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# A Hybrid CNN-Random Forest Model for Accurate Kidney Disease Classification Using CT Imaging

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**Abstract:** *Kidney illnesses, such as tumors, cysts, and stones, are common conditions that have a big influence on people's health all over the world. For management and therapy to be successful, an accurate and timely diagnosis is essential. Deep learning models, particularly Convolutional Neural Networks (CNNs), have demonstrated promise in medical picture analysis since the development of artificial intelligence because of their potent feature extraction capabilities. In order to overcome these obstacles, hybrid models that combine CNN with conventional machine learning classifiers, including Random Forest (RF), have drawn interest for the categorization of renal illness*

**Keywords:** Kidney Disease Classification, CNN, Random Forest, Feature Extraction, Deep Learning, Tumor Detection, Medical Imaging

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