

## **Workshop on Gen-AI for New Age Educators**

**Venue: Teaching Learning Centre (TLC), BITS Pilani, Pilani Campus**

**Date: Mar. 23, 2024**

The Teaching Learning Centre (TLC) BITS Pilani, Pilani campus, organized a national workshop on Gen-AI for New Age Educators. Mr Anupam Purwar (Senior Research Scientist, Amazon) offered a specially curated hands-on workshop that enabled the teachers and researchers to deploy Gen-AI models to identify potential collaborators based on research interests, conduct an effective literature review, research tasks, curriculum development, etc. The Director of BITS Pilani, Professor S.K. Barai, inaugurated the program. He highlighted that AI is a core technology in digital transformation and is increasingly playing an essential role in transforming how education is delivered and experienced. He invited our attention to how Gen-AI tools are already altering how educators and students interact and underpinned the significance of such a workshop. The Director congratulated the TLC's leadership role in nurturing the academic community through similar initiatives.

Professor Shibani Khanra Jha, in her introductory remarks, mentioned that while there are many conversations about risks, there are also many opportunities to reimagine how we educate in the age of Generative AI. From helping teachers focus on teaching to allowing students to work on far more ambitious projects, AI has the potential to be a great force for good in education. Professor Jha suggests we look into what can go right with the entry of Gen-AI; hence, such workshops would pave the way forward.

The workshop introduced Understanding of Generation AI and how it differs from previous generations. It explored the key concepts in AI, providing educators with a basic understanding of artificial intelligence, machine learning, and deep learning. The workshop offered a hands-on experience of how AI can enhance teaching and learning experiences through specific educational platforms, starting with offering AI literacy. The workshop further promoted Hands-On Activities and Case Studies. It offers a future where personalization becomes accessible to all. The workshop could offer a balanced convergence of theoretical and practical implications.

Mr. Purwar explained the functioning of Chat GPT, focusing on the transformer neural network models within GPT. With the help of a simple prompt, he demonstrated Python code generation using Chat GPT 3.5, offering participants a practical insight into its capabilities.

During the session, Prof. Shibani Jha, the TLC coordinator, and other online participants posed queries regarding formulating effective prompts. Mr. Purwar emphasized the significance of the user's input in refining the responses of such tools, shedding light on the limitations of Chat GPT.

Mr. Purwar also shared his arXiv preprint titled "Keyword Augmented Retrieval: Novel Framework for Information Retrieval Integrated with Speech Interface," inviting participants to explore its contents. He elaborated on the underlying probabilistic models, emphasizing that a well-formulated prompt can significantly enhance the probability of receiving a relevant response.

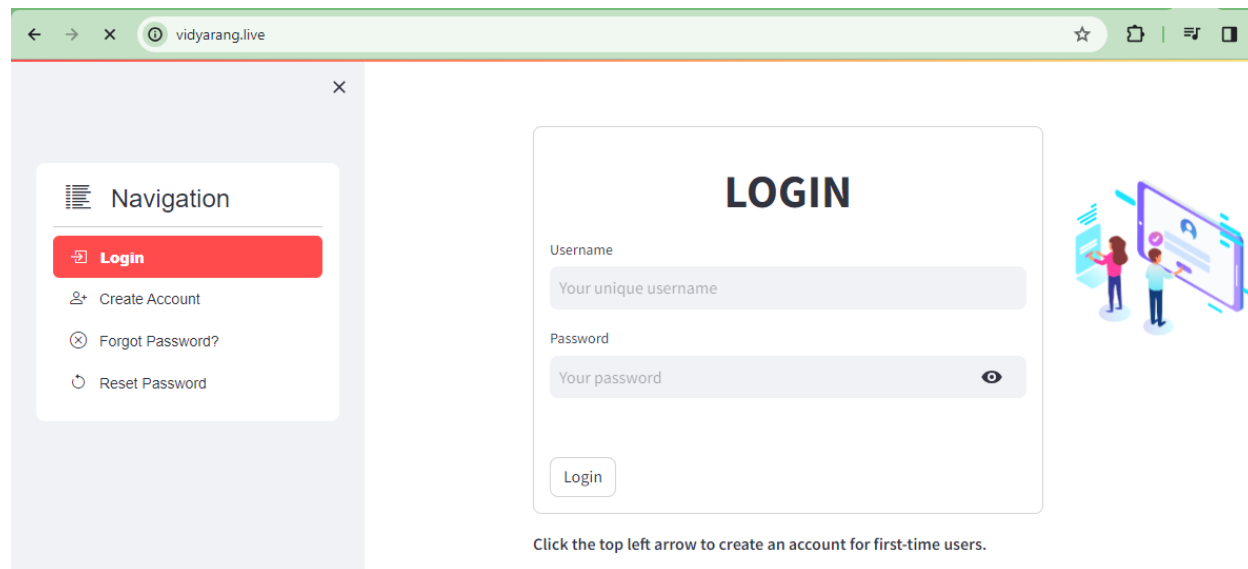
## Keyword Augmented Retrieval: Novel framework for Information Retrieval integrated with speech interface.

Anupam Puwar<sup>a</sup> and Rahul Sundar<sup>b</sup>

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Following a brief tea break, the discussion shifted to the Vidyarang platform (<http://vidyarang.live/>), where a participant demonstrated uploading a PDF file for information retrieval. Mr. Purwar then elucidated the distinctions between open-source large language models (LLMs) and proprietary LLMs, highlighting the associated APIs as gateways to these models.



The session concluded with Prof. Sainath, a faculty member of the EEE department and TLC member, delivering a vote of thanks. He expressed gratitude to Mr. Anupam Purwar, Prof. Shibani Jha, the campus Director, Vice Chancellor, co-TLC members, student coordinators, and all participants for their contributions to the workshop's success. Prof. Sainath mentioned the importance of understanding the advantages and disadvantages of Gen-AI, emphasizing its role in achieving quality education (SDG #4) and its potential as an "extended brain" for those integrating it into their daily workflows.

The session concluded with a high tea, fostering further interaction and discussion among participants and the resource person. This workshop could cater to one hundred and forty-five participants who joined from across India.