

Voice of IT Department



Dr. Niladri Sekhar Datta
 Associate Professor

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Established in 2007, FIEM's IT Department offers a robust undergraduate program with dedicated faculty, modern labs, and focus on technologies like AI, IoT, and Data Analytics. It encourages research, innovation, and student participation through clubs like IEEE and ACM. The department promotes ethical values and holistic growth. Events such as *Prastuti*, *Prakaushal*, *CodeExcellence*, and *Technical Quiz* enhance skills, innovation, and industry readiness. Combining technical expertise with managerial and soft skills, it nurtures responsible professionals ready for global challenges and societal contribution.

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-Dr. Niladri Sekhar Datta
 Associate Professor
 Department of Information Technology



LLM Fine-Tuning: Customizing Intelligence for Specific Tasks



Large Language Models (LLMs) such as *GPT*, *BERT*, and *LLaMA* have transformed natural language processing through large-scale pretraining on diverse text data. While these models demonstrate exceptional generalization, their performance in specialized domains often requires fine-tuning; the process of retraining an existing model on a smaller, domain-specific dataset to enhance accuracy, contextual understanding, and response relevance.

Fine-tuning enables LLMs to specialize in fields such as healthcare, law, education, or customer support. This can be achieved through full fine-tuning (updating all parameters) or parameter-efficient fine-tuning (PEFT) approaches such as *LoRA (Low-Rank Adaptation)*, which fine-tune only small adapter layers. PEFT significantly reduces computational costs and enables customization even on modest hardware.



Prof. Subhasis Mitra
 Assistant Professor

In contrast, *Retrieval-Augmented Generation (RAG)* does not modify model parameters but enhances LLM performance by dynamically retrieving relevant external information during inference. The combination of a retriever (for document search) and a generator (for response generation) allows the model to stay updated without retraining.

Aspect	LLM Fine-Tuning	RAG (Retrieval-Augmented Generation)
Approach	Model retraining on domain data	Retrieval of external knowledge during inference
Data Requirement	Domain-specific labeled dataset	External document or knowledge base
Adaptability	Static (requires retraining for new data)	Dynamic (updates knowledge without retraining)
Compute Cost	High (for full fine-tuning)	Moderate (depends on retrieval system)
Performance	Highly accurate in fixed domains	Strong generalization with live context
Use Cases	Domain-specific AI (medical, legal)	Knowledge-based QA, chatbots, research assistants

In essence, fine-tuning builds expertise, while *RAG* provides real-time knowledge augmentation, together forming a powerful hybrid strategy for next-generation intelligent systems.



Participation in WBJEE Counselling 2025



Fig: A Moment from WBJEE Counselling 2025

Dr. Prosenjit Mukherjee and *Prof. Ishani Das*, members of the Admission Committee from the Department of Information Technology, actively participated in the *WBJEE Counselling 2025* held from 5th to 7th September 2025.

The counselling process aimed to facilitate the admission of B.Tech. First Year undergraduate students for the academic session 2025-26. Their contribution ensured a smooth and efficient admission procedure, reflecting the department's commitment to transparency and excellence in the selection process.

Wall Magazine "Srishti"

– A Celebration of Joy and Togetherness!

The much-awaited edition of our Wall Magazine "*Srishti*" came alive on *25th September 2025*, with *Prof. Prasenjit Basu*, our dynamic Joint Convener, leading the way. This year's theme "*Season of Joy and Togetherness*", struck a beautiful chord with everyone, celebrating family bonding, festive cheer, holidays, and the sweet nostalgia that ties us all together.



Fig: The Organizing Team and Faculty at the Inaugural of Wall Magazine: "Srishti"



Fig : A Glimpse of the Inauguration of the Wall Magazine: "Srishti"

Students poured their hearts into creative pieces from heartfelt poems and thoughtful articles to vibrant artwork and photographs each reflecting the warmth of relationships and the magic of shared moments. The wall turned into a colorful canvas of emotions, creativity, and community spirit!

The unveiling of *Srishti* wasn't just an event; it was a celebration of togetherness, a reminder of the joy found in unity, and a showcase of our students' incredible talents.

PRASTUTI : A Mock Interview Session by the IT Department



The IT Department of FIEM organized "**PRASTUTI**", a *mock interview* session for its **fourth-year (7th semester)** students, on **11th and 12th September 2025**. Designed as a vital part of campus interview preparation, PRASTUTI aimed to simulate *real-world interview scenarios*, helping students *boost their confidence*, *refine communication skills*, and *gain a deeper understanding of the interview process*.

Students faced both *technical and behavioral questions*, allowing them to assess their readiness and identify areas for improvement. The mock interviews were conducted by experienced faculty members, who offered personalized feedback and practical tips for success.

The session proved immensely beneficial, preparing students not only for technical assessments but also for developing the soft skills and professionalism essential in today's corporate world.



Fig : Glimpse of "PRASTUTI" Mock Interview Session by the Faculty of IT Department

Dancing Dreams: Esha Dalal Selected for the Kolkata Odissi Utsav 2025!



Fig : Esha at Kolkata Odissi Utsav 2025

We are thrilled to announce that **Esha Dalal**, our talented *second-year* student, has been selected to perform at the prestigious **Kolkata Odissi Utsav 2025!** Organized by the **Bengal Odissi Forum and the International Odissi Forum**, this year's Utsav featured a highly competitive selection process. Out of more than 250 participants who auditioned both in-person and digitally, Esha impressed the judges with her grace, technique, and expressive performance.

The esteemed panel included renowned artists such as **Guru Sikata Das** of Bhubaneswar, senior disciple of **Padmashree Guru Kelucharan Mohapatra**, along with several of Kolkata's eminent Odissi dancers.

Being chosen by such distinguished maestros is a proud achievement for Esha and a moment of joy for our entire institution. We wish her the very best as she brings her artistry and passion to the Utsav stage!

Acharya Vandana : Laughter, Music, Memories

The Department of *Information Technology* celebrated Teachers' Day with deep reverence and enthusiasm through a beautifully organized event titled "**Acharya Vandana**" hosted by the *third-year students*. The program served as a heartfelt expression of gratitude towards the mentors who shape young minds with dedication and wisdom.



The celebration featured a series of cultural performances by the second and third-year students, including soulful songs and graceful dances that filled the atmosphere with joy and appreciation. The department also took the opportunity to honor academic excellence, presenting awards to the toppers of each year for their outstanding achievements.

Adding a touch of fun and connection, a quiz segment for the teachers brought laughter and camaraderie, as they sportingly shared some light-hearted "staff room secrets." The highlight of the day came when the teachers themselves took the stage, delighting everyone with their melodious performance that beautifully reflected their warmth and spirit.

As the event drew to a close, heartfelt words of gratitude were exchanged, with students expressing deep appreciation for their mentors' constant guidance and encouragement. The day ended on a note of inspiration, leaving everyone with a renewed sense of purpose and togetherness.

"Acharya Vandana" was not merely a celebration, but a reminder of the profound bond between teachers and students - one built on respect, learning, and shared joy that continues to illuminate the path of knowledge.



Fig : Few Glimpses of Acharya Vandana



UPCOMING EVENT



The IT Department of FIEM is delighted to announce "Techpreneur Triumph – Alumni Excellence Felicitations and Talk", to be held on 16th October 2025 at SG Hall, FIEM Sonarpur Campus. The event will feature our esteemed alumnus **Mr. Aditya Sharma**, Chief Marketing Officer at Posimyth Innovation, who will share his inspiring journey and insights on innovation, leadership, and entrepreneurship in the tech world. Don't miss this exciting opportunity to learn from a true industry trailblazer!

NEWSLETTER OF INFORMATION TECHNOLOGY

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Prof. Ishani Das

Connecting You to the Department of Information Technology

📍 For Queries and Support, Reach Out to Us :

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