

# DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING (DATA SCIENCE)

### MINI PROJECT

## Batch 13

#### **Team details:**

POTHARABOINA PRASAD

SACHIN GUPTA

SALLA SRI CHARAN TEJA

Title: AI Based Real-Time Research Trend Prediction System

# **Abstract:**

This project proposes the development of an AI-based real-time research trend prediction system aimed at identifying and forecasting emerging trends in the global research landscape. The system integrates advanced machine learning techniques, natural language processing (NLP), and time-series analysis to process and analyze vast datasets, including academic publications, patents, conference proceedings, and funding announcements. A robust data pipeline enables continuous data collection and preprocessing from multiple sources in real-time.

The system utilizes topic modeling, knowledge graph analytics, and predictive modeling to identify evolving research areas, keyword co-occurrence patterns, and publication growth trajectories. A user-friendly dashboard visualizes insights through interactive charts, trend lines, and network graphs, helping researchers, innovators, and policymakers track research evolution and make data-driven decisions. This project aims to empower stakeholders by offering early detection of disruptive technologies and emerging research directions, fostering innovation and strategic planning in various fields.

# **Key words:**

AI-based system, Research trend prediction, Real-time analysis, Machine learning, Data pipeline, Natural language processing (NLP), Time-series analysis, Emerging research areas, Knowledge discovery,

Mr. Satyanarayana

Mrs. Sasikala

Dr. Y. Raju

[Project Guide]

[Project Coordinator]

[HoD, CSD]