Faculty Development Programme (FDP)
Mastering Tech Word with Advance Techniques
January 30–February 04, 2024

Day 1: 30th January

The Faculty Development Program (FDP) was inaugurated with esteemed speakers including Dr. Gaurav Gupta, Dr. Anurag Rana, Dr. Sonia, and Dr. Pankaj Vaidya, who provided valuable insights into the importance and future of advanced techniques such as Data Science, Data Analytics, and Prompt Engineering – Generative AI. Additionally, the IEEE Shoolini University Student Chapter presented a breakdown of the daily schedule organized to disseminate knowledge.

Dr. Kanika commenced the sessions by delving into the realm of differential equations and their significant role in Machine Learning and Deep Learning. She emphasized the utilization of Fractional equations by researchers within the domains of Data Science and Data Analytics. The session concluded with insights into the current market scenario and the imperative need for adopting Prompt Engineering, Data Mining, Data Science, and Data Analytics methodologies.

In the evening session, Dr. Surbhi Bhatia Khan enlightened the audience on Association Rules and elucidated how text mining is leveraged by industry giants in the OTT platform sector, including Netflix, Amazon, and Jio. She demonstrated the creation of recommendation systems aimed at enhancing platform traffic and mitigating the presence of inauthentic data. Dr. Surbhi Bhatia Khan also provided guidance on utilizing various libraries and packages for code development and rule construction.

Day 2: 31st January

During the morning session of the Faculty Development Program, Professor Rashmi Gupta provided invaluable insights into the pivotal role of Artificial Intelligence (AI) across various sectors including Healthcare, Retail, Finance, and Research and Development. Professor Gupta also delved into the concepts of adversarial attacks and physical attacks, shedding light on how AI is increasingly becoming the epicenter for dark mining activities. The session concluded with an exploration of different applications and measurement matrices aimed at understanding the effectiveness of Artificial Intelligence models.

In the evening session, Professor Rahul elucidated the distinction between the Internet era and the AI era. He expounded on the transformative impact of AI across sectors such as Human Resource, Finance, Infrastructure and Design, Retail, and the Food Consuming Industry. Professor Rahul also shared insights from a live project collaboration with Bloomberg, wherein he showcased the development of automation software.

Day 3: 01ˢᵗ February

In the realm of Advanced Techniques, the contributions of esteemed speaker Mr. Puneet Kapoor cannot be overlooked. Mr. Kapoor, a specialist in Prompt Engineering, provided invaluable insights into different models utilized in building Large Language Models (LLMs). He elucidated the use of metrics such as Rouge and Blue Score for gauging the accuracy of data in LLMs. Mr. Kapoor concluded his session by showcasing various Generative AI applications that find frequent usage in daily life.

During the evening session, Dr. Rather Gousia further delved into the realm of Generative AI, focusing specifically on leveraging Python for deeper exploration. Dr. Gousia shared perspectives on potential research and industrial projects within the field of Generative AI, offering attendees valuable insights into emerging trends. She concluded her session by sharing recent work undertaken in the domain of Generative AI.

Day 4: 02ⁿᵈ February

The morning session of today delved deeper into the fundamentals of deep learning and provided insights into understanding deep learning through graphs. Esteemed speaker Mr. Puneet Kapoor shared invaluable insights on taking initiatives to conduct research in the field of deep learning. Mr. Kapoor concluded the session by presenting his own work and recent publications in the field of deep learning, published in top journals such as Elsevier and Springer.

The evening session commenced with a focus on understanding the importance of Data Science. Esteemed speaker Dr. Anurag Rana elucidated the most crucial terminologies used in Data Science and provided guidance on code asset management. Dr. Rana concluded the session by highlighting the abundant opportunities in Data Science and outlining the roadmap for students and research scholars aspiring to pursue a career in this field.

Day 5: 03ʳᵈ February

Today's session centered on Data Analytics, with Dr. Anurag Rana as the keynote speaker. Dr. Rana provided a comprehensive overview of important tools for task automation within Data Analytics. He elaborated on the entire process of data cleansing and demonstrated the utilization of various visualization libraries. Dr. Rana concluded the session by imparting valuable insights on utilizing different programming languages to empower students to build visualization models and create diverse graphs and heatmaps.

The session proved to be highly informative, equipping participants with practical knowledge and skills essential for effective data analysis and visualization. Attendees gained a deeper understanding of the tools and techniques used in Data Analytics, thereby enhancing their proficiency in this crucial domain.

Day 6: 04ᵗʰ February

As we approach the conclusion of our remarkable Faculty Development Program (FDP), we reserved the most compelling session for the finale. Dr. Manju, our esteemed speaker, shed light on the paramount importance of security and integrity in today's rapidly evolving technological landscape. Dr. Manju elaborated on the significant changes witnessed in security measures in recent times and provided insights into cryptography, cybersecurity, key distribution, protocol creation, and cookies. Her session underscored the critical need for robust security measures in tandem with advancements in technology.

We extend our heartfelt gratitude to both the Association of Indian Universities (AIU) and the Institute of Electrical and Electronics Engineers (IEEE) for orchestrating six days of unparalleled learning experiences. Throughout the FDP, participants gained invaluable knowledge on how to embrace change and adapt to the evolving landscape of advanced techniques and technologies. The program has equipped us with the tools and insights necessary to navigate and thrive in the dynamic world of academia and industry.