NARASARAOPETA ENGINEERING COLLEGE

(AUTONOMOUS)

DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING

2021-2022

BATCH NUMBER	BG4
TEAM MEMBERS	Ch.Jahnavi (20471A0576) Shaik.Sharmila (20471A05B9) Ch.Lakshmi Shravani (20471A0575)
GUIDE	D.Venkata Reddy
TITLE	Kidney disease Prediction
DOMAIN/TECHNOLOGY	MACHINE LEARNING
BASE PAPER LINK	https://www.sciencedirect.com/science/article/pii/S2153353923000032
DATASET LINK	https://www.kaggle.com/datasets/mansoordaku/ckdisease
SOFTWARE REQUIREMENTS	Browser: Any latest browser like Chrome Operating System: Windows 7 Server or later Python (COLAB)
HARDWARE REQUIREMENTS	Processor: Intel® Dual Core 2.0GHz minimum Hard Disk: 1TB minimum RAM: 8GB or more

ABSTRACT	Chronic Kidney Disease is a serious lifelong condition that induced by either kidney pathology or reduced kidney functions. According to the survey in 2021-2022 for every 10 in 3, people are suffering from this chronic kidney disease. It enables us to introduce the optimal subset of parameters to feed machine learning to build a set of predictive models. K-Nearest Neighbor, Random Forest, LBGM and Decision Tree methods are applied for prediction. Among these four methodologies, the proposed model suggests an LBGM is suitable for the early prediction of this kind of disease. Performance measures show that Logistic Regression gives 99 % accuracy, Random Forest (RF) give 98 % accuracy, Decision Tree gives 98 % accuracy, K-Nearest Neighbor(K-NN) gives 99% accuracy. The experimental procedure concludes that advances in machine learning and predictive analytics, represent a promising model to recognize intelligent solutions, which in turn prove the ability of predication in kidney disease.