NARASARAOPETA ENGINEERING COLLEGE (AUTONOMOUS)

DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING

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Batch Number	AG9
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Guide	Gaddam Saranya M.Tech
Title	Deep Learning in Adolescent Obesity Prevention : A Path to Health
Domain/Technology	DEEP LEARNING
Base Paper Link	https://ieeexplore.ieee.org/document/10420435
Dataset Link	https://www.kaggle.com/competitions/playground-series-s4e2/data
Software Requirements	Browser: Any latest browser like Chrome Python: Anaconda or Jupyter Notebook Framework: TensorFlow
Hardware Requirements	System Type: Multi-core CPU (Intel Core i5 or equivalent) RAM: 16 GB GPU: NVIDIA (for deep learning tasks)
Abstract	In this present study, cross sectional data was used to conduct the analysis to research the relationship between BMI and WC on 321 adolescent boys and girls. The data collected by the system was then examined by subjecting it to secondary analysis where complex statistical models and techniques were applied together with deep learning to generate the models needed to predict those at risk for obesity and it was found that the system had a 0.96 accuracy for obesity risk predicted. First of all, the model confirmed that males' performances indicated more variance than females, which could be considered reasonable as the proposed model possessed the accuracy of 0.9561 for boys and boys 0.9423 for girls . These results stress the utility of a gender-sensitive approach to the prediction of obesity and underline the necessity of different interventions in both the genders. This has made it possible to produce individual tailored answers, and the chance to start early intervention and preventive steps to help the patient in the area of prevention. Gender differences in the prediction of obesity mean that adjustments need to be made in an attempt to help both boys and girls, or in overall, the group of adolescents by reducing the prevalence of obesity , the health of the younger generation has received a boost.

Signature of the student(s) **Signature of the Guide** **Signature of the project coordinator**