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SVKM's NMIMS

NMIMS EduGenAI

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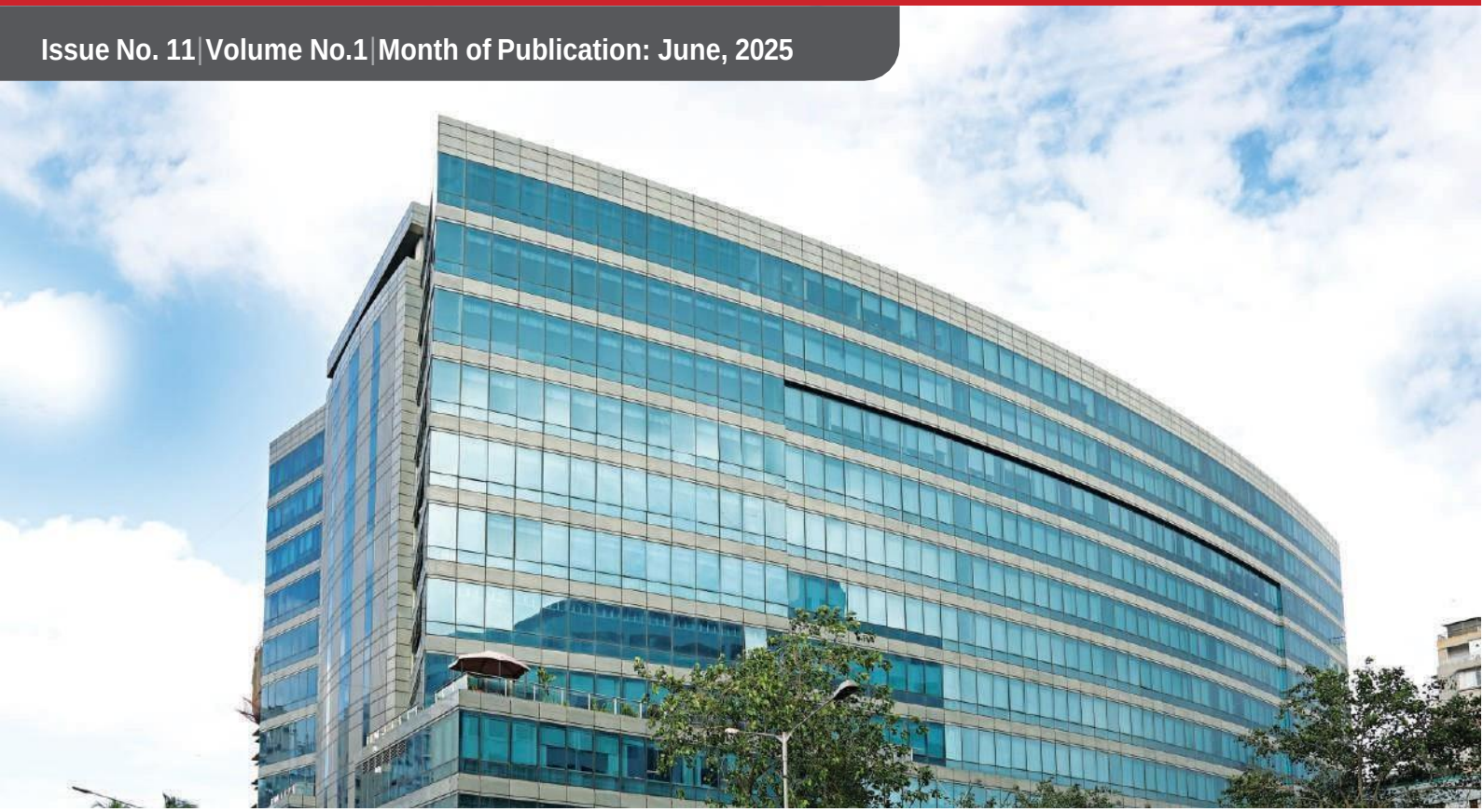

NMIMS Vision

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 Guidelines and Policy

GenAI Faculty Development and Workshops

GenAI-Enhancing Teaching-Learning Process

GenAI- Progress Monitoring

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Preface

Introducing the June 2025 Issue of NMIMS EduGenAI Newsletter 🎉

We are thrilled to present the 11th issue of our newsletter, a curated collection of insights, innovations, and practical applications in the dynamic field of Generative Artificial Intelligence.

Featured Article: "From Numbers to Narratives in the Age of AI-Enhanced Education" 📊

This article explores how data analysis can be leveraged to draw actionable insights, empowering educators and learners alike.

What's Inside?

- Global updates on the latest developments in Generative AI
- Innovative use cases showcasing the power of AI in data analytics
- Highlights from recent Faculty Development Programs at NMIMS schools, including Pharmacy schools in Mumbai and Shirpur, and Sarla Anil Modi School of Economics (SAMSOE), Mumbai

As we navigate the AI-driven future, our goal is to promote a culture of informed experimentation, interdisciplinary collaboration, and integrity-driven AI adoption. We invite you to explore, share, and contribute to the growing landscape of Generative AI at NMIMS.

Happy Reading!
EduGenAI Newsletter Team

In this edition

From Numbers to Narratives in the Age of AI-Enhanced Education

In the evolving landscape of education, the integration of generative AI tools has not only **transformed teaching and learning** but also opened new possibilities **in how educators analyze** data. Data analysis—both **quantitative** and **qualitative**—plays a critical role in understanding student needs, evaluating instructional strategies, and shaping policy decisions. When powered by AI, these approaches can become **more accessible, insightful, and actionable.**

Quantitative Analysis: The Power of Patterns

Quantitative data analysis deals with measurable data—test scores, attendance, engagement metrics, course completion rates, etc. Traditionally handled through statistical software, this type of analysis is now being augmented by AI platforms that can automate data cleaning, visualize trends, and even predict student outcomes.

Examples in Practice:

- **Predictive Analytics:** AI models can forecast which students are at risk of dropping out based on performance and engagement indicators.
- **Learning Analytics Dashboards:** These platforms provide real-time insights on student progress, helping teachers adjust pacing or provide targeted interventions.
- **A/B Testing for Instructional Strategies:** Educators can test two teaching methods and use AI to analyze which one yields better results based on student performance data.

Qualitative Analysis: Understanding the Why

Qualitative analysis focuses on non-numerical data—student feedback, classroom observations, open-ended survey responses, or reflective journals. This analysis is crucial for understanding motivation, behavior, and learning experiences.

Generative AI tools like GPT-4 and Claude can assist educators in coding, summarizing, and analyzing large sets of qualitative data with impressive nuance.

Examples in Practice:

- **Sentiment Analysis of Student Feedback:** AI can process hundreds of open-ended responses to reveal trends in student satisfaction or stress.
- **Thematic Coding:** Tools like **Dedoose** or **AI-enhanced NVivo** can now use large language models (LLMs) to suggest themes or codes from qualitative transcripts.
- **Narrative Synthesis:** Teachers can use **AI to summarize classroom observations or compile findings from multiple sources** into coherent, actionable insights.

Blending the Two: Mixed Methods Analysis

The most powerful insights often emerge at the intersection of quantitative and qualitative approaches. **AI tools now make it easier to combine and interpret** mixed methods data, for example by correlating test scores with **feedback sentiment or visualizing student journaling patterns** alongside attendance metrics.

Cautions and Ethical Considerations

As we have discussed in earlier issues, even though generative AI enhances data analysis, it can also raise important ethical questions:

- **Bias and Fairness:** Algorithms may inherit biases from training data, potentially skewing interpretations.
- **Privacy:** Educators must ensure student data is handled securely and with informed consent.
- **Overreliance:** AI should augment, not replace, human judgment in interpreting educational data.

Getting Started with AI-Enhanced Data Analysis

Here are a few accessible tools educators can explore:

- **Quantitative Tools:** Google Sheets with AI add-ons (e.g., ChatGPT plug-ins), Tableau, Microsoft Power BI
- **Qualitative Tools:** Otter.ai for transcription, QuillBot or Claude for summarization, NVivo for in-depth coding
- **AI Integration:** Use GPT-based tools to generate summaries, reflections, and visualizations from raw data.

Conclusion

As generative AI becomes a more integral part of educational ecosystems, it empowers educators not just to teach differently but also to **see differently**—to derive deeper, more human-centered insights from both numbers and narratives. By embracing AI-enhanced data analysis, educators can design more responsive, equitable, and effective learning environments.

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News and Events

Event at NMIMS, SPPSPTM, Mumbai

Topic: ***Faculty Development Programme on Integrating AI into Research.***

Shobhaben Pratapbhai Patel School of Pharmacy & Technology Management (SPPSPTM), SVKM's NMIMS, in collaboration with the **Centre for Executive Education (CEE),** conducted a **five-day Faculty Development Programme** (FDP) titled ***"Integrating AI into Research"*** from **May 5 to May 9, 2025**. The FDP aimed to equip educators and **researchers with essential skills to effectively incorporate AI tools into academic and scientific work**.

The sessions featured insights from **NMIMS faculty and industry experts**, covering applied machine learning, AI in healthcare and drug discovery, as well as hands-on experience with low-code/no-code platforms like Google Colab, Orange, and Teachable Machines.

Speakers included **Dr. Vaishali Kulkarni, Dr. Ami Munshi, Dr. Bajrang Kumbhar, Dr. Kushagra Agrawal, and Dr. Rajendra Patil**, who each highlighted real-world applications of AI—from improving data analysis in pharmacy to enhancing precision care in healthcare. The concluding session emphasized the ethical integration of tools like ChatGPT, Duplichecker, and Perplexity AI in research and writing. The FDP concluded with a valedictory note appreciating participant engagement and reinforcing the growing role of AI in advancing pharmaceutical and interdisciplinary research.

Event at NMIMS, Shirpur Campus

Topic: ***Faculty Development Programme on Leveraging AI to Empower and Transform the Next Generation of Educators and Researchers***

School of Pharmacy & Technology Management (SPTM), NMIMS, Shirpur Campus, successfully conducted a **one-week Faculty Development Programme (FDP)** titled ***"Leveraging AI to Empower and Transform the Next Generation of Educators and Researchers"*** from **May 6 to 10, 2025**.

In her inaugural address**, Dr. Sunita Patil**, **Director of NMIMS Shirpur**, highlighted the institution's commitment to integrating AI in education, aligned with the vision of Vice Chancellor **Dr. Ramesh Bhat**. She emphasized the growing relevance of such initiatives in today's academic landscape.

The FDP featured expert-led sessions by **Dr. Rajendra Patil (ALSJ College, Mumbai)**, **Dr. Nishikant Raut,** and **Dr. Dadasaheb Kokare (RTM University, Nagpur),** focusing on AI's role in

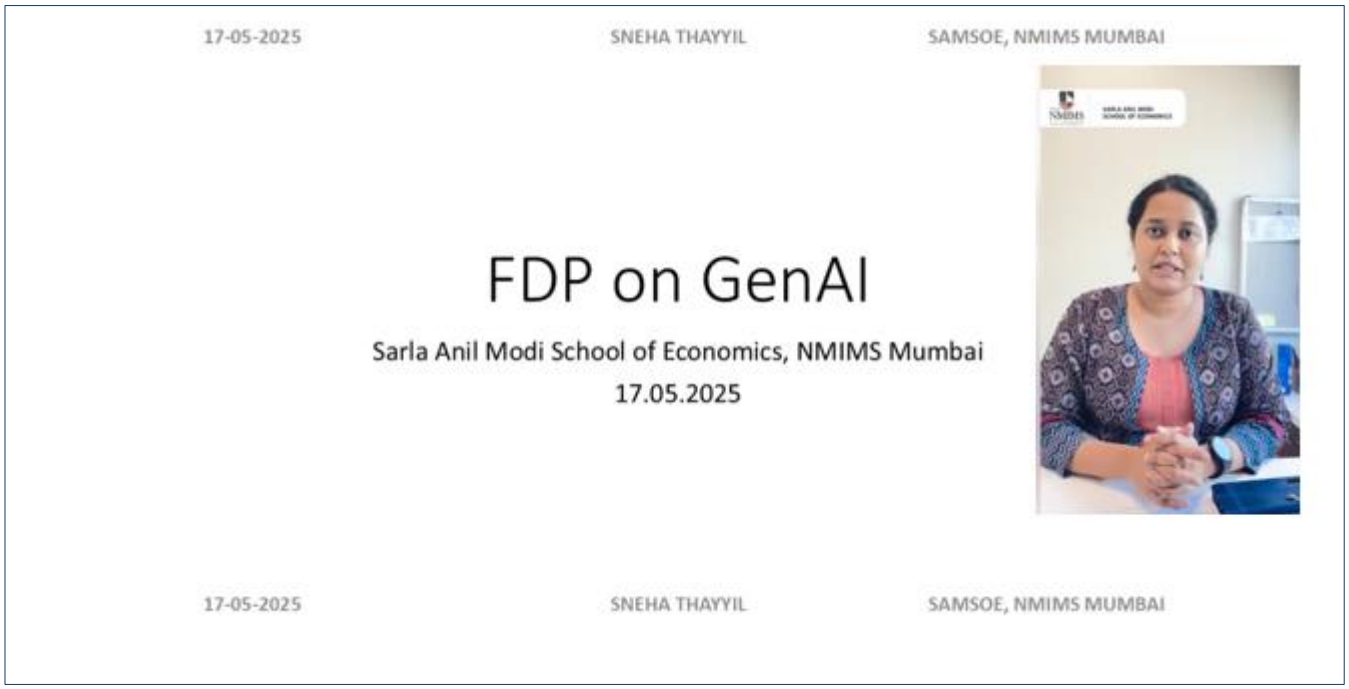
education and neuroscience**. Dr. Satish Polshettiwar (MIT-WPU, Pune)** demonstrated AI tools for content creation and research.

In-depth discussions on **hallucinations, metanalysis, and large language models (LLMs)** were led by **Dr. Bandu Chatale**, **Dr. Ashwini Mishra**, **Dr. Praveen Loharkar**, **Dr. Rajesh Verma**, and **Dr. Divya Gautam**. **Mr. Chandramani Chandrakar (Cipla)** spoke on AI's ethical integration in pharma research. The programme was coordinated by **Dr. Mayank Sharma** and convened by **Dr. S. S. Pancholi**, **Associate Dean, SPTM, Shirpur,** who emphasized AI's potential to make teaching more interactive and aligned with the objective of Assurance of Learning (AOL).

Event at NMIMS, SAMSOE, Mumbai

Topic: ***Faculty Development Programme on Generative AI at SAMSOE***

Sarla Anil Modi School of Economics (SAMSOE), NMIMS Mumbai, conducted a Faculty Development Programme (FDP) on ***"Generative AI"*** on **May 17, 2025**, from 10:00 AM to 1:00 PM. Led by **Prof. Sneha Thayyil, Assistant Professor at SAMSOE**, the session provided an insightful overview of AI's evolution, key tools for teaching and research, and practical applications of prompt engineering. The FDP also familiarized participants with **Google Colab, discussed challenges such as AI hallucinations, and explored important frameworks related to AI ethics and institutional policy**—equipping faculty with foundational knowledge to engage meaningfully with AI in academic settings.



GenAI Tools Use-Cases

Data Analysis with Gemini in Google Colab

A Step-by-Step Guide

Step 1: Set Up Google Colab 💻

- **Go to Google Colab and sign in with your Google account.** The Link is: **(https://colab.research.google.com/)**
- **Create a new notebook** 📝

Step 2: Load Your Dataset 📊

- **Use Gemini's natural language processing** capabilities to **load and explore your data**

Step 3: Ask Questions and Get Insights 🤔

- **Ask Gemini questions about your data, such as "**What are the summary statistics for this dataset?**" or** "Show me a histogram of the column 'age'**"**
- **Gemini will generate code and execute it in the** Colab environment**, providing insights and visualizations** 📈

Step 4: Refine and Visualize 🔍

- **Refine your analysis by asking follow-up questions or** adjusting the generated code
- **Visualize your results using various libraries,** such as Matplotlib or Seaborn 🎨

"Save time and get insights faster with this use case 🚀!

Data Analysis and Visualization with Julius AI

A Step-by-Step Guide

Step 1: Sign Up and Upload Data 📈

- Go to **Julius AI** (**https://julius.ai/**) and sign up for a free account 📝
- Upload **your dataset to Julius AI** 📊

Step 2: Ask Questions and Get Insights 🤔

- Ask **Julius questions about your data**, such as "What are the trends in sales over time?" or "Show me a correlation matrix for this dataset" 📊
- Julius will **generate visualizations and insights** based on your questions 💡

Step 3: Explore and Refine 🔍

- Use **Julius's chat interface to explore your data further** and get recommendations for next steps 💬
- Refine **your analysis by asking follow-up questions** or adjusting the generated visualizations 🎯

Step 4: Share and collaborate 🌐

- Share your **results with others via a link or embed it on a website** 📄
- Collaborate **with team members in real-time using Julius's** commenting and feedback features 👥

"Unlock faster analysis with this powerful tool ⏱️!

Latest Updates and Trends

- **Goldman Sachs Launches Generative AI Assistant Firmwide:** Goldman Sachs has rolled out a **proprietary AI assistant to approximately 10,000 employees** across various divisions. The tool, built on a fine-tuned large language model, is **designed to automate and optimize tasks** like document summarization, code generation, and data analysis, enhancing workplace efficiency. **Read more at: https://www.reuters.com/business/goldman-sachs-launches-ai-assistant-firmwide-memo-shows-2025-06-23**
- **Google Unveils Gemini-Powered On-Device Robotics Model:** Google has launched a new Gemini-based model designed for **robotic systems that can operate offline.** This **multimodal model enables real-time vision-language-action** processing without internet connectivity, improving autonomy and reliability in robotics applications. **Read more at: https://timesofindia.indiatimes.com/technology/artificial-intelligence/gemini-model-for-robots-to-run-without-internet-connectivity/**
- **Meta Wins Copyright Case Over AI Training Data**: A **U.S. judge has dismissed** parts of a lawsuit against Meta, brought by authors who claimed **their books were used** without permission to train **the LLaMA generative AI model.** The ruling emphasized that **the authors failed to show substantial similarity** between their **works and the model's outputs**, signaling legal complexities around AI training data. **Read more at: https://www.reuters.com/sustainability/boards-policy-regulation/meta-fends-off-authors-us-copyright-lawsuit-over-ai-2025-06-25.**
- **Gen AI Strengthens Cybersecurity – India at the Forefront:** Generative AI is being used by both attackers and defenders, but India leads in proactive integration of GenAI for faster and smarter cyber defense strategies. **Read more at: Gen AI in cybersecurity: Will help defenders with better counter measures; India ahead of other nations - Times of India.**

Reference Links

- **https://arxiv.org/html/2502.05770v1**
- **https://arxiv.org/pdf/2411.00631**
- **https://arxiv.org/abs/2505.00100**
- **https://arxiv.org/pdf/2504.19673**
- **Unpacking Generative AI in Education: Computational Modeling of Teacher and Student Perspectives in Social Media Discourse**

"Stay informed about the latest developments in Generative AI and NMIMS through **EduGenAI Newsletter** - your gateway to knowledge!

With warm regards,
EduGenAI 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!**