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# DEPARTMENT OF MATHEMATICS

## **NEWS LETTER**

The Department of Mathematics of RSET was a part of the Department of Basic Sciences & Humanities till 22<sup>nd</sup> June 2020. The Department of Mathematics was made an independent department on 22<sup>nd</sup> June 2020 in order to promote research activities and inter disciplinary projects. The department offers various Mathematics courses in the B.Tech and M.Tech programmes, apart from offering the PhD programme in Mathematics. The Department of Mathematics is recognized as a place of research in Mathematics under APJ Abdul Kalam Technological University, Kerala and has two research supervisors. The Center for Topology and Applications (CETA) established under the department is supported by National Board of Higher Mathematics, Department of Atomic Energy, and Department of Science & Technology, Government of India.

The objective of the courses offered by the department is to create engineers with strong mathematical background, creative thinking and problem-solving skills, through systematic training and research and by discovering feasible solutions to challenging real world problems.

#### PROGRAMS ORGANIZED

- Department started the online Diploma/ Certificate course Statistical foundation for Data Science on August 2022.
- ❖ Department of Mathematics & Center for Topology and Application, RSET organized an International Conference on Mathematics of Intelligent Computing and Data Science on Sept. 15 to 17, 2022.
- The association for Artificial Intelligence and Data Analysis was inaugurated on 03 June 2022.
  Mathematics Department has also been identified to participate in the activities for this association.
- ❖ The mathematics club conducted an inter-collegiate quiz competition on 14 March 2022 as part of Mathematics Club Day Celebrations.
- On 11 March 2022, the department organized a paper presentation competition and Rapid fire.

#### **DEPARTMENT SEMINARS**

To enhance the teaching-learning process the department conducts a monthly seminar by faculty members of the department and research scholars on Saturdays. The objective is to share knowledge and new ideas in the field of mathematics. Due to the ongoing pandemic, all seminars are conducted online.

- ➤ On 21 May 2022, Dr. Deepthi Mary Tresa S gave a seminar on interval valued fuzzy sets and its applications.
- ➤ On 18 June 2022 Mr. Sanoj B gave a seminar on Li-Yorke chaotic eigen dets of operators in Hilbert space.

- ${f p}$ On 25 June 2022, Mr. Amal Raj P gave a seminar on Chaotic functions in the Hyperspace of topological
  - On 30 July 2022, Mr. Abraham Jacob gave a seminar on Morphology on Intuitiomistic Fuzzy soft

- Homeomorphisms of a Compact Manifold at the International Conference on Mathematics of Intelligent
- On 17 September 2022, Ms. Miseriya Majeed presented a paper on A study on Ramanujan Graphs at the

- On 25 June 2022, Mr. Amal Raj P gave a seminar on Chaotic functions in the Hyperspace of topologic spaces.
   On 30 July 2022, Mr. Abraham Jacob gave a seminar on Morphology on Intuitiomistic Fuzzy segraphs.
   On 27 August 2022, Ms. Jauda P P gave a seminar on Families of Tent Maps.
   RESEARCH SCHOLAR PRESENTATIONS
   On 17 September 2022, Ms. Selvy R presented a paper on Fuzzy Iterated Function Systems at the International Conference on Mathematics of Intelligent Computing and Data Science (ICMICDS-22).
   On 17 September 2022, Ms. Jauda P P presented a paper on Dynamics of a Family of Maps with Constant Mass Centre stems at the International Conference on Mathematics of Intelligent Computing and Data Science (ICMICDS-22).
   On 17 September 2022, Ms. Jeeva Jose presented a paper On the Space of Generalised Persistence Diagrams at the International Conference on Mathematics of Intelligent Computing and Data Science (ICMICDS-22).
   On 17 September 2022, Ms. Dhanya P M presented a paper on Applications of Topological Data Analysis with Morphology Operators on Hypergraphs at the International Conference on Mathematics of Intelligent Computing and Data Science (ICMICDS-22).
   On 17 September 2022, Ms. Cindrella T J presented a paper on Connectedness of the Space of Homeomorphisms of a Compact Manifold at the International Conference on Mathematics of Intelligent Computing and Data Science (ICMICDS-22).
   On 17 September 2022, Ms. Miseriya Majeed presented a paper on Some eigen value properties of uniform hyperstar using recurrence relation at the International Conference on Mathematics of Intelligent Computing and Data Science (ICMICDS-22).
   On 17 September 2022, Ms. Bindu V.A and Ms. Radhika Das presented a paper On the exponential Diophantine equation related to the powers of Cluster Primes at the International Conference on Mathematics of Intelligent Computing and Data Science (ICMICDS-22).</l

#### **FACULTY PUBLICATIONS**

- Dr. Binu R published a paper on Tensor product of Neutrosophic Submodules in the Journal Neutrosophic set and systems, 49/2022, 458-4470, Scopus on March 2022.
- Ms. Radhika Das published a paper named Solution of Pells Equation using Eisenstein primes in the Journal Advances and applications in Mathematical Sciences, Volume 21,Issue 8 on June 2022
- Dr. Binu R published a book chapter named Direct sum of Neutrosophic submodule of an R-module in the book titled Neutrosophic Algebraic Structures and their Applications, NSIA Publishing House, in the month of August 2022.

## RESEARCH SCHOLAR PUBLICATIONS

- Ms. Asha G Pillai presented a paper named Some Properties of the Bitopological Space Associated With the 3-Uniform Semigraph of Cycle Graph at International Workshop and Conference on Topology and Applications and published it at Springer Proceedings in Mathematics and Statistics, Springer Proceedings in Mathematics and Statistics, October, 2021.
- Ms. K. U. Sreeja presented a paper named Julia Set of Some Graphs Using Independence Polynomials at International Workshop and Conference on Topology and Applications and published it at Springer Proceedings in Mathematics and Statistics, Springer Proceedings in Mathematics and Statistics, 193-202, October, 2021.
- Ms. Deepthi Chandran presented a paper named Hypergraph Topology at International Workshop and Conference on Topology and Applications and published it at Springer Proceedings in Mathematics and Statistics, Springer Proceedings in Mathematics and Statistics, 193-202, October, 2021.

## **FACULTY ACHIEVEMENTS**

- Dr. Vinod Kumar PB was an editor of Topological Dynamics and Topological Data Analysis, Springer Proceedings in Mathematics and Statistics, Springer, Volume 350 in the month of September, 2021.
- ♦ Dr. Vinod Kumar PB was the resource person of National mathematics day programme, on 22<sup>nd</sup> December 2022, conducted by Bharata Mata College, Thrikkakara.

## FACULTY JOINED AND RELIEVED

- ♦ Mr.Shyam Sunder Iyer, served from 2014 to 2021, relieved our department in the month of April.
- ♦ Ms. Arya MV and Aleena Thomas joined as assistant professor in the month of November.
- ♦ MS. Menny M N joined as assistant professor in the month of April.

- ♦ Ms. Anisha Anilkumar joined as assistant professor in the month of May.
- Ms. Andria Tojo joined as assistant professor in the month of May and relieved on September to pursue B.Ed.
- ♦ Ms. Neethu P R joined as teaching assistant in the month of May.

	Webinar	Conference	Course	Workshop	Training /FDP
Dr. Vinod Kumar P B		1			
Dr. Ramkumar P B		1			1
Ms. Bindu V A		1			
Dr. Binu R		1			
Dr. Jaya Abraham		1			
Ms. Reya Kuruvila		1			
Ms. Radhika Das		1			
Ms. Vinmol K. Jesudas		1			
Mr. Abraham Jacob		1			
Ms. Arya M V	1	1			2
Dr. Deepthi Mary Tresa S		1			1
Ms. Menny M N		1			1
Ms. Anisha Anilkumar		1			
Ms. Neethu P R		1			
	Dr. Binu R Dr. Jaya Abraham Ms. Reya Kuruvila Ms. Radhika Das Ms. Vinmol K. Jesudas Mr. Abraham Jacob Ms. Arya M V Dr. Deepthi Mary Tresa S Ms. Menny M N Ms. Anisha Anilkumar Ms. Neethu P R	Dr. Binu R Dr. Jaya Abraham Ms. Reya Kuruvila Ms. Radhika Das Ms. Vinmol K. Jesudas Mr. Abraham Jacob Ms. Arya M V Dr. Deepthi Mary Tresa S Ms. Menny M N Ms. Anisha Anilkumar Ms. Neethu P R  Ms. Arya M V	Dr. Binu R  Dr. Jaya Abraham  Ms. Reya Kuruvila  Ms. Radhika Das  Ms. Vinmol K. Jesudas  Mr. Abraham Jacob  Ms. Arya M V  Dr. Deepthi Mary Tresa S  Ms. Menny M N  Ms. Anisha Anilkumar  Ms. Neethu P R  1  1  1  1  1  1  1  1  1  1  1  1  1	Dr. Binu R  Dr. Jaya Abraham  Ms. Reya Kuruvila  Ms. Radhika Das  Ms. Vinmol K. Jesudas  Mr. Abraham Jacob  Ms. Arya M V  Dr. Deepthi Mary Tresa S  Ms. Menny M N  Ms. Anisha Anilkumar  Ms. Neethu P R  1  1  1  1  1  1  1  1  1  1  1  1  1	Dr. Binu R