NARASARAOPETA ENGINEERING COLLEGE (AUTONOMOUS)
DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING
2025-2026

Batch Number	BB-10
Team Members	K.Narendra (**22471A05A0**) N.Vignesh (22471A05B1) P.Uday Kiran (22471A05B8)
Guide	M.Venkata Rao M. Tech
Title	**Smart Apparel Narrator: Deep Learning-Based Captioning for Images and Videos**
Domain/Technology	DEEP LEARNING
Base Paper Link	**https://ieeexplore.ieee.org/document/10636169**
Dataset Link	**https://www.kaggle.com/datasets/awsaf49/coco-2017-dataset**
Software Requirements	Browser: Any latest browser like Chrome Operating System: Windows 7 Server or later Python (COLAB)
Hardware Requirements	SystemType: Intel Core i5 or above RAM: 8 GB Number of cores:5 Number of Threads: 4
Abstract	This work focuses on automating apparel image and video captioning to improve accessibility, particularly for the visually impaired. A dataset with 26 clothing categories was curated, and a model combining **ConvNeXtLarge** (CNN) and LSTM was developed to generate accurate and engaging captions. Additionally, a YOLO model enables real-time detection and tracking of multiple clothing items. The system achieved a high **BLEU-1** score of **0.983**, demonstrating strong performance in captioning both images and videos in the apparel domain.

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