

SVKM'S NMIMS NMINS EduGenAI

Issue No. 10|Volume No.1|Month of Publication: May, 2025



NMIMS Vision

To be a globally admired University by 2030

NMIMS Mission

Emerge as a Centre of Excellence, best in class in India and Asia, and yearning to be the best in the world by 2030





GenAI Faculty Development and Workshops GenAI-Enhancing Teaching-Learning Process



GenAI- Progress Monitoring

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Preface

Warm Greetings from the EduGenAI Team!

We are delighted to present the May 2025 edition of the NMIMS EduGenAl Newsletter, a curated digest of innovation, insights, and practical engagement in the evolving field of Generative Artificial Intelligence in education

In this edition, you'll find a compelling feature on "The Future of Jobs in the Age of Generative AI", offering nuanced perspectives for both students and educators. From institutional initiatives like MPSTME's comprehensive GenAI integration report to student-led explorations such as Tirth Rank's article on Retrieval-Augmented Generation (RAG), the newsletter showcases how GenAI is being meaningfully embedded across our campuses.

We also bring you global updates, innovative use cases, and highlights from recent events such as the AI-powered Kanji learning workshop and student participation at the ICGPTE 3.0 conference in Hyderabad. As we embrace the future, our aim is to promote a culture of informed experimentation, interdisciplinary collaboration, and integrity-driven AI adoption. We encourage you to explore, share, and contribute to the expanding horizons of GenAI at NMIMS.

Happy Reading! EduGenAI Newsletter Team

In this edition

- The Future of Jobs in the Age of Generative AI: What It Means for Students
- News and Events: April 2025
- GenAl Tools Use-Cases
- Latest Updates and Trends



The Future of Jobs in the Age of Generative AI: What It Means for Students

As generative AI systems like ChatGPT, DALL·E, and Sora continue to push the boundaries of automation and creativity, their implications for the workforce—and the students who will soon join it—are both exciting and unsettling. While this technology opens doors to new opportunities, it also signals a profound transformation in how we define skills, prepare for employment, and think about lifelong learning.

Shifting Job Landscapes

Generative AI is rapidly reshaping industries that once seemed immune to automation. From writing marketing copy and designing graphics to coding and producing music, AI is now augmenting—or even replacing—human labour in creative fields. This shift is not just about efficiency; it's about redefining creativity itself.

Jobs at risk include routine-heavy roles in administration, customer service, and basic content creation. On the flip side, new roles are emerging: prompt engineers, AI ethicists, data curators, and human-AI interaction designers.

The Student Dilemma: Threat or Opportunity?

Students face a paradox. On one hand, they must prepare for jobs that don't exist yet. On the other, they risk being trained for careers that AI could soon transform or eliminate.

Key challenges include:

- **Outdated curricula:** Many academic programs haven't caught up with the pace of AI innovation.
- **Digital literacy gaps:** Students need to understand not just how to use AI tools, but how they work and their ethical implications.
- **Career uncertainty:** Traditional career paths are being upended, requiring agility and adaptability.

Opportunities, however, are abundant:

- Al can be a co-pilot for learning, research, and entrepreneurship.
- **Students with interdisciplinary skills** (e.g., tech + humanities) will be especially valuable in bridging human and machine intelligence.
- **Generative AI can help democratize** access to knowledge and creation tools, empowering students from all backgrounds.

What Should Students Focus On?

To thrive in the age of generative AI, students should cultivate:

- Critical thinking and ethical reasoning
- Al fluency: Understand how Al works, not just how to use it.
- Adaptability: Embrace lifelong learning and agility in career planning.
- Collaboration with AI: Learn to see AI as a creative and analytical partner.

🛠 What Educators and Institutions Can Do

- Update curricula to integrate AI tools, ethics, and applications.
- **Encourage interdisciplinary learning** that combines tech, business, design, and humanities.
- **Promote a culture of experimentation**, where students are encouraged to prototype, fail, and iterate using generative tools.

Conclusion: A New Era of Co-Creation

Rather than **replacing humans, the real potential of generative AI lies in augmenting human creativity and productivity**. The **students who will succeed are those who learn to co-create with machines**, **adapt to change, and think critically** about the technology shaping their futures.

As AI continues to evolve, one thing is clear: education must evolve with it.



News and Events

Event at NMIMS, Navi Mumbai

Topic: Workshop in collaboration with Centre for Educational Technology, IIT Bombay, titled "titled "Learning Japanese Kanji with Creative Illustrations and Mnemonics Using Generative AI.

On April 7,2025 the Google Developer Group (On Campus, Navi Mumbai), in collaboration with the Centre for Educational Technology, IIT Bombay, organized an engaging workshop titled *"Learning Japanese Kanji with Creative Illustrations and Mnemonics Using Generative AI."* The workshop was facilitated by **Mr. Mayur Bhurle from Centre for Educational Technology, IIT Bombay.**

Through an interactive and insightful session, students were introduced to the fundamentals of Japanese Kanji in a highly creative manner. The facilitator demonstrated how Generative AI can simplify the process of learning complex languages like Japanese by using illustrations and mnemonic aids.



In addition to the language-learning component, the workshop featured a hands-on session on advanced Generative AI tools such as **N8N**, for automating workflows, and **Streamlit**, for deploying AI-powered applications. This technical segment added further depth and value to the overall experience.

The workshop witnessed enthusiastic participation from over 80 students, primarily from the 2nd and 3rd year of the School of Technology Management and Engineering (STME). Participants shared overwhelmingly positive feedback for both the language and technical sessions. The event was coordinated by **Prof. Pratiksha Patil**, Assistant Professor STME & Faculty In-charge, Google Developer Group.

School Spotlight: MPSTME, Mumbai

Topic: Report on "Integration of Generative AI in Teaching and Assessment"

In the academic year 2024–25, **MPSTME**, set a benchmark in the educational landscape by **strategically integrating Generative AI (GenAI)** across teaching, assessment, and research processes. This initiative, **guided by NMIMS's comprehensive GenAI Policy**, reflects the institution's commitment to innovation, academic excellence, and future-readiness.

Key Highlights from the GenAl Integration Report Strategic Implementation Approach:

- **Policy Integration:** All course policies included a mandatory GenAl usage component.
- **Faculty Capacity Building:** Workshops and orientation programs trained over 75 faculty members in prompt engineering, ethical AI usage, and subject-specific applications.
- Assessment Redesign: Internal assessments were restructured to include personalized, GenAI-supported tasks that promote critical thinking.

Tool Adoption & Usage:

- **Popular Tools:** ChatGPT (50.7%) and GitHub Copilot (18.4%) were most used, with emerging interest in Gemini, Claude, and Perplexity.
- **Departments Involved:** Highest adoption was seen in Computer and AI-related departments, followed by traditional engineering and foundational sciences.
- Use Cases: GenAl was employed for student engagement (31.7%), teaching material creation (31.7%), assessments (19.2%), and administrative tasks (4.8%).

Student Engagement:

- **Collaborative Learning Models: A majority (74.6%)** of implementations involved both students and faculty using GenAI tools together.
- Benefits Noted: Enhanced conceptual clarity, creativity, engagement, and efficiency in learning were widely reported.

Diverse Applications Across Courses:

Over **70+ detailed case studies** contributed by faculty members from different domains illustrate the integration of GenAI in:

- Web development, machine learning, database management
- Digital logic and cloud computing
- Resume building, communication skills, and business analytics
- Real-world problem-solving and research support

🚭 Key Takeaways

- **Pedagogical Impact:** GenAI tools helped personalize learning, simulate real-world scenarios, and improve assessment quality.
- **Student Empowerment:** Tools enabled students to explore, reflect, and innovate with confidence.
- **Challenges:** Ethical usage, interdepartmental adoption gaps, and evaluating AI-assisted outputs remain focus areas for future improvement.

Looking Ahead

MPSTME plans to further:

- Develop robust evaluation frameworks for AI-assisted learning.
- Expand GenAl use in labs, projects, and research.
- Balance AI assistance with critical thinking and ethical use guidelines.

Conclusion:

MPSTME's proactive integration of GenAl reflects a forward-thinking academic ecosystem that is equipping both educators and students to thrive in a rapidly evolving digital world. This report serves as a living document, shaping the institution's Al-powered educational future. **Detailed Report can be read here:** <u>GenAl Integration Complete Report 2024-25.pdf</u>



Student(s) Spotlight: NMIMS, Hyderabad

Topic: 'Participation in the 3rd International Conference on Integrating AI into Sustainable Energy Solutions (ICGPTE 3.0)'

Overview:

As part of NMIMS Hyderabad's ongoing efforts to promote student engagement in cutting-edge technological discourse, selected students from the School of Commerce, Hyderabad participated in the 3rd International Conference on Integrating AI into Sustainable Energy Solutions (ICGPTE 3.0) held on April 4-5, 2025 at Federation house, Red hills, Hyderabad. The conference brought together global researchers, AI practitioners, and policymakers to explore the intersection of Artificial Intelligence and sustainable energy technologies. Broad Conference Themes include Leveraging Gen-AI for smart city energy modelling and simulation, Enhancing decision-making in energy policy through AI-generated scenario planning, Role of Gen-AI in automating sustainability reporting for corporates and governments.



Distinguished_Speakers:

The event featured several renowned personalities, including - **Dr. B. Shriram**, CEO, Cyber Security Centre of Excellence, Government of Telangana; **Dr. Hemachandran Kannan**, Professor and Director, AI Research Centre.

Key Takeaways from the Sessions:

- 1. Dr. B. Shriram highlighted the critical role of Generative AI in predictive maintenance and optimization of energy grids.
- 2. Dr. Hemachandran Kannan focused on Gen-AI applications in renewable energy forecasting and innovation design. He elaborated on how Generative AI is being used to generate synthetic data for improving solar and wind energy prediction models. Dr. Kannan also introduced case studies where Gen-AI was used in the design phase of solar panels and battery storage systems, accelerating R&D in sustainable technology manufacturing.

Students found the conference insightful and appreciated the opportunity to understand how AI intersects with sustainability, a theme that aligns with their curriculum and aspirations. The sessions sparked keen interest in exploring interdisciplinary projects integrating commerce, AI, and sustainable development.

Student Spotlight: NMIMS, Shirpur

Topic: *Medium article on "Data Streaming and Retrieval-Augmented Generation (RAG): Unlocking the Next Frontier in Generative AI"*

In this insightful article published on **April 17,2025**, **Tirth Medium Rank**, student of **B.Tech AIML**, **Final Year**, **MPSTME**, **Shirpur campus** explores the integration of data streaming with Retrieval-Augmented Generation (RAG) to enhance the capabilities of generative AI models.

Data Streaming and Retrieval-Augmented Generation (RAG): Unlocking the Next Frontier in Generative Al

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Traditional large language models (LLMs) are limited by their static training data, making them less effective in dynamic environments. RAG addresses this by retrieving relevant information from external sources at inference time, grounding the model's responses in up-to-date data.

By incorporating real-time data streaming—using tools like **Apache Kafka or AWS Kinesis—into the RAG framework**, AI systems can access continuously updated information, enabling:

- **Timely Responses:** Access to the latest data ensures that AI outputs are current.
- **Reduced Latency:** Real-time data retrieval supports applications requiring immediate insights.
- **Dynamic Contextualization:** Continuous data feeds allow AI to adapt to changing information landscapes.

The article outlines a **high-level architecture combining data ingestion**, **preprocessing**, **vector storage**, **and retrieval mechanisms** to facilitate this integration. Real-world applications include financial analysis, customer support, e-commerce personalization, and cybersecurity.

Tirth also discusses challenges such as **balancing latency with accuracy, managing infrastructure complexity, and ensuring data security**. Looking ahead, the fusion of **RAG**, **data streaming, and agentic reasoning** is poised to drive the next wave of **adaptive, intelligent Al applications**.

For a deeper dive into this topic, read the full article here: <u>Data Streaming and Retrieval-Augmented</u> <u>Generation (RAG)</u>: <u>Unlocking the Next Frontier in Generative AI | by Tirth Rank | Apr, 2025 | Medium</u>



GenAI Tools Use-Cases

 How to Use Khanmigo for Personalized Lessons Sign Up: Create a free teacher account at khanacademy.org and set up your class. Create Khanmigo: Activate Khanmigo: Request access at khanacademy.org/khan-labs. Approval may take time. Check Student Progress: Use your teacher dashboard to spot learning gaps. Use Al to Personalize: In Khammigo acking 	se GenAl for Experimental stance Fool: orms like <u>Elicit</u> or Watsonx.ai.
 Sign Up: Create a free teacher account at khanacademy.org and set up your class. Choose a Use platfor Define You Provide Khanmigo: Request access at khanacademy.org/khan-labs. Approval may take time. Check Student Progress: Use your teacher dashboard to spot learning gaps. Check Al to Personalize: In Khamming asku 	Fool: orms like <u>Elicit</u> or Watsonx.ai.
 In Khanningo, ask: "Create an activity for a student struggling with fractions." Apply and Teach: Review, edit, or assign Al-generated content to your class. Reflect & Iterate: Track student response and ask for Use the p 	ur Research Question: ur question or topic (e.g., <i>ffect Y in Z population?</i> "). xisting Literature: AI suggest relevant studies, te findings, and highlight Design Ideas: <i>variables and methodology</i> <i>vpothesis.</i> " <i>ntrols should I consider?</i> " Customize: suggestions to fit your field, quirements, and goals. terate: lan to guide your research,
insights.	n to the tool for follow-up



Latest Updates and Trends

- India Leads Global Surge in Generative AI Learning on Coursera: India has emerged as the global leader in generative AI course enrollments on Coursera, with over 1.1 million new learners in 2024. This trend reflects a shift towards practical, workplace-focused AI skills, with many learners prioritizing role-specific applications over foundational courses. Read more at: <u>https://www.business-standard.com/education/news/india-emergesglobal-leader-in-generative-ai-enrollments-on-coursera</u>.
- Google and MIT Launch Free Generative AI Course for Educators: Google's "Grow with Google" initiative, in collaboration with MIT RAISE, has introduced a free, self-paced course titled "Generative AI for Educators." The course aims to help teachers integrate AI tools into their workflow, enhancing lesson planning, personalized instruction, and administrative tasks. Read more at: <u>https://blog.google/outreach-initiatives/grow-with-google/google-generative-ai-course-educators/</u>.
- Union Education Minister Emphasizes Aligning AI in Education with Indian Values: At the 'PadhAI: Conclave on AI in Education' in New Delhi, Union Education Minister Dharmendra Pradhan highlighted the importance of integrating AI in education in a manner that aligns with Indian cultural and ethical values. He described AI as a "force multiplier" and a "catalyst for innovation" that can bridge empathy and technology. Read more at: https://timesofindia.indiatimes.comai-in-education-must-align-with-indian-values.
- China Mandates AI Education for Primary Students to Build Future Skills: In a significant move to bolster its position in the global artificial intelligence (AI) landscape, Beijing has mandated AI education across primary and secondary schools. Starting from the upcoming fall semester on September 1, 2025, students will receive a minimum of eight hours of AI instruction per academic year. Read more at: <u>https://www.indiatoday.in/education-today/news/story/china-mandates-ai-education</u>.

Reference Links

- https://www.weforum.org/reports/the-future-of-jobs-report-2023
- https://www.oecd.org/education/2030-project/
- <u>https://www.mckinsey.com/featured-insights/future-of-work</u>
- <u>https://www.pwc.com/gx/en/issues/analytics/assets/pwc-ai-analysis-sizing-the-prize-report.pdf</u>
- https://www.brookings.edu/research/ai-and-the-future-of-learning/
- https://unesdoc.unesco.org/ark:/48223/pf0000376704
- <u>https://workofthefuture.mit.edu/research-post/final-report-building-better-jobs-in-an-age-of-intelligent-machines/</u>

Stay informed about the latest global advancements in Generative AI, as well as key developments within NMIMS. Continue reading to remain engaged with cutting-edge innovation and academic progress.

With warm regards,

EduGenAl Newsletter Team



Kindly send your feedback and contributions on GenAI use-cases to your respective school or campus representatives in the newsletter team or genai.newsletter@nmims.edu before the 25th of every month!