Department of CSE [Artificial Intelligence & Machine Learning]

FACULTY PATENTS LIST (A.Y.2025-26)

S. No	Application Number	Title of The Patent	Name of the Faculty	Patent Office Journal No	Published Date	Status
1	202541062007	A Cloud-Integrated Deep Learning Model for Environmental Condition Forecasting and Irrigation Decision Support in Agriculture	Dr. V Malsoru K Bhargava Triveni Nandana Dr. Mahesh Kotha	28/2025	11/07/2025	Published
2	202541068179	Artificial Intelligence-Based Multi-Resolution Image Fusion System And Method For Enhanced Surveillance Application	Dr. K. Mohana Lakshmi	30/2025	25/07/2025	Published
2	456324-001	Machine Learning Based Colour Guided Material Handling Robotic Device	Shaik Sheriff	08/2025	21/08/2025	Granted

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(54) Title of the invention : A Cloud-Integrated Deep Learning Model for Environmental Condition Forecasting and Irrigation Decision Support in Agriculture

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(57) Abstract :
The innovation offers a cloud-integrated solution that uses deep learning to predict environmental conditions and assist with agricultural irrigation decisions. The solution allows for better water use and enhanced agricultural efficiency by fusing cloud-based predictive analytics with IoT-based real-time data collecting. It has a decision support module, a forecasting engine, and a user dashboard for oversight and management.

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(54) Title of the invention : ARTIFICIAL INTELLIGENCE-BASED MULTI-RESOLUTION IMAGE FUSION SYSTEM AND METHOD FOR ENHANCED SURVEILLANCE APPLICATIONS

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(57) Abstract :
The present invention relates to an Artificial Intelligence-Based Multi-Resolution Image Fusion System and Method for Enhanced Surveillance Applications. The system integrates image data from multiple heterogeneous sensors—such as visible light, thermal, and infrared cameras—operating at different resolutions, and processes them using a deep learning-based fusion engine to generate a single high-resolution composite image. Key components include preprocessing, semantic alignment, and adaptive AI-guided fusion, with a feedback mechanism that dynamically refines fusion parameters based on downstream object detection and classification outputs. The invention enhances image clarity, improves recognition accuracy, and ensures real-time adaptability under varying environmental conditions, making it suitable for public safety, defense, and smart infrastructure surveillance scenarios.

No. of Pages : 19 No. of Claims : 10

INTELLECTUAL PROPERTY INDIA
PATENTS | DESIGNS | TRADE MARKS
GEOGRAPHICAL INDICATIONS

सत्यमेव जयते

ORIGINAL

क्रम सं/ Serial No. : 207412

पेटेंट कार्यालय, भारत सरकार | The Patent Office, Government Of India

डिजाइन के पंजीकरण का प्रमाण पत्र | Certificate of Registration of Design

डिजाइन सं. / Design No. : 456324-001

तारीख / Date : 23/04/2025

पारस्परिकता तारीख / Reciprocity Date*

देश / Country

प्रमाणित किया जाता है कि संलग्न प्रति में वर्णित डिजाइन जो *MACHINE LEARNING BASED COLOUR GUIDED MATERIAL HANDLING ROBOTIC DEVICE* से संबंधित है, का पंजीकरण, श्रेणी 12-05 में 1.MR R OHMSAKTHI VEL 2. DR VIJAYKUMAR KONDEPOGU 3.DR VIJENDRA KUMAR 4.DR THORAM SARAN KUMAR 5.MR I RAMA SATYA NAGESWARA RAO 6.SHAIK SHARIF के नाम में उपर्युक्त संख्या और तारीख में कर लिया गया है।

Certified that the design of which a copy is annexed hereto has been registered as of the number and date given above in class 12-05 in respect of the application of such design to *MACHINE LEARNING BASED COLOUR GUIDED MATERIAL HANDLING ROBOTIC DEVICE* in the name of 1.MR R OHMSAKTHI VEL 2. DR VIJAYKUMAR KONDEPOGU 3.DR VIJENDRA KUMAR 4.DR THORAM SARAN KUMAR 5.MR I RAMA SATYA NAGESWARA RAO 6.SHAIK SHARIF.

डिजाइन अधिनियम, 2000 तथा डिजाइन नियम, 2001 के अध्यधीन प्रावधानों के अनुसरण में।

In pursuance of and subject to the provisions of the Designs Act, 2000 and the Designs Rules, 2001.

जारी करने की तिथि : 21/08/2025
Date of Issue

उन्नत पांडेय

महानियंत्रक पेटेंट, डिजाइन और व्यापार चिह्न
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