



DEPARTMENT OF INFORMATION SCIENCE and ENGINEERING

Expert Talk

On

“Natural Language-Driven Database Interaction”

Participants: IV Semester Students

Date: 06-May-2025

Brief Description of the Event:

On 7th May 2025, the Department of Information Science and Engineering hosted an expert talk on "Natural Language-Driven Database Interaction," presented by Mr. Bhargav Gorpade, Decision Scientist – Fractal Analytics. The talk mainly focused on the intersection of natural language processing (NLP) and database technologies. The session aimed to explore how users can interact with databases using plain English (or other natural languages) instead of complex SQL queries.

Key Points Covered:

The expert began by explaining the evolution of human-computer interaction and the increasing demand for intuitive interfaces that require minimal technical knowledge. Key points covered during the session included:

- **Overview of NLIDB Systems:** The speaker explained the architecture of natural language interfaces and how they translate user queries into structured database commands.
- **Challenges in NLIDB Development:** These include ambiguity in natural language, context understanding, and mapping language constructs to database schema.

- Techniques and Models Used: Rule-based approaches, machine learning models, and transformer-based NLP models like BERT and GPT were discussed.
- Case Studies and Tools: Demonstrations of tools like OpenAI Codex, ChatGPT for SQL generation, and commercial platforms like Microsoft Power BI with natural language capabilities.
- Applications: Business intelligence, customer support databases, healthcare records, and educational platforms.
- Future Scope: Integration with voice assistants, multilingual support, and real-time query optimization.

The expert talk was informative and highly engaging, providing valuable insights into the potential of natural language in making data access more user-friendly and efficient. Participants left with a deeper understanding of how AI-driven tools are revolutionizing database interactions.

Activities Conducted: NIL


No. Of Participants: 54


Winners (if any, for activities conducted):NA


Guest Details (Name, Designation, Organization, Location):


Mr. Bhargav Gorpade, Decision Scientist – Fractal Analytics,
Bangalore

The Brochure

**NEW HORIZON**
COLLEGE OF ENGINEERING

**IEEE**







Department of Information Science and Engineering


Expert Talk

Natural Language-Driven Database Interaction

 **7th May 2025**

 **10:00 AM Onwards**

 **C-519, ISE**

 **4th Semester Students**

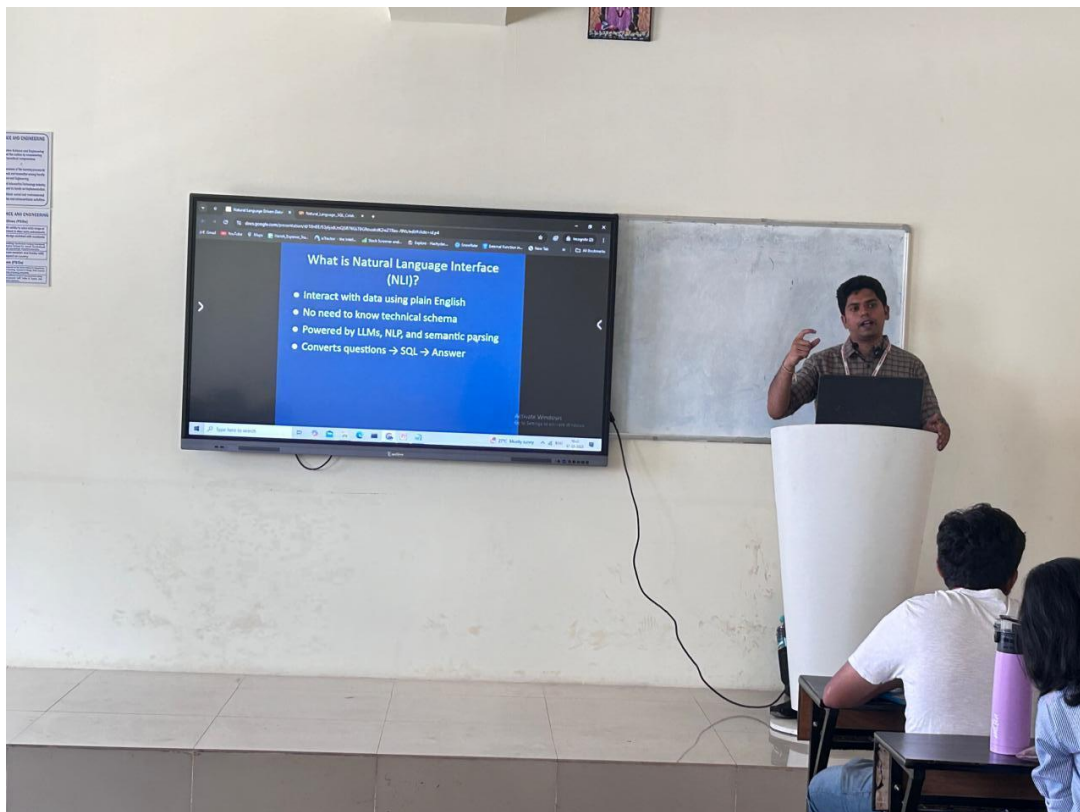


Mr. Bhargav Gorpade
Decision Scientist
Fractal Analytics, Bangalore

Coordinator
Mrs. Divya K V
Senior Assistant Professor - ISE

Convenor
Dr. Vandana C P
Associate Professor and HoD - ISE

GLIMPSES OF THE EVENT





Faculty Coordinator
Divya K V

HOD-ISE
Dr Vandana C P