

REPORT
on
A Three-Day Faculty Development Workshop (A Training of Trainers)
on
Artificial Intelligence Tools for Teaching and Learning
Date: 25 – 27th Nov., 2024
Time: 09:00 – 03:30
Organized by:
Internal Quality Assurance Cell (IQAC), St. Joseph's College, Darjeeling
in collaboration with
St. Xavier's College, Jaipur

Resource Persons:

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Artificial Intelligence (AI) is transforming higher education by enhancing teaching and learning processes. Teachers can leverage AI to personalize learning, automate administrative tasks, and analyze student performance data for targeted interventions. AI tools, like intelligent tutoring systems and automated grading, save time, allowing educators to focus on student engagement and innovative pedagogy. However, many faculty members lack the skills to effectively integrate AI into their teaching. Hence the Internal Quality Assurance Cell (IQAC) endeavoured to organize a workshop on AI to provide hands-on training, showcasing practical applications, and fostering collaboration. The workshop was organized in collaboration with St. Xavier's College, Jaipur from 25th to 27th Nov., 2024. Such a workshop empowers educators to adopt AI tools confidently, ensuring they remain competitive in a tech-driven academic landscape while improving student outcomes. This initiative aligns with the institute's commitment to innovation and excellence in education. The event was attended by 57 teachers.

The workshop commenced with a welcome address and introduction of resource persons by the IQAC Coordinator, setting the stage for an engaging and informative session.

The workshop included the following sessions:

A. Introduction to AI in Higher Education Institutions:

It highlighted how AI can revolutionize teaching, research, and administrative processes by personalizing learning, automating routine tasks, and enhancing decision-making through data-driven insights. Practical examples included AI-driven tutoring systems, automated grading tools, and content creation platforms that improve student engagement and streamline faculty workflows. The session also addressed ethical considerations, such as mitigating bias and ensuring data privacy, emphasizing responsible AI adoption. Faculty were encouraged to explore AI's role in fostering innovation and improving educational outcomes in higher education.

B. Hands-on: Prompt Engineering in AI:

Designed for non-technical educators, this interactive session introduced the principles of prompt engineering, emphasizing its importance in eliciting accurate and relevant responses from AI tools like ChatGPT, Gemini, and Microsoft Copilot.

Participants engaged in hands-on activities, learning to create clear, specific, and contextually rich prompts tailored to academic tasks such as generating lecture outlines, creating interactive quiz questions, summarizing research articles, and addressing student inquiries. Key techniques covered included:

- Iterative Prompt Refinement: Adjusting prompts based on AI outputs to improve precision and relevance.

- Role-Based Prompting: Framing prompts to assign AI specific roles (e.g., “Act as a history professor explaining World War II”).

- Contextual Clarity: Including relevant details to minimize ambiguity in AI responses.

- Bias Mitigation: Crafting prompts to reduce biased outputs and ensure ethical AI use.

The hands-on approach ensured practical applicability, empowering educators to integrate AI tools effectively into their teaching and administrative workflows.

C. Hands-on: AI Tools for Content Creation:

This session provided practical training on platforms like Canva, PresentationAI, Gamma, and DALL-E to enhance teaching and learning experiences.

Participants engaged in hands-on activities to explore AI tools for designing interactive lectures, quizzes, simulations, and multimedia presentations. Key activities included:

- Interactive Lecture Design: Using Gamma and PresentationAI to create dynamic slide decks with AI-generated visuals and text tailored to course topics.

- Quiz and Assessment Creation: Crafting auto-generated quizzes with Canva’s AI features, ensuring alignment with learning objectives.

- Multimedia Content Development: Generating images and infographics with DALL-E to illustrate complex concepts, such as historical events or scientific processes.

- Content Customization: Adapting AI-generated materials to suit diverse classroom needs, including multilingual support for inclusive teaching.

Participants practiced creating sample lesson materials, such as a biology lecture with AI-generated diagrams or a literature quiz with interactive elements. However some of the tools asked for the institutional ID to access them, which was not available for the college faculties.

D. AI Tools for Review of Literature:

Tailored for educators and researchers, this hands-on session focused on streamlining the research process using AI platforms like Semantic Scholar, litmaps, undermin, connected papers etc.

Participants engaged in interactive exercises to explore the following applications:

- Literature Discovery: Using Litmaps to identify relevant studies and map connections between papers, enabling faculty to uncover research gaps and trends.

- Article Summarization: Leveraging Semantic Scholar and Undermind to generate concise summaries of research articles, reducing reading time while retaining key insights.

- Citation Analysis: Employing AI tools to track citations and assess the impact of studies, aiding in the selection of high-quality sources.

- Content Organization: Using ChatGPT, notebookLM to create structured summaries and notes from multiple sources, integrating them into research workflows.

- Multilingual Support: Exploring AI tools to summarize and translate non-English articles, broadening access to global research.

The hands-on approach ensured practical applicability, empowering educators to integrate these tools into their scholarly work effectively.

E. Hands-on: AI for Data Visualization:

Participants were made to be engaged in the following activities:

- AI-Generated Visuals: Leveraging DALL-E and Canva’s AI features to create custom infographics and illustrations, such as visualizing scientific processes or historical timelines, to enhance lecture materials.

Customization for Diverse Audiences: Adapting visualizations for different learning levels, including multilingual annotations or simplified graphics for inclusivity.

F. Hands-on: AI for Teaching Pedagogy:

Participants engaged in hands-on activities using AI platforms such as ChatGPT, Gemini, Microsoft Copilot, and intelligent tutoring systems to transform traditional teaching methods.

Personalized Learning Design: Crafting AI-driven lesson plans tailored to diverse student needs, such as generating adaptive exercises for varying skill levels in subjects like mathematics or literature.

Interactive Classroom Tools: Using AI to create real-time polls, quizzes, and discussion prompts to boost student participation, demonstrated through platforms like Gamma.

Feedback and Assessment: Leveraging AI tools to provide instant, constructive feedback on student assignments, enhancing formative assessment practices.

Prompt Engineering for Teaching: Practicing prompt design to elicit AI-generated content, such as simplified explanations of complex concepts or multilingual resources for inclusive classrooms.

AI Fundamentals: Covered AI concepts, machine learning, and natural language processing, tailored for non-technical educators.

AI Tools for Teaching: Hands-on training with platforms like ChatGPT, Gemini, Gamma, Microsoft Copilot, and DALL-E for interactive teaching.

The hands-on format empowered educators to confidently integrate AI into their pedagogy, fostering innovative, student-centered teaching practices that enhance engagement and learning outcomes.

Conclusion

The workshop concluded with an interactive Q&A session, feedback collection, and a group photo. The vote of thanks was delivered by Dr. Samir Sharma, IQAC member, acknowledging the resource persons and participants. Feedback forms indicated strong satisfaction with the hands-on approach and relevance of the content.

Outcomes

Participants gained proficiency in using AI tools for teaching, content creation, literature review, and assessment. The workshop fostered a culture of innovation, equipping faculty to integrate AI into their academic practices effectively. Follow-up sessions and support resources were proposed to sustain momentum.



कृत्रिम बुद्धिमत्ता उपकरणहरूको प्रयोगबारे तीन दिने कार्यशाला



दार्जीलिङ, २७ नोभेम्बर (निसं): दार्जीलिङको प्रतिष्ठित कृत्रिम बुद्धिमत्ता उपकरणहरूको प्रयोगबारे तीन दिने कार्यशाला सम्पन्न महाविद्यालय सन्त जोसेफ्स महाविद्यालयको आईक्यूएसी सेलको तत्वावधानमा अध्ययन अध्यापन र शोधका क्षेत्रमा कृत्रिम बुद्धिमत्ता (एआई) उपकरणहरूको प्रयोगबारे गत २५, २६ अनि २७ नोभेम्बरको तीन दिने कार्यशाला सम्पन्न भएको थियो। उक्त कार्यशालामा स्रोत वक्ताका रूपमा

सेन्ट जेभियर कलेज जयपुर, कम्प्युटर साइन्स विभागका प्राध्यापक जोहन फिलिप जेभियर र मनोविज्ञान विभागका प्राध्यापिका सन्तुता आचार्य उपस्थित थिए। प्राचार्य फादर डा. डोनाटस कुजुरको स्वागत सम्बोधनपछि सुरु भएको कार्यक्रमलाई आईक्यूएसीका संयोजक प्राध्यापक डा. अनिरुद्र गुरुङ र प्राध्यापक डा. समिर शर्माले सञ्चालन गरेका थिए। यस तीनदिने कार्यशालामा स्रोत वक्ता दुवैले अध्ययन अध्यापन र शोधका क्षेत्रमा कृत्रिम बुद्धिमत्ता उपकरणहरूको प्रयोगबारे चर्चा गर्दै क्रमैसँग च्याट जीपीटी, जेमिनि, नोटबुकएलएम, कोपाइलट, डाल-ई, माइक्रोसफ्ट बिङ, लिटम्याप, अन्डरमाइन्ड, एलिसिट, परप्लेक्सिटी, साइस्पेस, टर्नितिन, क्यानभा, गाम्मा, नेपकिन, ग्लासप आदिका सैद्धान्तिक र व्यावहारिक पक्षबारे अवगत गराएका थिए। अन्तर्क्रियात्मक र व्यावहारिक तरिकाले अधि बढेको कार्यशालामा धन्यवाद ज्ञापन प्राध्यापिका डा. रजनी देवानले दिएकी थिइन् भने कार्यशाला समाप्तिको घोषणा प्राचार्य फादर डा. डोनाटस कुजुरले गरेका थिए। कार्यशालामा सन्त जोसेफ्स महाविद्यालयका सबै विभागका प्राध्यापक, प्राध्यापिकाहरू उपस्थित थिए।

List of participants