BOOK OF ABSTRACT

ICAMSET-2024

International Conference on Applied Mathematical Sciences for Emerging Technologies

Organized by

Department of Mathematics
School of Engineering and Technology
Dhanalakshmi Srinivasan University, Perambalur

Shri A. Srinivasan
Founder & Chancellor,
Dhanalakshmi Srinivasan University
Perambalur

Message

I am glad and greatly satisfied that the International Conference on Applied Mathematical Sciences for Emerging Technologies - 2024 (ICAMSET-2024), hosted by School of engineering and Technology, Dhanalakshmi Srinivasan University, Perambalur, Tamil Nadu, in collaboration with SIIRT University, Turkey. This conference exemplifies our university's unwavering commitment to fostering global collaboration, innovation, and academic excellence in the rapidly evolving field of applied mathematical sciences and their applications.

The role of applied mathematics in driving advancements in emerging technologies such as Artificial Intelligence, Machine Learning, Blockchain, and Robotics cannot be overstated. ICAMSET-2024 serves as a platform to bridge the gap between theoretical mathematics and its practical applications, bringing together Researchers, Practitioners, and Academicians from across the globe to discuss, collaborate, and innovate.

Dhanalakshmi Srinivasan University takes pride in its multidisciplinary approach to education and research, offering a state-of-the-art infrastructure, world-class faculty, and a vibrant environment for learning and exploration. This conference is yet another step towards our vision of creating responsible, innovative solutions to address societal challenges and promote sustainable development.

As the Chancellor of this University, I am deeply committed to supporting initiatives that promote academic excellence and global partnerships. Hosting this esteemed conference reflects our dedication to being a hub for innovation, learning, and the sharing of ideas.I extend my heartfelt gratitude to the organizing committee, the esteemed speakers, and all participants for their contributions to making this event a grand success. Let this conference be a beacon of inspiration, collaboration, and transformative ideas that will shape the future of technology and mathematics.

"Wishing you all an enriching and stimulating experience at ICAMSET-2024."

About the University

Dhanalakshmi Srinivasan University (DSU) is located in Perambalur, Tamil Nadu, India. Uniqueness of DSU lies in its multidisciplinary nature in offering a wide range of academic programmes encompassing Medicine, Allied Health Sciences, Paramedical, Engineering, Law, Architecture and Agricultural sciences. The university campus has state of the art research labs, computer centres and recreational sports centres. Green ambience with state-of-the-art infrastructure along with top-class faculty aims to serve the need of national and international students.

About the School

The School of Engineering & Technology (SET), comprises departments such as AI & DS, AI & ML, CSE, IT, Cyber Security, IoT, ECE, EEE, Mechanical, and BME, with a vision to provide quality teaching and research that impacts on a global scale. The School has a total of 140 experienced and dynamic faculty members whose research activities, publications, and productive industry interactions testify to their expertise at DSU. The School offers Ph.D. programs in cutting-edge research areas across all disciplines.

About the Department

The Department of Mathematics at DSU, aims for excellence among India's academic institutions. With 40 faculty members, it supports engineering departments through teaching and engages in diverse research areas. The department offers Ph.D. programs in topics such as Fractals, Control Theory, Neural Networks, and Operations Research, and emphasizes a comprehensive curriculum at all levels. It is committed to fostering cutting-edge research, especially in emerging fields like AI, ML, and Data Science, and plans to adopt flexible strategies to develop new initiatives.

International Conference on Applied Mathematical Sciences for Emerging Technologies - 2024 (ICAMSET-2024)

The ”International Conference on Applied Mathematical Sciences for Emerging Technologies” (ICAMSET) aims to serve as a global platform for researchers, practitioners, and academics to explore and discuss the critical role of mathematical sciences in advancing and shaping emerging technologies. This conference seeks to bridge the gap between theoretical mathematics and practical applications across various domains, including artificial intelligence, quantum computing, blockchain, biotechnology, smart grids, robotics, and more.

It emphasizes the importance of mathematical modeling, optimization, statistical analysis, and computational methods in solving complex problems and driving innovation in these rapidly evolving fields. ICAMSET encourages interdisciplinary collaboration, bringing together experts from diverse backgrounds to foster the exchange of ideas, inspire novel research, and address the challenges posed by new technologies.

The conference also highlights the societal and ethical implications of technological advancements, underscoring the need for responsible and sustainable development. By focusing on the integration of mathematical sciences with cutting-edge technologies, ICAMSET aims to contribute to the creation of solutions that not only advance human knowledge but also have a profound and positive impact on global challenges in areas such as healthcare, energy, security, and communication.

ICAMSET – 2024 – Organizing Committee

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Dominator Coloring of Splitting Graph of Certain Graph

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Abstract

A dominator colouring of a graph G is a proper coloring of G in which every vertex dominates every vertex of at least one colour class the minimum number of colors required for a dominator colouring of G is called the dominator chromatic number of G and it's is denoted by xd (G) in this paper, we determine the dominator chromatic number of splitting graphs of complete graph, star graph, ladder rung graph, banana tree and sunlet graph.

Keywords: Dominator coloring, Chromatic number, Dominator chromatic number, Splitting Graph, complete graph, Star graph, Ladder Rung Graph, Banana tree, Sun let graph, Comb Graph.