



FINAL YEAR PROJECT REPORT

**IMAGE TO IMAGE TRANSLATION
USING GENERATIVE
ADVERSARIAL NETWORKS**

**In fulfillment of the requirement
For degree of
BS (COMPUTER SCIENCES)**

By

**IBRAAAHEEM SAEED AKBAR
DANIAL ZUBAIR SIDDIQUI
M.ZAHEER UDDIN HALEPOTO**

**67781 (BSCS)
67720 (BSCS)
68315 (BSCS)**

SUPERVISED

BY

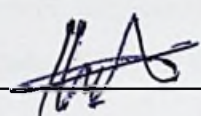
DR. M. TARIQ SIDDIQUE

BAHRIA UNIVERSITY (KARACHI CAMPUS)

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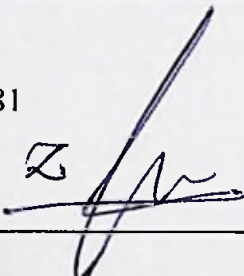
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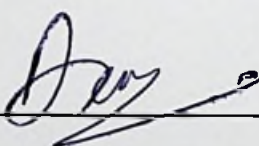
Name : Ibraaheem Saeed Akbar

Reg No. : 67781

Signature :  26/01/24

Name : Muhammad Zaheeruddin Halepoto

Reg No. : 68315

Signature :  26/01/24

Name : Danial Zubair Siddiqui

Reg No. : 67720

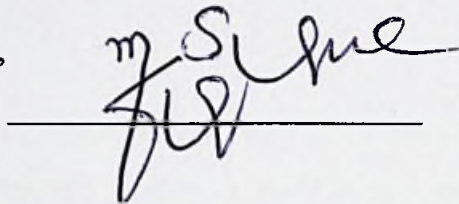
Date : 26/01/24

APPROVAL FOR SUBMISSION

I certify that this project report entitled **“IMAGE TO IMAGE TRANSLATION USING GENERATIVE ADVERSARIAL NETWORKS”** was prepared by **IBRAAHEEM SAEED AKBAR, DANIAL ZUBAIR SIDDIQUI AND MUHAMMAD ZAHEERUDDIN HALEPOTO** has met the required standard for submission in partial fulfilment of the requirements for the award of Bachelor of Science in Computer Science at Bahria University.

Approved by,

Signature :



Supervisor : Dr. Muhammad Tariq Siddique

PhD (CIS)

Date

: 26/01/2024

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Specially dedicated to

My beloved mother and father

(Ibraaheem Saeed Akbar)

My beloved grandmother, grandfather, mother and father

(Muhammad Zaheeruddin Halepoto)

My beloved grandmother, mother and father

(Danial Zubair Siddiqui)

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ABSTRACT

The field of image-to-image translation faces several challenges, including issues related to model convergence speed and generated image quality. In response to these challenges, this project focuses on refining existing methodologies, specifically targeting the Pix2Pix and CycleGAN models. By substituting instance normalization with layer normalization in these architectures, we successfully overcome common hurdles, resulting in significantly improved convergence speeds and enhanced image quality. Through comprehensive experimentation, our adapted models demonstrate superior performance in generating high-quality images. A thorough comparison with InstructPix2Pix, a leading image translation model, further validates the effectiveness of our approach, positioning our modified architectures as competitive solutions in the realm of image-to-image translation. This project not only addresses key problems in the field but also contributes valuable insights for advancing the state of the art in image translation techniques.

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