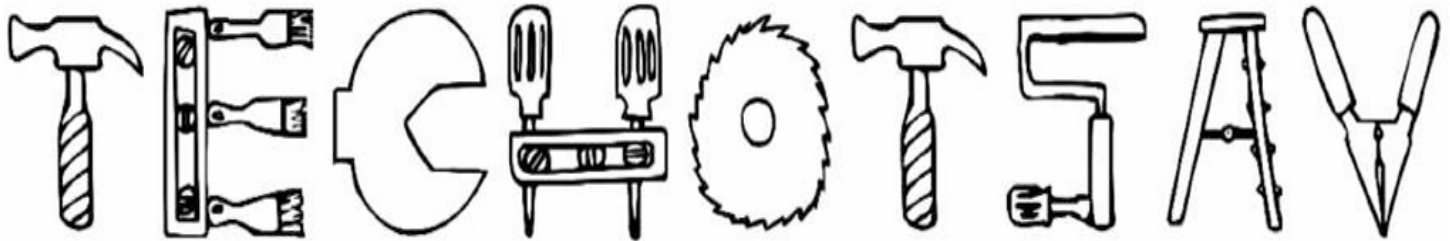




Department of Artificial Intelligence & Data Science



The Newsletter
Dec 2025 Edition



The Newsletter
Jul 2025 - Dec 2025

"Educate and raise the masses, and thus alone a nation is possible" -Swami Vivekananda



VISION

To be a place of academic excellence by imparting quality teaching in the field of **Artificial Intelligence**.



MISSION

To render quality teaching and provide the required resources needed to acquire cutting edge professional skills.

To encourage innovation through academic and industry exposure.

To foster ethical behaviour, team work skills and soft skills required for a successful professional life.

NEWSLETTER COMMITTEE

Student team

Jhalak Dedhia Kinjal Panchal Heer Panchal
Molisha Jain Insiyah Bhatia



Message from Head of Department

ARTIFICIAL INTELLIGENCE & DATA SCIENCE

Dear Techotsav Community,

We are delighted to bring you the latest edition of the "TECHOTSAV" Newsletter of Department of AI-DS for the period July - December 2025, your go - to source for all things technology and innovation. As the world continues to evolve at an unprecedented pace, it is essential to stay informed and up-to-date with the latest advancements in the tech industry.

It gives me immense pleasure to share the achievements and progress of the Department of AI-DS since its inception. I express my sincere gratitude to our Principal, Dr. Vivek Sunnapwar for his constant encouragement, support, and motivation to our faculty, staff, and students. We began our journey in 2020-21 with an intake of 60 students, which has grown to 120 in 2023-24, reflecting the increasing trust and interest in the AI-DS domain.

Our department has a vibrant team of committed faculty members and enthusiastic students who stand out across the institute. I am delighted to share that I have registered for a Post-Doctoral Research Program at Lincoln University College, Kuala Lumpur, Malaysia. Dr. Sheetal Jagtap recently completed her Ph.D., and four of our faculty members are currently pursuing their doctoral research from reputed universities. The department proudly received a grant from AICTE-ATAL Academy to organize a Faculty Development Program for 2025-26. Faculty and students have contributed significantly through quality peer-reviewed publications and innovative projects. I congratulate the Techotsav newsletter committee for their dedicated efforts in presenting our department's vibrant activities and achievements. Let us continue our journey with passion, purpose, and innovation.

Best regards,

Dr. Milind Nemade,
Head and Professor AI-DS
KJSIT Sion, Mumbai.



Dr. Milind Nemade
Head of Department
(AI-DS)



Newsletter Incharge Message

Dear Students,

The field of Artificial Intelligence and Data Science continues to evolve at an incredible pace. This month, global tech leaders introduced advanced real-time video-generating and multimodal AI systems, marking a significant step toward human-like machine reasoning. Nationally, the Government of India's new AI mission focuses on applying AI solutions in agriculture, healthcare, and education—opening exciting pathways for young engineers to make meaningful contributions.

As students of AI & DS Engineering, I encourage you to stay curious, build hands-on experience, and take part in research, hackathons, and industry projects. These experiences will help you grow both as learners and innovators in this transformative era.

The newsletter serves to keep AI & Data Science Engineering students well-informed and actively engaged with the latest trends, innovations, and developments in the field. It serves as a platform to share recent technological advancements, departmental updates, research highlights, student achievements, and upcoming opportunities such as internships, workshops, and competitions. By connecting academic learning with real-world innovation, the newsletter strives to inspire curiosity, encourage active participation, and build a vibrant community of future-ready AI & DS professionals.

A heartfelt thank you to our dedicated editorial and content team for their continued effort in curating this newsletter. Your creativity, coordination, and commitment help keep our student community informed and inspired.

Warm regards,
Dr. Sheetal Jagtap
Newsletter Incharge
Department of AI & DS Engineering, KJSIT, Mumbai.



Prof. Sheetal Jagtap
Newsletter Incharge
(AI-DS)



INITIATIVES

Faculty Development Programme Supported by AICTE-ATAL

The Department of Artificial Intelligence and Data Science, K. J. Somaiya Institute of Technology, conducted a Six-Day AICTE-ATAL Basic Offline Faculty Development Programme titled "Fortifying the Digital Frontier: Cybersecurity Strategies for Threat Landscapes" from 30th June to 5th July 2025 at the Somaiya Ayurvihar Complex, Sion (E), Mumbai.

The programme saw participation from around 50 faculty members across India and focused on emerging cybersecurity threats, risk assessment, mitigation strategies, and secure system design. Expert-led sessions and interactive discussions enhanced participants' technical competence and strengthened their ability to integrate cybersecurity concepts into teaching and research.



Fig: Industrial Visit to Imperative Business Ventures

Enhancing Digital Productivity through AI

The Department of Artificial Intelligence and Data Science, K. J. Somaiya Institute of Technology, organized an insightful session titled "Digital Productivity in AI" on 23rd July 2025 from 9:30 AM to 12:30 PM at the Institute Auditorium, Sion. The event was conducted under the Society for Data Science (S4DS) Student Chapter, KJSIT. The session witnessed enthusiastic participation from over 400 students, with the auditorium filled with active and engaged learners.

The programme focused on enhancing students' awareness of digital tools and productivity techniques relevant to the field of Artificial Intelligence. The interactive nature of the session made it a meaningful learning experience, contributing positively to students' academic growth and professional readiness.



Fig: Opening Remarks by Department Head

Career Guidance Session on Overseas Education

The Department of Artificial Intelligence and Data Science, K. J. Somaiya Institute of Technology, organized a career guidance session titled "Imperial Overseas Education" on 29th July 2025 from 11:30 AM to 12:30 PM. The session was conducted to create awareness among students about opportunities for pursuing higher education abroad, including undergraduate and postgraduate programmes. It provided guidance on admission procedures, academic requirements, and study options in countries such as the USA, UK, Canada, and Australia, helping students make informed decisions about their future academic pathways.



Fig: Overview of Session Objectives

INITIATIVES

Expert talk on Entrepreneurship by Mr. Aditya Kamble

The Department of Artificial Intelligence and Data Science, K. J. Somaiya Institute of Technology, conducted an expert talk on "Entrepreneurship" for TY-AIDS students on Monday, 4th August 2025. The session aimed to introduce students to the fundamentals of entrepreneurship and highlight its significance in today's competitive and dynamic professional environment. The talk was delivered by Mr. Aditya Kamble, CEO and Founder of Adivirtus, who shared valuable insights on entrepreneurial thinking, innovation, and real-world challenges, motivating students to explore entrepreneurship as a viable career path.



Fig: Mr. Aditya talking about Entrepreneurship

"Development to Deployment" - A hands-on DevOps Workshop

The Department of Artificial Intelligence and Data Science, K. J. Somaiya Institute of Technology, successfully conducted the "Development to Deployment" hands-on DevOps workshop on 23rd and 24th August 2025 from 9:00 AM to 5:00 PM at Lab 401, Sion. The workshop was led by Mr. Pranav Narkhede and Mr. Riddhesh Chaudhary, whose expert guidance contributed significantly to the success of the program.

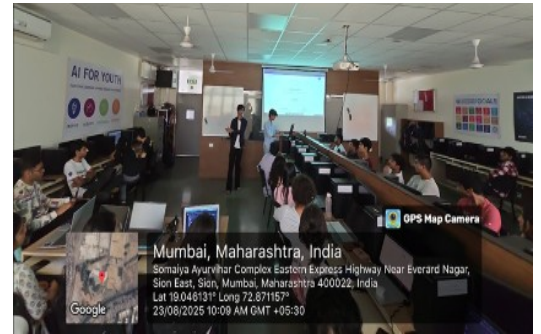


Fig: Briefing students about DevOps

The two-day workshop witnessed enthusiastic participation from over 35 students. Participants gained practical exposure to DevOps practices, cloud platforms, and deployment tools through hands-on activities and project-based learning.

"Think Fast. Build Bold. Create Impact" - KnowBuild '25 Hackathon

KnowBuild '25, an 8-hour institute-level hackathon organized by the Society for Data Science (S4DS) under the guidance of Dr. Milind U. Nemade and faculty coordinators Prof. Sejal Shah and Dr. Sheetal Jagtap, was held on 4th October 2025 at K. J. Somaiya Institute of Technology. The event focused on the theme "STARTUP - Think Fast. Build Bold. Create Impact", encouraging innovation across various domains. Industry experts Bhavya Gada, Ashutosh Singh, and Sameera Jathar evaluated the projects. Team Programmers emerged as winners, followed by Team Tech Strikas and Team InnovHERS as runners-up. The event successfully concluded with prizes worth ₹8,000.



Fig: KnowBuild '25 hackathon at KJSIT



AI-DS Students Explore Port Operations at JNPT

The students of the AI-DS Department have participated in an enriching Industry Visit to Jawaharlal Nehru Port Trust (JNPT) on 19th September 2025. This visit has provided them with valuable exposure to real-world industrial operations and insights into port logistics and management, and it has helped them bridge the gap between classroom learning and practical application. Such industry visits have always played a vital role in offering students a holistic understanding of the professional world and have enhanced their overall learning experience. The department has extended sincere gratitude to Prof. Pankaj for having organized this insightful visit and for his continuous efforts in guiding students beyond academics.



Fig: Students At Jawaharlal Nehru Port Trust (JNPT)

AI-DS Industrial Visit to Automata.AI, Pune

The Department of Artificial Intelligence and Data Science, K. J. Somaiya Institute of Technology, organized an industrial visit to Automata.AI, a leading software company located in the IT hub of Hinjawadi, Pune, on Friday, 22nd August 2025. The visit provided valuable exposure to industry practices, emerging technologies, and real-world applications in the software and AI domain.

The visit was attended by Dr. Milind Nemade, Prof. Devannad Bathe, Prof. Ganesh Wadhmare, Prof. Pankaj Deshmukh, Prof. Prasanna Kambare, and Prof. Pravin Patil, who actively engaged in discussions and interactions with industry professionals, strengthening academic-industry collaboration.



Fig: Meeting at Automata.AI

Two-Day Robotic Training on Electronic Projects

The AI-Robotic Cell successfully conducted a two-day Robotic Training Programme on the Design of Electronic Projects on 21st and 22nd August 2025 at K. J. Somaiya English Medium School, Sameerwadi, Karnataka. The programme aimed to introduce participants to the fundamentals of electronics and robotics through practical, hands-on learning. The training was convened by Dr. Vaishali Wadhe, whose guidance and coordination contributed to the effective execution of the programme and promoted interest in robotics and electronic project development among participants.



Fig: Robotic Training Programme

AI-DS Secures Second Position at Creathon 2025

The Department of Artificial Intelligence and Data Science is proud to announce that a team from Final Year AI-DS (LY AI-DS) secured Second Position at Creathon 2025, held in August 2025 at Shah and Anchor Engineering College. The competition witnessed participation from over 50 teams, making it a highly competitive and intellectually demanding event.

The team successfully progressed through two rigorous rounds of evaluation, during which they demonstrated strong problem-solving abilities, innovative thinking, and effective teamwork. As a result the team was awarded prize money of ₹15,000, bringing recognition and pride to the department.

The team members, Pranav Narkhede and Aniruddh Sengupta (LY AI-DS), have showcased the academic strength and competitive spirit of the department through this accomplishment.



Fig: Felicitation Ceremony of LY AI-DS Team at Creathon 2025

AI-DS Team Wins 3rd Place at INCUVERSE 2025

The Department of Artificial Intelligence and Data Science proudly acknowledges the achievement of Team Neural Society from Second Year AI-DS (SY AI-DS), who secured Third Position at

INCUVERSE, a 24-hour offline hackathon conducted on 4th and 5th October 2025. The event was organized by Somaiya University (RIIDL) and brought together talented student teams for an intensive innovation-driven challenge.



Fig: SY AI-DS Team Neural Society Wins 3rd Place at INCUVERSE 2025

Throughout the hackathon, the team demonstrated strong technical skills, creativity, and collaborative problem-solving, reflecting their ability to apply theoretical knowledge to practical scenarios. Their dedicated efforts and innovative approach were recognized by the evaluators, earning them prize money of ₹20,000 for their outstanding performance.

The team members Kevin Maria, Yadnesh Dalde, and Suneet Bagwe have brought pride to the department through this achievement. Their success serves as a source of motivation and inspiration for fellow students to actively participate in technical competitions and pursue excellence in the field of Artificial Intelligence and Data Science. The department extends its heartfelt congratulations to the team and wishes them continued success in their future endeavors.

AIDS Dept. Marks Prof. Deepali S. Chavan's First

We are delighted to announce that Prof. Deepali Sanjay Chavan's first book, "Data Structure" for the Second Year Degree Course of SPPU (Pune University), has been officially published by Nirali Prakashan on 2nd September 2025. This marks a significant milestone in her academic journey and is a proud achievement for our community. Congratulations to Mrs. Chavan on this remarkable accomplishment!

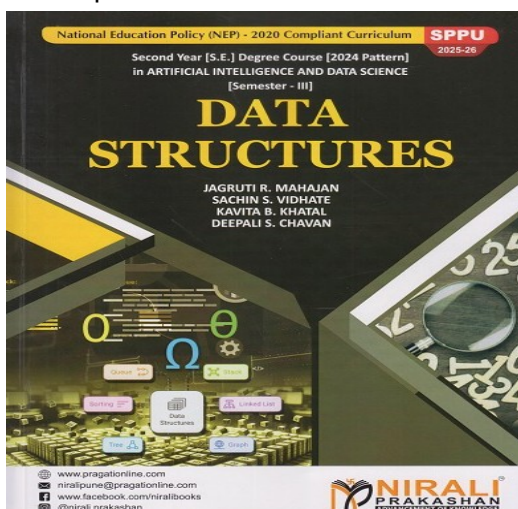


Fig: Prof. Deepali Sanjay Chavan's Co-Authoring Book "Data Structures"

Excellence in Research – Young Researcher Award

We are proud to share that Mr. Aniruddh Sengupta, a student of Final Year AI-DS (LY AI-DS), has been honored with the prestigious Young Researcher Award by the IEI NMLC – FCRIT Excellence Awards on the occasion of Engineer's Day. This recognition celebrates Aniruddh's exceptional dedication, innovative research contributions, and academic excellence in the field of Artificial Intelligence and Data Science. His achievement stands as an inspiration for fellow students to pursue research with passion and commitment. The AIDS Department congratulates Aniruddh on this remarkable honor and wishes him continued success in his future endeavors.



Fig: Aniruddh Sengupta honored as Young Researcher

Dr. Milind Nemade Honoured with BEEA 2025



Fig: Dr. Milind Nemade Receiving the Bharat Education Excellence Award (BEEA) 2025 at Hyderabad

We are proud to share that Dr. Milind Nemade, Head of the Department (AI-DS), has been honoured with the Bharat Education Excellence Award (BEEA) 2025 under the category "Jyestha Acharya Individual Award – For Heads of Departments with 15+ years of academic contribution." The award ceremony was held on 25th October 2025 at T Hub Phase 2, Hyderabad, in the presence of Dr. Buddha Chandrasekar (Chief Coordinating Officer, AICTE) as the Chief Guest, along with Prof. Chekuri Siva Rama Krishna Prasad (VC, JNTUK) and Prof. Balakista Reddy (Chairman, Telangana Council of Higher Education) as Guests of Honour. The BEEA 2025 followed a rigorous and transparent selection process, recognizing exceptional

Victory in Inter-Class Derby Championship

We are delighted to announce that Team TY AIDS-A has emerged as the Champions of the Inter-Class Derby Championship 2025! This remarkable achievement has reflected the team's dedication, teamwork, and passion as they have played each match with true sportsmanship and determination. The players have expressed heartfelt gratitude to their teachers, friends, and classmates for the constant support and encouragement that has kept their spirits high throughout the tournament. The winning squad has included Atharva Amrute, Soham Nakhawa, Moin Amrelia, Arya Ganatra, Manav Gopinath, Purushottham Nar, Swaroop Pawar, Aayan Deshpande, Advait Musale, Viraj Aya, and Terence Louis. This victory has become a proud moment for the AIDS



Fig: Team TY AIDS-A – Winners of the Inter-Class Derby Championship 2025

TY AI-DS Student Bags Silver in RC

We are proud to announce that Mr. Prathamesh Chouhan, a student of Third Year AI-DS (TY AI-DS B), has secured a Silver Medal in RC Aeromodelling at the Inter Group Competition. Representing the city of Mumbai, Prathamesh showcased exceptional skill, dedication, and technical expertise in the field of aeromodelling. This remarkable achievement reflects his hard work and the continuous encouragement and support provided by the college.



Fig: Silver Medal in RC Aeromodelling – Prathamesh Chouhan, TY AI-DS

TY AI-DS Student Named "Man of the Match" at

We are proud to share that Mr. Terence Lewis, a student of TY AI-DS, has been awarded the "Man of the Match" title in two consecutive football matches during the Somaiya Games Football Tournament held on 15th October 2025. The KJSIT Football Team showcased exceptional determination and team spirit, securing a thrilling 3-2 victory against KJ Somaiya Arts & Commerce and a hard-fought 1-1 draw against KJ Somaiya Medical. These commendable performances reflect the team's collective effort, resilience, and sportsmanship on the field, bringing pride to the AIDS Department and KJSIT.



Fig: Man of the Match-- Terence Lewis, TY AI-DS

READER SECTION

Localization and the Role of Artificial Intelligence & Data Science Engineering

Localization forms the foundation of location-aware services, enabling intelligent decision-making in smart environments such as healthcare systems, industrial automation, logistics, robotics, and smart cities. Localization technologies are crucial for accurate distance estimation and real-time positioning across Internet of Things (IoT) applications. With the rapid growth of IoT devices, the demand for precise, reliable, and adaptive localization systems has increased significantly.

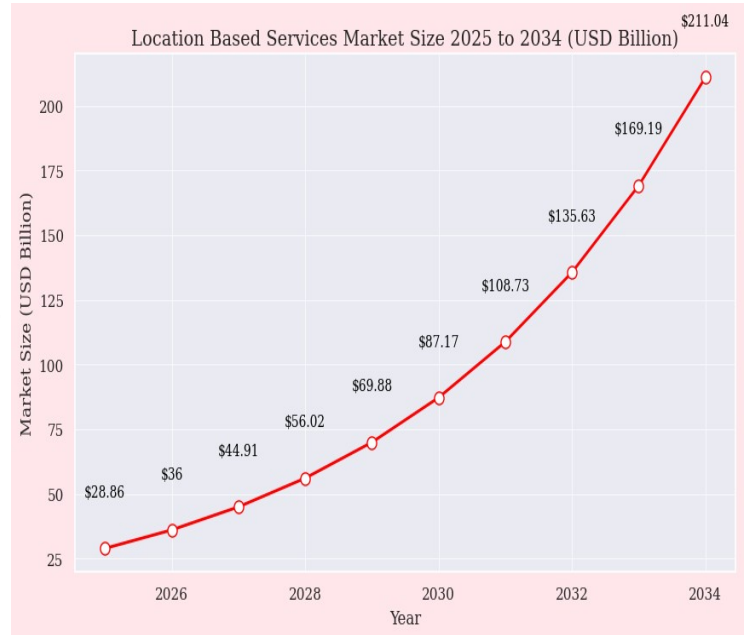


Fig: U.S. Location Based Services Market Size

The graph depicts the projected growth of the U.S. Location-Based Services (LBS) market from 2025 to 2034, showing a strong upward trend. The market is expected to grow from USD 28.86 billion in 2025 to USD 56.02 billion by 2028, followed by accelerated expansion after 2029. By 2034, the market is projected to reach USD 211.04 billion, driven by the increasing adoption of navigation systems, asset tracking, smart infrastructure, healthcare monitoring, and personalized services.

Various localization technologies have been developed to meet diverse application requirements. Technologies such as Wi-Fi, Bluetooth Low Energy (BLE), Ultra-Wideband (UWB), and Radio Frequency Identification (RFID) differ in terms of coverage range, positioning accuracy, deployment cost, power consumption, and environmental adaptability. Wi-Fi-based localization offers wide coverage and low deployment cost by utilizing existing infrastructure, making it suitable for large indoor environments. Bluetooth-based systems provide moderate accuracy with low power consumption, ideal for proximity-based applications. UWB delivers high-precision localization with centimeter-level accuracy but at higher deployment costs. RFID systems are widely used for asset tracking and inventory management, while vision-based localization leverages cameras and image processing techniques for precise positioning in controlled environments.

Artificial Intelligence (AI) and Data Science (DS) play an important role in improving the accuracy, reliability, and adaptability of localization systems. Machine learning models enhance distance estimation, mitigate errors, and enable systems to adapt to dynamic environments. Data science methods further support the localization process through effective data preprocessing, feature extraction, dimensionality reduction, and performance evaluation. By integrating AI and data-driven approaches, localization systems become more robust and scalable, capable of delivering precise positioning and real-time insights across diverse and dynamic environments.

- Prof. Sarika Mane -Assistant Professor
Department of Artificial Intelligence and Data Science

Student Mental Health in the Digital Age: Challenges and Support Systems

The digital age has transformed student life in remarkable ways. Online learning platforms, instant access to information, and constant connectivity have made education more flexible and efficient. However, this rapid digital integration has also introduced new challenges that significantly affect student mental health.



One of the most pressing concerns is academic pressure amplified by technology. Continuous notifications, online assessments, competitive comparisons on social media, and the expectation to be constantly productive often lead to stress, anxiety, and burnout. Prolonged screen time and irregular sleep patterns further impact concentration, emotional stability, and overall well-being.

Social media, while offering connection, can sometimes contribute to feelings of isolation, low self-esteem, and fear of missing out (FOMO). The curated portrayal of success and happiness online can create unrealistic expectations, making students feel inadequate or overwhelmed. Additionally, reduced face-to-face interactions may limit emotional support and meaningful peer connections.

Recognizing these challenges, it is essential to build strong support systems within educational institutions. Colleges play a crucial role by promoting mental health awareness, providing access to counseling services, and encouraging open conversations around emotional well-being. Peer support groups, mentorship programs, and stress-management workshops can help students feel heard, supported, and understood.

Technology itself can also become part of the solution. Digital wellness tools such as mindfulness apps, mood trackers, and guided relaxation platforms help students manage stress and develop healthy routines. When used responsibly, technology can support early identification of emotional distress and encourage timely intervention.

Ultimately, maintaining mental well-being in the digital era requires a balanced approach. Students must be encouraged to set healthy boundaries with technology, practice self-care, and seek support without hesitation. By fostering a culture of empathy, awareness, and responsible digital usage, academic institutions can empower students to thrive both mentally and academically.

- Avani Dange
LY AIDS

Current Happenings & Recent Trends in the AI - DS Domain

As Artificial Intelligence (AI) and Data Science (DS) continue to reshape the digital world, recent advancements have accelerated innovation across industries. The following section highlights key trends, emerging technologies, and real-world impacts that are redefining the AI-DS landscape.



Top Trends Redefining the Field

Autonomous AI agents are increasingly capable of planning, reasoning, and executing tasks independently, enabling intelligent workflows and decision-making across complex environments.

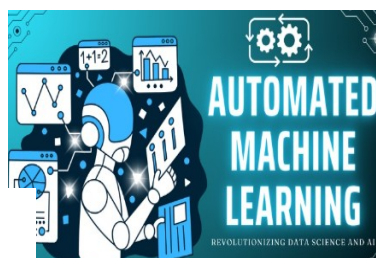


2. Expansion of Generative AI

Generative AI models are being widely adopted for content creation, code generation, data synthesis, and intelligent decision support across industries.

3. Explainable and Responsible AI

There is a growing focus on transparency, fairness, and ethical AI usage, with explainable models becoming essential in regulated and high-impact domains.



4. Automated Machine Learning (AutoML)

AutoML platforms are simplifying model development by automating feature selection, training, and optimization, making AI more accessible and efficient.

5. AI and IoT Integration (AIoT)

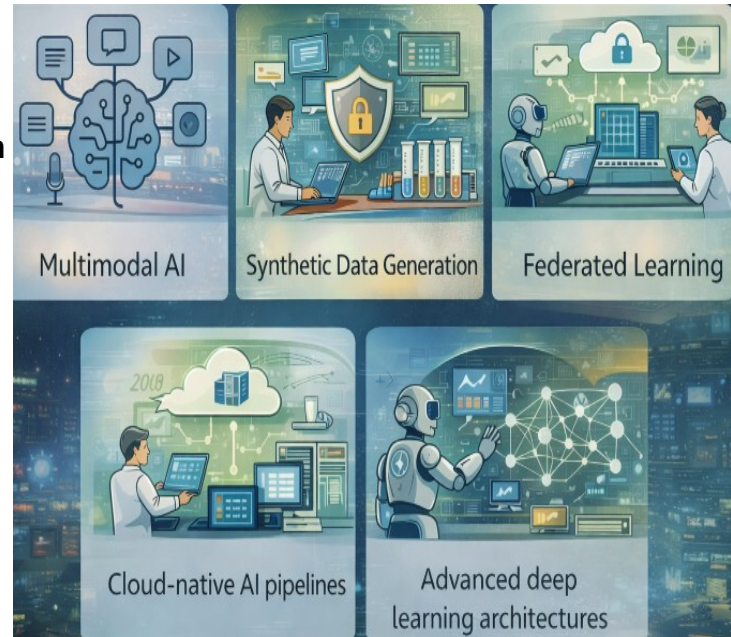
The convergence of AI with IoT is driving intelligent automation, enabling real-time analytics and smart systems in industrial, healthcare, and urban applications.



READERS SECTION

Cutting-Edge Technologies Driving Innovation

- **Multimodal AI** combining text, image, audio, and video data for richer insights.
- **Synthetic Data Generation** for secure, privacy-preserving model training.
- **Federated Learning** enabling decentralized and secure data collaboration.
- **Cloud-native AI** pipelines supporting scalable and efficient deployment.
- **Advanced deep learning architectures** enhancing accuracy and performance.



Regional Highlights & Real-World Impact

- **Maharashtra (Mumbai, Pune):** AI transforming healthcare diagnostics, radiology, and personalized treatment through hospitals and health-tech startups.



- **Karnataka (Bengaluru):** AI-driven fintech solutions strengthening fraud detection, credit risk analysis, and real-time financial systems.

- **Telangana (Hyderabad):** Rapid AI adoption in startups and public sector initiatives enhancing governance, healthcare, and digital infrastructure.



- **United States:** Widespread use of Generative AI in enterprise automation, finance, and customer intelligence platforms.

- **Europe (UK & Germany):** Focus on Explainable and Responsible AI across healthcare, smart manufacturing, and regulatory-compliant systems..

