





From the Desk of the Vice-Chancellor

I am delighted to announce that the Department of Mathematics, ICFAI University Tripura is coming up with the fourth volume of newsletter namely **μ-ews** as a manifestation of their veracious endeavor to inspire and document the academic as well as other extracurricular achievements of the department. The ICFAI University Tripura is one of the premier institutions of the country that offers world class innovative, career-oriented professional post graduate and undergraduate programs through inclusive technology-aided pedagogies to equip students with the requisite professional and life skills in addition to social sensitivity and high sense of ethics. ICFAI University welcomes talents from across the nation and is also optimistic to adequately accommodate international students and researchers.

The ICFAI University Tripura was established in the year 2004 by Tripura Act 8 of 2004 and since then crediting on its industrious and sacrament conviction of academic excellence; it claimed the trust of the people of Tripura as well as students from other states of the nation. Today on the eve of the launch of the fourth volume of **μ-ews**, I am blissful to state that it is the ardent venture of the faculty, staffs and beloved students of the University that has uplifted the stature of ICFAI University Tripura as one of the finest and established academic and research institutions of the country.

Prof. (Dr.) Biplab Halder
Vice Chancellor
The ICFAI University Tripura



From the Desk of Registrar

Department of Mathematics is dedicated with the vision of meeting the elegance of numbers with the precision of logic, shaping the future minds through the art and science of mathematics. On behalf of the ICFAI University Tripura, I congratulate the Department of Mathematics for their initiative to bring out the news letter μ -ews. Department of Mathematics is one of those departments of the University that is solely devoted in the mission of promoting mathematics. The news letter initiative of the Department of Mathematics is both innovative and noble at this hour since it would accommodate in revitalizing the academic community and the ultimate beneficiary's i.e. students and the research scholars at this hours. Wish good luck to the earnest endeavors of the Department of Mathematics.

Dr. A Ranganath
Registrar
The ICFAI University Tripura



From the Dean's Desk

Dear faculty members, staff and students,

I am honoured to address you through the annual newsletter of the Mathematics department. It is with great pleasure and enthusiasm that I extend my warmest greetings to each one of you as we embark on second semester of the academic year.

Mathematics, is often referred as language of science, continues to be the forefront of scientific and technological advancements. Throughout the year, I have witnessed department faculty member's commitments to nurturing young minds; they are publishing research articles in renowned journals and participating in various out-reaches activities in schools and colleges of Tripura to promote mathematics. The seminars, workshop in collaboration with National Board of Higher Mathematics, various competitions among students are organized to enrich academic experience of our students.

In future, I am confident that Mathematics department will continue to inspire generations and pursuit their commitment for excellence.

Wishing you all a year filled with continued growth, success, and fulfillment.

Prof. (Dr.) P. R. Borthakur
Dean, FST
The ICAI University Tripura



From the H.O.D.'s Desk

The Department of Mathematics started its journey in 2016 with M.Sc. in Mathematics course and now it offers B.Sc. (Hons.) in Mathematics, M.Sc. in Mathematics and Ph.D. in Mathematics. The department aims to address the main challenges faced by the society and academia in our state as well as in our country. More significantly, in student's search of success in their professional career, we believe in upholding our unceasing dedication to our students, helping them to learn, grow, develop, and achieve their objectives. Our aim is to develop students who provide them with a combination of requirements for academic and industrial needs, which will assist them to build and establish solutions to solve issues at the technical, social and national level. Students are encouraged to become successful tech professionals who can be effective for the company from the day they join the team or use their own new ideas and concepts to pursue entrepreneurial opportunities. The newsletter showcases the achievements along with the future vision of the department.

Dr. Arnab Ghosh
H.O.D., Mathematics
The ICFAI University Tripura

ABOUT THE DEPARTMENT OF MATHEMATICS

The Department of Mathematics started its journey in August, 2016. Since it came a long way to present, promote and nurture science in young minds. Currently B. Sc. (Hons.), M. Sc. And Ph. D. courses are being offered in the department. The Department of Mathematics has highly qualified faculty members actively engaged in cutting edge emerging research areas. Students are also trained in prestigious institutions during their internship projects in the summer, M. Sc. Projects are being conducted in active research areas in the Departmental facilities. To promote pedagogy and entrepreneurship, numerous seminars are being held throughout the year.



STRENGTH OF THE DEPARTMENT

- Undergraduate, Postgraduate and Doctorate of Philosophy degrees are offered
- Highly qualified faculty
- Well-equipped Computer Lab facility
- Research and publications in emerging research areas
- Seminars by highly qualified experts from all over India and abroad
- Preparatory classes offered for competitive examinations (JAM, NET, GATE etc.)

AREA OF RESEARCH

- Functional Analysis
- Topology
- Fuzzy Set, Soft Set, Neutrosophic Set
- Sequence Spaces
- Computational Fluid Dynamics, Numerical Method for PDEs, Finite Difference Method
- Mathematical Modelling, Drug Delivery, Electroporation, Numerical Simulation.
- Numerical Linear Algebra

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COURSES OFFERED

- B.Sc. (Hons.) Mathematics
- M. Sc. Mathematics
- Ph. D. Mathematics

EVENTS

Celebration of Mathematics Day

The Proposal

Srinivasa Ramanujan was born on 22nd December 1887. In order to recognize his immense contribution towards Mathematics, the Government of India has decided to celebrate Ramanujan's birthday every year as National Mathematics Day.

Mathematics is more than dry text books and exercise and proofs, it is a world of great excitement and joy. To popularize the significance, importance and contribution of India towards mathematics, the Department of Mathematics of ICFAI University Tripura has proposed to celebrate Mathematics Day from 8th January, 2024 to 10th January, 2024.

Day 1 (Poster Presentation)

On this day we have arranged a poster competition for the students of ICFAI University Tripura on the topic namely "Mathematics in Our Daily Life". In this event, a few numbers of students has participated from different departments and presented their poster.



Day 2 (Presentations)

On this day, student presentation has been organized at our department seminar room. The topic of the presentation was “Insight of Mathematics”. Students have presented various beautiful presentations. Deep Sarkar and Gourab Pal from ICFAI University Tripura jointly won the 1st prize. Sanatomba Singha from ICFAI University Tripura secured 2nd prize. Ja Seng Zin from ICFAI University Tripura secured 3rd prize.

Day 3 Inauguration

The Inaugural session of National Mathematics Day celebration is hosted by Rahul Roy and Monalisa Debbarma, students of our Department. The session was started by welcoming the chief guest Dr. Shyamal Debnath, Professor, Department of Mathematics, Tripura University Tripura. Prof. P. R. Borthakur, Dean, FST felicitated the chief guest of the day by offering flower bouquet and a humble gift as a token of our respect and warmth.



Quiz Event

To popularize mathematics, we have arranged a Mathematical Quiz competition for the under graduate students. Teams of two students from Tripura University, M.B.B. College, Ramthakur College and ICFAI University, Tripura has participated in the competition. The quiz was designed in 5 different steps. Debaditya Hom Roy and Subhasis Biswas of Tripura University have earned the top spot. Santomba Singha and Sankha Subhra Banik from ICFAI University Tripura have secured the second place. And Swarnadeep Choudhury and Purnendu Debnath from Tripura University have taken the 3rd position. After the competitions and events were over, prize distribution and concluding ceremony marked the end of this nice event.

Creative activity could be described as a type of learning process where teacher and pupil are located in the same individual.

- Arthur Koestler

National PI Day:

The Department of Mathematics, ICFAI University Tripura celebrated National Pi Day on 12th April, 2024. It is difficult to draw a student's interest in a certain subject, like mathematics. Awards and other forms of extrinsic motivation can only draw pupils who are proficient in mathematics.

Awards and other forms of extrinsic motivation can only draw pupils who are proficient in mathematics. However, finding inner motivation for that is very difficult. So the faculties of the Department of Mathematics of the ICFAI University organized a program on the occasion of PI Day. On that “hunting the π ” event and poster presentation event was organized. The Students of M.Sc. mathematics 2nd year participated in the “hunting the π ” event and all mathematics students participated in poster presentation event.



Yoga for Stress Management:

The Department of Mathematics, ICFAI University Tripura celebrated Yoga for Stress Management on 30th April, 2024. Dr. Subhasis Biswas, Assistant Professor, Faculty of Physical Education and Yoga, ICFAI University, Tripura gave an engaging presentation on “Yoga for stress management”. He demonstrated how to practice yoga for stress reduction before an exam. He showed the students some yoga exercises that incorporates breathing exercises and meditation techniques that help students unwind, manage stress, and combat anxiety. Yoga enhances concentration by quieting the mind and improving blood flow to the brain. He also stated that yoga can improve focus, memory, and concentration. Frequent practice can enhance cognitive function and memory retention, which will enhance academic success.



Professional Communication and Interpersonal Skill:

The Department of Mathematics, ICFAI University Tripura celebrated Professional Communication and Interpersonal Skill on 1st May, 2024. Dr. Aditya Ghosh, Assistant Professor, Faculty of Liberal Arts, ICFAI University Tripura gave a very engaging presentation on Professional Communication and Interpersonal Skills. Professional communication is the cornerstone of success in any work environment. He gave

some examples on how to communicate in a Respectful Tone. He talked about interpersonal skills, which often referred to as "people skills," are the abilities you use to interact and communicate effectively with others. They encompass a wide range of behaviors and qualities that contribute to positive relationships and successful collaboration. He talked about projecting confidence when attending interviews. The manner in which a person should show up for an interview. He also gave insights on how someone should highlight their abilities to the interviewer.



Workshop on Data Science Foundations: Survey Sampling Data Visualization and Official Statistics in North-East India:

The Department of Mathematics at ICAI University Tripura organized a 5-day hybrid workshop on Data Science Foundations, covering topics such as Survey Sampling, Data Visualization, and Official Statistics, from November 11 to 15, 2024. Dignitaries including Dr. Nachiketa Chattopadhyay, Mausumi Bose, Shibdas Bandyopadhyay, Arup Deewanji, Shri Aloke Kar, and Shrimati Gopa Chattopadhyay were welcomed and felicitated. The workshop began with a lamp lighting ceremony, symbolizing the spreading of knowledge, followed by a welcoming address from Dr. A. Ranganath, Registrar of the University. Dr. Nachiketa Chattopadhyay outlined the objectives of the workshop, while the vote of thanks was given by Dr. Priyangshu Rana Borthakur, Dean of Faculty of Science and Technology.

The sessions included topics like Descriptive Statistics, Exploratory Data Analysis, and multiple hands-on Python courses, led by various experts such as Mausumi Bose and Dr. Nilay Mondal. Throughout the event, participants gained insights into subjects like Correlation & Regression, Categorical Data, and Official Statistics. On the final day, the valedictory session included addresses from dignitaries, distribution of certificates, and participant feedback. The event concluded with a photo session and a vote of thanks from Ms. Soumi Thakur Chakraborty.

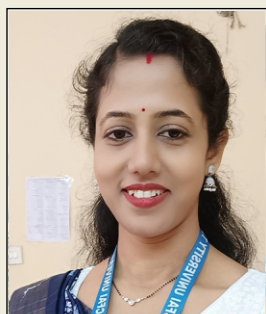


Publication & Collaborative Researches



Dr. Prasenjit Bal

1. Bal, P., & Sarkar, S. (2024). Characterizations of strongly star-Rothberger spaces by means of sequential singletonic intersection property and selection principles. *Rendiconti dell'Istituto di Matematica dell'Università di Trieste: an International Journal of Mathematics*. 56, Art. No. 4, 7pages.
2. Sarkar, S., Bal, P., & Datta, M. (2024). On star Rothberger spaces modulo an ideal. *Applied General Topology*, 25(2), 407-414.
3. Bal, P., Das, R., & Sarkar, S. (2024). On strongly star ideal compactness of topological spaces, *Chebyshevskii Sbornik*. 25(3), 38-46.
4. Sarkar, S., & Bal, P. (2024). Some Alternative Interpretations of Strongly Star Semi-Rothberger and Related Spaces. *Tatra Mountains Mathematical Publications*. 86, 21-30.
5. Bal, P, Datta, T., & Ghosh, A. (2024). Star γ Covers and Their Applications to Selection Principles. *Tatra Mt. Math. Publ*, 86, 175-184.
6. Rakshit D., Bal, P. and Debnath, S. (2024). On I-statistically Cauchy sequences & the class of I-statistically concurrent sequences. *Tatra Mt. Math. Publ*, 86, 111-122.
7. Datta, T., Bal, P. and Das P. (2024). Parameterized Statistical Compactness of Topological Spaces, *Turkish Journal of Mathematics and Computer Science* 16 (2), 529-533.
8. Das, P., Sarkar, S., & Bal, P. (2024). Statistical convergence in topological space controlled by modulus function. *Ural Mathematical Journal*, 10(2), 49-59.



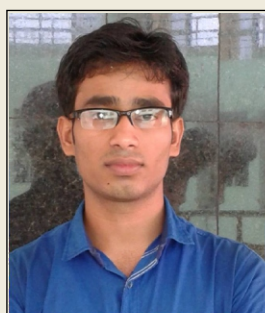
Dr. Debjani Rakshit

D. Rakshit, P. Bal, S. Debnath, "On I-statistically Cauchy sequences & the class of I-statistically concurrent sequences" Tatra Mt. Math. Publ. 86 (2024), 111–122.



Dr. Nilay Mondal

Nilay Mondal and D. C. Dalal, A model for reversible electroporation to deliver drugs into diseased tissues, The Journal of Membrane Biology, 257, 1-12, 2024.



Dr. Rakhal Das

1. Bhattacharjee, K., Laha, A. K., & Das, R. (2024). New Fixed Point Theorems on Complete-Metric Space by Using Rus Contraction Mapping. Tatra Mountains Mathematical Publications.
2. Das, R., & Das, S. (2024). Pentapartitioned Neutrosophic Subtraction Algebra. Neutrosophic Sets and Systems, 68, 89-98.
3. Shil¹, B., Das, R., Granados, C., Das, S., & Tripathy, B. C. (2024). Single-Valued Quadripartitioned Neutrosophic d-Ideal of d-Algebra. Neutrosophic Sets and Systems, vol. 67/2024: An International Journal in Information Science and Engineering, 105.
4. Shil¹, B., Das, S., Das, R., & Pramanik, S. (2024). Single-Valued Pentapartitioned Neutrosophic Soft Set. Neutrosophic Sets and Systems, vol. 67/2024: An International Journal in Information Science and Engineering, 57.
5. Das, S., & Das, R. (2024). Pairwise infra neutrosophic pre-open set in infra neutrosophic bi-topological space. Proyecciones-Journal of Mathematics, 43(4).
6. Das, S., Das, R., Poojary, P., GR, V. B., & Jarali, V. (2024). Pairwise Neutrosophic Supra Pre-Open Set in Neutrosophic Supra Bi-topological Spaces. Engineering Letters, 32(2).
7. Das, A. K., Gupta, N., Mahmood, T., Tripathy, B. C., Das, R., & Das, S. (2024). An innovative fuzzy multi-criteria

decision making model for analyzing anthropogenic influences on urban river water quality. Iran Journal of Computer Science, 1-22.

8. G.R. Vadiraja Bhatta S. Das, R. Das, A. Mukherjee, P. Poojary, Pentapartitioned neutrosophic d-ideal of pentapartitioned neutrosophic d-algebra, Bull. Comput. Appl. Math., 12 (1), 195-216
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11. P. Bal, R. Das and S. Sarkar, On strongly star ideal compactness of topological spaces, Chebyshevskii Sbornik, 2024.
12. Das, S., Das, R., Tripathy, B. C., & Pramanik, S. Through Interval-Valued Neutrosophic Topological Space, Interval-Valued Neutrosophic b-Open Set. New Trends in Neutrosophic Theories and Applications, 39.
13. Mukherjee, A., & Das, R. Application of pythagorean neutrosophic vague soft on decision making problem. New Trends in Neutrosophic Theories and Applications, 9.
14. Book: Rakhal Das, A Basic Course of Mathematica, Learning Methods and Technique of Mathematica, ISSN: 978-81-959400-4-2, Publisher: Ruby Press & co, (2024).



Dr. Mithun Datta

Sarkar, S., Bal, P., & Datta, M. (2024). On star Rothberger spaces modulo an ideal. Applied General Topology, 25(2), 407-414.



Dr. Sayan Chandra Deb

Deb, S. C., & Islam, S. (2024). Pythagorean fuzzy goal programming: a novel approach and its application. International Journal of Operational Research, 50(4), 477-489

New Members of the Family



Himangshu Nath
Ph.D. Scholar

Mr. Himangshu Nath has joined The ICFAI University in Tripura to get his doctorate. In 2024, he enrolled in this program. He completed his Bachelor of Science in Mathematics at Government Degree College, Dharmanagar under Tripura University in 2022 and his Master of Science in Mathematics from The ICFAI University Tripura in 2024.

Toppers Details



MOUMITA DEB
(Bsc Topper)



ROHAN DEB
(Msc Topper)

From the Heart of Alumni



Bapan Chandra Paul
(MSc. 2022-2024)

Having this great opportunity to share my experience, it's an honor. It was an amazing 2 year experience of my life having those great teachers. Besides the academic syllabus study lessons they guided us to find various paths to make our batter future and they are always there for any kind of help we needed.



Kanika Paul
(Msc. 2022-2024)

I recently completed my M.Sc course in Mathematics from ICFAI University Tripura. I will share my experience journey of Mathematics classes. I have studied for two years in ICFAI University Tripura and in these two years I've been able to learn a lot. All the teachers read very well and clear the doubt. Their teaching level is much better and my M.Sc project guide Dr. Arnab Ghosh sir is a good teacher. Sir a lot of helpful. Sir's talk and teaching style is very good. Sir has helped me a lot in this project. I am very much thanks to sir. This University does discipline maintenance and study is very good. So, I am very happy to attend this University for two years.



Joyashman Sen
(BSc. 2021-2024)

My college experience was enjoyable and full of learning. I liked my classes and made good friends along the way. There were some challenges, but I learned a lot from them. Overall, it was a good time in my life.



Riya Poddar
(BSc. 2021-2024)

As a former student of the Department of Mathematics at ICFAI University Tripura, I can confidently say that my time there was truly enriching. The faculty was incredibly supportive, always encouraging us to think critically and push our limits. The professors were not only knowledgeable but also deeply passionate about mathematics. They had a unique way of making even the most complex concepts in differential equations, real analysis, and abstract algebra feel intuitive.

One of my best experiences was poster presentation and participating in seminars where we got to present our ideas. The university provided a great environment for both academic and personal growth. Beyond academics, the friendships and memories I made during my time there will always be special. All I can say if one is passionate about mathematics and eager to explore its depths, ICFAI University's Department of Mathematics is a great place to be!