



DEPARTMENT OF ARTIFICIAL INTELLIGENCE AND MACHINE LEARNING



**XENZO
2026**



JEPPIAAR
ENGINEERING COLLEGE

JEPPIAAR ENGINEERING COLLEGE
DEPARTMENT OF ARTIFICIAL INTELLIGENCE AND MACHINE LEARNING

GENESIS

THE DEPARTMENT BULLETIN



This Bulletin is Brought to you:

With the blessings of

(Late) Col Dr Jeppiaar, M.A., B.L., Ph.D.
Founder, Jeppiaar Educational Trust

Under the guidance of

Dr. Regeena J Murali B.Tech., M.B.A., Ph.D.,
Chairman and Managing Director – Jeppiaar Group
of Institutions | Founder and Chancellor – Jeppiaar
University

With the steadfast support of

Dr. Shaleesha A Stanley M.Tech., Ph.D., D.Sc
Dean (Academics), Jeppiaar Engineering College
Dr. K. Senthil Kumar M.E., Ph.D., F.I.E., MISHREA., MISTE.,
Principal, Jeppiaar Engineering College

Dr. A. Vidhya

Head – Department of Artificial Intelligence And
Machine Learning

and by the efforts of the department staff,

Mrs. Thakira Ismail

Assistant Professor -
Department of CSE

Mr. B.N. Sairam

Assistant Professor -
Department of AIML

Ms. P.S Indhumathi

Assistant Professor -
Department of AIML

Ms. J.Joice Angel

Assistant Professor -
Department of AIML

EDITORIAL BOARD:

Vinodhini S - 2nd Year AIML Department



**FEATURING OUR PROFESSIONAL
BODIES AND SOCIETIES:**






JEPPIAAR


CHAIRMAN AND MANAGING DIRECTOR'S MESSAGE

Dear Students, Faculty Members, and Esteemed Readers,

It is with great pride and pleasure that I extend my warm greetings to all of you on the occasion of the release of this departmental souvenir, brought out in conjunction with the symposium. This publication stands as a reflection of the academic excellence, creativity, and collective dedication that define the vibrant culture of Jeppiaar Engineering College.

Education today goes far beyond classrooms and examinations. It is about nurturing curiosity, embracing innovation, and preparing young minds to face real-world challenges with confidence and integrity. Events like this symposium provide a valuable platform for students to explore ideas, showcase their talents, and engage with emerging trends that shape the future of technology and society.

At Jeppiaar Engineering College, our vision has always been to nurture competent professionals who are not only technically sound but also ethically responsible and socially conscious. We strive to provide an environment that promotes academic rigor, discipline, and holistic development. Through continuous improvement in infrastructure, industry collaboration, and research-driven learning, we remain committed to empowering students to achieve excellence in their chosen fields.

This symposium is a testimony to the enthusiasm and intellectual curiosity of our students, as well as the unwavering support and guidance of our faculty members. I take this opportunity to appreciate the sincere efforts of the organizing committee and faculty coordinators who have worked tirelessly to make this event and souvenir a success. Their dedication plays a vital role in shaping the academic journey of our students and strengthening the institution's legacy.

The articles, technical contributions, and creative expressions presented in this souvenir reflect the collective talent and innovative spirit of the department. I encourage readers to explore these pages with pride and inspiration, as they showcase the potential and promise of young minds striving for excellence. I am confident that this symposium will serve as a platform for meaningful learning, collaboration, and inspiration. May it ignite new ideas, foster innovation, and motivate students to set higher goals for themselves.

With best wishes for a successful symposium and continued growth of our institution.



**-- DR. REGEENA J
MURALI**

DEAN'S MESSAGE

Dear Readers,

It is a privilege to share my thoughts through this souvenir released on the occasion of the symposium. Academic events such as these serve as important milestones in an institution's journey, as they create opportunities for reflection, dialogue, and intellectual growth. They remind us that education is not merely about acquiring knowledge, but about cultivating the ability to think critically, communicate effectively, and adapt to change.

Learning is a continuous process shaped by exploration and experience. Symposiums encourage participants to question assumptions, present ideas with confidence, and engage in meaningful discussions. These interactions, both formal and informal, contribute significantly to personal and academic development.

In today's rapidly evolving academic and professional landscape, adaptability and curiosity are essential. Events like this symposium nurture these qualities by providing a platform where students and faculty can interact beyond traditional boundaries. The experience gained here extends far beyond the event itself, influencing attitudes, aspirations, and future endeavors.

It is heartening to witness the collective effort that goes into organizing such an event. The collaboration between students and faculty members reflects a shared commitment to academic excellence and institutional growth. These efforts not only strengthen academic foundations but also foster a sense of responsibility, teamwork, and mutual respect. This souvenir captures the essence of the symposium—its ideas, efforts, and achievements. It stands as a testament to the dedication and enthusiasm of everyone involved. As readers turn these pages, I hope they are reminded of the importance of perseverance, open-mindedness, and lifelong learning.

I extend my best wishes to all the participants, organizers, and contributors. May the spirit of inquiry and collaboration reflected in this symposium continue to inspire future academic endeavors and contribute meaningfully to personal and institutional success.



**--DR. SHALEESHA A
STANLEY**

PRINCIPAL'S MESSAGE

Dear Students, Faculty Members, and Esteemed Readers,

It gives me immense pleasure to extend my greetings on the occasion of the release of this year's symposium souvenir. Academic symposiums play a vital role in shaping the intellectual environment of an institution, as they provide platforms for knowledge sharing, innovation, and collaborative learning. Such events encourage students to explore ideas beyond textbooks and classrooms, thereby fostering a culture of curiosity and continuous improvement.

The successful organization of this symposium reflects the dedication and teamwork of the organizers, faculty, and student volunteers. Their commitment and enthusiasm are truly commendable and highlight the strong academic values of the institution.

The effective planning and coordination of this event demonstrate the collective responsibility undertaken by the organizing team. The efforts of faculty members and student coordinators in ensuring systematic execution, adherence to academic standards, and smooth conduct are commendable. Their dedication reflects a strong sense of accountability and commitment to institutional goals.

Faculty members play a vital role in mentoring students and guiding them toward academic and personal excellence. Their consistent efforts in maintaining quality education, encouraging ethical conduct, and fostering a structured learning environment are integral to the institution's progress. Such guidance ensures that students develop not only technical competence but also integrity and professionalism. I trust that this publication will serve as a source of motivation and a reminder of the standards of excellence upheld by the institution.

I extend my best wishes to all those associated with this academic initiative. May the institution continue to progress through disciplined effort, collaboration, and a commitment to quality education in the years to come.



-- Dr.K. SENTHIL KUMAR

HOD'S MESSAGE

Dear Readers,

It gives me immense pleasure to present this souvenir of the Department of Artificial Intelligence and Machine Learning. Artificial Intelligence and Machine Learning are among the most rapidly evolving domains, playing a vital role in shaping the future of technology, industry, and society. In this dynamic landscape, our department is committed to providing a strong academic foundation, fostering innovation, and encouraging research-oriented learning.

The Department of AIML continuously strives to bridge the gap between theory and practice through a well-designed curriculum, hands-on training, industry interaction, and collaborative activities. We focus on nurturing analytical thinking, problem-solving skills, and ethical values among students, enabling them to become competent professionals and responsible contributors to society.

This souvenir stands as a reflection of the collective efforts, achievements, and milestones of our department. I extend my sincere appreciation to the faculty members for their dedication, the students for their enthusiasm and creativity, and the organizing committee for their tireless efforts in bringing out this souvenir successfully. I am confident that this publication will serve as a source of inspiration and motivation for students and faculty alike. Let us continue our journey towards academic excellence, innovation, and leadership in the field of Artificial Intelligence and Machine Learning.

I extend my best wishes to all the participants, organizers, and contributors. May the spirit of inquiry and collaboration reflected in this symposium continue to inspire future academic endeavors and contribute meaningfully to personal and institutional success.

With best wishes for continued growth and success.



-- **Dr.A.VIDHYA**

BEING THE FIRST BATCH

Being the first batch of the Artificial Intelligence and Machine Learning department marks a significant milestone in the academic growth of the institution. It reflects a progressive step toward embracing emerging technologies and meeting the increasing demand for intelligent systems in today's rapidly evolving world. The establishment of this department highlights the institution's commitment to innovation and future-ready education.

As the inaugural cohort, our academic journey began without prior benchmarks, placing upon us the responsibility of shaping the learning culture, discipline, and academic values of the department. Each classroom interaction, laboratory session, project work, and collaborative activity contributed not only to our individual development but also to building the foundation and identity of the department. Through these experiences, we developed adaptability, responsibility, and a strong commitment to academic excellence.

This progress has been made possible through the continuous guidance and support of our faculty members. Their mentorship, encouragement, and dedication to quality education have played a vital role in nurturing our intellectual curiosity, professional outlook, and ethical values.



VISION



- To empower a future where Artificial Intelligence and Machine Learning redefine innovation, enhancing human potential, and fostering collaboration between intelligent technologies and humanity.
- To be a center of excellence in AI and ML education, driving innovation and research to produce globally competent professionals who are socially responsible and ethically grounded.



MISSION



- To equip students with practical knowledge and skills in Computer Science and Engineering and AI/ML technologies through hands-on projects and real-world applications.
- To create an innovative learning environment by integrating the latest technologies and partnering with industry to enhance educational experiences.
- These goals aim to produce graduates who are capable of addressing real world challenges and contributing significantly to the collective well-being of humanity.



**LEARNING
BEYOND
CLASSROOMS**

INSPIRE TO ASPIRE: THE JOURNEY TO SUCCESS:

The Departments of Artificial Intelligence & Machine Learning and Information Technology of Jeppiaar Engineering College jointly organized a motivational and career-oriented session titled “Inspire to Aspire: The Journey to Success.” The event was designed to motivate students by sharing real-life entrepreneurial experiences and guiding them toward personal and professional excellence.

The session featured Mr. Nirmal Alfred, Founder & CEO of Hyperscalex and a renowned Social Media Influencer from Chennai, as the Chief Dignitary. Through his inspiring address, he shared his journey of growth, challenges, failures, and achievements, emphasizing the importance of perseverance, adaptability, and self-belief.

Mr. Nirmal Alfred highlighted the significance of skill development, personal branding, and continuous learning in today’s competitive world. He also spoke about leveraging social media responsibly to build professional networks and create meaningful impact.

The event created a highly motivating environment, leaving students inspired to pursue their aspirations with confidence and determination. It successfully reinforced the institution’s commitment to nurturing well-rounded individuals who are prepared to face real-world challenges with resilience and vision.

JEPPIAAR ENGINEERING COLLEGE | **IET** The Institution of Engineering and Technology

INSPIRE TO ASPIRE
THE JOURNEY TO SUCCESS

Organised by
DEPARTMENT OF ARTIFICIAL INTELLIGENCE & MACHINE LEARNING
&
DEPARTMENT OF INFORMATION TECHNOLOGY

CHIEF DIGNITARY

Mr. Nirmal Alfred
Founder & CEO, Hyperscalex
Social media Influencer, Chennai

Date : 30th October, 2025 | Time: 10.30 am - 12.30 pm
Venue : Chamber 1, Jeppiaar Engineering College

With the Blessings of
(Late) Col. Dr. Jeppiaar, M.A., B.L., Ph.D.
Founder
Jeppiaar Educational Trust

Under the Guidance of
Dr. Regeena J. Murali, B.Tech., MBA, Ph.D.
Founder & Chancellor, Jeppiaar University
Chairman and Managing Director
Jeppiaar Engineering College

In the Presence of

Dr. Shaleesha A. Stanley Dean - Academic, Jeppiaar Engineering College.	Dr. K. Senthil Kumar Principal, Jeppiaar Engineering College	Dr. A. Vidhya Head of the Department (AI & ML) IET Faculty Advisor, Jeppiaar Engineering College	Ms. C. Anitha Head of the Department (IT) Jeppiaar Engineering College
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FUTURAX 2K25:

The Departments of Information Technology and Artificial Intelligence & Machine Learning at Jeppiaar Engineering College proudly presented FuturaX 2K25, a technical and creative symposium aimed at fostering innovation, problem-solving, and collaborative learning among students. With the theme “Fueling Minds with Science and Creativity,” the event served as a vibrant platform for students to showcase their technical acumen and creative thinking.

The symposium featured exciting segments such as IMAGINEX, BRAIN BUZZ, and INNOVISION, each designed to challenge participants intellectually and encourage innovative approaches to real-world problems. These events tested students’ analytical abilities, logical reasoning, creativity, and teamwork, promoting a spirit of healthy competition and learning.

The event was graced by Mr. Anto Edberg, Senior Team Lead – Cloud Platform at Temenos, specializing in SaaS Cloud Operations (Microsoft Azure) and Cloud FinOps, Chennai, as the Chief Dignitary. His address provided valuable insights into cloud technologies, industry expectations, and the importance of continuous upskilling in the evolving tech landscape.

FuturaX 2K25 witnessed enthusiastic participation from students across departments, creating an environment of collaboration and innovation. Overall, the event stood as a testament to the institution’s dedication to nurturing future-ready engineers and innovators.



ARTIFICIAL INTELLIGENCE & MACHINE LEARNING
Proudly presents
FuturaX 2k25
"FUELING MINDS WITH SCIENCE AND CREATIVITY"
Exciting segments

IMAGINEX **BRAIN BUZZ** **INNOVISION**

CHIEF DIGNITARIES

Mr. ANTO EDBERG
Senior Team lead - Cloud platform at Temenos
SAAS cloud operations (Microsoft Azure)
Cloud FinOps, Chennai.

WITH THE BLESSINGS OF **UNDER THE GUIDANCE OF**

(Late) Hon. Col. Dr. JEPPIAAR M.A. B.L. Ph.D.
Founder
Jeppiaar Educational Trust

Dr. KICHENA JIMRALLI R. Tech. MBA, Ph.D.
Founder & Chancellor, Jeppiaar University Chairman and
Managing Director, Jeppiaar Engineering College

IN THE PRESENCE OF

Dr. SHALEESHA A. STANLEY M.Tech. Ph.D. D.Sc.
Dean-Academics
Jeppiaar Engineering College

Dr. K. SENVILKUMAR M.E. Ph.D. F.E. MISIRIA MINTY
Principal
Jeppiaar Engineering College

FACULTY CO-ORDINATOR
Mr. V.VINOTH KUMAR

ELITE SEMINAR HALL

HEAD OF THE DEPARTMENT
Mrs. C. Anitha (IT)
Dr. A. Vidhya (AI/ML)

OCT 08 8:30-3:00



EXPLORING THE FUTURE OF AUTOMATION: RPA AND CAREER OPPORTUNITIES

The Departments of Information Technology and Artificial Intelligence & Machine Learning of Jeppiaar Engineering College, in association with the Institution's Innovation Council (IIC) and IET JEC On Campus, organized a technical session titled "Exploring the Future of Automation: RPA and Career Opportunities." The event aimed to introduce students to the rapidly evolving domain of Robotic Process Automation (RPA) and its growing significance across industries.

The session was led by the Chief Guest, Ms. S. Nivethitha, Business Analyst and RPA Developer at RR Donnelley, Chennai. Through an engaging and insightful interaction, the speaker provided a comprehensive overview of RPA, explaining how automation is transforming business processes by improving efficiency, accuracy, and scalability. She highlighted real-world applications of RPA across sectors such as finance, healthcare, logistics, and IT services, offering students a practical understanding of industry expectations.

The session served as a valuable platform for students to gain industry-aligned knowledge. Overall, the event successfully inspired students to explore automation technologies and prepare themselves for emerging career opportunities in the digital era.



EXPLORING THE FUTURE OF AUTOMATION : RPA AND CAREER OPPORTUNITIES
DEPARTMENT OF INFORMATION TECHNOLOGY
AND
DEPARTMENT OF ARTIFICIAL INTELLIGENCE & MACHINE LEARNING

CHIEF GUEST:

Ms. S. NIVETHITHA
Business analyst,
RPA developer, RR Donnelley,
Chennai.

WITH THE BLESSINGS OF

UNDER THE GUIDANCE OF

IN THE PRESENCE OF

FACULTY CO-ORDINATOR
Dr. K. BAGIRATHAN M.E. Ph.D
Department of Information Technology,
Jeppiaar Engineering College.

CHAMBER-1
JEPPIAAR ENGINEERING COLLEGE

HEAD OF THE DEPARTMENT
Mrs. C. Anitha M.E.(Ph.D)
INFORMATION TECHNOLOGY
Dr. A. Vidhya M.E. Ph.D
ARTIFICIAL INTELLIGENCE



INTERNATIONAL GUEST LECTURE:

The Role of Computing and Artificial Intelligence in Building Safe Autonomous Systems

The Department of Artificial Intelligence & Machine Learning, in association with the Department of Information Technology, Jeppiaar Engineering College, organized an International Guest Lecture on 21st January 2026 to provide students with global industry perspectives in emerging technologies. The session was delivered by Mr. Saravanan Jagadeesan, Senior Battery Systems & Integration Lead, Vertical Aerospace, United Kingdom. The lecture focused on the critical role of computing and artificial intelligence in the design, development, and safety assurance of autonomous systems.



IET The Institution of Engineering and Technology | **IET** IET On Campus | **JEPPIAAR** ENGINEERING COLLEGE | **EDUCITY**

**INTERNATIONAL GUEST LECTURE ON
THE ROLE OF COMPUTING AND ARTIFICIAL INTELLIGENCE
IN BUILDING SAFE AUTONOMOUS SYSTEMS**

ORGANISED BY
DEPARTMENT OF ARTIFICIAL INTELLIGENCE & MACHINE LEARNING
AND
DEPARTMENT OF INFORMATION TECHNOLOGY

CHIEF DIGNITARY

 **Mr. Saravanan Jagadeesan** B.E., M.Sc.
Sr. Battery Systems and Integration Lead
Vertical Aerospace
City Of Bristol, England, United Kingdom

With the blessings of Under the guidance of

 **(Late) Hon. Col. Dr. JEPPIAAR**,
M.A., B.L., Ph.D.
Founder,
Jeppiaar Educational Trust

 **Dr. REGEENA J MURALI**, B.Tech, MBA, Ph.D.
Founder & Chancellor, Jeppiaar University
Chairman and Managing Director,
Jeppiaar Engineering College

In the Presence of _____

 **Dr. SHALEESHA A. STANLEY**,
M.Sc., Ph.D., B.Sc.
Dean-Academics,
Jeppiaar Engineering College

 **Dr. K. SENTHIL KUMAR**
M.E. Ph.D., PGD, MDRSA, MDRS
Principal,
Jeppiaar Engineering College

 **Dr. A. VIDHYA ME. PHD**
Head of the Department (AIML)
IET Faculty Advisor, Jeppiaar
Engineering College

Date: 21th January 2026 | Timing : 11:00 a.m - 12:30 p.m

 **CHAMBER -3 , JEPPIAAR ENGINEERING COLLEGE**



The speaker shared valuable insights on real-world applications of AI in safety-critical environments, emphasizing system reliability, intelligent decision-making, and future trends in autonomous technologies. The session helped students connect academic concepts with practical industry requirements.



The event was organized under the guidance of Dr. A. Vidhya, M.E., Ph.D., IET Faculty Advisor and Head of the Department, AI & ML, and witnessed active participation from students and faculty members.

The lecture served as an enriching platform, inspiring students to explore innovation-driven careers in artificial intelligence and advanced computing systems.



UMAGINE DX
Taking Tech to Campuses!

As UMAGINE TN 2026 (4th Edition) gears up for Jan 8-9 at Chennai Trade Centre, we are expanding our horizons!

UMAGINE DX is bringing the future of technology directly to students across Tamil Nadu.

Interactive sessions with Industry Experts & Alumni Tamil Nadu is democratising knowledge, ensuring every talent is empowered no matter the region.

Stay tuned for more innovations!
Minister for IT and Digital Services shares in X platform

The Impact:

- 59 Colleges across 20 Districts
- 10,000+ Students engaged

Partnered with HCL Tech & ICT Academy of Tamil Nadu

DIPR Issued by: Director, Information- Public Relations Department

UMAGINE DX:

UMAGINE DX – Taking Tech to Campuses! is a state-level digital outreach initiative designed to bring the latest technology trends, industry knowledge, and career guidance directly to college students across Tamil Nadu. The program is part of UMAGINE TN 2026 (4th Edition) and is organized in association with ICT Academy of Tamil Nadu, in partnership with HCLTech. The initiative focuses on empowering students with practical exposure to emerging technologies and real-world industry expectations. The event featured interactive sessions with industry experts and experienced alumni, who shared insights on current digital trends, innovation in the IT sector, skill development, and career pathways.

Students were encouraged to think beyond textbooks, understand industry requirements, and prepare themselves for future opportunities in the fast-evolving technology landscape. The sessions were engaging, informative, and helped bridge the gap between academic learning and industry practices. From our class, 10 boys attended the UMAGINE DX program and actively participated in the sessions. They gained valuable knowledge about modern technologies, career opportunities in IT and digital services, and the importance of upskilling.

Overall, the program created strong awareness about the importance of digital skills in today's competitive world. It encouraged students to take initiative in learning new technologies and preparing themselves for future career challenges. Such events play a crucial role in shaping students' professional growth and confidence.












DEPARTMENT OF ARTIFICIAL INTELLIGENCE AND MACHINE LEARNING
Organizes

EXPOTHON 2K26

INNOVATE TO IMPACT

In Association with
Trridev Labels

TTRIDEV LABELSS

TECHNICAL IDEA PITCHING

Date : 20th February, 2026 | Time : 09.00 am Onwards
Venue : Chamber I, Jeppiaar Engineering College

With the blessings of
 (Late) Hon. Col. Dr. JEPPIAAR, M.A., B.L., Ph.D.
Founder, Jeppiaar Educational Trust

Under the guidance of
 Dr. REGEENA J MURALI, B.Tech, MBA, Ph.D.
Founder & Chancellor, Jeppiaar University
Chairman and Managing Director, Jeppiaar Engineering College

In the Presence of

 Dr. SHALEESHA A. STANLEY, M.Sc., Ph.D.
Dean-Academics, Jeppiaar Engineering College

 Dr. K. SENTHIL KUMAR, M.E, Ph.D.
Principal, Jeppiaar Engineering College

 Dr. A. VIDHYA
Head of the Department
Department of Artificial Intelligence and Machine Learning

 Mr. B. N. SARAM
Assistant Professor
Department of Artificial Intelligence and Machine Learning

EXPOTHON 2K26:

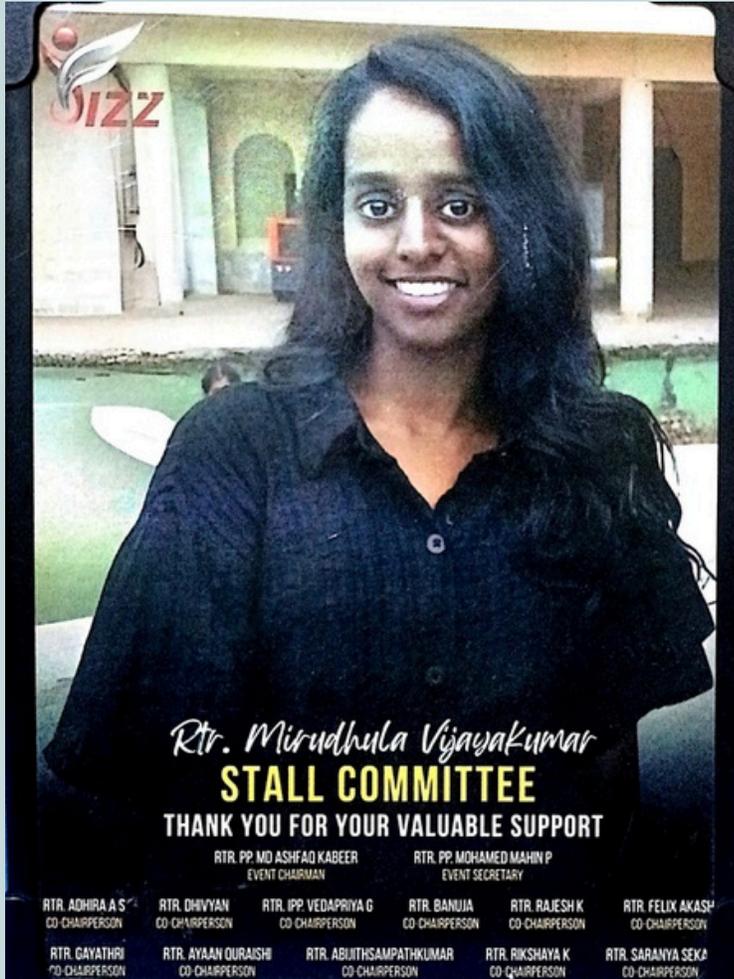
EXPOTHON 2K26 is a technical idea pitching event organized by the Department of Artificial Intelligence and Machine Learning at Jeppiaar Engineering College. The event provided a platform for students to present innovative ideas and real-world problem-solving solutions. A total of eight teams participated, showcasing creativity, technical skills, and entrepreneurial thinking. The competition encouraged innovation with strong social and industrial impact. AgriTech Innovators emerged as the winners with their impactful solution. Innovex secured the runner-up position for their creative and practical approach. The event promoted collaboration, critical thinking, and emerging technologies. EXPOTHON 2K26 successfully bridged academic learning with real-world applications.



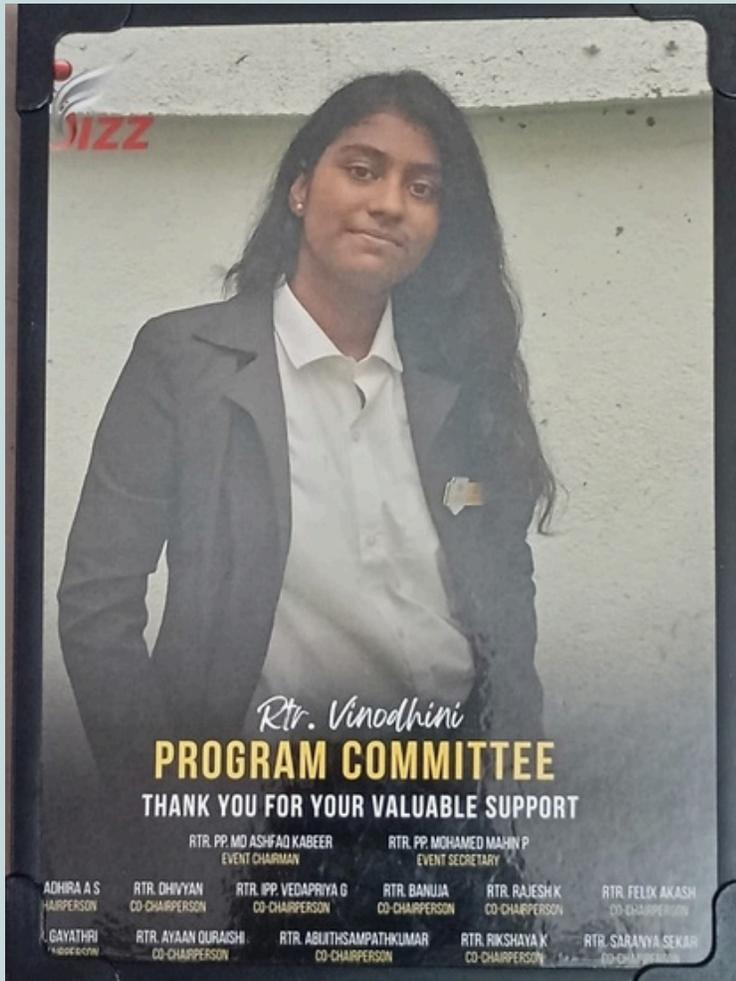


MOMENTS OF
PRIDE



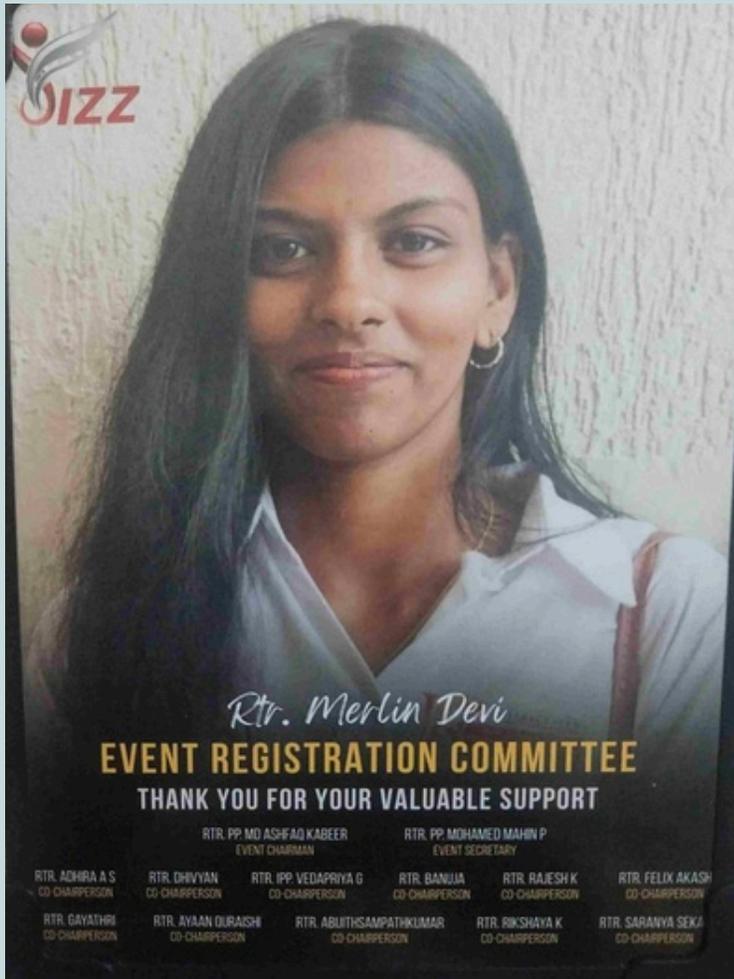














Inspiring and empowering
future professionals

Manisha L **GenAI Powered Data Analytics Job Simulation**

Certificate of Completion
December 27th, 2025

Over the period of December 2025, Manisha L has completed practical tasks in:

- Exploratory data analysis and risk profiling
- Predicting delinquency with AI
- Business report and data storytelling for collections strategy
- Implementing an AI-driven collections strategy



Tom Brunskill
CEO, Co-Founder of
Forge



Inspiring and empowering
future professionals

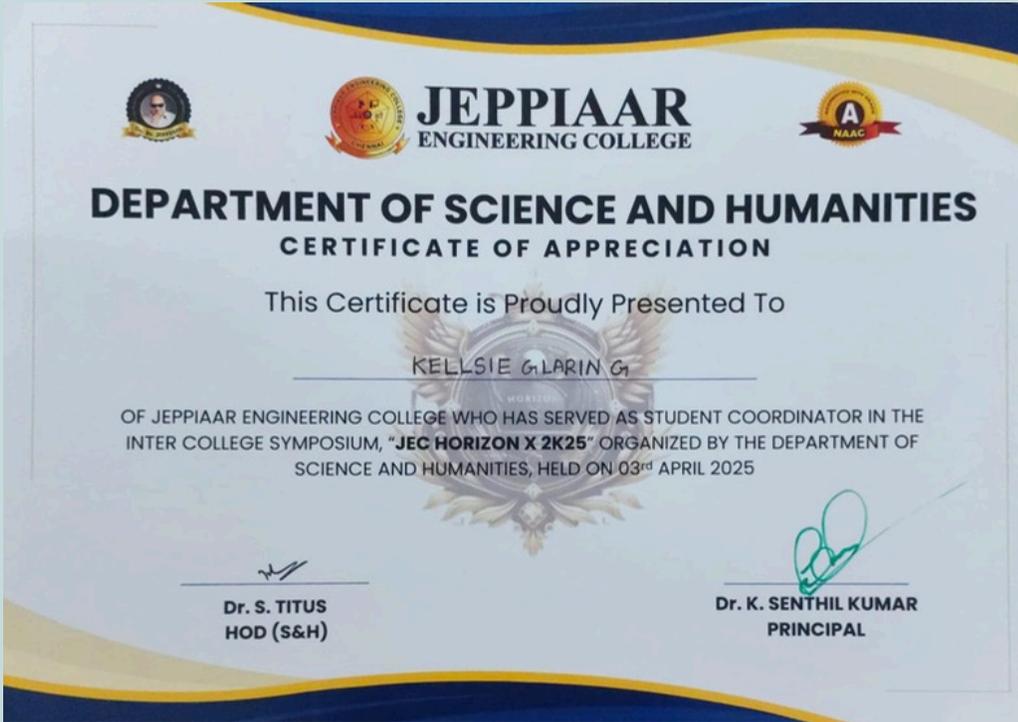
Kelsie Glarin **Introduction to Cybersecurity Job Simulation**

Certificate of Completion
February 4th, 2026

Over the period of February 2026, Kelsie Glarin has completed practical tasks in:

Data analysis
Incident response
Security awareness
Penetration testing

Tom Brunskill
Co-Founder of Forge



C.ID: 300f85d 

CERTIFICATE

OF COMPLETION
PROUDLY PRESENTED TO

Harini

has successfully completed 4 weeks of a virtual internship program in
Artificial Intelligence
with wonderful remarks at **CODSOFT** from 15/12/2025 to 15/01/2026.

We were truly amazed by his/her showcased skills and invaluable contributions to
the tasks and projects throughout the internship.

 
Founder

contact@codsoft.in www.codsoft.in Date: 18/01/2026

 **PHYSICS WALLAH** |  

Generative AI for All

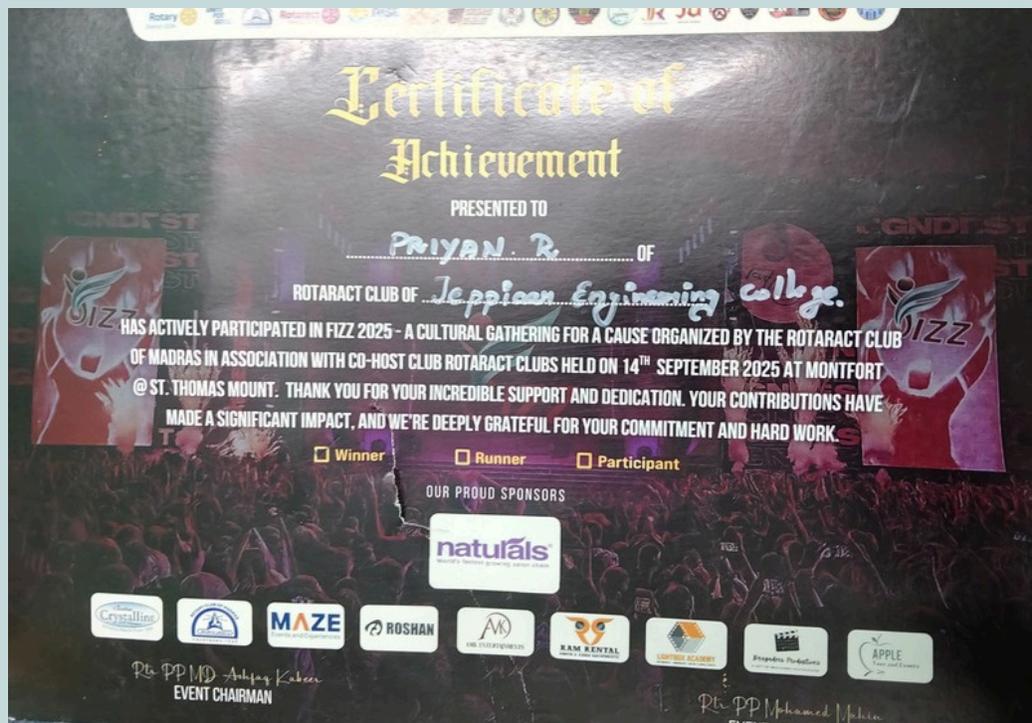
This is to certify that Mr./Mrs./Ms. **Harini** , has successfully completed the Generative AI for All Program.

DATE: 29th December 2025

CERTIFICATE NO: 83a7d830-8623-4973-9f33-125816b6fe3d


Scan this QR to verify


Mr. Alakh Pandey
(Founder)





**MENTOR'S
VOICE**

Nurturing Excellence with Inspiring Innovation



A student's journey is not measured only by semesters, grades, or certificates, but by the ideas nurtured, values strengthened, and dreams shaped along the way. Every classroom is more than four walls—it is a space where curiosity is encouraged, questions are welcomed, and futures quietly begin to take form. In an era of rapid technological advancement and constant change, students stand at the threshold of endless opportunities. Knowledge today is not limited to books alone; it lives in innovation, collaboration, and the courage to explore the unknown. True education empowers learners not just to find answers, but to ask meaningful questions.

Challenges will arise, and failures may occur—but these moments are powerful teachers. They build resilience, patience, and wisdom. Each obstacle faced during student life becomes a stepping stone toward confidence and maturity. Beyond academics, student life is a celebration of creativity, leadership, and shared experiences. Friendships formed, ideas exchanged, and lessons learned outside the syllabus often leave the deepest impact. These moments shape character and inspire lifelong learning.

As students move forward, may they carry with them integrity in thought, compassion in action, and excellence in every pursuit. The future belongs to those who are willing to learn continuously, adapt fearlessly, and dream boldly. This institution takes pride in nurturing young minds who will go on to create, innovate, and lead. May this souvenir serve as a reminder that every student holds within them infinite possibilities—waiting to be realized.

– Dr. A. Vidhya
Head of the Department

RETRIEVAL-AUGMENTED GENERATION: ADVANCEMENTS IN ARTIFICIAL INTELLIGENCE AND KEY CONCERNS



Artificial Intelligence has witnessed rapid evolution with the emergence of Large Language Models (LLMs) capable of generating human-like text and performing complex language tasks. Despite their impressive capabilities, traditional generative models rely entirely on knowledge embedded during training, which makes them prone to hallucinations, outdated information, and limited domain awareness. Retrieval-Augmented Generation (RAG) has emerged as a powerful solution to these challenges by combining information retrieval with natural language generation.

Retrieval-Augmented Generation enhances generative models by allowing them to access external knowledge sources dynamically at inference time. Instead of generating responses solely from internal parameters, RAG systems retrieve relevant documents from structured or unstructured knowledge bases and use this information to guide response generation. This hybrid approach significantly improves factual accuracy, contextual relevance, and reliability, making RAG a foundational architecture in modern AI systems.

Recent advancements in RAG architectures have been driven by improvements in neural retrieval techniques and transformer-based models. Dense vector representations and semantic embeddings enable efficient retrieval of relevant content from large-scale datasets. The use of vector databases and optimized indexing mechanisms allows RAG systems to scale across millions of documents while maintaining acceptable response latency. Additionally, transfer learning and domain-specific fine-tuning have enabled

RAG models to perform effectively in specialized areas such as healthcare, legal analytics, finance, and education.

One of the most significant contributions of RAG is its ability to reduce hallucinations commonly observed in large language models. By grounding responses in retrieved evidence, RAG ensures that generated outputs are supported by verifiable sources. This feature is particularly important in high-risk applications where incorrect information can have serious consequences. Moreover, recent developments in multimodal RAG have extended retrieval capabilities beyond text to include images, tables, and structured data, further enhancing the depth and quality of AI-generated responses.

RAG systems are increasingly adopted in intelligent chatbots, enterprise knowledge management platforms, research assistants, and decision-support systems. Their ability to integrate private and proprietary data allows organizations to deploy AI solutions that are both secure and context-aware. This adaptability makes RAG a preferred approach for building production-level AI applications that require continuous knowledge updates and high accuracy.

Despite its advantages, Retrieval-Augmented Generation introduces several challenges that must be addressed for responsible deployment. The quality and reliability of retrieved data play a critical role in system performance, as inaccurate or biased information can negatively impact outputs. The retrieval process also adds computational overhead and latency, which can affect real-time applications.

Looking ahead, the future of RAG lies in adaptive retrieval strategies, self-learning mechanisms, and deeper integration with explainable AI frameworks. Emerging research focuses on agent-based RAG systems capable of iterative reasoning, real-time knowledge updates, and improved decision transparency. These advancements are expected to further strengthen the trustworthiness and applicability of AI systems across diverse domains.

In conclusion, Retrieval-Augmented Generation represents a significant milestone in the advancement of Artificial Intelligence by effectively bridging the gap between static language models and dynamic real-world knowledge. While challenges related to scalability, data quality, and security persist, continued research and innovation are poised to establish RAG as a core architecture for next-generation intelligent systems.

– Mr. B.N. Sairam
Assistant Professor

TEST-TIME COMPUTE SCALING AND INFERENCE-TIME REASONING: THE NEW FRONTIER IN DEEP LEARNING



In the rapidly evolving landscape of artificial intelligence, one of the most transformative shifts in recent years has been the emergence of test-time compute scaling and inference-time reasoning as a dominant paradigm. While traditional deep learning has relied largely on training-time scaling — increasing model size, data volume, and training compute — modern research and applications are increasingly harnessing the power of compute during inference itself. This shift represents a fundamental change in how we think about intelligence in artificial neural networks.

Rather than viewing intelligence as something that is “baked into” a model once training is complete, this new perspective treats intelligence as something that can continue to develop dynamically at the moment of use. Inference is no longer a passive process of generating an output from fixed parameters; instead, it becomes an active phase where the model allocates additional computational effort to better understand inputs, explore alternative reasoning paths, and refine its responses. This evolving paradigm brings AI systems closer to adaptive problem-solving rather than static pattern matching.

From Bigger Models to Smarter Thinking:

- Over the past decade, breakthroughs in deep learning have been largely driven by scaling: larger neural architectures, massive datasets, and enormous training budgets. This

strategy has delivered increasingly capable models, but it also comes with steep costs and diminishing returns. Training ever-larger models requires vast financial resources, energy consumption, and infrastructure, making it difficult for smaller organizations and researchers to participate at the cutting edge of AI development.

- In contrast, test-time compute scaling focuses on the computational effort expended when a model is actually used, rather than when it is trained. Instead of performing a single, fixed forward pass through a neural network at inference, the model engages in multiple reasoning steps, internal deliberations, or iterative refinements tailored to the specific input. This allows the system to allocate more “thinking time” to harder problems while responding more efficiently to simpler ones.
- This approach echoes human problem-solving: a student may read a question, think it through, revise an answer, and only then respond. Similarly, modern models can be designed to think longer during inference for improved performance. By revisiting intermediate conclusions, evaluating alternative possibilities, or decomposing complex tasks into smaller steps, inference-time reasoning enables models to produce more accurate, coherent, and context-aware outputs. As a result, intelligence becomes not only a product of training scale, but also of how effectively computation is used at the moment of reasoning.

Final Thoughts:

- Test-time compute scaling and inference-time reasoning are reshaping our understanding of what makes deep learning models powerful. By empowering models to think harder at test time, researchers and engineers are unlocking new levels of performance on complex tasks ushering in a new era where the depth of reasoning matters as much as the breadth of training.
- As this paradigm continues to evolve, it signals a shift away from relying solely on ever-larger models trained with massive resources. Instead, future AI systems may increasingly depend on smarter use of computation during inference, enabling more flexible, efficient, and intelligent behavior across a wide range of applications.

EXPLAINABLE AI (XAI): MAKING AI MODELS MORE TRANSPARENT AND TRUSTWORTHY



Artificial Intelligence (AI) systems are increasingly deployed in high-stakes domains such as healthcare, finance, education, and governance. While advanced machine learning models provide high accuracy, their lack of transparency often leads to trust, ethical, and regulatory concerns. Explainable Artificial Intelligence (XAI) addresses this issue by providing insights into how AI models make decisions. This article explores the concept of XAI, its importance, commonly used techniques, real-world applications, challenges, and future research directions. By improving model interpretability and accountability, XAI plays a vital role in building trustworthy and responsible AI systems.

Introduction

Artificial Intelligence has become an integral part of modern technological systems, enabling automation and intelligent decision-making across various sectors. However, many state-of-the-art AI models function as black boxes, making their internal decision processes difficult to understand. This lack of transparency raises concerns regarding trust, fairness, and accountability. Explainable AI (XAI) aims to bridge this gap by making AI systems more interpretable and transparent.

What is Explainable AI?

Explainable AI refers to techniques and methods that allow users to understand, interpret, and trust the outputs of AI systems. XAI focuses not only on prediction accuracy but also on providing human-understandable explanations for model behavior. This enables stakeholders to validate results, identify biases, and ensure ethical AI usage.

Importance of Explainable AI

The importance of XAI has grown with the widespread adoption of AI technologies. Transparent AI systems help meet regulatory requirements, improve user confidence, and support decision-making in critical applications. XAI also assists developers in debugging models and improving overall system reliability.

Techniques Used in Explainable AI

Various techniques are employed to achieve explainability in AI models. Model-agnostic approaches such as LIME and SHAP explain individual predictions, while interpretable models like decision trees and rule-based systems offer inherent transparency. Visualization tools and feature importance analysis further enhance understanding of model behavior.

Applications of Explainable AI

Explainable AI has found applications in multiple domains. In healthcare, XAI supports clinical decision-making by explaining diagnostic predictions. In finance, it enhances transparency in credit scoring and fraud detection systems. In education, XAI enables personalized learning by explaining student performance predictions.

Challenges and Limitations

Despite its benefits, XAI faces challenges such as balancing interpretability with model complexity and accuracy. Providing explanations that are both accurate and understandable remains difficult, especially for deep learning models. Standardizing explanation methods across domains is another ongoing challenge.

Future Scope of Explainable AI

The future of XAI lies in developing more intuitive, standardized, and user-centric explanation techniques. As AI regulations evolve, explainability will become a core requirement in AI system design. Integrating XAI from the early stages of model development will be essential for responsible AI deployment.

Conclusion

Explainable AI represents a critical advancement toward transparent and trustworthy artificial intelligence systems. By enabling humans to understand and trust AI decisions, XAI ensures ethical adoption and enhances the reliability of intelligent systems. As AI continues to evolve, Explainable AI will remain a cornerstone of responsible innovation.

– Ms. J. Joice Angel
Assistant Professor

– Ms. J. Joice Angel
Assistant Professor

EDGE AI: INTELLIGENCE AT THE EDGE



Edge Artificial Intelligence (Edge AI) refers to the deployment of AI algorithms directly on edge devices such as smartphones, IoT devices, sensors, drones, and embedded systems rather than relying solely on centralized cloud servers. By processing data locally, Edge AI reduces latency, enhances privacy, improves reliability, and enables real-time decision-making. With the rapid growth of Internet of Things (IoT), smart cities, autonomous vehicles, and industrial automation, Edge AI has emerged as a critical technology in modern computing. This paper explores the architecture, technologies, applications, benefits, challenges, and future directions of Edge AI in intelligent systems.

1. Introduction

Traditional AI systems depend on cloud servers for data processing, where data is collected from devices, sent to the cloud, processed using AI models, and then returned to the device. This approach leads to issues such as high latency, network dependency, bandwidth limitations, and privacy concerns. Edge AI addresses these challenges by performing AI inference directly on edge devices, enabling faster and more secure responses.

2. Architecture of Edge AI

The Edge AI architecture consists of three main components. Edge devices such as smartphones, cameras, sensors, and wearables collect and process data locally. An edge gateway acts as an intermediary between devices and the cloud, handling communication and preliminary processing. The cloud backend, though optional, is used for model training, large-scale data analytics, and long-term storage. In Edge AI systems, inference occurs at the edge, while training is usually performed in the cloud.

3. Technologies Enabling Edge AI

Several technologies support the implementation of Edge AI. Model compression techniques like quantization, pruning, and knowledge distillation reduce model size and computational requirements. TinyML enables machine learning models to run on microcontrollers with limited memory and power. Hardware accelerators such as GPUs, TPUs, NPUs, and specialized Edge AI chips improve processing speed and efficiency.

4. Applications of Edge AI

Edge AI is widely used in many domains. In smart cities, it supports traffic monitoring, surveillance, and pollution control. In healthcare, Edge AI enables real-time patient monitoring and wearable health devices. Autonomous vehicles rely on Edge AI for object detection, lane recognition, and collision avoidance. In industrial automation, it is used for predictive maintenance and robotics. In retail, Edge AI supports customer behavior analysis, automated billing, and inventory management.

5. Advantages of Edge AI

The major advantages of Edge AI include low latency, enhanced data privacy, reduced bandwidth usage, improved reliability in low-connectivity environments, and better energy efficiency due to optimized models.

6. Challenges in Edge AI

Despite its benefits, Edge AI faces challenges such as limited computational resources, security risks due to physical access to devices, difficulty in updating models across distributed systems, and scalability issues when managing large numbers of devices.

7. Future Scope of Edge AI

The future of Edge AI includes ultra-low latency networks, AI-powered smart homes, edge-based AR/VR applications, space exploration systems, and fully autonomous industrial environments. Edge AI will continue to play a key role in real-time intelligent systems.

8. Conclusion

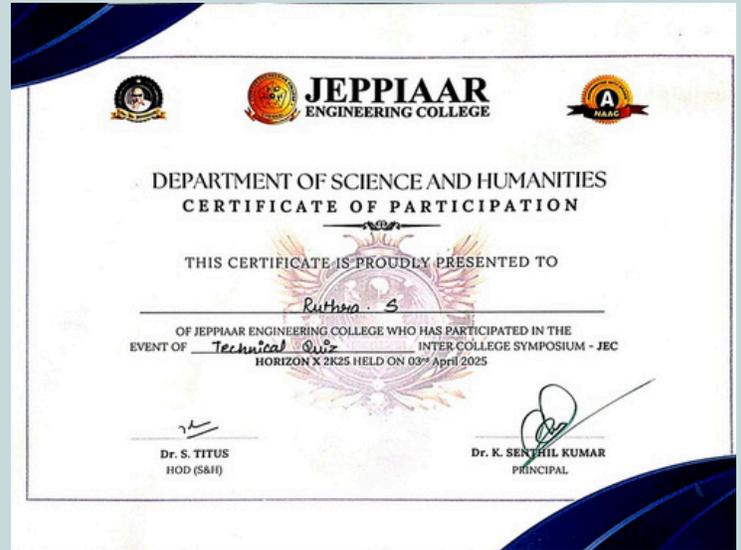
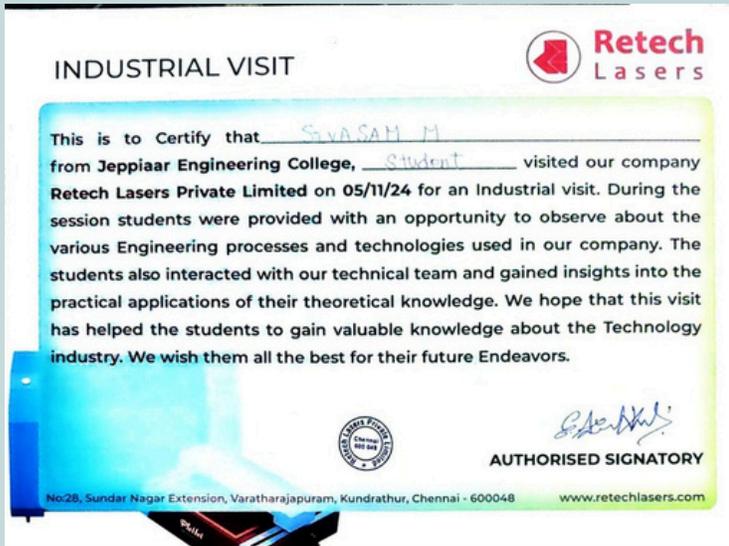
Edge AI represents a shift from centralized cloud computing to distributed intelligence at the device level. By enabling faster processing, improving privacy, and reducing reliance on the cloud, Edge AI supports next-generation applications across various industries. Continuous advancements in hardware and model optimization will further accelerate its adoption.

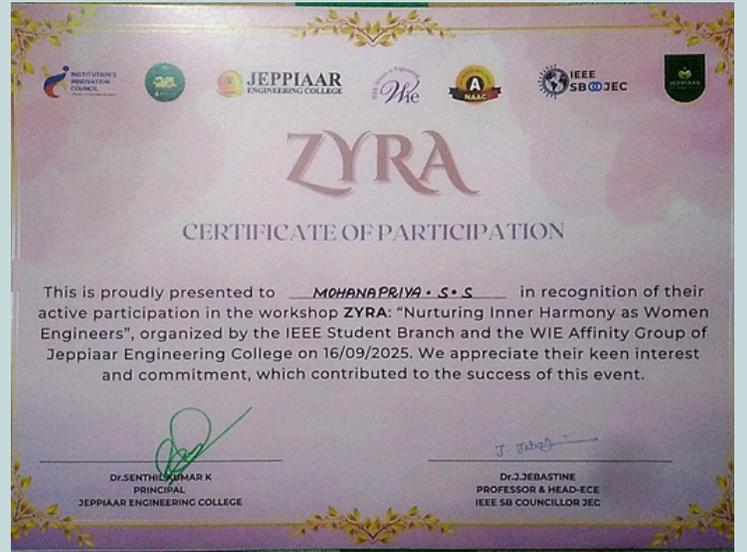
– Mrs. K. Thakira Ismail
Assistant Professor

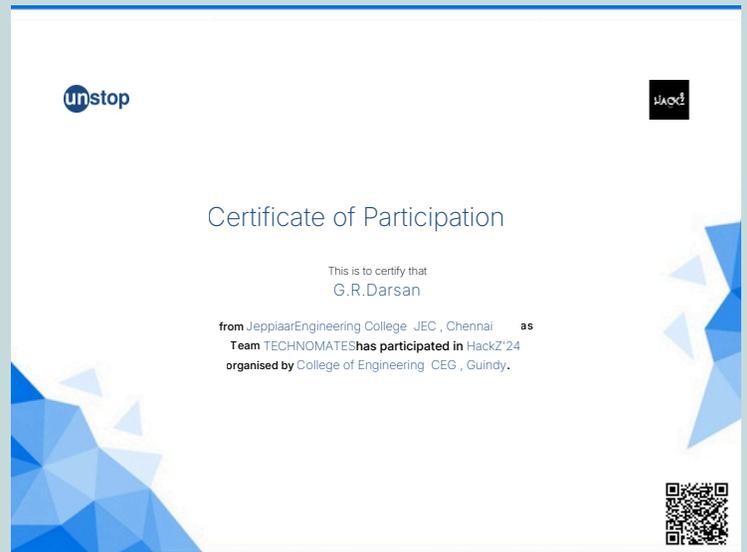


**DREAMS IN
PROGRESS**

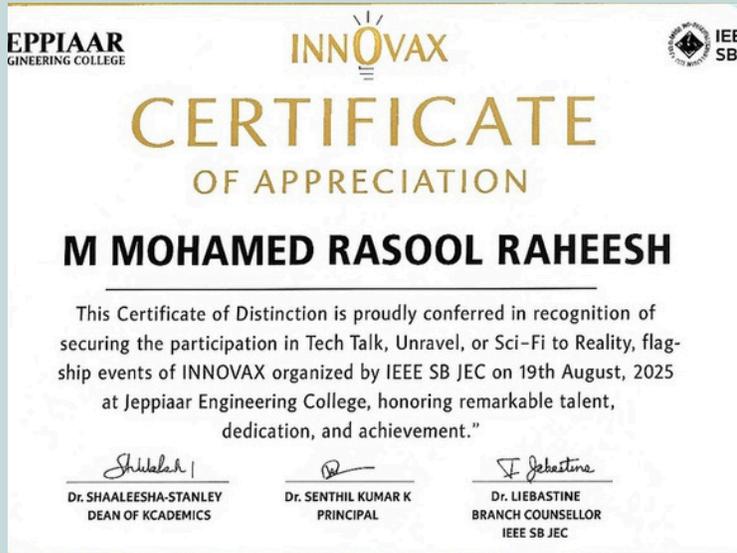


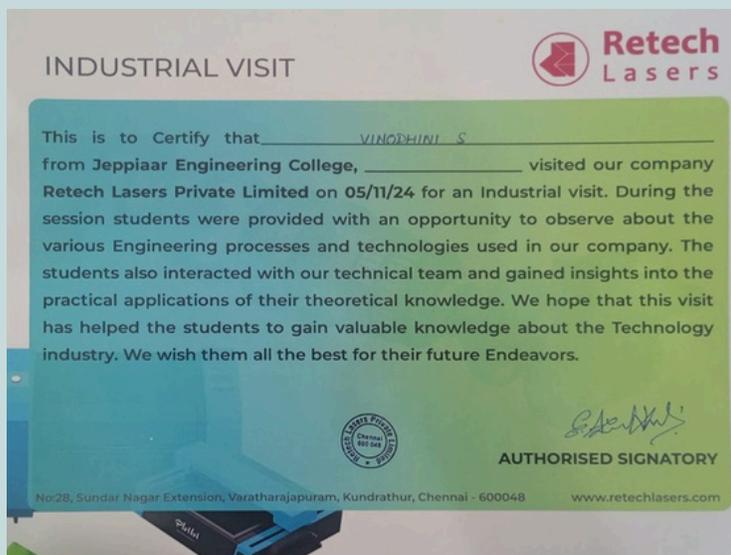


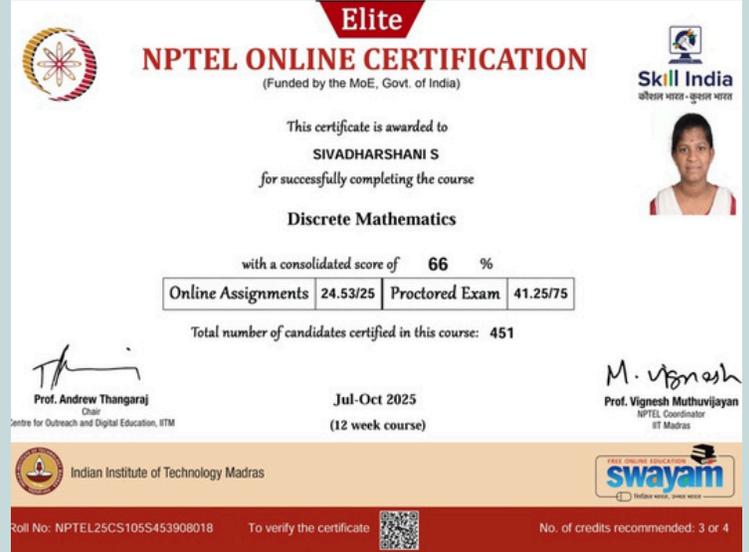














PHYSICS WALLAH





Generative AI for All

This is to certify that Mr./Mrs./Ms. Harini, has successfully completed the Generative AI for All Program.

DATE: 29th December 2025

CERTIFICATE NO: 83a7d830-8623-4973-9f33-125816b66e3d





Mr. Alakh Pandey
(Founder)

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Indian Institute of Technology Kharagpur



Prof. Haimanti Banerji
Coordinator, NPTEL
IIT Kharagpur

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No. of credits earned in this course: 4

Register No
711210

Certificate Serial No
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Government of Tamil Nadu
Department of Technical Education
Chennai - 600 025

This is to certify that



GIRIDHARAN M
DoB: 27/07/2006

has passed the

JUNIOR GRADE
TYPEWRITING ENGLISH
30 Words per Minute

***** FIRST CLASS *****

in the Government Technical Examinations of
Commerce Subjects, held in **AUGUST 2024**






Chairman
Board of Examinations
Tamil Nadu

SL NO: NCC1A1316

NORTH CHENNAI COMMERCE INSTITUTES' ASSOCIATION
(Affiliated to Tamil Nadu Commerce Institutes' Association, Tiruchirappalli)



S.N.P.T.C. CENTRE No.15

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Name of the Candidate: **GIRIDHARAN M**

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Subject: **ENGLISH / TAMIL**

Grade: **PRE JUNIOR / JUNIOR / SENIOR**

Passed in class: **FIRST CLASS WITH DISTINCTION / FIRST CLASS / SECOND CLASS**

Exam held on: **FEBRUARY 2025**

Institute Name: **SRI VIJAYALAKSHMI TECHNICAL INSTITUTE**
CHENNAI 600 118

Contact Number: **9444474756**

TYPEWRITING

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FIRST CLASS WITH DISTINCTION / FIRST CLASS / SECOND CLASS

FEBRUARY 2025

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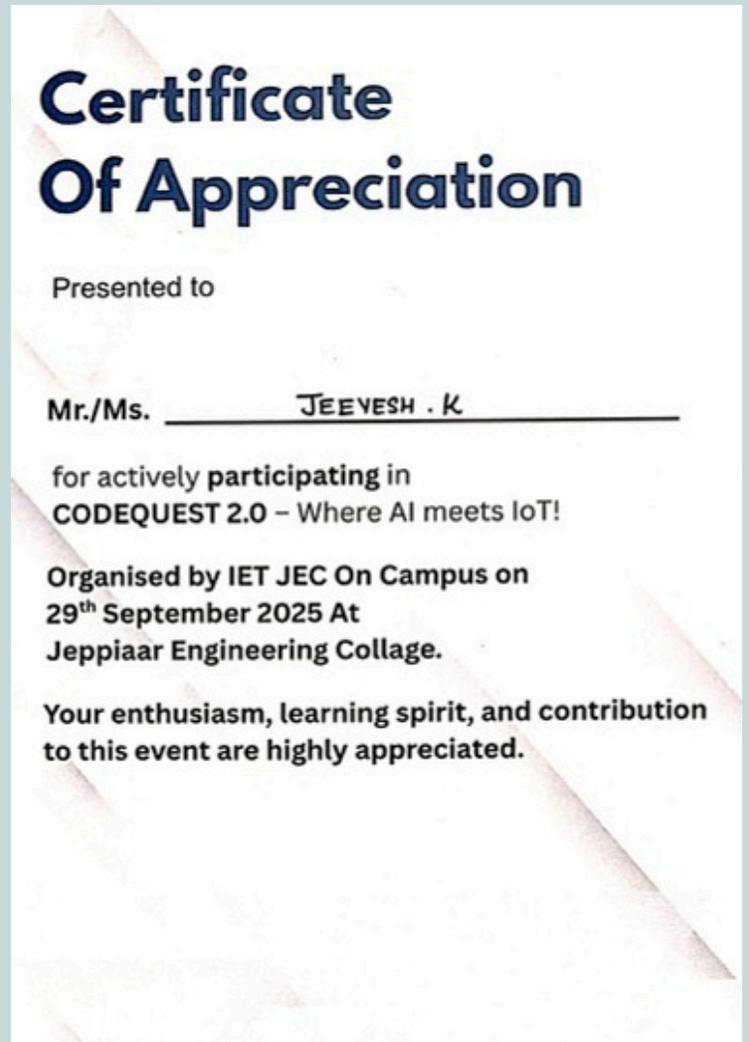
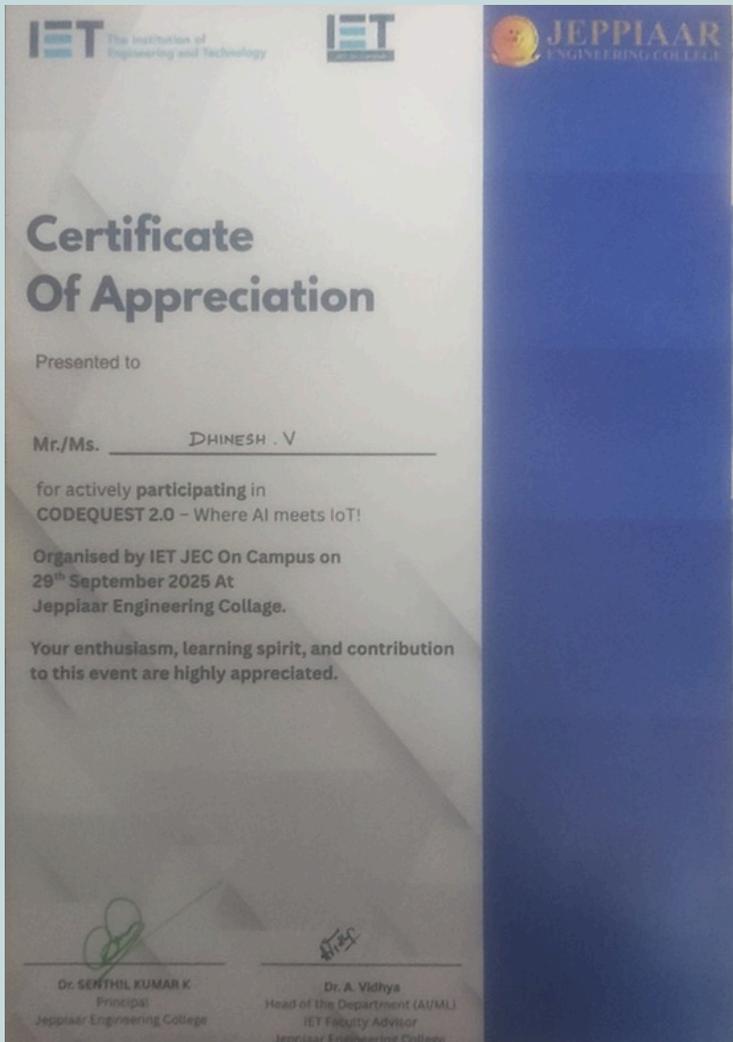


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Permanently Approves by M. Govt.
Approval No: 201/25



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S.N.P.T.C. CENTRE No.15



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**GOVERNMENT OF TAMILNADU
TAMILNADU SKILL DEVELOPMENT CORPORATION
NAAN MUDHALVAN SCHEME**

CERTIFICATE OF ACHIEVEMENT

This certificate has been awarded to

Mr/Miss MOHAMED RASOOL RAHDESHM Regn.No. 310824148031
Currently pursuing Engineering Degree from
Jeppiaar Engineering College

For the successful completion of Digital Skills
sponsored by Naan Mudhalvan Program,
Tamilnadu Skill Development Corporation and conducted by Microsoft.
During the course, the learner demonstrated initiative and commitment to advance in their career.

DATE OF ISSUE :- 17/11/2025

TRAINING PARTNER

MANAGING DIRECTOR
TAMIL NADU SKILL DEVELOPM

CERTIFICATE OF COMPLETION

Ashmita E

has successfully completed the online course:
Beginners guide for Deep Learning

This professional has demonstrated initiative and a commitment to deepening their skills and advancing their career. Well done!

31st January 2026
Certificate code :9784092

Krishna Kumar
CFO, Simplilearn

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TRANSCRIPT

Name : SIVASAM.M Regn. No : SVV782
Course : HDCA Date : 25-02-2025
Place : KANCHEEPURAM Duration : ONE YEAR

Sl.No.	Subject	Grade
1	MS-WORD	A
2	MS-EXCEL	A
3	MS-POWERPOINT	A
4	'C' LANGUAGE	A
5	OOPS USING C++	A
6	PYTHON	A
7	INTERNET	A
8	HTMLS & CSS3	A
9	MY SQL	A
10	DIGITAL MARKETING & CHATGPT	A

Project : 1 LINEAR PHASE IN PYTHON PROGRAMMING LANGUAGE
Project : 2 NIL

I. Thilaga
I. THILAGA
Chairman
CSC Computer Education (P) Ltd.

Ganesh Iyamperumal
GANESH IYAMPERUMAL
Managing Director
CSC Computer Education (P) Ltd.

GRADING	Marks (%)	Grade	Interpretation
	80 - 100	A	Excellent
	60 - 79.9	B	Very Good
	50 - 59.9	C	Good
	40 - 49.9	D	Satisfactory
		NA	Not Applicable

Corporate Office : 151/3, South West Boag Road, TNagar, Chennai - 600 017 Tamilnadu, India

CERTIFICATE OF EXCELLENCE

Awarded to

SAMEEHA A

Has completed a course titled

FCSA
FIIT CERTIFIED SOFTWARE ASSOCIATE
(C, C++, CORE PYTHON)

Of 90 Hrs duration
and found the Candidate's Performance to be

EXCELLENT

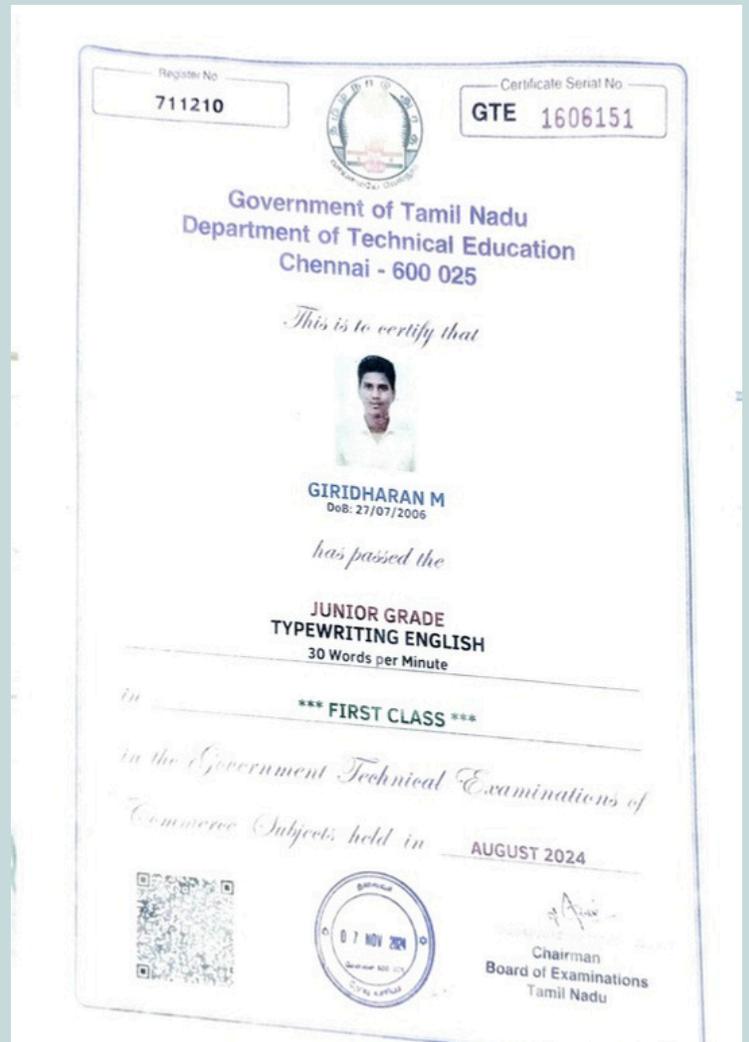
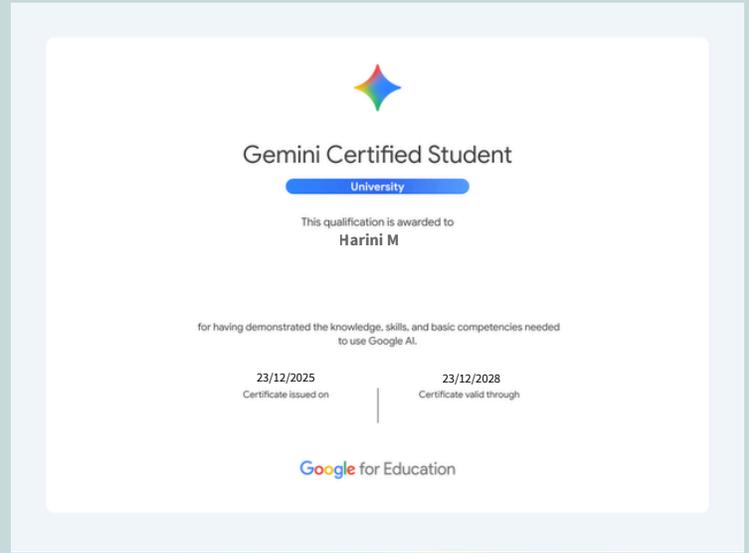
Given on 9/12/2024 @ CHENNAI - INDIA

Registration No: R0103617

Certificate No: F103 TN1617

FIIT
To lead Technology

Legend : 50% - 59.9% - Satisfactory, 60% - 69.9% - Fair, 70% - 79.9 % - Good, 80% - 100% - Excellent



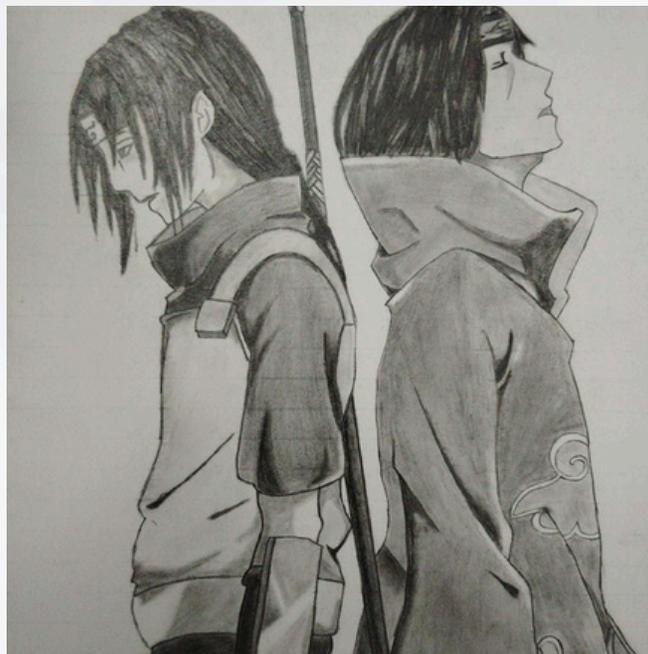
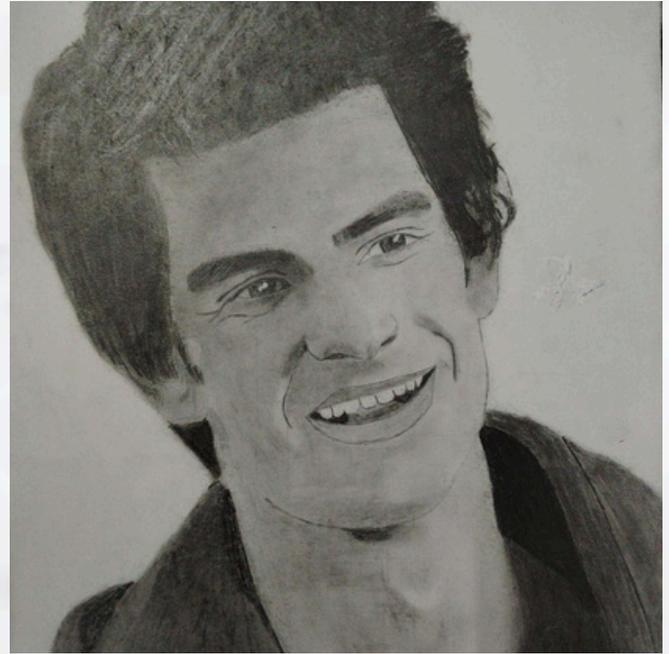


Congratulations, Batch!

Congratulations to each member of this batch on completing these courses and activities. Every certificate in this souvenir reflects effort, commitment, and the willingness to learn beyond the classroom. May these achievements motivate you to aim higher, keep improving your skills, and make the most of every opportunity ahead. This is one milestone among many — keep going, keep growing.



**INNOVATORS’
CORNER**



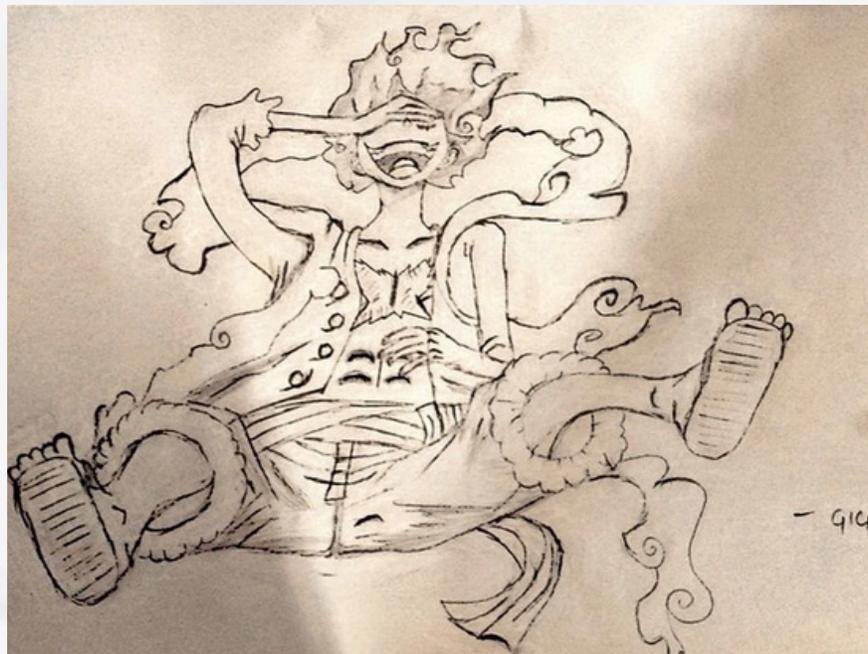
– K. JEEVESH
II-A SECTION (2024-2028)

அவளது பயணம்

எது அவளது பயணம் – எங்கிருந்து தொடங்கியது
அவளது பயணம்?
தன்னிலை இல்லாமல் குடும்பத்திற்காக வாழ்ந்ததா?
– இல்லை.
அடையாளமின்றி குறளின்றி அமைதி காத்ததா? –
இல்லை.
தன் கனவுகளை கண்ணோடும் கண்ணீரோடும்
வைக்காமல்
எழுச்சியோடும் புன்னகையோடும், வேரூன்றி
சமூகத்தில் நிலையுற்று நிலைத்து – தன்
துணிச்சலை
புதிய தலைமுறையில் ஒளிவிதையாய்
விதைத்தாலே – அது அவளது பயணம்.



– MERLIN DEVI
II-A SECTION (2024-2028)



"Anointed in Shadows, Crowned in Constellations"

I gather myself from places unseen,
From the pauses between who I was and
who I've been.

I carry my doubt like old, worn scars,
Proof I've survived my own dark wars.

I learned strength in the absence of noise,
when no one noticed my smallest joys.
I stitched my hope with trembling hands,
Built my faith on shifting sands.

I've fallen enough to know the ground,
learned how silence can still resound.
Even when my voice began to shake,
I chose myself with every break.

I do not shine to be admired,
I burn because my soul requires.
My worth is not what eyes define,
It lives in the quiet heart of mine.

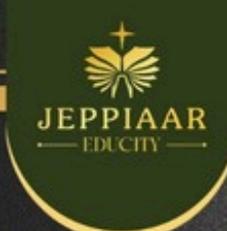
And though the road still tests my pace,
I walk it firm, I know my place.
Not fearless, but brave in my own way,
Trusting myself more and more every day.

– V. MIRUDHULA
II-A SECTION (2024-2028)



UNIVERSITY 2ND SEMESTER TOPPERS




UNIVERSITY TOPPERS - 2nd SEMESTER
Congratulations

 
ASHMITHA

 
VINODHINI

 
JANANI

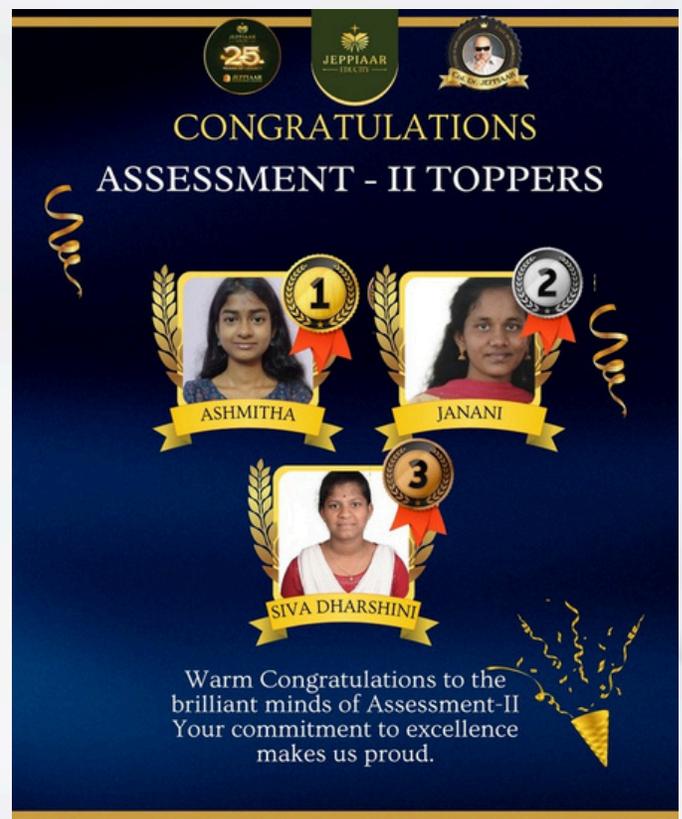
*Proud moment for our University Toppers!
May this success be the beginning of many more victories.*

ASSESSMENT 1 & 2 - TOPPERS



1st - SIVADHARSHINI
2nd - ASHMITHA
3rd - JUANITA GLORIOSA

1st - ASHMITHA
2nd - JANANI
3rd - SIVADHARSHINI







ROTARACT
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ENGINEERING COLLEGE

GENESIS

**This is not the end – it’s the beginning.
From curiosity to code, from ideas to innovation,
GENESIS is where our journey begins.**

**Every beginning starts with a decision to try.
You don’t need to have it all figured out
you just need to start.**

**Learn boldly. Fail forward.
Build what you believe in.**

The future belongs to those who keep showing up.