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Jul – Sep 2026

KPR Institute of Engineering and Technology
Learn Beyond
(Autonomous, Affiliated to Anna University)

DEPARTMENT OF ENGINEERING MATHEMATICS

PRIME

Quarterly Newsletter of the Department of Mathematics



Highlights of the Quarter

A Proud Milestone: 100% Ph.D qualified faculty

All 25 faculty members hold Ph.D degree

Excellence in Mathematical Research

A research-driven department with expertise across diverse mathematical fields, over 170 research publications

Innovation in Mathematics Education

Enhancing mathematical learning through MATLAB-integrated courses

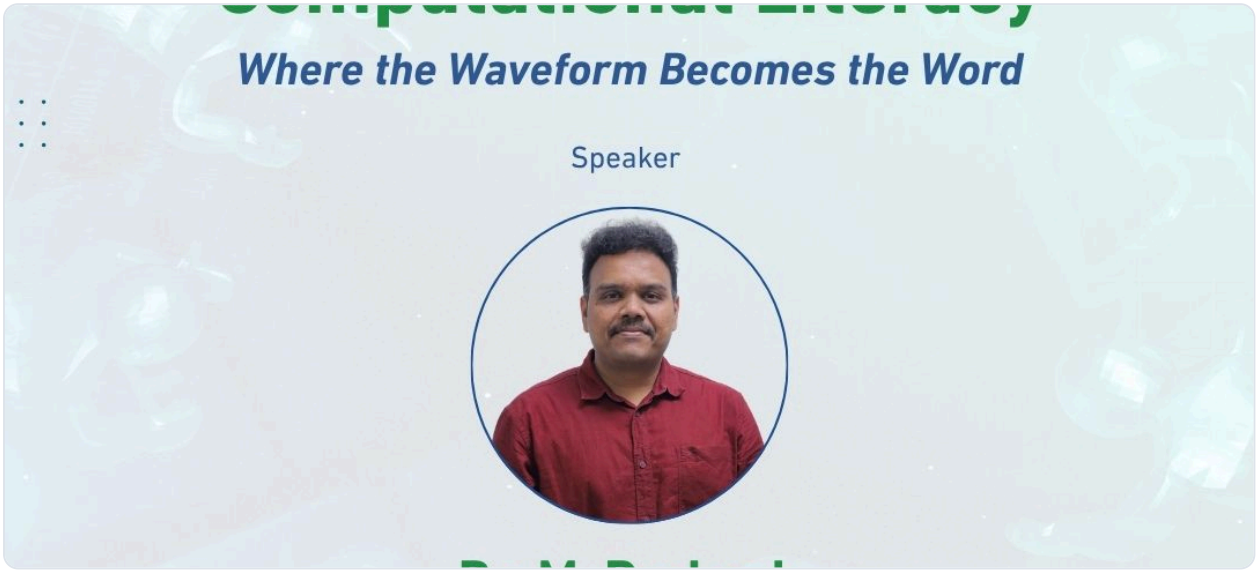
Events Organised

Computational Literacy

Date: 13-08-2026 **Venue:** Language Lab, Mythreyi Blockrie **Attendance:** 42 participants

Resource person: Dr.M.Prakash/ AP(III)

This event is organised especially for the faculty in the Department of Language and Communication to gain knowledge of how MATLAB can be applied in communication



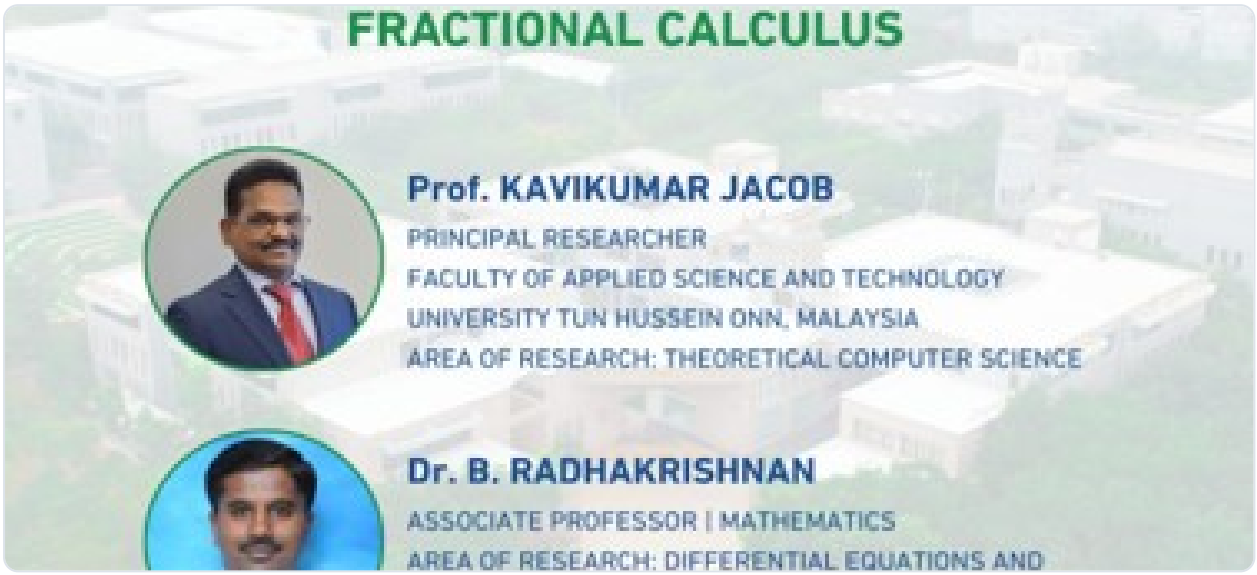
SDG 4 · Quality Education

One Day International Seminar on Fractional Calculus

Date: 10-07-2026 **Venue:** CARE Studio **Attendance:** 52 Participants

Resource person: Dr.Kavin Kumar Jacob, Principal Researcher, University Tun Hussein, Malaysia

It is a one-day international seminar about Fractional Calculus. The resource person explained in detail how fractional calculus is applied in real-world problems



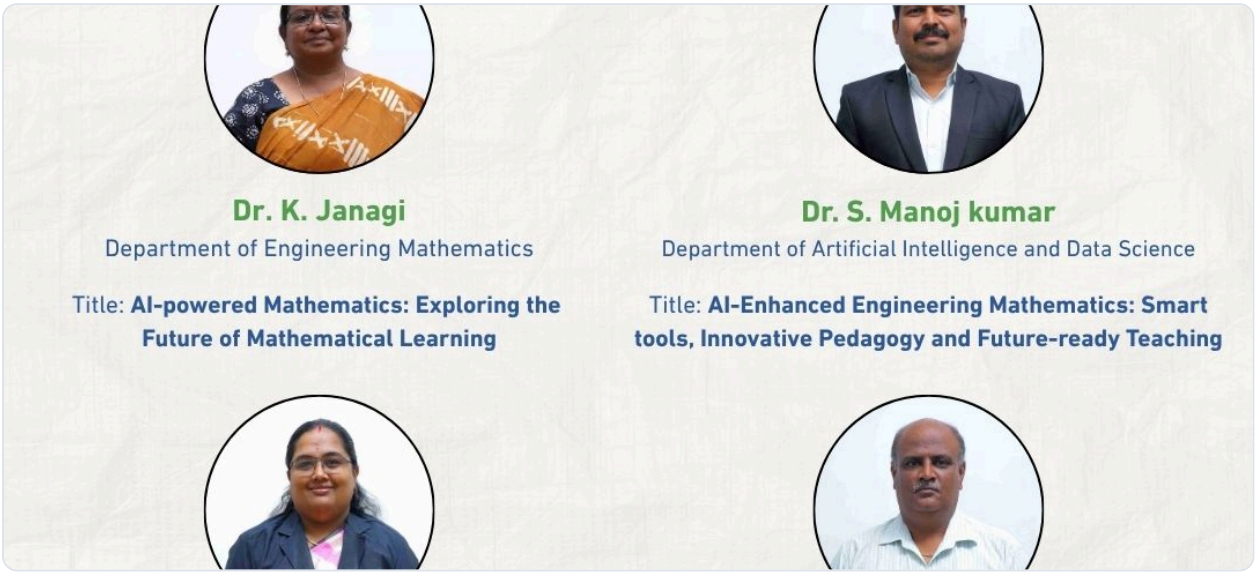
SDG 4 · Quality Education

One-Day Hands-on Training Programme “Empowering Mathematics with AI”

Date: 28-08-2026 **Venue:** Care Studio **Attendance:** 60 External and 26 Internal Participants

Resource person: Dr.S.Manoj Kumar, AsP, AI&DS, KPRIET, Dr.N.Saranya,AsP, AI&DS,KPRIET

The session explored the application of AI tools in Engineering Mathematics and demonstrated how smart technologies and innovative pedagogical approaches can make mathematical concepts more engaging, interactive, and accessible to learners.



SDG 4 · Quality Education

Faculty Upskilling program on ASPIRE and STRIDE

Date: 10-08-2026 **Venue:** Mythreyi Block

Attendance: 72 Faculties from all first year department

Resource person: Dr.K.Vishnu Kumar/ Prof/ CSE, Dr.K.Saravanan/AP(III)/EEE

This seminar successfully built faculty awareness and practical competence in STRIDE and ASPIRE.



SDG 4 · Quality Education

Faculty: Publications and Recognitions

Meena Somasundaram, Panayappan Sethuraman, Petchimuthu Subramanian, "Strong Stability of Hyperbolic Semigroups in Thermal Wave Propagation" , Journal of Analysis, Springer (Scopus, Q2), July 2026.

B.Radhakrishnan, P.Chandru, WD. Mergia, A Study on Mathematical Modelling of Michaelis–Menten Enzyme Kinetics Using Fractional Derivatives, International Journal of Differential Equations , (2026)

M.Tamilarasi, S.Varshini, B.Radhakrishnan, An analysis on fractional non-local stochastic neutral delay differential equations with non-instantaneous impulses, Franklin Open, (2026)

P.Anukokila, A.Velmurugan, B Radhakrishnan, Green Multi-objective 3D Fractional Transportation Problems with a Neutrosophic Fuzzy Framework Incorporating Pareto Distribution, Operations Research Forum, 7 (2026)

P.Anukokila, R.Nisanthini, B.Radhakrishnan, multi-criteria group decision making in renewable energy projects and software systems via the COPRAS technique under a fuzzy environment, Annals of Mathematical Sciences and Applications, 11 (2026)

P.Anukokila, R.Nisanthini, B.Radhakrishnan, Analysis on the Neutrosophic Fuzzy Rough Multi-Objective Quadratic Transportation Problem Using Various Membership Functions, Journal of Fuzzy Sets and Systems, 5 (2026)

Acted as Resource Person for “One Day Lecture on Differential Calculus in Engineering " held at Christ the King College, Coimbatore on 28.09.2026.

Venkatesh Chenrayan, Arun N M, Kiran Shahapurkar,Janagi Kandasamy,Manzoore Elahi, M Soudagar Jana Petru"Investigation of the bending rigidity of the Inconel 625 honeycomb structure printed via direct energy deposition, (SCI Q2), August 2026

Suriyakumar P, Sureshkumar S, Priyadharshini P, Sowndharya M, " Machine Learning-assisted sensitivity evaluation for heat transfer systems", International Journal of Modern Physics B, (SCI Q2), September 2026

Dhurga Devi, Suriya Uma Devi, "Multiphysiscs modelling of heat and mass transfer in hybrid nanofluid flow over topological stagnation points with entropy based performance optimization", International Communications in Heat and Mass Transfer, 178, September 2026

Dr. B.Radhakrishnan and Dr.Sangeetha received a seed grant amount of Rs. 1,70,000/- from KPR SPARK-SEED Program for advancing Research & Knowledge – 2026, KPRIET.

Dr.D.Aravindh secured ELITE under the topic "Stress Management" and ELITE SILVER under the topic "Introduction to Biostatistics " in NPTEL online certification exam

Dr.K.Janagi and Dr.P.Renuka has generated a consultancy amount of Rs.13050 through a one-day hands-on training on "Empowering Mathematics with AI"

Dr.Raja has generated a consultancy amount of Rs. 4950 through a Faculty Training Program "Mastering LaTeX". Dr.M.Prakash, Dr.M.Subramanian and Dr.K.S.Keerthana acted as resource persons for this training program.

Student Achievements

Student(s)	Class	Achievement	Organiser
Srihari M	I CS A	First Prize and Cash prize	KPR CAS
Suthakchina.k	I CS A	Participant	PSG CAS
Nikitha k R	I CS A	Participant	CIT
Janani.R	I CS A	Participant	SRIET
Devadharshini V J	I CS A	First Prize	KPRIET
Dhanalakshmi K P	I CS B	Won First Prize and Cash Prize in "Techraga Hakathon"	KPR CAS
Shree Harini, Athmika and Visalini	I CS B	Won First Prize in the competition	KPRIET
Hanshini V	I IT A	First place in 1000 meter Junior District Athletic Championship	Tamilnadu Government
Hanshini V	I IT A	Third place in 1000 meter Tamilnadu State Junior Open Athletic Championship	Tamilnadu Government
Hanshini V	I IT A	First Place in Tech Raga Hackathon	KPR CAS
Yasvanth S, Sriprakash K S, Vikas K, Meera M and Nithishree	I IT A	Cleared first and second round in SIH	KPR CAS
Tharunakash B M and Shiva K	I IT B	Received Rs.2500 cash prize in Techathon	PSG CAS

Consultancy

Date	Activity	Client	Faculty

Students Corner

MONIKKA V S I Year IT B

Dark Matter and Dark Energy:The Universe Beyond What We See

Have you ever wondered if everything we know about the universe is just a tiny fraction of what actually exists? The stars we admire, the planets we study, and the galaxies we observe through powerful telescopes might be only a small part of a much bigger cosmic mystery. Since childhood, we have learnt about the Big Bang, the beginning of our universe, and how most of space is considered empty. But what if the universe is far more mysterious than we have imagined?

Surprisingly, ordinary matter—the matter that makes up stars, planets, and everything around us—accounts for only about 5% of the universe's total mass-energy content. The remaining 95% is attributed to two mysterious phenomena: **dark matter and dark energy**.

Dark matter is an invisible form of matter that does not emit or reflect light, making it difficult to observe directly. However, its gravitational effects reveal its presence. It helps explain how galaxies form and how cosmic structures hold together. It also helps scientists understand why light bends around massive galaxy clusters, a phenomenon known as gravitational lensing. Studying dark matter could even open doors to new discoveries in physics.

Dark energy, on the other hand, is the name given to whatever is responsible for the accelerating expansion of our universe. Scientists discovered that distant exploding stars, called supernovae, appeared farther away than expected, providing evidence that the universe's expansion is speeding up. Understanding dark energy could help us predict how the universe will evolve and what its ultimate fate might be.

But why does studying these phenomena matter? They hold clues to some of the biggest unanswered questions in science. By investigating them, scientists hope to understand the fundamental nature of the universe and perhaps uncover new laws of physics. Although we have strong evidence of their effects, the true nature of dark matter and dark energy remains unknown. Perhaps the greatest mystery of the universe is not what we see, but what we have yet to discover.

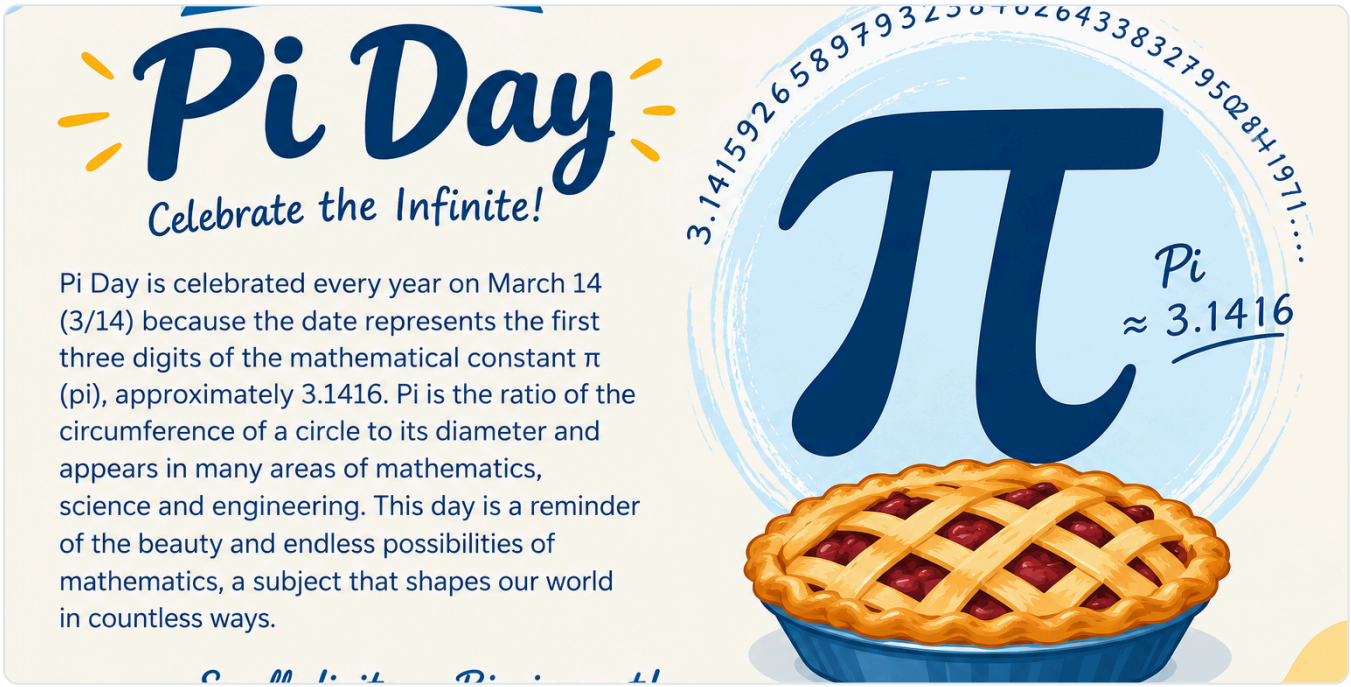
Faculty Corner

DR.S.MEENA AP(III)

Pi Day: Celebrating the Infinite Beauty of Mathematics

Pi (π), approximately equal to 3.14159, is one of the most fascinating constants in mathematics. Defined as the ratio of a circle's circumference to its diameter, Pi has wide applications in geometry, trigonometry, calculus, physics, and engineering. Its presence in various scientific and mathematical concepts highlights the beauty and importance of mathematics in understanding the world around us.

Pi Day, celebrated every year on March 14 (3/14), recognises the significance of this remarkable constant. The day is celebrated through mathematical quizzes, puzzles, competitions, and interactive activities that encourage students to explore mathematics creatively. It promotes mathematical curiosity, logical thinking, and an appreciation of the role of mathematics in science, technology, and everyday life.

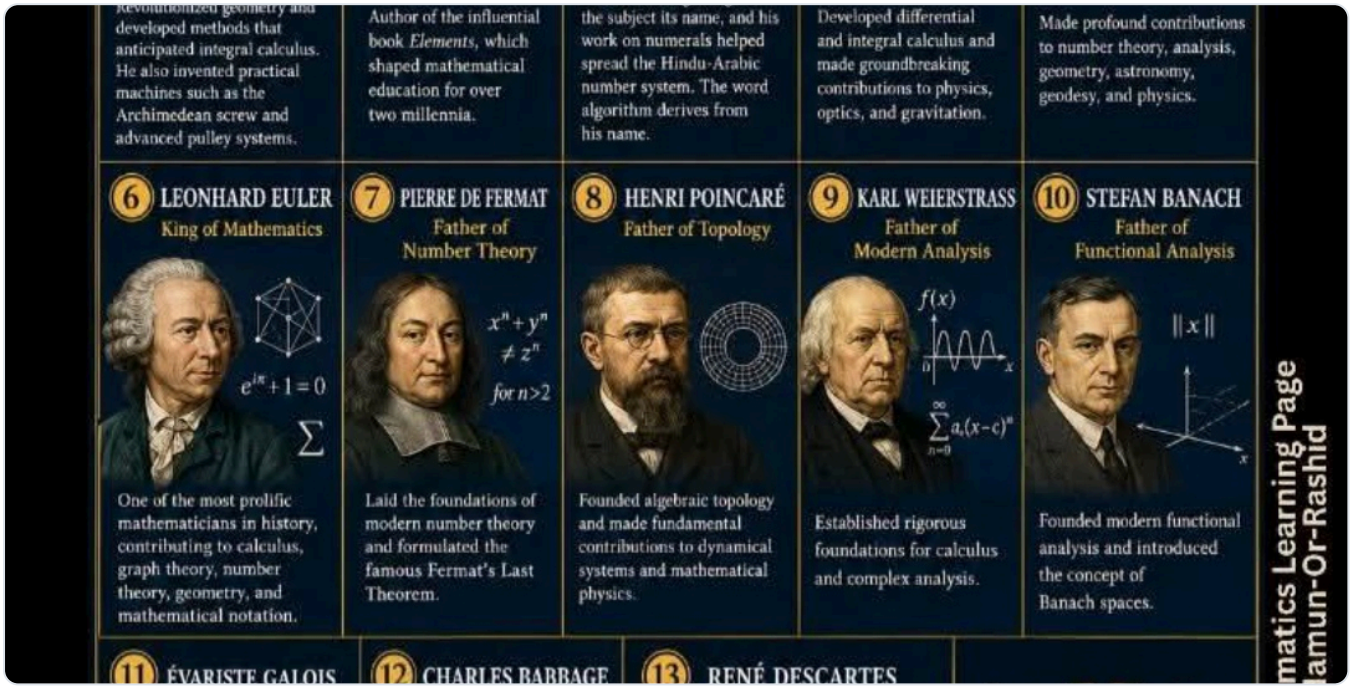


DR.P.SURIYAKUMAR AP(III)/ HoD/ Maths

Mathematical Pioneers Who Changed the World

Mathematics has evolved through the remarkable contributions of brilliant thinkers whose discoveries have shaped science, technology, and modern civilisation. The image highlights 13 influential mathematical pioneers, including Archimedes, Euclid, Al-Khwarizmi, Isaac Newton, Carl Friedrich Gauss, Leonhard Euler, Pierre de Fermat, Henri Poincaré, Karl Weierstrass, Stefan Banach, Évariste Galois, Charles Babbage, and René Descartes. Their groundbreaking contributions to geometry, algebra, calculus, number theory, topology, functional analysis, and computing have laid the foundation for numerous branches of modern mathematics.

The discoveries of these great mathematicians continue to influence engineering, scientific research, technological innovation, and everyday applications. Their dedication, creativity, and intellectual curiosity remind us that mathematics is not merely a collection of numbers and formulas but a powerful language for understanding the universe. Recognising these pioneers inspires students and young researchers to explore new ideas, develop analytical thinking, and contribute to the ever-evolving world of mathematical knowledge. Their ideas, their brilliance, and their legacy continue to shape our future.





BEYOND LOOP

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