

Congratulations for seeking Consultancy Project

Name (Principal Investigator): Dr. Manish Kumar Pandey

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Project Title: Digital Innovation Lab (DIL)

Agency: ADROSONIC IT Consultancy Services Pvt. Ltd., Mumbai

Sanction Amount: ₹3,01,26,563 (₹3.01 Crore) over five years

Tenure: 5 Years (March 2023 – February 2028)

Abstract

The **Digital Innovation Lab (DIL)** is a strategic industry–academia collaboration established between **Birla Institute of Technology (BIT), Mesra** and **ADROSONIC IT Consultancy Services Pvt. Ltd., Mumbai** to foster cutting-edge research, innovation, and capacity building in emerging digital technologies. The initiative aims to create a multidisciplinary ecosystem that integrates advanced research, industry-driven problem solving, technology development, and skill enhancement through collaborative projects, internships, training programs, and innovation-driven activities.

Led by **Dr. Manish Kumar Pandey**, the project focuses on developing next-generation intelligent systems in domains such as **Artificial Intelligence (AI), Machine Learning (ML), Data Science, Cloud Computing, Internet of Things (IoT), Robotic Process Automation (RPA), and Extended Reality (AR/VR)**. Special emphasis is placed on emerging research themes including **Agentic AI**, enabling autonomous and goal-oriented decision-making systems; **AI-driven Forecasting and Predictive Analytics** for applications in climate, environment, healthcare, finance, and business intelligence; **AI for Cybersecurity**, focusing on intelligent threat detection, anomaly identification, cyber-risk assessment, and automated response mechanisms; **Intelligent Object Identification and Recognition Systems** using computer vision, hyperspectral analytics, and sensor-based technologies; and **Optimization of Large Language Models (LLMs)** for domain-specific knowledge generation, multilingual intelligence, explainable AI, and resource-efficient deployment.

The Digital Innovation Lab serves as a platform for translating research into deployable solutions, encouraging innovation-led entrepreneurship, and strengthening academia–industry partnerships. Through the development of scalable AI frameworks, intelligent decision-support systems, and technology-enabled solutions addressing real-world challenges, the project seeks to contribute to India's digital transformation agenda while creating significant opportunities for students, researchers, and faculty members. With an envisioned investment of approximately **₹3 crore over five years**, the initiative establishes a sustainable model for advanced research, innovation, and technological excellence in higher education.