

**MANGALORE INSTITUTE OF TECHNOLOGY & ENGINEERING**

(An ISO 9001:2015 Certified Institution)

**BADAGA MIJAR, MOODBIDRI, DK DIST - 574225**

**DEPARTMENT OF COMPUTER SCIENCE & ENGINEERING**

(NBA Accredited)



**A PROJECT SYNOPSIS ON**

**“GENERATION OF PHOTOREALISTIC  
IMAGE USING GAN AND SPADE”**

**SUBMITTED BY**

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**Project Guide**

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# **Abstract**

We propose a tool for the synthesis of photorealistic images. This tool takes an input semantic layout and uses GAN (Generative Adversary Network) with the SPADE (Spatially Adaptive (de)Normalization) layer to generate a visually appealing image. GAN is a special neural network with the ability of image-to-image transformation <sup>[1]</sup>. SPADE layer retains the information contained in the input semantic masks, which helps in the production of a realistic image. CNN (Convolutional Neural Network) <sup>[3]</sup> is used as a generator as well as a discriminator, to produce a sample (output image) and govern the dissimilarity (error) concerning the training set respectively <sup>[1]</sup>.