

# Image Processing and CNN for Handwritten Digit Recognition

**R. Rajakumar<sup>1</sup>, Dr. Rajiv Dahiya<sup>2</sup>, Dr. Kumar Keshamoni<sup>3</sup>**

Research Scholar, Department of Electronics and Communication Engineering<sup>1</sup>

Supervisor, Department of Electronics and Communication Engineering<sup>2</sup>

Co Supervisor, Department of Electronics and Communication Engineering<sup>3</sup>

NIILM University, Kaithal, Haryana, India

**Abstract:** *High dynamic range photography allows for the digitization of handwritten numerical images. The cost of digitizing paper records is high. Here HDR can be useful. Creating a reliable algorithm to recognize scanned and typed handwritten numbers is crucial to the success of our research. This study evaluates various hidden layer and epoch-based handwritten digit categorization algorithms based on accuracy. The MNIST dataset is utilized in this experiment.*

**Keywords:** Handwritten Digit Recognition (HDR), Epochs, Hidden Layers, MNIST dataset