NARASARAOPETA ENGINEERING COLLEGE

(AUTONOMOUS)

DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING

2023-2024

BATCH NUMBER	DG1
TEAM MEMBERS	Shaik Suhana(20471A05N1) Marthala Deepthi(20471A05L9) Muthyala Lakshmi Triveni(20471A05M0)
GUIDE	G Saranya
TITLE	Diabetes Prediction: A Unique Machine Learning Approach
DOMAIN/TECHNOLOGY	MACHINE LEARNING
BASE PAPER LINK	https://ieeexplore.ieee.org/document/9581774
DATASET LINK	Diabetes Dataset (kaggle.com)
SOFTWARE REQUIREMENTS	Browser: Any latest browser like Chrome Operating System: Windows 10, 64 bit OS Coding Language: Python Python Distribution: Anaconda, Flask
HARDWARE REQUIREMENTS	Processor: Intel®Core™I7-7500UCPU@ 2.70GH Hard Disk: 1TB minimum RAM: 12 GB Cache Memory: 4 MB

ABSTRACT	Diabetes is a common chronic condition, and current prediction methods generally perform poorly. This article proposed a machine. A learning-based method to diabetes prediction enables early detection Three methods from machine learning have been selected to address this problem: random forest learning, KNN as the model and a support vector machine. We use the PIMA Indian Diabetes dataset from the UCI collecting to evaluate each model's performance in regard to accuracy and area under the curve. Random Forest surpasses other algorithms in predicting diabetes risk, with an AUC of 94.02% and accuracy of 83.67%. This contribution is important for healthcare workers since it can help predict diseases early and treat them promptly.