



IIT PALAKKAD

MEHTA FAMILY SCHOOL
OF DATA SCIENCE AND
ARTIFICIAL INTELLIGENCE

2025-26 YEAR BOOK



Indian Institute of Technology Palakkad



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ABOUT US

Founded in 2024, the School brings together faculty with expertise in core Data Science, Artificial Intelligence, and other allied fields to collaboratively address impactful societal challenges. The School maintains an active research program focused on exciting core areas of DS and AI such as machine learning, deep learning, computer vision, coding theory, natural language processing, data mining, and information retrieval, as well as interdisciplinary fields such as Industry 4.0, Agriculture, Healthcare, and Climate. The school currently offers a four year Bachelor of Technology (BTech) in Data Science and Engineering, a two year Master of Technology (MTech) in Data Science, and research Programs (Master of Science by Research and PhD) in DS & AI and related areas.



SCHOOL PERSONNEL

Overall Faculty and Staff

CORE FACULTY MEMBERS	GUEST FACULTY MEMBERS	STAFF	GRADUATE APPRENTICE TRAINEE
10	4	1	1

OUR NEW FACULTY



Dr. Abhinandan S. Prasad

Assistant Professor

Dr. Abhinandan S. Prasad holds a PhD from the University of Göttingen, Germany (Marie-Curie Fellow), an M.Tech from IIIT Bangalore, and a B.E. from NIE Mysore. He works on Systems AI/ML, optimizing AI/ML workloads on Cloud and Edge infrastructure, and currently teaches MLOps.



Dr. Raghava Mutharaju

Associate Professor

Dr. Raghava Mutharaju holds a PhD from Wright State University, Ohio, and an M.Tech from NIT Allahabad, with prior experience at IIIT-Delhi, GE Research, IBM Research, Bell Labs, and Xerox Research. His research focuses on Knowledge Graphs, Ontology Modeling, and Explainable and Neurosymbolic AI.

ACADEMIC PROGRAMS

UNDERGRADUATE PROGRAMMES

B.Tech in Data Science

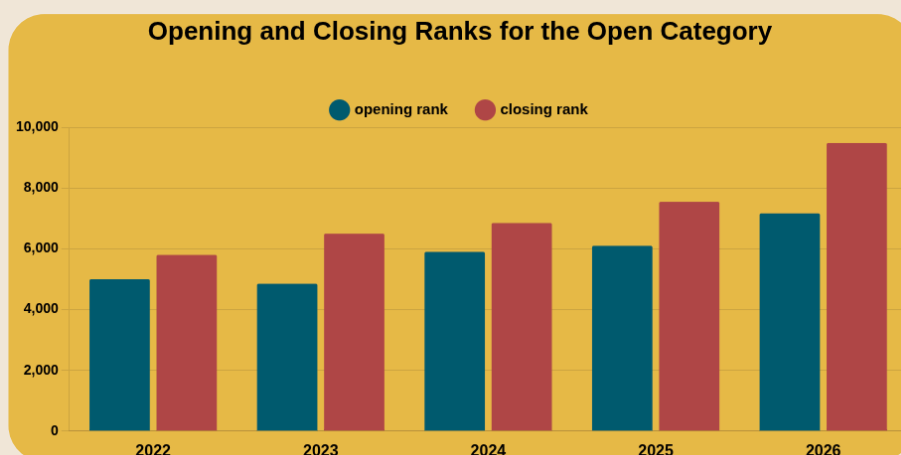
Minor in Data Science

Dual-Degree in Data Science

BATCH (YEAR OF ENTRY)	BTECH STUDENTS ON ROLL
2023-24	39
2024-25	41
2025-26	39
2026-27	47
Total BTech Students Enrolled	166

MASTER OF TECHNOLOGY IN DATA SCIENCE

BATCH (YEAR OF ENTRY)	STUDENTS ON ROLL
2025-26	28
2026-27	23
Total MTech Students On Roll	51



RESEARCH PROGRAM

24	18	6
TOTAL RESEARCH SCHOLARS	PHD SCHOLARS	MS SCHOLARS

STUDENT ENROLMENTS BY CATEGORY

RESEARCH SCHOLAR CATEGORY	PHD	MS
Prime Minister's Research Fellowship (PMRF)	1	—
IIT Palakkad Tech. Incubation Foundation Fellowship (IPTIF)	2	—
Institute Half-Time Research Assistant (HTRA)	12	4
Institute Half-Time Teaching Assistant (HTTA)	—	—
Sponsored Project	2	—
International Student	1	—
Visvesvaraya PhD Fellowship	1	—
Quality Improvement Programme (QIP)	1	—

RESEARCH AREAS

- Machine Learning
- Coding Theory
- Deep Learning
- Game Theory and Mechanism Design
- Knowledge Graphs

- Computer Vision
- Information Retrieval
- AI Systems
- Time Series Analysis
- Ontology Modeling

- Statistical Learning and Estimation
- Fairness and Responsible AI
- Distributed Learning
- Natural Language Processing
- Explainable and Neurosymbolic AI



PUBLICATIONS

15

JOURNAL PUBLICATIONS

13

CONFERENCE & WORKSHOP

28

TOTAL PUBLICATIONS

JOURNAL PUBLICATIONS

Anterpreet Kaur Bedi, Pratibha Kumari, Rishi Kumar Soni, Mukesh Saini, Narayanan C. Krishnan. "SpinVision: An End-to- End Volleyball Spin Estimation with Siamese-based Deep Classification." **COMPUTER VISION AND IMAGE UNDERSTANDING**, vol. 264, Article: 104628, 2026.

Sweta Dey, Rishi Raina, Sudeepta Mishra, Ramesh Dharavath, Abhinandan S. Prasad. "GreenEdge AI: Sustainable Federated Learning for Smart City Air Quality Prediction." **JOURNAL OF INDUSTRIAL INFORMATION INTEGRATION, ELSEVIER**, vol. 50, Article: 101081, 2026.

Eva Cherian, Mrinal Kanti Das. "Modeling Task Uncertainty for Neural Processes to Meta-Learn with Fewer Tasks." **NEUROCOMPUTING**, vol. 682, Article: 133417, 2026.

V. Ramkumar, X. Kong, G. Y. Sai, M. Vajha, Nikhil Krishnan M. "On MDS Convertible Codes in the Merge Regime." **IEEE TRANSACTIONS ON INFORMATION THEORY**, vol. 72, no. 5, pp. 2963-2977, 2026.

Varad Kulkarni, Nikhil Reddy, Tuhin Khare, Chitra Babu, Yogesh Simmhan, Abhinandan S. Prasad. "Characterizing FaaS Workflows on Public Clouds: The Good, the Bad and the Ugly." **IEEE TRANSACTIONS ON PARALLEL DISTRIBUTED SYSTEMS**, vol. 37, no. 6, pp. 1312-1329, 2026.

Etana Fikadu Dinsa, Mrinal Das, Teklu Urgessa Abebe. "Advances in Electronic Health Records Enabled by Artificial Intelligence and Natural Language Processing: A Review of Recent Developments, Limitations and Future Applications." **DISCOVER APPLIED SCIENCES**, vol. 8, Article: 250, 2026.

Vinitha M. Rajan and Sahely Bhadra. "HEIGHTS: Hierarchical graph structure learning for time series anomaly detection." **NEUROCOMPUTING**, vol. 671, Article: 132638, 2026.

Julie Loesch, Gunjan Singh, Raghava Mutharaju, Remzi Celebi. "NSORN: Designing a Benchmark Dataset for Neurosymbolic Ontology Reasoning With Noise." **NEUROSymbOLIC ARTIFICIAL INTELLIGENCE**, vol. 2, 2026.

Snigdhatanu Acharya, Mrinal Das. "Map Wisely for Efficient Transfer Learning Across Heterogeneous Data Sources." **NEUROCOMPUTING**, vol. 660, Article: 131762, 2026.

Etana Fikadu, Mrinal Das, Teklu Urgesa. "A Topic Modeling Approach for Analyzing and Categorizing Electronic Healthcare Documents in Afaan Oromo without Label Information." **NATURE SCIENTIFIC REPORTS**, 14, Article: 32051, 2025.

Ze Shi Li, Shiyu (Vivienne) Zeng, Ahmed Musa Awon, Luiz Franciscatto Guerra, Neil Ernst, Swapnil Hingmire. "Objectifying the Subjective: Cognitive Biases in Topic Interpretations." **TACL**, vol. 13, pp. 1527-1559, 2025.

S. Abilasha, Sahely Bhadra. "Warping Resilient Robust Anomaly Detection for Multivariate Time Series." **MACHINE LEARNING**, vol. 114, Article: 29, 2025.

Ankit, Sahely Bhadra, Juho Rousu. "Efficient 3D Kernels for Molecular Property Prediction." **BIOINFORMATICS**, vol. 41, pp. i58-i67, 2025.

Etana Fikadu, Mrinal Das, Teklu Urgessa, Krishnaraj Ramaswamy. "A Supervised Learning Approach for Recommending Medical Specialists in the Healthcare Sector for the Afaan Oromo Context." **SPRINGER NATURE DISCOVER COMPUTING**, vol. 28, Article 46, 2025.

Etana Fikadu, Mrinal Das, Teklu Urgesa. "MLP-SVM: A Hybrid Approach for Improving the Performance of the Classification Model for Health-Related Documents from Social Media Using Multi-Layer Perceptron and Support Vector Machine." **SPRINGER NATURE DISCOVER APPLIED SCIENCES**, vol. 7, Article: 320, 2025.

CONFERENCE & WORKSHOP PUBLICATIONS

Aisha Aijaz, Raghava Mutharaju, Manohar Kumar. "ApplE: A Modular Ontology of Applied Ethics and Event Context for Ethical Decision Modeling." **THE 45TH INTERNATIONAL CONFERENCE ON CONCEPTUAL MODELING (ER)**, 2026.

Julie Loesch, Sara Falahatkar, Nicole Makayla Kilk, Rishabh Jakhar, Raghava Mutharaju, Michel Dumontier, Remzi Celebi. "CORE-LLM-Bench: A Benchmark Dataset for Evaluating Complex Ontological Reasoning Capabilities of Large Language Models." **20TH INTERNATIONAL CONFERENCE ON NEUROSymbOLIC LEARNING AND REASONING (NESY)**, 2026.

A. Jayakrishnan, V. Ramkumar, Nikhil Krishnan M, M. Vajha. "Adaptive Streaming Codes for Three-Node Relay Networks under Burst Erasure Channels." **IEEE INTERNATIONAL SYMPOSIUM ON INFORMATION THEORY (ISIT)**, 2026.

Thomas John, Akshay Krishna, Jotipriya Das, Mrinal Das. "Going Beyond Explainability: Learning Justifiable Vision Transformers Guided by Flow Matching." **ECML PKDD**, 2026.

Sohel Aman Khan, Raghava Mutharaju, Supratim Shit. "COREKG: Coreset-Guided Personalized Summarization of Knowledge Graphs." **THE 35TH INTERNATIONAL JOINT CONFERENCE ON ARTIFICIAL INTELLIGENCE (IJCAI)**, 2026.

Pranav Guruprasad Rao, Rachit Sandeep Jain, Koninika Pal. "TChat: A Conversational Agent with Temporal Commonsense." **PROACTLLM@CIKM'25: PROACTIVE CONVERSATIONAL INFORMATION SEEKING WITH LARGE LANGUAGE MODELS**, 2025.

H. Suresh, S. Sidheekh, M. P. Vishnu Shreeram, S. Natarajan, Narayanan C. Krishnan. "Tractable Sharpness-aware Learning of Probabilistic Circuits." **AAAI CONFERENCE ON ARTIFICIAL INTELLIGENCE (AAAI)**, 2026.

Amar Parajuli, Koninika Pal. "Extracting Numerical Assertion from Text." **AACL (FINDINGS)**, 2025.

M Taufeeq, K Pal. "NuFact: Validating Numerical Assertions for Knowledge Graphs." **PROCEEDINGS OF THE 34TH ACM INTERNATIONAL CONFERENCE ON INFORMATION AND KNOWLEDGE MANAGEMENT (CIKM'25)**, pp. 5284-5288, 2025.

A. Aimen, A. Verma, M. Tapasvi, N. C. Krishnan. "Generalized Cross-domain Multi-label Few-shot Learning for Chest X-rays." **INTERNATIONAL SYMPOSIUM ON BIOMEDICAL IMAGING (ISBI)**, 2025.

T. John, Mrinal Das. "Focus On What Matters: Guiding Vision Transformers Towards Justification." **PAKDD**, 2025.

R. Gayathri, Koninika Pal. "Understanding Numerical Context by Asking Quantitative Questions." **EUROPEAN CONFERENCE ON INFORMATION RETRIEVAL (ECIR)**, 2025.

M. N. Krishnan, M. Vajha, V. Ramkumar, G. Y. Sai, X. Kong. "On Linear Field Size Access-Optimal MDS Convertible Codes." **IEEE INTERNATIONAL SYMPOSIUM ON INFORMATION THEORY (ISIT)**, 2025.

SPONSORED PROJECTS

Developing Indic Language Models to Enrich Resources for Education

Funder: ANRF ARG · PIs: Koninika Pal, Swapnil Hingmire -Dec 2025.

Automatic Crack Detection

Sponsor: Sansera · PI: Mrinal Das · extended one more year, Oct 2025.

Communication-Efficient Gradient Aggregation for Hierarchical Networks

Funder: ANRF · CoPI: Nikhil Krishnan M

Coding for Low-Latency Communication

Funder: DST INSPIRE · PI: Nikhil Krishnan M

Optimizing SMT Assembly Line

Funder: IPTIF · PI: Narayanan C Krishnan

Specific Properties Guided Explainable Small Molecule Generation (GenAI + Multi-view Kernel)

Funder: ANRF ARG · PI: Sahely Bhadra-Dec 2025.

Convertible Codes: Access & Bandwidth Efficient Code Conversions in Large-Scale Storage Systems

Funder: ANRF ARG-MATRICES · PI: Nikhil Krishnan M -Dec 2025.

Faculty Seed Grant Add-On

Funder: IIT Palakkad, PI: K. R. Sahasranand · sanctioned Nov 2025

Australia-India Partnership: Addressing Barriers to Safe, Standards-Based AI Adoption

Funder: AICCTP DFAT, Australia · PI (India): Narayanan C Krishnan, with Swinburne University · sanctioned Apr 2026

ASpecific Properties Guided Explainable Small Molecule Generation Combining GenAI And Multi-View Kernel Model.

Funder: ANRF ARG · PI: Sahely Bhadra · 2026-2030.

Project Spotlights

Developing Indic Language Models to Enrich Resources for Education



Developing Indic Language Models to Enrich Resources for Education



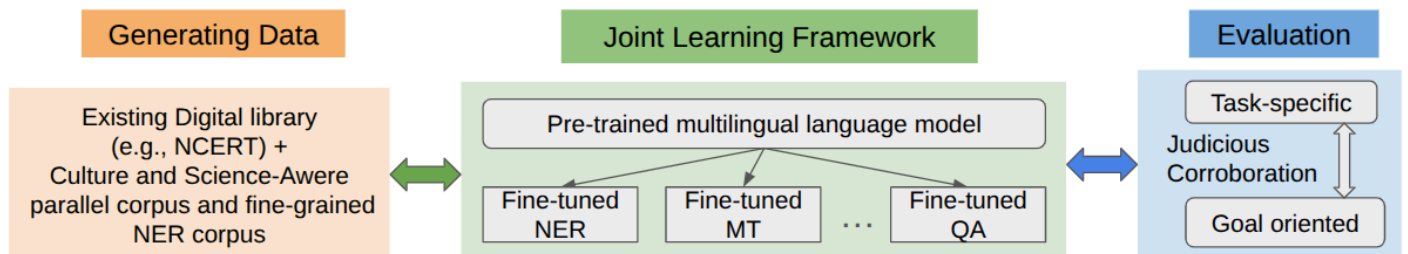
Koninika Pal & Swapnil Hingmire

Objective: Facilitate students in accessing educational resources in their home languages
– Culture and Science

Challenges: Lack of culture and science specific entity tagging, Translation vs Transliteration

At the core of the Indian calendar is the solar calendar based on the Indian equivalent of the zodiac. A year in India is measured by tracking the relative motion of the sun concerning the stars.

भारतीय कैलेंडर का मूल सौर कैलेंडर है जो राशि चक्र के भारतीय समकक्ष पर आधारित है। भारत में एक वर्ष तारों के सापेक्ष सूर्य की गति को ट्रैक करके मापा जाता है।



Dr. Koninika Pal



Dr. Swapnil Hingmire

Project Spotlights

Specific properties guided explainable small molecule generation combining GenAI and Multi-view Kernel model

Project Title: Specific properties guided explainable small molecule generation combining GenAI and Multi-view Kernel model

1. Generative AI will generate more pharmacologically accurate novel 3D structure of potential drug.
2. While Kernel methods accurately predict multiple desirable property of generated drug and this information will flow back to rectify the generation.
3. We will Validate generated structure by simulating molecular dynamic and in wet lab of Amrita.

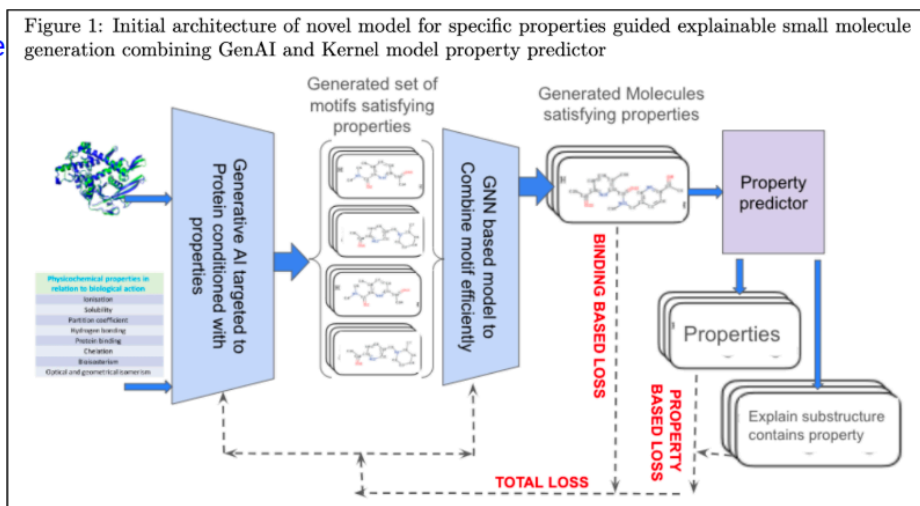
Funding agency : ANRF (ARG)

PI : Dr. Sahely, IIT Palakkad

Co PI: Dr. Pratiti, Amrita Vishwa Vidyapeetham, Coimbatore

Total budget : ~85 Lakh (~70 for IIT)

Duration : 4 years



Dr. Sahely Bhadra

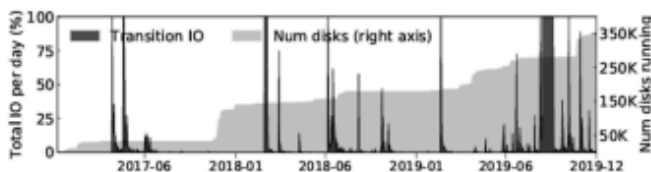
Project Spotlights

Convertible Codes: Enabling Access- and Bandwidth-Efficient Code Conversions in Large-Scale Storage Systems

Convertible Codes: Enabling Access- and Bandwidth-Efficient Code Conversions in Large-Scale Storage Systems

Objective: Enable efficient adaptation of erasure coding in large-scale storage systems by minimizing the disk reads and bandwidth required for code conversions.

The Problem: Unoptimized code conversions incur severe I/O and bandwidth penalties. Data from production clusters (*Kadekodi et al., OSDI 2020*) shows that Transition I/O can overwhelm the system, consuming up to 100% of daily I/O bandwidth.



The Solution: Convertible Codes enable conversion from an initial MDS code to a final MDS code while reading from the provably minimum number of disks, bypassing massive I/O spikes.

Research Directions:

- **Access & Field-Size Optimality:** Reduce field-size requirements while retaining optimal access.
- **Bandwidth-Optimal Conversion:** Establish limits and constructions for split and general regimes.
- **Beyond MDS Convertible Codes:** Extend conversion principles to regenerating and locally regenerating codes.
- **Flexible Code Conversions:** Support multi-stage conversions across coding configurations and families.

Funding agency: ANRF (ARG-MATRICS)

PI: Dr. Nikhil Krishnan M., IIT Palakkad

Total budget: Rs. 30 lakhs (Rs. 6 lakhs/annum)

Duration: 5 years (60 months)



Dr. Nikhil Krishnan M

CONFERENCES ATTENDED

FACULTY

JUL 2025	Dr. Abhinandan S P — Invited Speaker, IndoSys 2025, Bengaluru
AUG 2025	Dr. Narayanan C Krishnan — IEEE IGARSS 2025, Brisbane
OCT 2025	Dr. Nikhil Krishnan M — Co-organised CodeIT Workshop, IISc Bengaluru
NOV 2025	Dr. Koninika Pal — 34th CIKM, Seoul, South Korea
DEC 2025	Dr. Koninika Pal — Presented at AACL, IIT Bombay
JAN 2026	Dr. Narayanan C Krishnan — 40th AAAI Conference, Singapore
JAN 2026	Dr. Raghava Mutharaju, Dr. Abhinandan S P — Kerala AI Future Con, Trivandrum
FEB 2026	Dr. Raghava Mutharaju, Dr. Garima Shakya, Dr. Abhinandan S P — India AI Impact Summit, Delhi
FEB 2026	Dr. Koninika Pal, Dr. Swapnil Hingmire — Bharat Bodhan AI Conclave 2026, New Delhi

STUDENTS

JUL 2025	Ankit — ISMB/ECCB 2025, Liverpool, UK
DEC 2025	Gayathri R — MFFCARE Conference, IIT Guwahati; AACL, IIT Bombay
JAN 2026	Hrithik Suresh — 40th AAAI Conference, Singapore

AWARDS & RECOGNITIONS

ISMB/ECCB 2025 Conference Fellowship
Ankit, PhD Scholar, selected for the
ISMB/ECCB 2025 Conference Fellowship.

ACM Certificate of Appreciation

For service in the ACM Chapters & Membership
Committee — Dr. Abhinandan Prasad, 2025.



Yasir Z, a 3rd-year BTech student, secured the 75th rank in the GATE examination for the Data Science & Artificial Intelligence paper.



Vishnu Shreeram, a 4th-year BTech student, secured the 155th rank in the GATE examination for the Data Science & Artificial Intelligence paper.

GRADUATION 2026

24

BTECH

+8

Minor in DS

18

MTECH

1

MS SCHOLAR

STUDENT EXCELLENCE AWARDS

Congratulations

Vishnu Shreeram on receiving the Institute Medal for the BTech Data Science and Engineering Class of 2022-26, and

Ashish Tripathy honored with with both the Institute Medal and the Best Project Award for the MTech Data Science Class of 2024-26.

BTECH



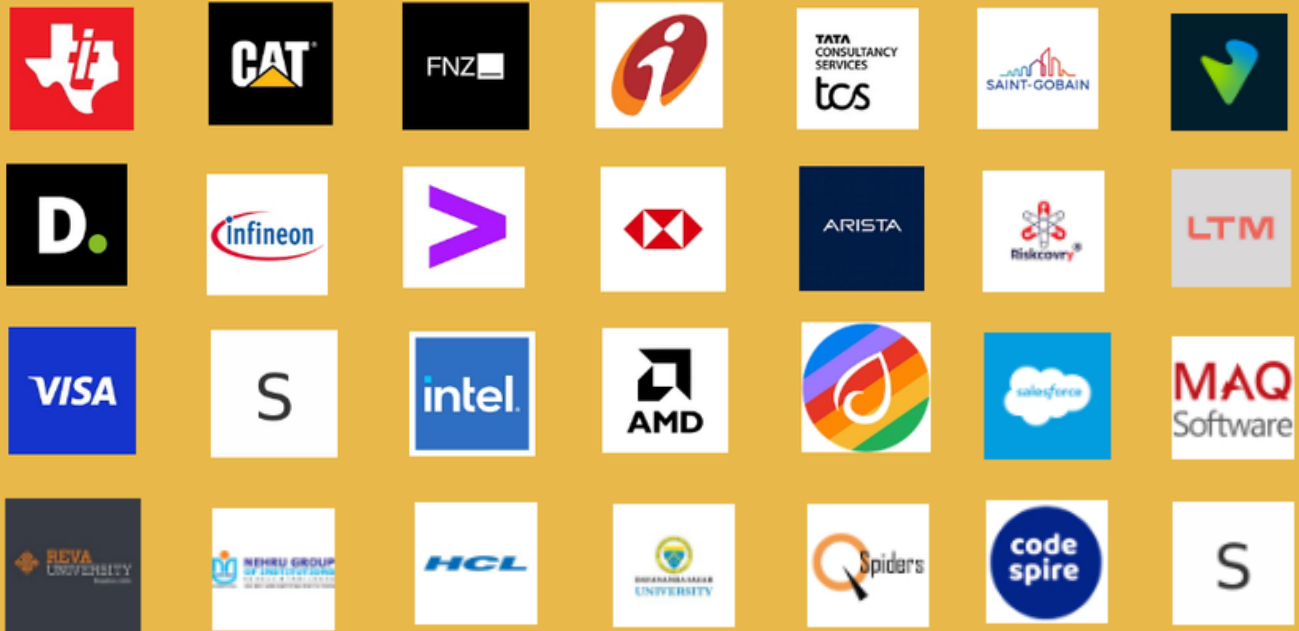
Vishnu Shreeram

MTECH

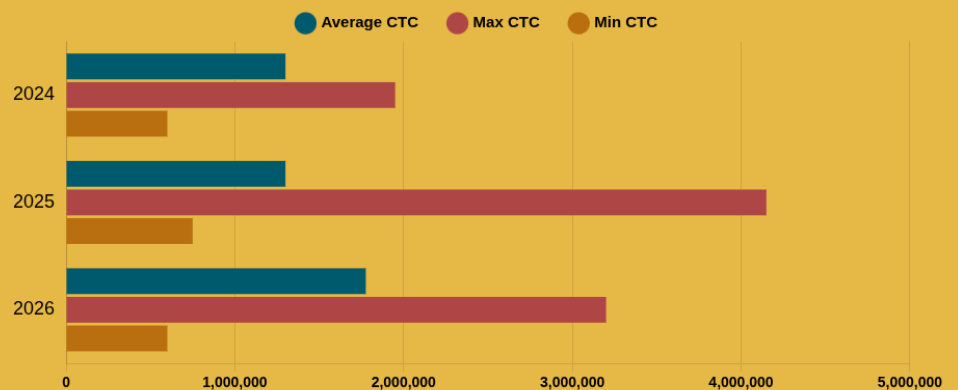


Ashish Tripathy

PLACEMENT



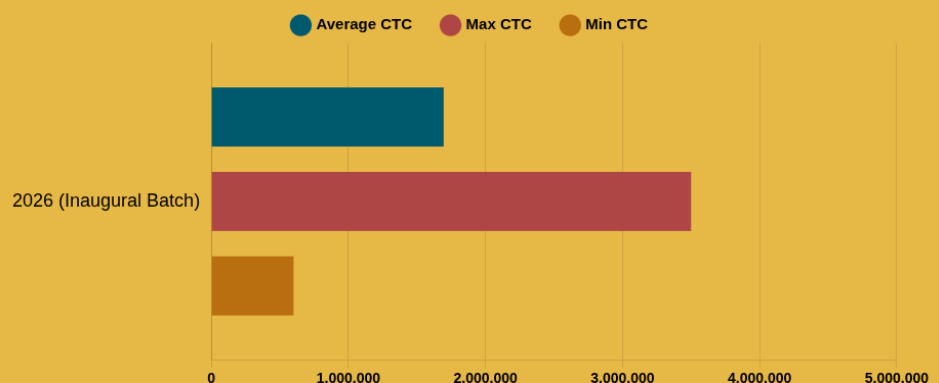
MTECH CTC STATISTICS



Industry Internships

15 Btech 2027 batch
10 Mtech 2027 batch

B.TECH CTC STATISTICS





INTERNATIONAL RELATIONS

The School hosted an Ethiopian PhD student co-supervised by Dr. Mrinal Das under the joint PhD degree Program between IIT Palakkad and Ministry of Education Ethiopia.

Faculty of the School have established collaborations with researchers at various international universities.



MAJOR EVENTS & OUTREACH

ANNUAL RESEARCH SYMPOSIUM – JANUARY 2026

The School conducted its annual research symposium with 6 invited external and 2 internal speakers, plus a poster session by research scholars. Rahul Mehta, Founder and Chairman of the Mehta Family Foundation, delivered a keynote address, and a panel discussion was held on "Learning principles of data science and AI: First or Latest?"



CONCLAVE



Connecting Minds | Creating Opportunities

INDUSTRY-ACADEMIA CONCLAVE 7.0



SEP 19, 20



IIT PALAKKAD

The seventh edition of the Industry-Academia Conclave (IAC 7.0) commenced at IIT Palakkad. The two-day event brings together distinguished leaders from academia and industry to foster meaningful collaboration and dialogue. The conclave was inaugurated in the presence of Vice Admiral Srinivas Kalidoss, AVSM, NM, VSM (Retd.), who graced the occasion as the Chief Guest. Dr. Athira P., Dean, Academics and Prof. Santhakumar Mohan, Dean, ICSR, also addressed the gathering.



INDIAN-AI SUMMIT 2026 PRE-EVENT



INDIA-AI SUMMIT 2026 PRE-EVENT

Mehta Family School of Data Science and Artificial Intelligence,
Department of Data Science, IIT Palakkad
IIT Palakkad Technology I-Hub (IPTIF)

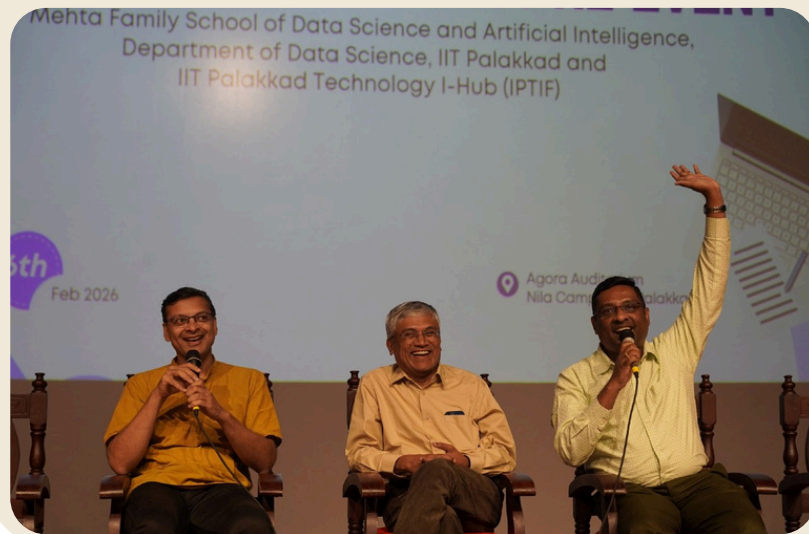


Experts Talk

- ✓ Cognitive Hyperscaling
- ✓ Introduction to Generative AI
- ✓ Application of AI for Industry 5.0

The Mehta Family School of Data Science and Artificial Intelligence, Department of Data Science, IIT Palakkad, in association with the IIT Palakkad Technology I-Hub (IPTIF), organised the India-AI Summit 2026 Pre-Event.

The event brought together academic leaders, industry experts, and researchers to deliberate on emerging developments in Artificial Intelligence and its growing impact across sectors. The programme featured expert talks on Cognitive Hyperscaling, Introduction to Generative AI, and Applications of AI for Industry 5.0, followed by a panel discussion on "Collaboration and Upskilling in the Age of AI."



CONVOCATION 2026

During Convocation 2026, the School proudly celebrated the successful graduation of our BTech and MTech cohorts, who now step forward as highly skilled professionals poised to make significant contributions to the global data science and AI landscape.

BTech 2022-26



MTech 2024-26



TALKS & COLLOQUIA

AUG 2025	Prof. Deepak Padmanabhan (Queen's University Belfast) — "AI and Capitalism: What is Going On?"
SEP 2025	Industrial Academia Conclave 7.0 — talks by Mr. Kamanchi Chandramouli (IBM) and Mr. Manoj Apte (TCS)
FEB 2026	Dr. Shrestha Ghosh — "Trustworthy AI for Information Access and Critical Decision-Making"
FEB 2026	Pre-event for the India AI Impact Summit, organised by Dr. Abhinandan S P; GenAI session by Dr. Mrinal Kanti Das
MAY 2026	Prof. Sriraam Natarajan (UT Dallas) — "AI-in-the-loop for Maternal and Pediatric Health"
JUN 2026	Dr. Swaprava Nath (IIT Bombay) — "When Algorithms Meet Self-Interest: Foundations of Multi-Agent AI"
JUL 2026	Dr. Soumajit Pramanik (IIT Bhilai) — "Unified Question Answer Over RDF Knowledge Graphs and Natural Language Text"

Thank you for being part of another year of growth, discovery, and impact at the Mehta Family School of Data Science and Artificial Intelligence.

Connect With Us

Mehta Family School of Data Science & AI

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