analysis to calculate crystalline size of undoped and Ni-doped ZnO nanoparticles	L. H. Kathwate, V. D. Mote
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Presenter	Mr	Santosh Chandracant Rudrawar	Siddharth Art's Commerce & Science College Jafrabad, Dist. Jalna, Maharashtra 431206	Maharashtra
Presenter	Dr.	Dr. Rohini Bhujangrao Shinde	Dayanand Science collage Latur	Maharashtra
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Presenter	Mr	Dr.Sanjay Vishwanath Badgire	Azad Mahavidyalaya , Ausa	Maharashtra
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Presenter	Dr.	Dr. Vinod B. Kulkarni ( Bhalerao)	Swa. Sawarkar Mahavidyalaya Beed Dist-Beed Pin 431122	Maharashtra
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Presenter	Mr	CHANDRAKANT KONDIBARAO DHULGANDE	GOVERNMENT POLYTECHNIC BEED	Maharashtra
Presenter	Mr	Shringare Chakradhar Bhaskarrao	School of mathematical sciences, S.R.T.M.U. Nanded	Maharashtra
Presenter	Mr	Atish Sitaram Tangawade	School of Mathematical Sciences, S.R.T.M. University, Nanded	Maharashtra
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Attendee	Mr	Pathan Aamer Suhail Mohammad Mustafa	N.E.S. SCIENCE COLLEGE NANDED	Maharashtra
Attendee	Dr.	Sharadkumar V Jagtap	Shivaji Mahavidyalaya Udgir Dist. Latur, Maharashtra	Maharashtra
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Attendee	Dr.	Omprakash kanoba Berdewad	Late Babasahebeb deshमुख Gorthekar college Umri dist. Nanded	Maharashtra





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Mr	Parshuram A Ahire	M.S.G.College Malegaon Dist-Nashik	Maharashtra
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Mrs	Vidya Nilesh Bhadgaonkar	Dr. Babasaheb Ambedkar Marathwada University	Maharashtra
Dr.	Anil Dhondiram Chindhe	Balbhim College,Beed	Maharashtra
Dr.	Dr.Archana Venketesh Bhosle	Nagnath Art's,Commerce & Science College,Aundha Nagnath	Maharashtra
Mr	Jagdish Madhukar sonawane	GES R. H. Sapat College of Engineering, Management Studies & Research Centre, Nashik	Maharashtra
Mrs	PREETI	K.L.P. COLLEGE REWARI, HARYANA	HARYANA
Dr.	KHYATI	GD GOENKA UNIVERSITY, GURGAON-122103	HARYANA
Dr.	Dr. Ashwina Nilkanth Rangari	Adarsha Science J. B. Arts and Birla Commerce Mahavidyalaya, Dhamangaon Rly.	Maharashtra
Mr	Arvind Shankarrao Salve	Dr. S D Devsey Arts College and Commerce and Science College Wada Dist Palghar	Maharashtra
Mr	Govind Mahato	Indian Institute of Technology (Indian School of Mines), Dhanbad	Jharkhand
Mr	Mr.GHADGE RAMESH BHASKARRAO	Kalikadevi Art's Commerce & Science College Shirur-kasar TQ.shirur -kasar Dist Beed.	Maharashtra
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Ms	Bhavana Satish Samudra	S. P. College, Pune - 30	Maharashtra
Mr	Ram Baksh	Ram Baksh	New Delhi-110025
Ms	SIDDIQUI AFREEN FATEMA M. KASIM	Dayanand Science College, Latur	Maharashtra
Dr.	P Ram Mohan Reddy	Govt.Degree College,Dharpally	Telangana
Dr.	Survase Pradnya Annarao	Mahilaratna Pushpatai Hiray Arts, Science and Commerce Mahila Mahavidyalaya, Malegaon	Maharashtra
Mr	Digambar Bhausaheb Uphade	KRT Arts BH Commerce and AM Science(KTHM) College Nashik	Maharashtra
Mrs	Meenakshi Laxmanrao Dhumal	Deogiri College, Aurangabad	Maharashtra
Mrs	Syeda Farra Fatima Nahri	Milliya Arts Science and Management Science College Beed	Maharashtra
Dr.	Balasaheb Dhondiram Dawkar	Vivekananda Arts, Sardar Dalipsinh Commerce and Science College, Aurangabad	Maharashtra
Mr	Vijay Bhagwat Patore	Nutan Mahavidyalaya Sailu	Maharashtra
Mr	Khakre Rajendra Ashruba	Vivekanand Arts, Sardar Dalipsingh commerce and Science College, Aurangabad	Maharashtra
Dr.	Dr. Suchita Venkatrao Deshmukh	Indraraj Arts, Commerce and Science College Sillod Dist Aurangabad	Maharashtra
Ms	Ekta Jain	University of Delhi	Delhi
Dr.	Dr Sachin Agrawal	College of Engineering and Technology, Akola	Maharashtra
Mr	Mr.Sachin Laxman Varpe	Pimpri Chinchwad college of engineering and research, Ravet	Maharashtra
Mr	Imran Khan Mansuri	Govt Higher secondary school Jawar	MP
Dr.	Gajanan Ramrao Mahajan	Shri Datta Arts, Commerce and Science College Hadgaon	Maharashtra
Dr.	Mansi Ashok Bansod	N.E.S Science College, Nanded	Maharashtra
Mrs	Zargar Nazreen sultana Abdul rasheed	Zargar Nazreen sultana Abdul rasheed	Maharashtra
Mr	MAHESH MADHUKAR SARADA	PIMPRICHINCHWAD COLLEGE OF ENGINEERING & RESEARCH	Maharashtra
Mr	Perike Venkat Ratna Shrinivas Rao Bhiksham	Rocky pond's produce	Queensland
Mrs	Daimi Syeda Mariya Begum	Swami Ramanand Teerth Marathwada University, Nanded	Maharashtra
Dr.	ANANT ASHOK NAVLEKAR	Pratishthan Mahavidyalaya, Paithan Dist.Aurangabad	Maharashtra
Mrs	Aishwarya Vaijanath Navarkhele	RCT's Dinesh Bembade College of Pharmacy	Maharashtra





**Dr. Babasaheb Ambedkar Technological University**  
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[registrar@dbatu.ac.in](mailto:registrar@dbatu.ac.in)

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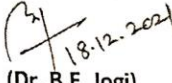
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18<sup>th</sup> December, 2021

### Message

I am happy to know that Mahatma Gandhi Mahavidyalaya, Ahmedpur, Dist. Latur is going to organise National Conference on Mathematical Techniques and Applications (NCMTA-2021), sponsored by SRTMU, Nanded on 21<sup>st</sup> December, 2021 under the guidance of eminent personalities.

I am confident that the deliberations during the conference would be beneficial for the teachers, researchers and students in various branches of science and engineering across the country and the event would be successful in achieving its objectives.

I extend my best wishes for the entire endeavour. Also I would like to congratulate the organizers, all team members and the Institute well in advance for their excellent initiative and creating a platform for the researchers.

  
(Dr. B.F. Jogi)

Registrar  
REGISTRAR

Dr. Babasaheb Ambedkar Technological University,  
LONERE 402 103,  
Tal Mangaon, Dist. Raigad, (Maharashtra)



To,  
Smt. Dr. Capt. A.M. Shinde  
Principal and Convener  
Mahatma Gandhi Mahavidyalaya, Ahmedpur 413 515  
Dist. Latur, Maharashtra



र.न.एफ - १०० एमएस



# विचार विकास मंडळ, अहमदपूर

अहमदपूर जि.लातूर

अॅड.किशनराव बेंडकुळे  
अध्यक्ष

अॅड.पी.डी.कदम  
सरचिटणीस

E-Mail principal\_mgm@rediffmail.com

फोन कार्यालय : ०२३८१-२६२०६० फॅक्स : ०२३८१-२६३२५७

## Message

Date: 18-12-2021

I take this opportunity to congratulate Department of Mathematics, Mahatma Gandhi Mahavidyalaya, Ahmedpur for organizing The National Conference On Mathematical Techniques And Applications (NCMTA-2021) On 21 Dec 2021

This National Conference will provide a useful common platform for all the participants gathered from different parts of India to interact about the recent developments in the field of Mathematics

I convey my best wishes for the success of the conference.

Adv. Kishanraoji Bendkule



**SWAMI RAMANAND TEERTH MARATHWADA UNIVERSITY**

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Phone: (02462) 229564

Website: [www.srtmun.ac.in](http://www.srtmun.ac.in)

Email: [sms.srtmun@gmail.com](mailto:sms.srtmun@gmail.com)

### Message

It gives me immense pleasure to know that Department of Mathematics, Mahatma Gandhi college, Ahmedpur is organizing 'National Conference on Mathematical Techniques and Applications (NCMTA2021) on 21 Dec. 2021

The themes selected for the Conference are contemporary and have wide scope. The conference will definitely provide an opportunity to the academicians and professions to share their knowledge on various mathematical techniques and applications. I am confident that the participants will discuss and deliberate the current trends in the field and inspire young researchers and students.

I am pleased that the souvenir to be released with acknowledge. This occasion and the articles published in the souvenir will enlighten the readers.

I wish the endeavor a great success.

Dr. D. D. Pawar  
Professor and Director





MAHATMA GANDHI MAHAVIDYALAYA  
AHMEDPUR DIST. LATUR  
(Arts, Commerce & Science)

ई-मेल : [principal\\_mgm@rediffmail.com](mailto:principal_mgm@rediffmail.com)



महात्मा गांधी महाविद्यालय  
अहमदपूर जि. लातूर  
(कला, वाणिज्य व विज्ञान)  
फोन / फॅक्स : 02381-262060 -


Capt. Dr. Smt. Anita M. Shinde  
Principal

Date: 18-12-2021

From the Principal desk

### Message

The National Conference on Mathematical Techniques and Applications is one of the key events being organized by the Mahatma Gandhi Mahavidyalaya during the current Academic year (2021-22). This conference aims at the discussion of advancements in the field of Mathematical sciences. A number of renowned scholars from across the nation are gracing this occasion with their actual or virtual presence. Numerous participants have contributed their research papers. This event provides opportunity for significant discussions on diversity of topics. I am sure that our academic endeavor would result in the addition to the existing body of knowledge for the mathematical science.

  
Capt. Dr. Smt. Anita M. Shinde  
Principal and Convener





MAHATMA GANDHI MAHAVIDYALAYA  
AHMEDPUR DIST. LATUR  
(Arts, Commerce & Science)



ई-मेल : principal\_mgm@rediffmail.com

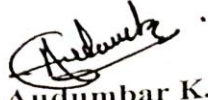
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अहमदपूर जि. लातूर  
(कला, वाणिज्य व विज्ञान)  
फोन / फॅक्स : 02381-262064

Date: 18-12-2021

### Message

On behalf of the organizing committee, I would like to cordially welcome you all to NCMTA 2021 National Conference on Mathematical Techniques and Applications.

The purpose of this conference is an earnest attempt to create the right interface for the exchange and dissemination of new ideas and techniques among the young researchers in various fields of mathematical sciences. The program consists of keynote address, invited talks as well as contributed talk presentations on various technical aspects of different research areas. Mathematics plays a major role in engineering, physical, biological, economical, medical, computer science and real world applications. The success of the conference depends ultimately on the many people who have worked with us in planning and organizing this technical program. Eventually, I would like to thank our President, Secretary, Principal, Teaching and Non-Teaching staff for their guidance, support and motivation for the success of this National Conference.

  
Mr. Audumbar K. Mule  
Head  
Department of Mathematics  
Organizing Secretary  
NCMTA-2021

