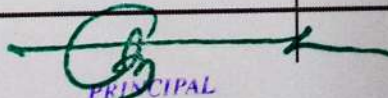


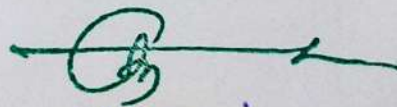
Project Phase 2			
S8 ECE B BATCH (2023-24)			
Roll No.	Name	Approved Title	Guide
	JOEL AJI JUSTUS	Study of Approximate Multipliers used in Image Processing	Prof. Kumar G S
	ROHAN RAJ		
	SANJANA SUNIL		
	VAISHNAV S VIJAY		
	JOEL K BIJU	NOVAGEST: Advancements in gesture Recognition pioneering Human-Computer Interaction through CNN and STSNN	Prof. Aparna P R
	RAKESH R S		
	SUNISH P GEORGE		
	SIDHARTH T		
	JOHN PAUL	TMR based Fault Tolerant ALU for Space Applications (VSSC)	Prof. Divya Harikumar
	JOYAL THOMAS		
	NAJLA RAHIM		
	ROSMIN CHARLY		
	JOSEPH MATHEW	Enhanced Electric Auto	Dr. Anchana P Belmon, Dr. Chitrakumar V K
	RAM S MADHAV		
	SREEDEV HARIKRISHNA		
	VIVEK M NAIR		
	JOVIA J BOSCO	Mutual Coupling Reduction in Aperture Coupled Antenna Array (VSSC)	Dr. Nelwin Raj N R
	MEGHA M M		
	NAJA NIZAR		
	NIRANJAN P NAIR		
	JUBIN B KOCHUMMEN	Modelling and Simulation of Dual Active Bridge Bidirectional DC-DC Converter using GaN FETs as Switching Elements (VSSC)	Prof. Salim Paul
	MEGHA MADHUSOODANAN		
	V C VARSHAA		
	NIRANJANA K M		
	KARTHIK P S	Predictive Control of PMSM for Speed Control (VSSC)	Prof. Sandhya L
	SAIRAH NILOUFER		
	V G SURIYANARAYANAN		
	VIGNESH S		
	KAVIYA CHANDRAMOHAN		



  
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KIRAN G	Study & Development of Backscatter Modulation Schemes for Wireless Communication (VSSC)	Dr. Nisha Jose K
LEKSHMI NARAYANAN M		
SWATHY P S		
KRISHNA S S	Vehicular Adhoc Network Communication based on 5G New Radio Wireless Networks using NetSim	Prof. Subha V
RAHUL R		
SREERAM VIJAY		
SUJITH S		
LAKSHMI A S	Underwater Image Correction, Enhancement and Recognition using Deep Learning	Prof. Bindu V
SHAWN VARGHESE		
SREERAM AM		
YADUKRISHNA C H		
MARIAM THOMAS	Deep Learning based Compression for Phase-only Hologram	Dr. Sheeja M K
MEENU N S		
PARVATHY S NAIR		
PARVATHY WARRIER S H		
NIDHIL YASMIN	Performance Analysis of DVB-T Transmitter for UAV Applications (VSSC)	Dr. Renjith R J
RAKEND G S		
RAMKRISHNAN S		
S T VISHAKH		
SANMITHA B S	Design of S Band GaN Power Amplifier using ADS (VSSC)	Dr. Smitha P S
SAYOOJ S		
S MADHURI SIVAN		
SREERAG S		
SINDHU S	A Universal Multimode Software Defined Modem Architecture for Underwater Communication	Prof. Sajith Sethu P
PARVATHY P NAIR		
NIKHIL B VINOD		
VINAYA KRISHNAN H		



  
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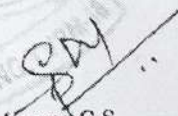


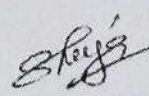
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SREE CHITRA THIRUNAL COLLEGE OF ENGINEERING,  
THIRUVANANTHAPURAM - 695018

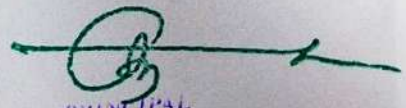
CERTIFICATE

Certified that the project phase II report entitled "STUDY OF APPROXIMATE MULTIPLIERS USED IN IMAGE PROCESSING" is a bonafide report submitted by JOEL AJI JUSTUS (SCT20EC046), ROHAN RAJ (SCT20EC075), SANJANA SUNIL (SCT20EC078) and VAISHNAV S VIJAY (SCT20EC092) in partial fulfilment for the award of Bachelor of Technology in ELECTRONICS AND COMMUNICATION ENGINEERING from APJ Abdul Kalam Technological University.

Dr. Lakshmi V S.,  
Project Co-ordinator,  
Assistant Professor,  
Dept. of ECE,  
SCTCE

  
Prof. Kumar G S.,  
Project Guide,  
Assistant Professor,  
Dept. of ECE,  
SCTCE

  
Prof. (Dr.) Sheeja M.K.  
Head of the Department,  
Dept. of ECE,  
SCTCE

  
PRINCIPAL  
Sree Chitra Thirunai  
College of Engineering  
Trivandrum - 18

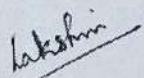


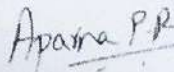


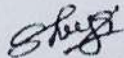
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ENGINEERING SREE CHITRA THIRUNAL COLLEGE OF  
ENGINEERING, THIRUVANANTHAPURAM - 695018

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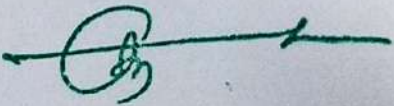
Certified that the project phase II report entitled "NOVAGEST: Advancements in Gesture Recognition – Pioneering Human-Computer Interaction Through CNNs and STSNN is a bonafide report submitted by JOEL K BIJU (SCT20EC047), RAKESH R S (SCT20EC072), SUNISH P GEORGE (SCT20EC090) and SIDHARTH T (LSCT20EC113), in partial fulfilment for the award of Bachelor of Technology in ELECTRONICS AND COMMUNICATION ENGINEERING from APJ Abdul Kalam Technological University.

  
Dr Lakshmi V. S  
Project Co-ordinator  
Assistant Professor,  
Dept. of ECE,  
SCTCE

  
Aparna P R  
Project Guide  
Assistant Professor,  
Dept. of ECE,  
SCTCE

  
Prof. (Dr) Sheeja M.K  
Head of the Department,  
Dept. of ECE,  
SCTCE



  
PRINCIPAL  
Sree Chitra Thirunal  
College of Engineering  
Trivandrum - 18



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ENGINEERING SREE CHITRA THIRUNAL COLLEGE OF  
ENGINEERING, THIRUVANANTHAPURAM - 695018

CERTIFICATE

Certified that the project phase II report entitled "TMR BASED FAULT TOLERANT ALU FOR SPACE APPLICATIONS" is a bonafide report submitted by JOHN PAUL (SCT20EC048), JOYAL THOMAS (SCT20EC051), NAJLA RAHIM (SCT20EC065) and ROSMIN CHARLY (SCT20EC099) of Department of Electronics and Communication Engineering, Sree Chitra Thirunal College of Engineering, Thiruvananthapuram in partial fulfilment for the award of Bachelor of Technology in ELECTRONICS AND COMMUNICATION ENGINEERING from APJ Abdul Kalam Technological University.

Prof. Divya Harikumar  
Project Guide  
Assistant Professor,  
Dept. of ECE, SCTCE

Prof. (Dr) Lakshmi V. S  
Project Co-ordinator  
Assistant Professor,  
Dept. of ECE, SCTCE



Prof. (Dr) Sheeja M.K  
Head of the Department,  
Dept. of ECE, SCTCE

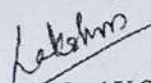
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College of Engineering  
Trivandrum - 18

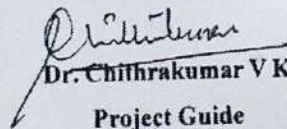



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THIRUVANANTHAPURAM - 695018

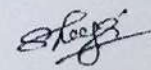
**CERTIFICATE**

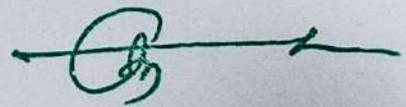
Certified that the project phase II report entitled "ENHANCED ELECTRIC AUTO" is a bonafide report submitted by JOSEPH MATHEW (SCT20EC049), RAM S MADHAV (SCT20EC074), SREEDEV HARIKRISHNA (SCT20EC084) and VIVEK M NAIR(SCT20EC096), in partial fulfilment for the award of Bachelor of Technology in ELECTRONICS AND COMMUNICATION ENGINEERING from APJ Abdul Kalam Technological University.

  
Dr. Lakshmi V S.  
Project Co-ordinator  
Assistant Professor,  
Dept. of ECE,  
SCTCE

  
Dr. Chithrakumar V K  
Project Guide  
Associate Professor,  
Dept. of ECE,  
SCTCE

  
Dr. Anchana P Belmon  
Project Guide  
Assistant Professor,  
Dept. of ECE,  
SCTCE

  
Prof. Dr. Sheeja M.K.  
Head of the Department,  
Dept. of ECE,  
SCTCE

  
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Sree Chitra Thirunal  
College of Engineering  
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THIRUVANANTHAPURAM - 695018

**CERTIFICATE**

Certified that the project phase II report entitled "MUTUAL COUPLING REDUCTION IN APERTURE COUPLED ANTENNA ARRAY" is a bonafide report submitted by JOVIA J BOSCO (SCT20EC050), MEGHA M M (SCT20EC063), NAJA NIZAR (SCT20EC064) and NIRANJAN P NAIR (SCT20EC067), in partial fulfilment for the award of Bachelor of Technology in ELECTRONICS AND COMMUNICATION ENGINEERING from APJ Abdul Kalam Technological University.

*(Signature)*  
Dr. NELWIN RAJ N. R.  
Assistant Professor  
Department of Electronics and  
Communication Engineering  
Sree Chitra Thirunal College of Engineering  
Thiruvananthapuram - 695018  
Dept. of ECE,  
SCTCE

*(Signature)*  
Dr. Lakshmi V S.  
Project Co-ordinator  
Assistant Professor,  
Dept. of ECE,  
SCTCE

*(Signature)*  
Prof. (Dr.) Sheeja M.K.  
Head of the Department,  
Dept. of ECE,  
SCTCE



*(Signature)*  
PRINCIPAL  
Sree Chitra Thirunal  
College of Engineering  
Trivandrum - 18



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SREE CHITRA THIRUNAL COLLEGE OF ENGINEERING,  
THIRUVANANTHAPURAM - 695018

CERTIFICATE

Certified that the project phase II report entitled "MODELLING AND SIMULATION OF DUAL ACTIVE BRIDGE BIDIRECTIONAL DC – DC CONVERTER USING GaN FETS AS SWITCHING ELEMENTS" is a bonafide report submitted by JUBIN B KOCHUMMEN (SCT20EC052), MEGHA MADHUSOODANAN (SCT20EC062), V C VARSHAA (SCT20EC093) and NIRANJANA K M (LSCT20EC112) in partial fulfilment for the award of Bachelor of Technology in ELECTRONICS AND COMMUNICATION ENGINEERING from APJ Abdul Kalam Technological University.

Prof. Salim Paul  
Project Guide  
Associate Professor,  
Dept. of ECE,  
SCTCE

*Salim Paul*  
2/5/2024

*Sheeja M.K.*  
Prof. (Dr.) Sheeja M.K.  
Head of the Department,  
Dept. of ECE,  
SCTCE

*Lakshmi*  
Dr. Lakshmi V S.  
Project Co-ordinator  
Assistant Professor,  
Dept. of ECE,  
SCTCE



*[Signature]*

PRINCIPAL  
Sree Chitra Thirunal  
College of Engineering  
Trivandrum - 18





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SREE CHITRA THIRUNAL COLLEGE OF ENGINEERING,  
THIRUVANANTHAPURAM - 695018

**CERTIFICATE**

Certified that the project phase II report entitled "MODEL PREDICTIVE CONTROL OF PMSM FOR SPEED CONTROL" is a bonafide report submitted by KARTHIK P. S. (SCT20EC053), SAIRAH NILOUFER J. (SCT20EC077), V. G. SURIYANARAYANAN (SCT20EC094) and VIGNESH S. (SCT20EC095), in partial fulfilment for the award of Bachelor of Technology in ELECTRONICS AND COMMUNICATION ENGINEERING from APJ Abdul Kalam Technological University.

Prof. Sandhya L  
Project Guide  
Associate Professor,  
Dept. of ECE,  
SCTCE

Dr. Lakshmi V S.  
Project Co-ordinator  
Assistant Professor,  
Dept. of ECE,  
SCTCE

Prof. (Dr.) Sheeja M.K.  
Head of the Department,  
Dept. of ECE,  
SCTCE



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College of Engineering  
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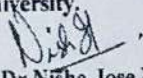


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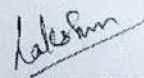
CERTIFICATE

Certified that the project phase I report entitled "STUDY & DEVELOPMENT OF BACKSCATTER MODULATION SCHEMES FOR WIRELESS COMMUNICATION" is a Bonafide report submitted by KAVIYA CHANDRAMOHAN (SCT20EC054), KIRAN G (SCT20EC055), LEKSHMI NARAYANAN M (SCT20EC059) and SWATHY P S (SCT20EC091), in partial fulfilment for the award of Bachelor of Technology in ELECTRONICS AND COMMUNICATION ENGINEERING from APJ Abdul Kalam Technological

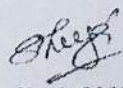
University.

  
Dr. Nisha Jose K.

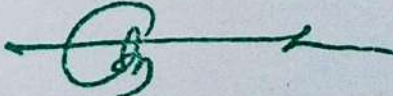
Project Guide  
Associate Professor,  
Dept. of ECE,  
SCTCE

  
Dr. Lakshmi V S.

Project Co-ordinator  
Assistant Professor,  
Dept. of ECE,  
SCTCE

  
Prof. (Dr.) Sheeja M.K.  
Head of the Department,  
Dept. of ECE,  
SCTCE





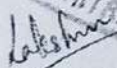
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THIRUVANANTHAPURAM - 695018

CERTIFICATE

Certified that the project phase I report entitled "VEHICULAR ADHOC NETWORK COMMUNICATION BASED ON 5G NEW RADIO WIRELESS NETWORKS USING NETSIM" is a bonafide report submitted by KRISHNA SS (SCT20EC057) RAHUL R (SCT20EC070) SREERAM VIJAY (SCT20EC087) SUJITH S (SCT20EC089) in partial fulfilment for the award of Bachelor of Technology in ELECTRONICS AND COMMUNICATION ENGINEERING from APJ Abdul Kalam Technological University

  
Dr. Lakshmi V S.

Project Co-ordinator

Assistant Professor,

Dept. of ECE,

SCTCE

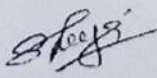
  
Subha V.

Project Guide

Assistant professor,

Dept. of ECE,

SCTCE

  
Prof. (Dr.) Sheeja M.K.

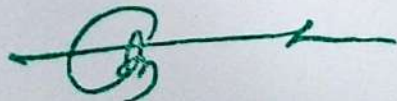
Head of the Department,

Dept. of ECE,

SCTCE



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DEPT. OF ELECTRONICS & COMMUNICATION ENGINEERING

SREE CHITRA THIRUNAL COLLEGE OF ENGINEERING

PAPANAMCODE 2023-24



### CERTIFICATE

This is to certify that the report entitled **UNDERWATER IMAGE CORRECTION, ENHANCEMENT AND RECOGNITION USING DEEPLARNING** submitted by **LAKSHMI A S (SCT20EC058), SHAWN VARGHESE (SCT20EC081), SREERAM A M (SCT20EC086) & YADUKRISHNA C H (SCT20EC097)** to the APJ Abdul Kalam Technological University in partial fulfillment of the B.Tech. degree in Electronics and Communication Engineering is a bonafide record of the project work carried out under our guidance and supervision. This report in any form has not been submitted to any other University or Institute for any purpose.

**Prof. Bindu V**  
(Project Guide)  
Associate Professor  
Dept. of ECE  
SCT College of  
Engineering Trivandrum

**Dr. Lakshmi V S**  
(Project Coordinator)  
Assistant Professor  
Dept. of ECE  
SCT College of  
Engineering Trivandrum

**Prof. (Dr) Sheeja M K**  
Head of the Department  
Dept. of ECE  
SCT College of  
Engineering Trivandrum

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College of Engineering  
Trivandrum - 18

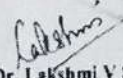





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THIRUVANANTHAPURAM - 695018

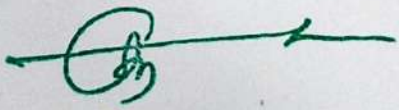
**CERTIFICATE**

Certified that the project report entitled **DEEP LEARNING-BASED COMPRESSION FOR PHASE-ONLY HOLOGRAM** is a bonafide report submitted by **MARIAM THOMAS (SCT20EC060)**, **MEENU N S (SCT20EC061)**, **PARVATHY S NAIR (SCT20EC068)** and **PARVATHY WARRIER S H (SCT20EC069)**, in fulfilment for the award of Bachelor of Technology in **ELECTRONICS AND COMMUNICATION ENGINEERING** from APJ Abdul Kalam Technological University.

  
Dr. Lakshmi V.S.  
Project Co-ordinator  
Assistant Professor,  
Dept. of ECE,  
SCTCE

  
Prof. (Dr.) Sheeja M.K.  
Project Guide  
Head of the Department  
Dept. of ECE,  
SCTCE



  
PRINCIPAL  
Sree Chitra Thirunal  
College of Engineering  
Trivandrum - 18




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SREE CHITRA THIRUNAL COLLEGE OF ENGINEERING,


THIRUVANANTHAPURAM - 695018

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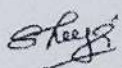
Certified that the project phase II report entitled "PERFORMANCE ANALYSIS OF DVB-T TRANSMITTER FOR UAV APPLICATIONS" is a bonafide report submitted by NIDHI YASMIN (SCT20EC066), RAKENDRGS (SCT20EC071), RAMKRISHNAN S (SCT20EC050) and NEVISHAKTHI (SCT20EC088), in partial fulfillment for the award of Bachelor of Technology in ELECTRONICS AND COMMUNICATION ENGINEERING from Sri Abdul Kalam Technological University.

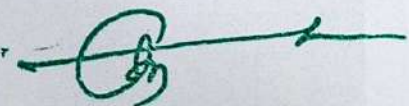
  
Dr. Benjith R. J.

Project Guide  
Assistant Professor,  
Dept. of ECE,  
SCTCE

  
Dr. Lakshmi V. S.

Project Co-ordinator  
Assistant Professor,  
Dept. of ECE,  
SCTCE

  
Prof. (Dr.) Sheeja M.K.  
Head of the Department,  
Dept. of ECE,  
SCTCE

  
PRINCIPAL  
Sree Chitra Thirunal  
College of Engineering  
Trivandrum - 18






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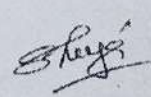
THIRUVANANTHAPURAM - 695018


**CERTIFICATE**

Certified that the project phase II report entitled "**DESIGN OF S BAND GaN POWER AMPLIFIER USING ADS**" is a bonafide report submitted by **SANMITHA B S (SCT20EC079)**, **SAYOOJ S (SCT20EC080)**, **S MADHURI SIVAN (SCT20EC083)** and **SREERAG S (SCT20EC085)** in partial fulfillment for the award of Bachelor of Technology in **ELECTRONICS AND COMMUNICATION ENGINEERING** from **APJ Abdul Kalam Technological University**.

  
Dr. Smitha P S  
Project Guide  
Assistant Professor,  
Dept. of ECE, SCTCE

  
Dr. Lakshmi V S,  
Project Coordinator  
Assistant Professor,  
Dept. of ECE, SCTCE

  
Prof. (Dr.) Sheeja M.K.  
Head of the Department,  
Dept. of ECE, SCTCE

  
PRINCIPAL  
Sree Chitra Thirunal  
College of Engineering  
Trivandrum - 18





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SREE CHITRA THIRUNAL COLLEGE OF ENGINEERING,  
THIRUVANANTHAPURAM - 695018

**CERTIFICATE**

Certified that the project phase I report entitled "A UNIVERSAL MULTIMODE  
(Acoustic, Magnetic Induction, Optical, RF) SOFTWARE DEFINED MODEM  
ARCHITECTURE FOR UNDERWATER COMMUNICATION" is a bonafide report  
submitted by SINDHU S (SCT20EC082), PARVATHY P NAIR (SCT20EC098),  
NIKHIL B VINOD (SCT20EC111) and VINAYA KRISHNAN H (LSCT20EC114),  
in partial fulfilment for the award of Bachelor of Technology in ELECTRONICS AND  
COMMUNICATION ENGINEERING from APJ Abdul Kalam  
Technological University.

*Lakshmi*  
Dr. Lakshmi V S.  
Project Co-ordinator  
Assistant Professor,  
Dept. of ECE,  
SCTCE

*Sajith*  
Sajith Sethu P.  
Project Guide  
Associate Professor,  
Dept. of ECE,  
SCTCE

*Sheeja*  
Prof. (Dr.) Sheeja M.K.  
Head of the Department,  
Dept. of ECE,  
SCTCE



*Principal*  
PRINCIPAL  
Sree Chitra Thirunal  
College of Engineering  
Trivandrum - 18