

**GOVT. COLLEGE,
SUNDARGARH**



SOUVENIR

**A TWO-DAY NATIONAL SEMINAR
(22nd & 23rd December, 2023)**

ON

RECENT ADVANCES IN

MATHEMATICS



**ORGANISED BY
P.G. DEPT. OF MATHEMATICS
GOVT. COLLEGE, SUNDARGARH**

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Advisory Committee:

Mr. Birendra Kumar Patel	Assistant Professor of English
Dr. Kulamani Behera	Assistant Professor of Odia
Dr. Binod Bihari Mallick	Assistant Professor of Sanskrit
Mr. John Hau	Assistant Professor of Chemistry
Dr. Ashutosh Kumar Jha	Assistant Professor of Comm.
Sri. Garudeswar Das	Assistant Professor of Teacher Education
Dr. Sambhu Shankar Deep	Assistant Professor of Teacher Education
Mr. Siba Prasad Mohanty	Assistant Professor of Geology
Dr Jayashankar Naik	Assistant Professor of History

Organizing Committee:

Mr. Kendarnath Buda	Assistant Professor of Mathematics
Dr. Susanta Kumar Mohanta	Lecturer in Mathematics
Dr. Sakir Hussain	Assistant Professor of History
Dr. Dipak Kumar Rout	Assistant Professor of Physics
Dr. Pradeep Kumar Samantaroy	Assistant Professor of Chemistry
Dr. Arjun Behera	Assistant Professor of Chemistry
Ms Jhunubala Patel	Lecturer in Mathematics
Mr. Narendra Karmi	Lecturer in Computer Science

About the Seminar

The "National Seminar on Recent Advances in Mathematics" is a prestigious gathering hosted by Government College Sundargarh, bringing together scholars, researchers, and enthusiasts to explore the forefront of mathematical innovation. This two-day event serves as a vibrant platform for the exchange of ideas, featuring discussions on a diverse range of topics that encapsulate the latest developments in mathematics. From pure mathematical theories to their practical applications, the seminar reflects the interdisciplinary nature of the field. Eminent speakers and experts from academia and industry share their insights, fostering an environment of intellectual curiosity and collaboration. Participants have the opportunity to engage in meaningful conversations, presenting their research and gaining valuable feedback. The seminar aims not only to showcase the recent strides in mathematics but also to inspire new avenues of exploration and contribute to the collective knowledge of this dynamic and ever-evolving discipline.

Theme: The theme of the seminar on recent advances in mathematics is "Navigating Frontiers: Unveiling Novel Insights and Applications." This theme underscores the dynamic nature of contemporary mathematical research and its impact on diverse fields. It invites participants to explore groundbreaking theories, methodologies, and applications that are pushing the boundaries of mathematical knowledge. The seminar aims to foster discussions on emerging trends, interdisciplinary collaborations, and innovative solutions that contribute to the ongoing evolution of mathematics. "Navigating Frontiers" encapsulates the spirit of exploration, curiosity, and discovery, encouraging participants to delve into the latest advancements, share their research findings, and engage in meaningful dialogues that contribute to the collective growth of the mathematical community.

From the Principal's Desk



Dear Esteemed Guests and Participants,

It is my privilege to welcome you to the "National Seminar on Recent Advances in Mathematics." Over these two days, our mathematical community gathers to explore cutting-edge developments in the field. This bulletin serves as a testament to the collective intellect and scholarly vigor of our participants. I commend the organizers for curating a program that reflects the dynamic nature of contemporary mathematics. May the discussions within these pages inspire new ideas and collaborations, contributing to the ongoing evolution of mathematical knowledge. I extend my gratitude to all contributors and wish everyone a rewarding and intellectually stimulating seminar.

Warm regards,

Dr. Lalit Ranhan Sahu,
Principal,
Govt. College, Sundargarh

Message from Convener and Head of the Dept. of Mathematics

A two-day seminar on “**Recent Advances in Mathematics**” is designed with multifaceted objectives to enrich the academic landscape. The event seeks to serve as a dynamic platform for the dissemination of cutting-edge knowledge, bringing together mathematicians, researchers, and academicians to share their latest findings and insights. By fostering interdisciplinary interactions, the seminar aims to explore the intersections of mathematics with other scientific and technological domains, promoting collaborative endeavors. Networking opportunities will abound, allowing participants to establish professional connections and engage in fruitful collaborations. Moreover, the seminar strives to inspire and motivate attendees, encouraging a passion for continuous learning and excellence in mathematical pursuits. With a focus on research promotion, skill enhancement, and student engagement, the event aims to contribute to the broader academic discourse and nurture a vibrant mathematical community. Ultimately, the seminar endeavors to be a catalyst for the advancement of mathematical knowledge, fostering a culture of appreciation and understanding within the academic community and beyond.

The souvenir brought out by the Dept. of Mathematics, Govt. College, Sundargarh is a commendable effort that serves as a testament to the intense passion, enthusiasm and unflinching dedication of the students, faculty as well as distinguished guests who have come together to delve into the fascinating world of Mathematics during the two-day National Seminar on the 22nd & 23rd December, 2023.

We are thankful to all the resource persons and paper presenters who have contributed in making this seminar successful.

We are personally thankful to our Principal, Prof. (Dr.) Lalit Ranhan Sahu who has always been a constant source of inspiration and guidance.

We also take the opportunity to express our profuse thanks to each and every member of the organizing Committee for the successful publication of the souvenir.

Sri. Alok Kumar Naik,
Convener

Acknowledgements

About the College: Established in 1958 by the then Collector and District Magistrate of Sundargarh Shri A.L. Nair, Government College, Sundargarh, stands as a beacon of education in western Odisha. Beginning as a modest science college with 64 ISC students at Nari Kalyan Kendra, it later got relocated near the river IB spreading over a sprawling campus of 154 acres of land. The takeover by Government of Odisha in 1962 propelled rapid growth, transforming the institution into a prominent center of learning. Today, the college offers 18 UG and 14 PG courses. It has adapted to the evolving educational needs with self-financing course in Teacher Education and distance education through IGNOU and Odisha State Open University since 2017-18. Situated in the tribal-dominated district of Sundargarh, the college plays a pivotal role in catering to diverse student populations. Its commitment to inclusivity and accessibility underscores its significance in shaping the educational landscape and fostering intellectual growth in the region. As the district of Sundargarh borders the states of Jharkhand and Chhattisgarh, the College attracts the meritorious students from these neighboring states as well. The institution's rich history, geographical location, diverse academic offerings and adaptability reflect its dedication to providing a holistic and quality education to students from this region and beyond.

About the Department: The Department of Mathematics, Government College, Sundargarh is a dynamic hub for mathematical education and research, offering comprehensive programs in B.Sc. Mathematics and M.Sc. Mathematics. Rooted in a mission to enhance academic excellence, the department places a strong emphasis on organizing extramural lectures, seminars and conferences for dissemination of knowledge. These events serve as critical forums for fostering intellectual discourse, where students and faculty alike can engage with the latest advancements in mathematical research and applications. By regularly hosting extramural lectures, seminars and conferences, the department cultivates a vibrant academic community, providing a platform for students to interact with renowned scholars and researchers in the field Mathematics. This commitment to knowledge dissemination and scholarly exchange not only enriches the educational experience for our students but also contributes to the broader mathematical community by facilitating the sharing of ideas, methodologies, and innovations. Through such initiatives, the

Department of Mathematics strives to create an environment that inspires curiosity, promotes lifelong learning, and prepares students for leadership roles in academia and beyond.

List of Speakers

Prof. Kamalaskya Mahatab, IIT, Kharagpur

Prof. Mahendra Kumar Jena, VSSUT Burla

Dr. Sumit Kumar, Post Doctoral Fellow, Pennsylvania State University ,

Prof P.K. Parida, Central University of Jharkhand

Dr. Bikash Sahu, NIT, Rourkela

Dr. Vivek Kumar Rai, Goldmann Sach, Vice President, Bangalore

Dr. Praveen Kashyap Kambhatla, NatFirst, Hyderabad

Laxmi Majhi, G.M. University, Sambalpur

Dr. Janson Antony A, Keshav Mahavidyalaya, University of Delhi

Dr. Vijaya Kumar Patel, VIT, Bhopal

Dr. Rajendra Kumar, NTU, Taiwan

Seminar Schedule:

Day-1

10.00 AM-11.00 AM- Registration

11.00 AM-11.30 AM- Inaugural session

11.30 AM-11.45 AM- High-Tea

11.45 AM-01.00 PM- Technical session-I by **Prof. Kamalaskya Mahatab**, IIT, Kharagpur

01.00 PM-02.00 PM- Lunch

02.00 PM-03.00 PM- Technical session-II by **Prof. Mahendra Kumar Jena**, VSSUT Burla

03.00 PM-03.15 PM- Tea

03.15 PM-04.15 PM- Poster Presentation By the students of Government College, Sundargarh

Day-2

10.00AM-11.00 AM- Technical session-I by **Prof P.K. Parida**, Central University of Jharkhand

11.00AM-11.15 AM- Tea

11.15AM-12.15 PM- Technical session-II by Prof

12.15PM-01.15 PM- Technical session-III (VC) **Dr. Sumit Kumar**, Post Doctoral Fellow, Pennsylvania State University ,

Dr. Vivek Kumar Rai, Goldmann Sach, Vice President, Bangalore

Dr. Praveen Kashyap Kambhatla, NatFirst, Hyderabad

Dr. Rajendra Kumar, NTU, Taiwan

01.15PM-02.15 PM- Lunch

02.15PM-03.15 PM- Paper Presentation by **Laxmi Majhi**, G.M. University, Sambalpur

03.15PM-03.30 PM- Tea

03.30PM-04.00 PM- Technical session-IV by **Dr. Janson Antony A**, Keshav

Mahavidyalaya, University of Delhi

04.00PM-04.30 PM- Technical session-IV by **Dr. Vijaya Kumar Patel**, VIT, Bhopal

04.30PM-05.00 PM- Valedictory session

Lists of Articles:

Sl. No	Article's Name	Author's Name
1	Game theoretic Approach for Image segmentation and Image restoration by using Fractional PDE	<i>Alok Kumar Naik and Kedarnath Buda</i>
2	Deep Learning with partial differential equation	<i>Rajendra Kumar</i>
3	Nash Equilibrium of bi-objective optimal control of Convection Diffusion equations	<i>Kedarnath Buda and Alok Kumar Naik</i>
4	New identities for ${}_2\Psi_2$ bilateral hypergeometric series	<i>Y. Jamudulia and Laxmi Majhi</i>
5	Why is studying numerical Methods important for us? Introductions and few Applications in Science and engineering	<i>Deepak Kumar Sahoo</i>
6	The Role of Membership Functions in Fuzzy Logic Applications in Biomedical Engineering	<i>Susanta Kumar Mohanta</i>

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| 7 | A Deep Learning Solution for SIR Model for Epidemic Simulation | <i>Srikanta Say, Kshirod Rana and Swetalini Naik</i> |
| 8 | Cryptography in Polynomial Ring | <i>Swayamprabha Mohanta</i> |
| 9 | ODEs using Optimization Technique in Machine Learning | <i>Priya Pathak, Dhananjay Pradhan and Chandan Mohanty</i> |

Seminar Report

Date: 22-12-2023 & 23-12-2023

Venue: P.G. Department of Mathematics, Govt. College, Sundargarh

Inaugural Session: The inaugural session featured esteemed keynote speakers who illuminated the diverse facets of recent advancements in mathematics. Participants were welcomed by Principal of Government College Sundargarh, who emphasized the significance of staying abreast of contemporary mathematical research. This was followed by thought-provoking addresses from keynote speakers, highlighting the evolving landscape of mathematical sciences.

First Day - Technical Sessions: Following the inaugural session, the first day witnessed three technical sessions. Scholars presented their research findings and explored a spectrum of topics, including pure mathematics, applied mathematics, and interdisciplinary applications. Engaging discussions and Q&A sessions enriched the academic discourse, fostering a collaborative spirit among participants.

Second Day - Technical Sessions: The second day featured four technical sessions, further delving into cutting-edge research and applications. Scholars and researchers continued to share their insights and methodologies,

contributing to the diverse tapestry of mathematical knowledge. The sessions showcased the dynamism and innovation prevalent in contemporary mathematical research.

Valedictory Session: The seminar concluded with a valedictory session, starting at 4 pm on the second day. Distinguished guests, participants, and organizers gathered to reflect on the enriching experience of the seminar. [Key Speaker's Name] delivered closing remarks, expressing gratitude to participants, speakers, and sponsors for their invaluable contributions. Certificates of participation were distributed, marking the successful culmination of the "Recent Advances in Mathematics" seminar.

The event proved to be a forum for robust intellectual exchange, promoting collaboration, and showcasing the breadth and depth of modern mathematical research. The success of the seminar underscored the commitment of the mathematical community to pushing the boundaries of knowledge and fostering a culture of continuous learning and exploration.



The Inaugural Session:

The National Seminar held at Government College Sundargarh on the seminar “Recent Advances in Mathematics” on the National Mathematics Day was a resounding success, with active participation from faculty members, students, and esteemed guests. The seminar aimed to celebrate the significance of mathematics in our lives and promote its importance in education and applications.

The "Recent Advances in Mathematics" seminar, held over two days, brought together scholars, researchers, and enthusiasts to delve into the latest developments in the field. The inaugural session commenced at 10 am on the first day, setting the stage for an intellectually stimulating event.

The event witnessed the participation of all faculty members and students of the college, demonstrating their enthusiasm and commitment to the subject. Additionally, several faculty members from nearby colleges graced the occasion, enhancing the diversity of perspectives and insights shared during the seminar.



The seminar featured four distinguished resource persons who joined online: **Dr. Vivek Kumar Rai**, Vice President, Bangalore from Goldman Sachs,

Bangalore, **Dr. Praveen Kashyap Kambhatla**, NatFirst, Hyderabad, **Dr. Rajendra Kumar**, NTU, Taiwan, **Dr. Sumit Kumar**, Post Doctoral Fellow, Pennsylvania State University.

Prof. Kamalaskya Mahatab, from IIT, Kharagpur, **Prof. Mahendra Kumar Jena**, VSSUT Burla, **Prof P.K. Parida from** Central University of Jharkhand, **Dr. Bikash Sahu from** NIT, Rourkela, **Dr. Janson Antony A from** Keshav Mahavidyalaya, University of Delhi, **Dr. Vijaya Kumar Patel from** VIT, Bhopal, **Miss Laxmi Majhi**, from G.M. University, Sambalpur

The inaugural session commenced with the ceremonial lighting of the lamp by the esteemed guests, symbolizing the dispelling of darkness and the ushering in of knowledge. Following this, the students of the college enthralled the audience with a melodious welcome song, setting the tone for the event. The guests were graciously welcomed with flower bouquets presented by the students, reflecting warmth and hospitality.

Prof. Alok Kumar Naik, the Convener cum Head of the Department, extended a warm welcome to all attendees, expressing gratitude for their presence and emphasizing the significance of the seminar. Mr. Kedarnath Buda of the department introduced all the guests and dignitaries, highlighting their contributions to the field of mathematics and education. This was followed by addresses from the Heads of the Institution and Principals Dr. L. R. Sahu, further emphasizing the importance of mathematics in academia and gave the introduction speech.

The seminar featured notable guest speakers, including Prof. Mahendra Kumar Jena of VSSUT, Burla, who shared valuable insights and perspectives on mathematics education. Chief Guest Prof. R N Sahu, the ADM, Sundargarh an Administrative Officer of the district, graced the occasion with his inspiring speech, underscoring the role of mathematics in fostering critical thinking and problem-solving skills.



The keynote address was delivered by Prof. Kamalaskhya Mahatab of IIT Kharagpur, who shared their profound knowledge and expertise on mathematical

concepts and applications. Dr. Sakir Hussain conveyed the vote of thanks, expressing gratitude to all participants, guests, and organizers for their contributions to the seminar's success.

Throughout the inaugural session, the coordination and smooth conduct of the event were ensured by Student Coordinator Priya Pathak, whose meticulous planning and dedication were instrumental in orchestrating a memorable and insightful seminar.



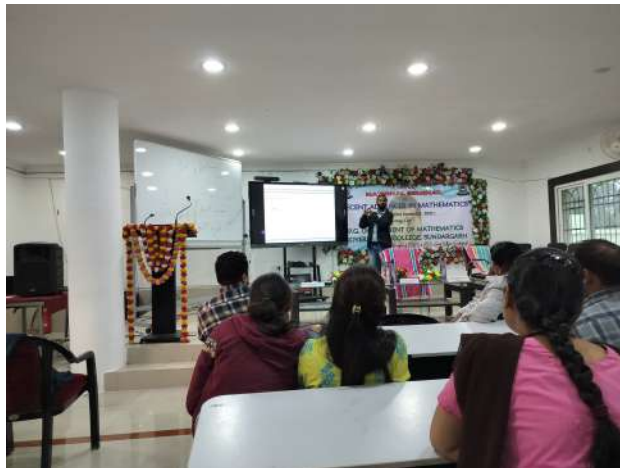
In conclusion, the National Seminar held at Government College Sundargarh on National Mathematics Day served as a platform for the exchange of ideas, insights, and perspectives, contributing to the promotion and appreciation of mathematics in academia and society. The event underscored the importance of collaborative efforts in advancing mathematical education and research, fostering a deeper understanding and appreciation of this fundamental discipline.



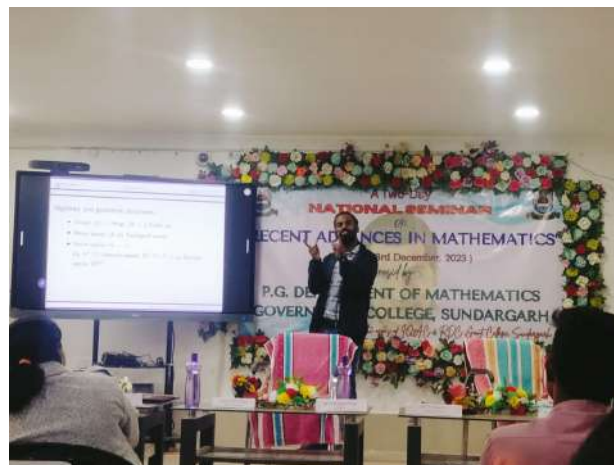
In Dr. Rajendra Kumar's insightful talk on "Machine Learning to Solve Partial Differential Equations (PDEs)," he elucidated the burgeoning field's transformative potential by showcasing innovative applications and emerging trends. Integrating machine learning algorithms with traditional PDE solvers offers efficient solutions to complex systems while reducing computational cost. These data-driven approaches enable the

development of reduced-order models, uncertainty quantification, and adaptive mesh refinement techniques, revolutionizing scientific computing and

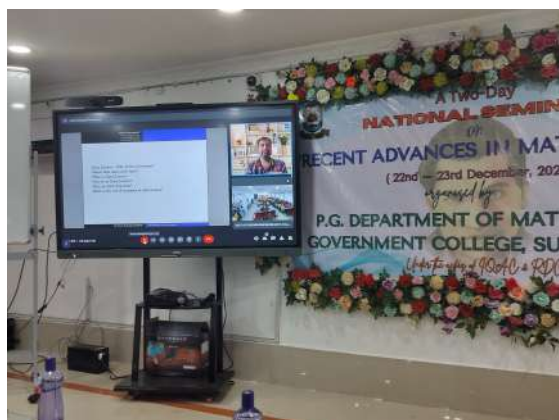
engineering across diverse domains. Dr. Rajendra Kumar's presentation underscored the interdisciplinary synergy between mathematics, computer science, and engineering, highlighting the pivotal role of machine learning in addressing longstanding challenges and propelling research into uncharted territories of computational science.



In Dr. Janshon Antony A's concise presentation on "Operator Algebra and C* Algebra," he elucidated the fundamental concepts and practical applications of these mathematical structures. Operator algebra, a cornerstone of functional analysis, explores linear operators on vector spaces, while C* algebra, a subset of operator algebras, exhibits algebraic

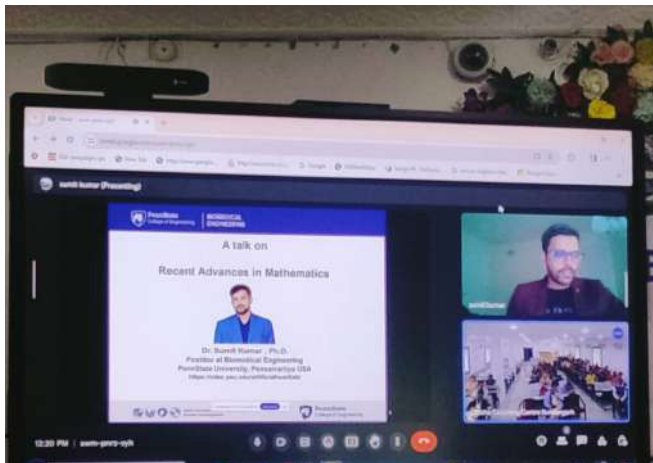


and topological properties essential in quantum mechanics and mathematical physics. Dr. JA's talk highlighted the pivotal role of these algebraic frameworks in understanding complex phenomena across various scientific domains, showcasing the profound interplay between abstract mathematical concepts and their tangible implications in real-world contexts.



Dr. Praveen Kashyap's introduction to data science provided students with foundational insights into this burgeoning

field, catering to beginner learners' needs. The session's simplicity and clarity were widely appreciated by many students, as it demystified complex concepts and laid a solid groundwork in data science fundamentals. Kashyap's approachability and effective communication style fostered an engaging learning environment, enabling students to grasp key concepts with ease and enthusiasm. By equipping students with basic yet essential knowledge in data science, Kashyap's session has undoubtedly inspired and empowered future data scientists to embark on their learning journey with confidence and enthusiasm.



Sumit Kumar, a Postdoctoral Scholar at the Artificial Heart Lab within the Biomedical Engineering department at PennState University, specializes in the modeling and simulation of artificial hearts. His research focuses on both closed-loop and open-loop systems, aiming to enhance the understanding and performance of artificial heart technologies. With a background in

biomedical engineering and a wealth of expertise in cardiovascular dynamics, Kumar's work contributes significantly to advancing the field of artificial heart research. His contributions pave the way for innovations in cardiac assist



devices, ultimately improving patient.



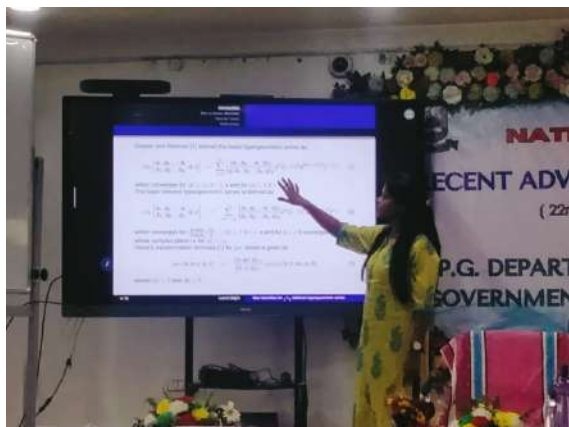
In Prof. PK Parida's lecture on numerical analysis, he delved into advanced enclosing methods for root-finding problems, offering insights into sophisticated techniques used to locate roots of equations with precision and efficiency. Enclosing methods play a crucial role in numerical analysis by providing algorithms that guarantee convergence to the root within a specified interval. Prof. Parida's

talk likely covered various advanced techniques such as interval bisection, regula falsi, and Brent's method, each with its unique advantages and convergence properties. By exploring these methods, Prof. Parida equipped the audience with the knowledge and tools necessary to tackle complex root-finding problems encountered in scientific computing, engineering, and mathematical modeling. His lecture undoubtedly provided valuable insights and practical strategies for navigating numerical challenges in diverse fields of study.



Dr. Bikas Sahoo, from the National Institute of Technology (NIT) Rourkela, delivered an enlightening talk on the physics of swirling flows near rotating disks. His presentation likely explored the intricate dynamics and phenomena associated with fluid motion in the vicinity of rotating disks, a topic of significant interest in fluid mechanics and engineering. Swirling flows, characterized by the rotational motion of fluid particles, play a crucial role in various industrial processes, including mixing, pumping, and propulsion systems. Dr. Sahoo's expertise in this field likely shed light on the

underlying principles governing swirling flows, their behavior near rotating disks, and their implications for practical applications. By delving into the physics of these complex flow phenomena, Dr. Sahoo's talk provided valuable insights and advanced understanding for researchers and practitioners in fluid dynamics and related disciplines.



The paper by Y. Jamudulia and Laxmi Majhi presents new identities for the $2\Psi 2$ bilateral hypergeometric series, denoted as ${}_2\phi_s$. These series involve parameters a_1, a_2, \dots, a_r on the numerator side and parameters b_1, b_2, \dots, b_s on the denominator side, with the series summed over n from negative infinity to positive infinity. The paper introduces novel identities and relationships for these series, which are essential tools in the study of special

functions and their applications in various mathematical and scientific contexts. By exploring these new identities.



Dr. Vijaya Kumar Patel, from VIT Bhopal, delivered a comprehensive talk on operational matrices for solving partial differential equations (PDEs). Operational matrices are mathematical tools that represent linear operators as matrices, facilitating the solution of differential equations through matrix operations. Dr. Patel's presentation likely explored various types of operational

matrices, such as the Kronecker product matrix, the convolution matrix, and the block circulant matrix, and their applications in solving PDEs efficiently. By leveraging operational matrices, researchers and engineers can develop numerical methods for solving complex PDEs encountered in diverse fields, including engineering, physics, and computational science. Dr. Patel's expertise in this area likely provided valuable insights and practical techniques for tackling challenging PDE problems and advancing computational methods in scientific research and engineering applications.



Closing Ceremony of the in the 2 days National Seminar “Recent Advances in Mathematics” with unveiling of Seminar Bulletin by the guests.



ଶ୍ରୀ. ସୁଧାଂଶୁ
 ପାଠକଙ୍କଦ୍ୱାରା
 ପ୍ରସ୍ତୁତ
 ଶ୍ରୀ. ସୁଧାଂଶୁ
 ପାଠକଙ୍କଦ୍ୱାରା
 ପ୍ରସ୍ତୁତ



ଗଣିତ ବିଭାଗର ଜାତୀୟ ଆଲୋଚନାଚକ୍ର

ଉପରୋକ୍ତ ଉପାଦାନଗୁଡ଼ିକର ମାଧ୍ୟମରେ ଗଣିତ ବିଭାଗର ଏକ ଉପକ୍ରମଣ ଓ ବିଭାଗ ପରିଷଦ ଅଧ୍ୟକ୍ଷଙ୍କଦ୍ୱାରା ସିମିନାରର ଆରମ୍ଭ କରାଯାଇଥିଲା। ଶ୍ରୀ. ସୁଧାଂଶୁ ପାଠକଙ୍କଦ୍ୱାରା ପ୍ରସ୍ତୁତ କରାଯାଇଥିବା ଉପକ୍ରମଣ ଉପରେ ଉପସ୍ଥାନିତ ଉପାଧ୍ୟକ୍ଷ ଶ୍ରୀ. ସୁଧାଂଶୁ ପାଠକଙ୍କଦ୍ୱାରା ଆଲୋଚନା କରାଯାଇଥିଲା। ଉପକ୍ରମଣରେ ଉପସ୍ଥାନିତ ଉପାଧ୍ୟକ୍ଷ ଶ୍ରୀ. ସୁଧାଂଶୁ ପାଠକଙ୍କଦ୍ୱାରା ଆଲୋଚନା କରାଯାଇଥିଲା। ଉପକ୍ରମଣରେ ଉପସ୍ଥାନିତ ଉପାଧ୍ୟକ୍ଷ ଶ୍ରୀ. ସୁଧାଂଶୁ ପାଠକଙ୍କଦ୍ୱାରା ଆଲୋଚନା କରାଯାଇଥିଲା। ଉପକ୍ରମଣରେ ଉପସ୍ଥାନିତ ଉପାଧ୍ୟକ୍ଷ ଶ୍ରୀ. ସୁଧାଂଶୁ ପାଠକଙ୍କଦ୍ୱାରା ଆଲୋଚନା କରାଯାଇଥିଲା।



ଗଣିତ ବୃତ୍ତୀର ଜାତୀୟ ଅଲୋଚନାଚକ୍ର ଉଦ୍‌ଘାଟନ



ପୁରୀରୁ, ୨୩/୧୨(ସମ୍ବିଧ): ସ୍ଥାନୀୟ ସରକାରୀ ମହାବିଦ୍ୟାଳୟ ସ୍ତରକୋଗର ଗଣିତ ବିଭାଗ ଆନୁଷ୍ଠାନରେ ଦୀର୍ଘସମ୍ପାଦିତ 'ନିବନ୍ଧ ଆଲୋଚନାଚକ୍ର ଉଦ୍‌ଘାଟନ' ଶୀର୍ଷକରେ ଜାତୀୟ ଅଲୋଚନାଚକ୍ର ଉଦ୍‌ଘାଟନ କରାଯାଇଛି। ଡାକ୍ତର ଶ୍ରୀମତୀ ବିଶ୍ୱବିଦ୍ୟାଳୟର ଗଣିତ ବିଭାଗ ପ୍ରଫେସର ପ୍ରତାପ କୁମାର ପରିଡ଼ା ଏକାଧାରରେ ଉଦ୍‌ଘାଟନ କରାଯାଇଥିବା ପ୍ରତୀକ୍ଷା ପତ୍ର ଉଦ୍‌ଘାଟନ କରାଯାଇଥିଲା। ଉଦ୍‌ଘାଟନ କରାଯାଇଥିବା ପ୍ରତୀକ୍ଷା ପତ୍ର ଉଦ୍‌ଘାଟନ କରାଯାଇଥିଲା।

କର୍ମକ୍ରମରେ ଉଦ୍‌ଘାଟନ କରାଯାଇଥିବା ପ୍ରତୀକ୍ଷା ପତ୍ର ଉଦ୍‌ଘାଟନ କରାଯାଇଥିଲା। ଉଦ୍‌ଘାଟନ କରାଯାଇଥିବା ପ୍ରତୀକ୍ଷା ପତ୍ର ଉଦ୍‌ଘାଟନ କରାଯାଇଥିଲା। ଉଦ୍‌ଘାଟନ କରାଯାଇଥିବା ପ୍ରତୀକ୍ଷା ପତ୍ର ଉଦ୍‌ଘାଟନ କରାଯାଇଥିଲା।

ଉଦ୍‌ଘାଟନ କରାଯାଇଥିବା ପ୍ରତୀକ୍ଷା ପତ୍ର ଉଦ୍‌ଘାଟନ କରାଯାଇଥିଲା। ଉଦ୍‌ଘାଟନ କରାଯାଇଥିବା ପ୍ରତୀକ୍ଷା ପତ୍ର ଉଦ୍‌ଘାଟନ କରାଯାଇଥିଲା। ଉଦ୍‌ଘାଟନ କରାଯାଇଥିବା ପ୍ରତୀକ୍ଷା ପତ୍ର ଉଦ୍‌ଘାଟନ କରାଯାଇଥିଲା।

