Gujarat Technological University
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Graduate School of Engineering & Technology

Computer Engineering Program

Report on a session
"Unlocking the Power of Natural Language Processing: A Journey into Engineering Domain"

Type of Event: Expert Talk

Date, Time and Venue of the Event: 14th March, 2024
Time: 10:30 AM to 12:30 PM
Venue: Seminar Hall, 2nd Floor, GTU-GSET

Description of Event:

Amidst an atmosphere of scholarly enthusiasm and academic excellence, The Computer Engineering Department of GTU-GSET hosted a compelling seminar titled "Unlocking the Power of Natural Language Processing: A Journey into Engineering Domain." Renowned speaker **Prof. Brijesh Y. Panchal**, Assistant Professor and esteemed expert in NLP, graced the occasion with his profound insights and expertise. With esteemed invitee **Prof. Soniya Jain** in attendance and **Prof. (Dr.) S.D. Panchal** serving as the convener, the seminar radiated with scholarly discourse and collaborative spirit. Attended by **63** eager participants, the event sparked vibrant discussions and inspired attendees to explore the transformative potential of NLP in engineering and beyond.

Expert and His Brief Speech:

Prof. Brijesh Y. Panchal

- **Noam Chomsky Inspiration:** Prof. Panchal drew inspiration from the pioneering work of Noam Chomsky, emphasizing the significance of linguistic theories in shaping the field of Natural Language Processing (NLP).

- **Skills Development:** He highlighted the importance of skill development for students, urging them to acquire proficiency in areas such as AI, Machine Learning, and NLP to stay competitive in the evolving job market.

- **Post-BE and ME Decision-making:** Prof. Panchal provided insights into the decision-making process after completing BE and ME studies, guiding students on potential career paths and further education opportunities.

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- **AI and Machine Learning Applications:** He elaborated on the diverse applications of AI and Machine Learning across industries, showcasing their potential to revolutionize sectors such as healthcare, finance, and transportation.

- **Natural Language Processing (NLP):** Prof. Panchal delved into the intricacies of NLP, highlighting its role in enabling machines to understand and process human language, and its applications in sentiment analysis, text summarization, and language translation.

- **Computational Linguistics and Cognitive Science:** He discussed the interdisciplinary nature of NLP, touching upon areas such as Computational Linguistics and Cognitive Science, which contribute to our understanding of language processing mechanisms.

- **Speech Processing:** Prof. Panchal shed light on Speech Processing, exploring techniques for speech recognition, synthesis, and understanding, and its significance in developing voice-enabled technologies.

- **Approaches for Morphological Analysis:** Lastly, he discussed various approaches for morphological analysis in NLP, illustrating how these techniques are used to analyze the structure and form of words in different languages.

Conclusion:

- In summation, Prof. Brijesh Y. Panchal's seminar on Natural Language Processing provided attendees with profound insights into the applications of AI, Machine Learning, and NLP. Participants acquired a comprehensive understanding of post-BE and ME career prospects and were stimulated to delve into the interdisciplinary dimensions of NLP, Computational Linguistics, and Cognitive Science. Serving as a catalyst for innovation, the event inspired attendees to fully embrace the transformative potential of language processing technologies in engineering and beyond.

Photographs of the Event: