



SCMS SCHOOL OF ENGINEERING AND TECHNOLOGY

Vidya Nagar, Palissery, Karukutty, Kerala 683576

CRITERIA 1

CURRICULAR ASPECTS

1.3: Curriculum Enrichment



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1.3.2: Percentage of students undertaking project work/field work/ internships



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PROJECT WORK

B.TECH



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Vidya Nagar, Palissery, Karukutty, Kerala 683576

Department of Electrical and Electronics Engineering B.Tech

Batch 19-23

Sl.No	Roll No.	Name of student	Project title
1	SEE/8709/19	Aditya Harish	Solar and Wind Hybrid powered atmospheric water extractor
2	SEE/8589/19	Ajmal C B	4-220 V / 20-200 A IGBT Based Battery Charger
3	SEE/8591/19	Albert George	Solar and Wind Hybrid powered atmospheric water extractor
4	SEE/8482/19	Amal Pradeep	Wireless charging of electric vehicles while driving
5	SEE/8594/19	Arjun Anil Kumar	Wireless charging of electric vehicles while driving
6	SEE/8688/19	Devika Krishnan E K	Wireless charging of electric vehicles while driving
7	SEE/8724/19	Mohammed Adil V A	4-220 V / 20-200 A IGBT Based Battery Charger
8	SEE/8596/19	Salman P Y	4-220 V / 20-200 A IGBT Based Battery Charger
9	SEE/8635/19	Soorya Sathyan	4-220 V / 20-200 A IGBT Based Battery Charger
10	SEEL/9171/20	Leon Joy	Solar and Wind Hybrid powered atmospheric water extractor
11	SEEL/9172/20	Paul P Antappan	Solar and Wind Hybrid powered atmospheric water extractor




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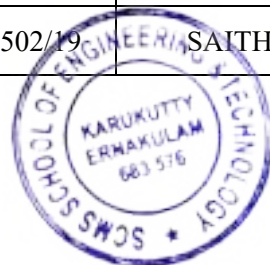
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Department of Electronics and Communication Engineering B.Tech

Batch 19-23

Sl.No	Roll No.	Name of student	Project title
1	SEC/8608/19	AISWARYA PATHUPILLIYATH	Home Automation Using Hand Gesture and Voice
2	SEC/8443/19	AKSHAYA AJAYAKUMAR	Home Automation Using Hand Gesture and Voice
3	SEC/8422/19	AKSHAY R	Home Automation Using Hand Gesture and Voice
4	SEC/8622/19	ANAND M	Home Automation Using Hand Gesture and Voice
5	SEC/8722/19	ANANDU SURESH	SMART Flood disaster prediction system using IoT and Neural Networks
6	SEC/8417/19	APARNA RAJEEV	SMART Flood disaster prediction system using IoT and Neural Networks
7	SEC/8634/19	ARCHANA JOHN	SMART Flood disaster prediction system using IoT and Neural Networks
8	SEC/8535/19	ATHUL SATHYAN	SMART Flood disaster prediction system using IoT and Neural Networks
9	SEC/8615/19	BHARATH KRISHNA MURALIDHARAN	River cleaning robot using IOT
10	SEC/8478/19	DHANUJA K A	River cleaning robot using IOT
11	SEC/8575/19	GADHA SUDHEER C	River cleaning robot using IOT
12	SEC/8421/19	GOPIKA RAJEEV	IoT based PET CAGE
13	SEC/8488/19	GOVIND K M	IoT based PET CAGE
14	SEC/8738/19	HAFIS WAZEER P	IoT based PET CAGE
15	SEC/8662/19	HARIPRIYA C H	Fire fighting FPV Drone
16	SEC/8576/19	MIDHUN M NAIR	Fire fighting FPV Drone
17	SEC/8618/19	MINAS K S	Fire fighting FPV Drone
18	SEC/8695/19	MUHAMMED ANWAR C P	Fire fighting FPV Drone
19	SEC/8645/19	NIRANJAN SANTHOSH	Smart waste seggregator-with pick and place Robotic arm
20	SEC/8424/19	PARVATHY RAJEEV	Smart waste seggregator-with pick and place Robotic arm
21	SEC/8548/19	P S ABY ANTONY	Smart waste seggregator-with pick and place Robotic arm
22	SEC/8599/19	ROHITH SREENIVASAN	Smart waste seggregator-with pick and place Robotic arm
23	SEC/8637/19	SAGAR P GOKUL	Solar powered IOT based agrobot for smart irrigation(SPIASI)
24	SEC/8502/19	SAITHYA THOMAS	Solar powered IOT based agrobot for smart irrigation(SPIASI)



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25	SEC/8565/19	SALIL C L	Solar powered IOT based agrobot for smart irrigation(SPIASI)
26	SEC/8426/19	SAYOOJ M J	Solar powered IOT based agrobot for smart irrigation(SPIASI)
27	SEC/8564/19	SIDHARTH K S	Solar powered fire extinguishing mini robot with obstacle avoidance
28	SEC/8671/19	SREELAKSHMI T U	Solar powered fire extinguishing mini robot with obstacle avoidance
29	SEC/8666/19	YUNUS A A	Solar powered fire extinguishing mini robot with obstacle avoidance




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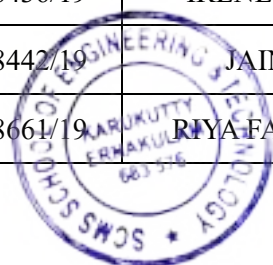
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Department of Civil Engineering

B. Tech

Batch 19-23

Sl.No	Roll No.	Name of student	Project title
1	SCE/8742/19	HARIKRISHNAN I S	Deflouridation using sugarcane bagasse
2	SCE/8607/19	PARVATHY	Deflouridation using sugarcane bagasse
3	SCE/8487/19	RAHUL K H	Deflouridation using sugarcane bagasse
4	SCE/8601/19	SHREVYA PRADEEP	Deflouridation using sugarcane bagasse
5	SCE/8625/19	MUHAMMED NOUFAL C N	Comparative study of steel structure to conventional concrete structure
6	SCE/8714/19	NAVANEETH PANKAJ P R	Comparative study of steel structure to conventional concrete structure
7	SCE/8448/19	NOVANEETH S S	Comparative study of steel structure to conventional concrete structure
8	SCE/8539/19	VIVITHA V N	Comparative study of steel structure to conventional concrete structure
9	SCE/8438/19	AMALA SANY	Roll over stability of vehicles on combined curves
10	SCE/8452/19	BHAVYA LAKSHMI M M	Roll over stability of vehicles on combined curves
11	SCE/8545/19	GOPIKA ASOK	Roll over stability of vehicles on combined curves
12	SCE/8595/19	HIZANA K M	Roll over stability of vehicles on combined curves
13	SCE/8433/19	AARON VENUGOPAL	Use of demolition waste rice husk in pavements
14	SCE/8431/19	LAKSHMI C C	Use of demolition waste rice husk in pavements
15	SCE/8453/19	MEENU MURALEEDHARAN	Use of demolition waste rice husk in pavements
16	SCE/8455/19	P.U. ARCHITHA KRISHNA	Use of demolition waste rice husk in pavements
17	SCE/8483/19	AMBILY P R	Characterisation of microplastics in ambient air in Kochi city
18	SCE/8436/19	IRENE ROSE SHYJU	Characterisation of microplastics in ambient air in Kochi city
19	SCE/8442/19	JAIN GEORGE	Characterisation of microplastics in ambient air in Kochi city
20	SCE/8661/19	RIYA FATHIMA HARIS	Characterisation of microplastics in ambient air in Kochi city



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21	SCE/8469/19	JESLIN MARIA JACOB	Statistical and geospatial analysis of ground water quality parameters along coastal aquifers
22	SCE/8462/19	JISHNU P J	Statistical and geospatial analysis of ground water quality parameters along coastal aquifers
23	SCE/8745/19	MERLIN JOSEPH	Statistical and geospatial analysis of ground water quality parameters along coastal aquifers
24	SCE/8479/19	MUHAMMED FARHAN K S	Statistical and geospatial analysis of ground water quality parameters along coastal aquifers
25	SCE/8597/19	ASWATHYMOL K V	Pedestrian level of service analysis at unsignalised intersections
26	SCE/8451/19	DHRISYA O H	Pedestrian level of service analysis at unsignalised intersections
27	SCE/8432/19	GAYATHRI K	Pedestrian level of service analysis at unsignalised intersections
28	SCEL/9182/20	KRISHNAPRIYA	Pedestrian level of service analysis at unsignalised intersections
29	SCE/8440/19	ADARSHRAJ	Geospatial mapping of water assets in Irinjalakuda
30	SCE/8465/19	ANAMIKA P	Geospatial mapping of water assets in Irinjalakuda
31	SCE/8609/19	MUTHU B SHANAVAS	Geospatial mapping of water assets in Irinjalakuda
32	SCE/8434/19	SIDHARTH B ELAMANA	Geospatial mapping of water assets in Irinjalakuda
33	SCE/8732/19	AMEY	Efficiency analysis of water hyacinth in phytoremediation of heavy metals
34	SCE/8456/19	DEVI CHANDANA A P	Efficiency analysis of water hyacinth in phytoremediation of heavy metals
35	SCE/8432/19	GAYATHRI K	Efficiency analysis of water hyacinth in phytoremediation of heavy metals
36	SCE/8602/19	MUHAMMED FARZEEN KOLETH	Efficiency analysis of water hyacinth in phytoremediation of heavy metals
37	SCE/8461/19	NASEEH AHAMED	Efficiency analysis of water hyacinth in phytoremediation of heavy metals




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Department of Automobile Engineering

B. Tech

Batch 19-23

Sl.No	Roll No.	Name of student	Project title
1	SAU/8660/19	Anandhu Sajeev	Design of Class 1 Passenger Bench Seats for Group-A M3 Type 1 Buses
2	SAU/8568/19	Arunkumar S	Design of Class 1 Passenger Bench Seats for Group-A M3 Type 1 Buses
3	SAU/8506/19	Zafal Mohammed	Design of Class 1 Passenger Bench Seats for Group-A M3 Type 1 Buses
4	SAUL/9164/20	Binil A Kumar	Design of Class 1 Passenger Bench Seats for Group-A M3 Type 1 Buses
5	SAU/8420/19	Allen Shaju	Life Cycle Management of Lithium-ion Batteries
6	SAU/8450/19	Joel Sabu	Life Cycle Management of Lithium-ion Batteries
7	SAU/8514/19	Kiran Antony	Life Cycle Management of Lithium-ion Batteries
8	SAU/8427/19	Shafeeq Shajahan	Life Cycle Management of Lithium-ion Batteries
9	SAU/8737/19	Abdul Rahman S	Case Study on black Spot on NH-66 (Kottappuram Bypass)
10	SAU/8555/19	Abhiram M S	Case Study on black Spot on NH-66 (Kottappuram Bypass)
11	SAU/8740/19	Chris Morais	Case Study on black Spot on NH-66 (Kottappuram Bypass)
12	SAU/8627/19	Faizal Taj	Case Study on black Spot on NH-66 (Kottappuram Bypass)
13	SAU/8414/19	Shamith Krishnan	Case Study on black Spot on NH-66 (Kottappuram Bypass)
14	SAU/8494/19	Akshat Anish	Analysis of use of Nanofluids in a Thermal Management System of an Electric vehicle
15	SAU/8603/19	Anirudh J	Analysis of use of Nanofluids in a Thermal Management System of an Electric vehicle
16	SAU/8580/19	R Neeraj	Analysis of use of Nanofluids in a Thermal Management System of an Electric vehicle
17	SAU/8428/19	Vaisakh P	Analysis of use of Nanofluids in a Thermal Management System of an Electric vehicle
18	SAUL/9169/20	Minnu Ajith	Analysis of use of Nanofluids in a Thermal Management System of an Electric vehicle



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19	SAU/8582/19	Munavvar C	Development of Parking Guidance System in Urban Areas
20	SAU/8712/19	Russel Kabeer T	Development of Parking Guidance System in Urban Areas
21	SAUL/9180/20	Thrithul Raj S	Development of Parking Guidance System in Urban Areas
22	SAUL/9175/20	Achu S Babu	Development of Parking Guidance System in Urban Areas
23	SAU/8423/19	A Aravind	CO2 Emission Control Using Calcium Hydroxide
24	SAU/8677/19	Bharath V Kumar	CO2 Emission Control Using Calcium Hydroxide
25	SAU/8541/19	Harikrishnan S	CO2 Emission Control Using Calcium Hydroxide
26	SAU/8441/19	Vyshnav A B	CO2 Emission Control Using Calcium Hydroxide




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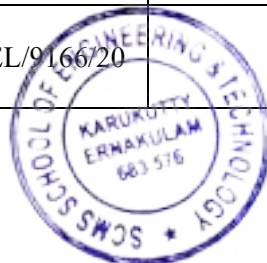
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Department of Mechanical Engineering

B. Tech

Batch 19-23

Sl.No	Roll No.	Name of student	Project title
1	SME/8526/19	Akhil P Saji	Fuzzy controlled Pneumatic System
2	SME/8691/19	Govind V Menon	Fuzzy controlled Pneumatic System
3	SME/8619/19	Jerrin Jordan	Fuzzy controlled Pneumatic System
4	SME/8641/19	Ashwin T S	Fuzzy controlled Pneumatic System
5	SMEL/9183/20	Avinash TG	Tribological and Mechanical Characterization of Al-Cu-Gr-AHA Composites Synthesized Using Selective Laser Sintering Process.
6	SMEL/9174/20	Yadu R Verma	Tribological and Mechanical Characterization of Al-Cu-Gr-AHA Composites Synthesized Using Selective Laser Sintering Process.
7	SME/8543/19	Shabeeb K Nowshad	Tribological and Mechanical Characterization of Al-Cu-Gr-AHA Composites Synthesized Using Selective Laser Sintering Process.
8	SME/8435/19	Althaf KA	Tribological and Mechanical Characterization of Al-Cu-Gr-AHA Composites Synthesized Using Selective Laser Sintering Process.
9	SME/8534/19	Vinay P Mony	Analysis and Fabrication of Fibreglass Sandwich Composite Bulletproof Vest
10	SME/8571/19	Sanjaykrishna K Menon	Analysis and Fabrication of Fibreglass Sandwich Composite Bulletproof Vest
11	SME/8702/19	Bony Jose	Analysis and Fabrication of Fibreglass Sandwich Composite Bulletproof Vest
12	SME/8425/19	Jishnu Venugopal	Analysis and Fabrication of Fibreglass Sandwich Composite Bulletproof Vest
13	SME/8577/19	Abhishek Damodhar	Design of Grasping Assisted Device - A Helping Hand to Industrial Habits and Therapy
14	SME/8704/19	R Ashwin Krishna	Design of Grasping Assisted Device - A Helping Hand to Industrial Habits and Therapy
15	SME/8614/19	Pisharody Abhay Haridas	Design of Grasping Assisted Device - A Helping Hand to Industrial Habits and Therapy
16	SMEL/9166/20	Jithin Raj K	Design of Grasping Assisted Device - A Helping Hand to Industrial Habits and Therapy



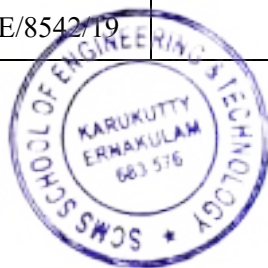
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17	SME/8554/19	Varun Pradeep Kumar	Data analysis for casting defect pattern recognition
18	SME/8551/19	Shyam Sankar K R	Data analysis for casting defect pattern recognition
19	SME/8546/19	Harikrishnan T P	Data analysis for casting defect pattern recognition
20	SME/8632/19	Dekshant Dileep	Data analysis for casting defect pattern recognition
21	SME/8553/19	Surya Narayanan A S	Plastic Brick Making Machine
22	SME/8547/19	Sreehari M	Plastic Brick Making Machine
23	SME/8521/19	Vishnu Anilkumar K	Plastic Brick Making Machine
24	SME/8629/19	Deendayal KT	Plastic Brick Making Machine
25	SME/8573/19	Aswin Gireesh	Solar Operated Waste Leaf Collector
26	SME/8557/19	Athul Subash	Solar Operated Waste Leaf Collector
27	SME/8679/19	Kalidas M	Solar Operated Waste Leaf Collector
28	SME/8531/19	Nihal Abdul Rasheed	Solar Operated Waste Leaf Collector
29	SME/8526/19	Alen Benny	EV Battery Cooling System Using Heat Pipes
30	SME/8549/19	Arun MS	EV Battery Cooling System Using Heat Pipes
31	SME/8562/19	Muhammed Samin	EV Battery Cooling System Using Heat Pipes
32	SME/8523/19	Sanjay E	EV Battery Cooling System Using Heat Pipes
33	SME/8588/19	Shiva Suresh	Nanofibre fabrication using centrifugal spinning machine
34	SME/8522/19	Sashank P	Nanofibre fabrication using centrifugal spinning machine
35	SME/8537/19	Mohammed Fahim	Nanofibre fabrication using centrifugal spinning machine
36	SME/8739/19	Nawjyoth Madhav	Nanofibre fabrication using centrifugal spinning machine
37	SME/8550/19	Akshay CS	Experimental Study on Improving the productivity of Solar Desalination Using Stepped Still
38	SME/8563/19	Aswin Jagadeeshan	Experimental Study on Improving the productivity of Solar Desalination Using Stepped Still
39	SME/8669/19	Aswin Harishkumar	Experimental Study on Improving the productivity of Solar Desalination Using Stepped Still
40	SME/8600/19	Nihlas Muhammed K Nazer	Experimental Study on Improving the productivity of Solar Desalination Using Stepped Still
41	SME/8542/19	Athul M	Redesigning of Valve System in 3-part Heametological Analyzer



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42	SME/8528/19	Aswin Surendran	Redesigning of Valve System in 3-part Heametological Analyzer
43	SME/8418/19	Sanjay T J	Redesigning of Valve System in 3-part Heametological Analyzer
44	SME/8540/19	Sandeep Biju	Redesigning of Valve System in 3-part Heametological Analyzer
45	SME/8606/19	Padmakumar KS	Design of Automatic Height Adjustment for Four Jaw Chuck Lathe
46	SMEL/9168/20	Gokul Ramesh	Design of Automatic Height Adjustment for Four Jaw Chuck Lathe
47	SMEL/9181/20	Roshith KV	Design of Automatic Height Adjustment for Four Jaw Chuck Lathe
48	SME/8560/19	Evin Xavier	Design of Automatic Height Adjustment for Four Jaw Chuck Lathe
49	SME/8711/19	Abhinav Anoop	Rotation effect on heat transfer in smooth rotating channel with heat wall
50	SME/8648/19	John Benny	Rotation effect on heat transfer in smooth rotating channel with heat wall
51	SME/8457/19	A B Nandu	Rotation effect on heat transfer in smooth rotating channel with heat wall
52	SME/8734/19	Abhinav Baby	Rotation effect on heat transfer in smooth rotating channel with heat wall
53	SME/8655/19	Gopikrishna Premchand	Bio degradable packing peanuts from banana leaf ribs
54	SME/8690/19	Richu Shaju	Bio degradable packing peanuts from banana leaf ribs
55	SME/8556/19	Aman S Nair	Bio degradable packing peanuts from banana leaf ribs
56	SME/8530/19	Arun P	Bio degradable packing peanuts from banana leaf ribs



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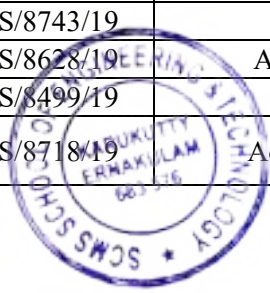
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Department of Computer Science Engineering B. Tech

Batch 19-23

Sl.No	Roll No.	Name of student	Project title
1	SCS/8480/19	Abay Raju M	A Multimodal Approach for Contextual Image-to-Text Response Generating System
2	SCS/8653/19	Aswinkumar T S	A Multimodal Approach for Contextual Image-to-Text Response Generating System
3	SCS/8519/19	Delvin M Shinoy	A Multimodal Approach for Contextual Image-to-Text Response Generating System
4	SCS/8668/19	Edwin Benny	A Multimodal Approach for Contextual Image-to-Text Response Generating System
5	SCS/8610/19	Abhirami A	Handwriting recognition for author identification
6	SCS/8698/19	Annmary Jacob	Handwriting recognition for author identification
7	SCS/8747/19	Chandini P S	Handwriting recognition for author identification
8	SCS/8639/19	Gokul Krishnan V G	Handwriting recognition for author identification
9	SCS/8472/19	Abhishek k	Offensive Language Detection in Social Media Networks
10	SCS/8647/19	Alen Roy	Offensive Language Detection in Social Media Networks
11	SCS/8700/19	Allen Lawrence	Offensive Language Detection in Social Media Networks
12	SCS/8713/19	Hadiya Rasheed	Offensive Language Detection in Social Media Networks
13	SCS/8674/19	Abin Siby	An AI Assisted Swarm Drone System for Human Detection and Alert in Disaster Recovery
14	SCS/8636/19	Akhildas.H	An AI Assisted Swarm Drone System for Human Detection and Alert in Disaster Recovery
15	SCS/8681/19	Akhinash Prasad	An AI Assisted Swarm Drone System for Human Detection and Alert in Disaster Recovery
16	SCS/8503/19	Gopika Sasikumar	An AI Assisted Swarm Drone System for Human Detection and Alert in Disaster Recovery
17	SCS/8743/19	Adil Abdul	Asl Detection And Word Creation
18	SCS/8628/19	Afthab K Naufal	Asl Detection And Word Creation
19	SCS/8499/19	Amal Rajesh	Asl Detection And Word Creation
20	SCS/8718/19	Adithya Krishnan	Face recognition based attendance system



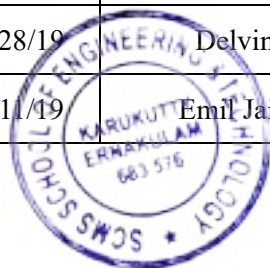
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21	SCS/8532/19	Aditya Mukundan	Face recognition based attendance system
22	SCS/8706/19	Ajaysuryan P.A	Face recognition based attendance system
23	SCS/8673/19	George Anil	Face recognition based attendance system
24	SCS/8720/19	Ajay Sadhasivan K	Facial Recognition And Harmful Object Identification In CCTV
25	SCS/8489/19	Aswin Suresh P	Facial Recognition And Harmful Object Identification In CCTV
26	SCS/8658/19	Aswin N	Facial Recognition And Harmful Object Identification In CCTV
27	SCS/8701/19	Bhavya P S	Facial Recognition And Harmful Object Identification In CCTV
28	SCS/8667/19	Akhila	Cyber Security Intrusion Detection System using Machine Learning and Deep Learning
29	SCS/8699/19	Aneena K S	Cyber Security Intrusion Detection System using Machine Learning and Deep Learning
30	SCS/8683/19	Arya Anil Kumar	Cyber Security Intrusion Detection System using Machine Learning and Deep Learning
31	SCS/8733/19	Gopika Jaideep	Cyber Security Intrusion Detection System using Machine Learning and Deep Learning
32	SCS/8504/19	Akhila Ajith	Detection of Speech Emotions using Deep Learning Techniques
33	SCS/8626/19	Athul V Nair	Detection of Speech Emotions using Deep Learning Techniques
34	SCS/8484/19	Avila James	Detection of Speech Emotions using Deep Learning Techniques
35	SCS/8733/19	Gopika Dinesh	Detection of Speech Emotions using Deep Learning Techniques
36	SCS/8657/19	Akshara A S	SIEM Implementation in CyberSecurity using Machine Learning
37	SCS/8663/19	Ananthakrishnan V R	SIEM Implementation in CyberSecurity using Machine Learning
38	SCS/8644/19	Aswin Sanil	SIEM Implementation in CyberSecurity using Machine Learning
39	SCS/8659/19	Gautham Krishna S	SIEM Implementation in CyberSecurity using Machine Learning
40	SCS/8686/19	Akshay A	IOT based water leakage and poisoning detection system
41	SCS/8728/19	Delvin Augustine	IOT based water leakage and poisoning detection system
42	SCS/8611/19	Emil Jaison Thomas	IOT based water leakage and poisoning detection system



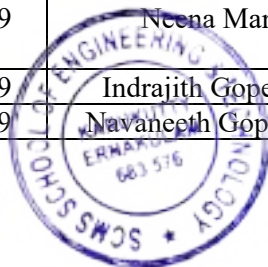
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ERNAKULAM, KERALA-683 576



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Vidya Nagar, Palissery, Karukutty, Kerala 683576

43	SCS/8689/19	Febin Alex	IOT based water leakage and poisoning detection system
44	SCS/8510/19	Amalna K Harish	Deep Fake Detection using Deep learning
45	SCS/8672/19	Antrin Santhosh	Deep Fake Detection using Deep learning
46	SCS/8707/19	Anurenj K P	Deep Fake Detection using Deep learning
47	SCS/8646/19	Goutham Gopi S	Deep Fake Detection using Deep learning
48	SCS/8474/19	Anila C S	Automated Diagnosis of Schizophrenia in EEG Signals Using CNN-LSTM Models
49	SCS/8578/19	Ben Reji	Automated Diagnosis of Schizophrenia in EEG Signals Using CNN-LSTM Models
50	SCS/8498/19	Fitha Nazar	Automated Diagnosis of Schizophrenia in EEG Signals Using CNN-LSTM Models
51	SCS/8694/19	Hance Steve	Automated Diagnosis of Schizophrenia in EEG Signals Using CNN-LSTM Models
52	SCS/8585/19	Anjana Sanjay	Breast Cancer Detection using Bio inspired Optimization
53	SCS/8687/19	Anoop Francis	Breast Cancer Detection using Bio inspired Optimization
54	SCS/8705/19	Aqil Anwar	Breast Cancer Detection using Bio inspired Optimization
55	SCS/8664/19	Gesmi P Rajan	Breast Cancer Detection using Bio inspired Optimization
56	SCS/8613/19	Antony K Shaji	Misrouting Attack On NoC using Hardware Trojan
57	SCS/8533/19	Bishitha K P	Misrouting Attack On NoC using Hardware Trojan
58	SCS/8703/19	George Ommen Varghese	Misrouting Attack On NoC using Hardware Trojan
59	SCS/8713/19	Hridya S	Misrouting Attack On NoC using Hardware Trojan
60	SCS/8717/19	Hyder Rasak	A Secure medical image processing scheme for detection of Pneumonia using transfer learning
61	SCS/8735/19	Kenas Varghese	A Secure medical image processing scheme for detection of Pneumonia using transfer learning
62	SCS/8500/19	Navya Geogre	A Secure medical image processing scheme for detection of Pneumonia using transfer learning
63	SCS/8520/19	Neena Mary Alex	A Secure medical image processing scheme for detection of Pneumonia using transfer learning
64	SCS/8680/19	Indrajith Gopeekrishnan	NFTicketing
65	SCS/8529/19	Navaneeth Gopalakrishnan	NFTicketing



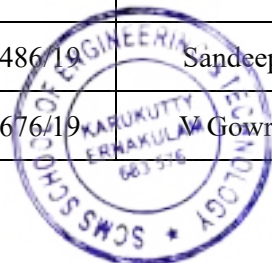
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66	SCS/8678/19	Pranav Narendran	NFTicketing
67	SCS/8491/19	Pranav P	NFTicketing
68	SCS/8497/19	Jahana Jabbar	Heart Disease Prediction using Machine Learning
69	SCS/8684/19	Joban K Joseph	Heart Disease Prediction using Machine Learning
70	SCS/8616/19	Manual Soman	Heart Disease Prediction using Machine Learning
71	SCS/8696/19	Nasweeba K N	Heart Disease Prediction using Machine Learning
72	SCS/8473/19	Jomish s chiramel	VayGo : Cloud deployed excursion management application
73	SCS/8638/19	Muhammadh Aman	VayGo : Cloud deployed excursion management application
74	SCS/8592/19	Mukul Mehta	VayGo : Cloud deployed excursion management application
75	SCS/8508/19	Thoufique Aslam n j	VayGo : Cloud deployed excursion management application
76	SCS/8516/19	Joshna George	Preventing Phishing attack on voting system using visual cryptography
77	SCS/8726/19	Megha P S	Preventing Phishing attack on voting system using visual cryptography
78	SCS/8633/19	Neeraja Babu	Preventing Phishing attack on voting system using visual cryptography
79	SCS/8670/19	Sruthi Santhosh	Preventing Phishing attack on voting system using visual cryptography
80	SCS/8730/19	Lakshmi N R	Sentimental analysis from tweets
81	SCS/8631/19	Mekha Ann Binu	Sentimental analysis from tweets
82	SCS/8485/19	Swetha Sarang	Sentimental analysis from tweets
83	SCS/8731/19	Varsha Mohandas	Sentimental analysis from tweets
84	SCS/8654/19	Mahesh S	Smartphone authentication using head gestures modelled through motion sensors
85	SCS/8643/19	Mahesh V C	Smartphone authentication using head gestures modelled through motion sensors
86	SCS/8697/19	Syed	Smartphone authentication using head gestures modelled through motion sensors
87	SCS/8642/19	Varghese	Smartphone authentication using head gestures modelled through motion sensors
88	SCS/8746/19	Pranav Praveen	Phishing website detection from URL using Machine Learning
89	SCS/8486/19	Sandeep Kurian Jacob	Phishing website detection from URL using Machine Learning
90	SCS/8676/19	Gowrisankar Menon	Phishing website detection from URL using Machine Learning



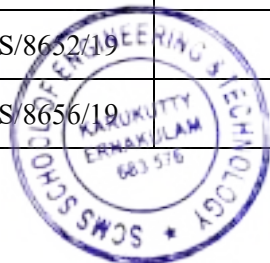
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91	SCS/8723/19	Maria Babu	Lung cancer detection using Deep CNN
92	SCS/8675/19	Meghana M Nair	Lung cancer detection using Deep CNN
93	SCS/8725/19	Muhad K	Lung cancer detection using Deep CNN
94	SCS/8559/19	Sreelakshmi V Menon	Lung cancer detection using Deep CNN
95	SCS/8437/19	Mithran C	A Cloud forenic application using Block Chain
96	SCS/8748/19	Vyshnav K Vinodh	A Cloud forenic application using Block Chain
97	SCS/8749/19	Abhishek	A Cloud forenic application using Block Chain
98	SCS/8693/19	Shahabas	A Smart phone authentication scheme during calls/voice interactions through in-ear wearables
99	SCS/8651/19	Sreerag	A Smart phone authentication scheme during calls/voice interactions through in-ear wearables
100	SCS/8505/19	Suhail Nassar	A Smart phone authentication scheme during calls/voice interactions through in-ear wearables
101	SCS/8749/19	Rijas Sali	A Smart phone authentication scheme during calls/voice interactions through in-ear wearables
102	SCS/8741/19	Nivin	Reinformed IOT
103	SCS/8665/19	Rohan	Reinformed IOT
104	SCS/8715/19	Saurabh Sunil	Reinformed IOT
105	SCS/8481/19	Suraj Ramachandran	Reinformed IOT
106	SCS/8470/19	Prasanth .V. P	TrueRX
107	SCS/8649/19	Pratyush Nair	TrueRX
108	SCS/8719/19	Ron Roy	TrueRX
109	SCS/8495/19	Sriram A Madhu	TrueRX
110	SCS/8477/19	Rahul K Milan	Fake product identification using Block chain
111	SCS/8710/19	Sanjay K Sunil	Fake product identification using Block chain
112	SCS/8716/19	Sudheesh N S	Fake product identification using Block chain
113	SCS/8650/19	Suraj Sidharth	Fake product identification using Block chain
114	SCS/8692/19	Sarod S	An IOT based monitoring system for oil leakage detection
115	SCS/8652/19	Shyamjith	An IOT based monitoring system for oil leakage detection
116	SCS/8656/19	Thejas	An IOT based monitoring system for oil leakage detection



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IGBT BASED BATTERY CHARGER

A PROJECT REPORT

Submitted by

MOHAMMED ADIL V A (SCM19EE007)

SALMAN P Y (SCM19EE008)

SOORYA SATHYAN (SCM19EE009)

AMAL PRADEEP (SCM19EE004)

To

The A.P.J. Abdul Kalam Technological University

In partial fulfillment for the award of the degree

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IN

ELECTRICAL AND ELECTRONICS ENGINEERING



SCMS School of Engineering and Technology

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Department of Electrical and Electronics Engineering



CERTIFICATE

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Asso. professor

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SSET Karukutty

Deepa S
10/6/2023

Head of Department

Dr. Jayanand B

Department of EEE

SSET Karukutty

4/6/23

Date:



College Seal:

SOLAR AND WIND HYBRID POWERED ATMOSPHERIC WATER EXTRACTOR

PROJECT REPORT

Submitted by

LEYON JOY (LSCM19EE010)
ALBERT GEORGE (SCM19EE003)
ADITHYA HARISH (SCM19EE001)
PAUL P ANTAPPAN (LSCM19EE011)

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↓ 24/6/23

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16/6/23



College Seal:

Wireless Charging of Electric Vehicle While Driving

A PROJECT REPORT

Submitted by

AJMAL C B(SCM19EE002)

ARJUN ANILKUMAR(SCM19EE005)

DEVIKA KRISHNAN E K(SCM19EE006)

To

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Asst.Professor

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SSET Karukutty

Jayal 17/6/23
Head of Department

Dr. Jayanand.B

Department of EEE

SSET Karukutty

Date: 17/06/2023



College Seal:

SOLAR AND WIND HYBRID POWERED ATMOSPHERIC WATER EXTRACTOR

PROJECT REPORT

Submitted by

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ALBERT GEORGE (SCM19EE003)
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Jayanand B
16/6/23

Date: 16/6/23



College Seal:

IGBT BASED BATTERY CHARGER

A PROJECT REPORT

Submitted by

AMAL PRADEEP (SCM19EE004)

SOORYA SATHYAN (SCM19EE009)

MOHAMMED ADIL V A (SCM19EE007)

SALMAN P Y (SCM19EE008)

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Jayanand B
10/6/23

Date:



College Seal:

Wireless Charging of Electric Vehicle While Driving

A PROJECT REPORT

Submitted by

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DEVIKA KRISHNAN E K(SCM19EE006)

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College Seal:

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College Seal:



SOLAR AND WIND HYBRID POWERED ATMOSPHERIC WATER EXTRACTOR

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16/6/23

College Seal:

IGBT BASED BATTERY CHARGER

A PROJECT REPORT

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College Seal:

IGBT BASED BATTERY CHARGER

A PROJECT REPORT

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6/6/23

Date:



College Seal

DESIGN OF CLASS 1 PASSENGER BENCH SEATS FOR GROUP-A M3 TYPE 1 BUSES

PROJECT PHASE-II REPORT

Submitted by

ANANDU SAJEEV	SCM19AU005
BINIL A KUMAR	LSCM19AU024
ARUNKUMAR S	SCM19AU008
ZAFAL MOHAMMED	SCM19AU022

in partial fulfillment for the award of the degree of
BACHELOR OF TECHNOLOGY
IN
AUTOMOBILE ENGINEERING



SCMS SCHOOL OF ENGINEERING AND TECHNOLOGY
VIDYA NAGAR, KARUKUTTY, ERNAKULAM – 683576

APJ ABDUL KALAM TECHNOLOGICAL UNIVERSITY

JUNE 2023

SCMS SCHOOL OF ENGINEERING AND TECHNOLOGY
VIDYA NAGAR, KARUKUTTY, ERNAKULAM – 683576

affiliated to

APJ ABDUL KALAM TECHNOLOGICAL UNIVERSITY



BONAFIDE CERTIFICATE

This is to certify that the Project titled “DESIGN OF CLASS 1 PASSENGER BENCH SEATS FOR GROUP-A M3 TYPE 1 BUSES” was prepared and presented by “ANANDHU SAJEEV, BINIL A KUMAR, ARUNKUMAR S AND ZAFAL MOHAMMED” of seventh semester Automobile Engineering in partial fulfillment for the award of the degree of Bachelor of Technology in Automobile Engineering under the APJ ABDUL KALAM TECHNOLOGICAL UNIVERSITY during the year 2019-23.

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LIFE CYCLE MANAGEMENT OF LITHIUM-ION BATTERIES

PROJECT REPORT

Submitted by

ALLEN SHAJU

SCM19AU004

JOEL SABU

SCM19AU013

KIRAN ANTONY

SCM19AU014

SHAFEEQ SHAJAHAN

SCM19AU018

in partial fulfillment for the award of the degree of

BACHELOR OF TECHNOLOGY
in
AUTOMOBILE ENGINEERING



SCMS SCHOOL OF ENGINEERING AND TECHNOLOGY

VIDYA NAGAR, KARUKUTTY, ERNAKULAM – 683576

APJ ABDUL KALAM TECHNOLOGICAL UNIVERSITY

JUNE 2023

SCMS SCHOOL OF ENGINEERING AND TECHNOLOGY
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This is to certify that the Project titled “LIFE CYCLE MANAGEMENT OF LITHIUM-ION BATTERIES” was prepared and presented by “ALLEN SHAJU (SCM19AU004), JOEL SABU (SCM19AU013), KIRAN ANTONY (SCM19AU014) and SHAFEEQ SHAJAHAN (SCM19AU018)” of eighth semester Automobile Engineering in partial fulfillment for the award of the degree of Bachelor of Technology in Automobile Engineering under the APJ ABDUL KALAM TECHNOLOGICAL UNIVERSITY during the year 2022-2023.

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Mr. SUJAY K
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ELECTRIC TRACTION SYSTEM OF GO KART

A PROJECT REPORT

Submitted by

ABHIRAM K.V

SCM18AU004

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SCM18AU006

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MAY 2022

DEPARTMENT OF AUTOMOBILE ENGINEERING
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CERTIFICATE

This is to certify that the Project Report titled “**ELECTRIC TRACTION SYSTEM OF GO-KART**” is the bonafide record of Project Presentation done by **Rahul R Kochath, Abhiram K.V, Achint Prabhina Prakash, Azaf Hussain** during the year 2021-2022. This report is submitted to SCMS School of Engineering and Technology, Karukutty in partial fulfilment of the requirements for the award of the degree of Bachelor of Technology in Automobile Engineering.

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Dr. Jenson Joseph E
Head of the Department



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Dr. P.A. ABDUL SAMAD
Professor In Mechanical Engg.
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Garaia

**CASE STUDY ON BLACK SPOT ON NH-66
(KOTTAPPURAM BYPASS)
FINAL PROJECT REPORT**

Submitted by

**Abdul Rahman
SCM19AU001
Abhiram M S
SCM19AU002
Chris Morais
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Faizal Taj
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Shamith Krishnan
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**BACHELOR OF TECHNOLOGY
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**SCMS SCHOOL OF ENGINEERING AND TECHNOLOGY
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APJ ABDUL KALAM TECHNOLOGICAL UNIVERSITY**

JUNE 2023

**SCMS SCHOOL OF ENGINEERING AND TECHNOLOGY
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This is to certify that the Project titled "CASE STUDY ON BLACK SPOT ON NH66 (KOTTAPPURAM BYPASS)" was prepared and presented by " ABDUL RAHMAN with register no. SCM19AU001, ABHIRAM M S with register no. SCM19AU002, CHRIS MORAIS with register no. SCM19AU010, FAIZAL TAJ with register no. SCM19AU011, SHAMITH KRISHNAN with register no. SCM19AU019 of eighth-semester Automobile Engineering in partial fulfillment for the award of the degree of Bachelor of Technology in Automobile Engineering under the APJ ABDUL KALAM TECHNOLOGICAL UNIVERSITY during the year 2022-23.

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ANALYSIS OF USE OF NANOFLUIDS IN A THERMAL MANAGEMENT SYSTEM OF AN ELECTRIC VEHICLE

PROJECT PHASE - II REPORT

Submitted by

AKSHAT ANISH

SCM19AU003

ANIRUDH J

SCM19AU006

R NEERAJ

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SCMS SCHOOL OF ENGINEERING AND TECHNOLOGY

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APJ ABDUL KALAM TECHNOLOGICAL UNIVERSITY

JUNE 2023

**SCHOOL OF ENGINEERING AND TECHNOLOGY
VIDYA NAGAR, KARUKUTTY, ERNAKULAM – 683576
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BONAFIDE CERTIFICATE

This is to certify that the Project titled ANALYSIS OF USE OF NANOFUIDS IN A THERMAL MANAGEMENT SYSTEM OF AN ELECTRIC VEHICLE was prepared and presented by "AKSHAT ANISH – SCM19AU003, ANIRUDH J – SCM19AU006, R NEERAJ – SCM19AU016, VAISAKH P – SCM19AU020 and MINNU AJITH – LSCM19AU025 of eighth semester Automobile Engineering in partial fulfillment for the award of the degree of Bachelor of Technology in Automobile Engineering under the APJ ABDUL KALAM TECHNOLOGICAL UNIVERSITY during the year 2022- 23.

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**DEVELOPMENT OF PARKING GUIDANCE SYSTEM IN
URBAN AREAS
PROJECT PHASE - II REPORT**

Submitted by

**MUNAVVAR C
SCM19AU015
RUSSEL KABEER
SCM19AU017
THRITHUL RAJ S
LSCM19AU026
ACHU S BABU
LSCM19AU023**

in partial fulfillment for the award of the degree of

BACHELOR OF TECHNOLOGY

in

AUTOMOBILE ENGINEERING



**SCMS SCHOOL OF ENGINEERING AND TECHNOLOGY VIDYA
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APJ.ABDUL KALAM TECHNOLOGICAL UNIVERSITY

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SCMS SCHOOL OF ENGINEERING AND TECHNOLOGY
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BONAFIDE CERTIFICATE

This is to certify that the Project titled “DEVELOPMENT OF PARKING GUIDANCE SYSTEM IN URBAN AREAS” was prepared and presented by “MUNAVVAR C (SCM19AU015), RUSSEL KABEER (SCM19AU017), ACHU S BABU (LSCM19AU023), THRITHUL RAJ S (LSCM19AU026)” of eighth-semester Automobile Engineering in partial fulfilment for the award of the degree of Bachelor of Technology in Automobile Engineering under the APJ ABDUL KALAM TECHNOLOGICAL UNIVERSITY during the year 2022-2023

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Dr. Jenson Joseph. E.

Department of Automobile Engineering
SCMS School of Engineering & Technology

Mr. Vipinraj P G

Project Guide
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**CO₂ EMISSION CONTROL USING CALCIUM
HYDROXIDE**

PROJECT REPORT

Submitted by

A.ARAVIND

SCM19AU007

BHARATH V KUMAR

SCM19AU009

HARI KRISHNAN S

SCM19AU012

VYSHNAV A.B

SCM19AU021

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AUTOMOBILE ENGINEERING



SCMS SCHOOL OF ENGINEERING AND TECHNOLOGY

VIDYA NAGAR, KARUKUTTY, ERNAKULAM – 683576

APJ ABDUL KALAM TECHNOLOGICAL UNIVERSITY

JUNE 2023

SCMS SCHOOL OF ENGINEERING AND TECHNOLOGY
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BONAFIDE CERTIFICATE

This is to certify that the Project titled “ CO_2 EMISSION CONTROL USING CALCIUM HYDROXIDE” was prepared and presented by “A.ARAVIND with register no. SCM19AU007, BHARATH.V.KUMAR with register no. SCM19AU009, HARI KRISHNAN.S with register no. SCM19AU012, VYSHNAV A.B with register no. SCM19AU021” of eighth semester Automobile Engineering in partial fulfilment for the award of the degree of Bachelor of Technology in Automobile Engineering under the APJ ABDUL KALAM TECHNOLOGICAL UNIVERSITY during the year 2022-23.

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Dr. JENSON JOSEPH
HEAD OF THE DEPARTMENT


Department of Automobile Engineering
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Karukutty, Ernakulam

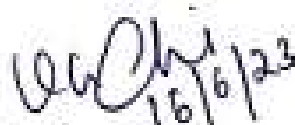
DEPARTMENT OF ELECTRONICS AND COMMUNICATION
ENGINEERING
SCMS SCHOOL OF ENGINEERING AND TECHNOLOGY
KARUKUTTY




CERTIFICATE

This is to certify that the report entitled 'Solar Powered IoT based Agrobot for Smart Irrigation' submitted by **AISWARYA P** to the APJ Abdul Kalam Technological University in **Electronics and Communication Engineering** is a bonafide record of the seminar work carried out by her under my/our guidance and supervision. This report in any form has not been submitted to any other University or Institute for any purpose.


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Internal Examiner
19/6/23


External Examiner
6/19/23

SOLAR POWERED IoT BASED AGROBOT FOR SMART IRRIGATION

PROJECT REPORT

Submitted By

AISWARYA P (SCM19EC001)

to

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in partial fulfilment of the requirements for the award of the Degree

of

Bachelor of Technology

In

Electronics and Communication Engineering



Department of Electronics and Communication Engineering

SCMS School of Engineering and Technology

Vidya Nagar, Karukutty, Kerala-683576

MAY 2023

ROBOTIC FIRE EXTINGUISHER WITH INTEGRATED IoT

PROJECT REPORT

submitted by

AKSHAY R (SCM19EC003)

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the APJ Abdul Kalam Technological University in partial fulfillment of the
requirements for the award of the Degree

of

Bachelor of Technology

In

Electronics and Communication Engineering



Department of Electronics and Communication Engineering

SCMS School of Engineering and Technology

Vidya Nagar, Karukutty, Kerala-683576

MAY 2023

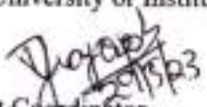
**DEPARTMENT OF ELECTRONICS AND COMMUNICATION
ENGINEERING**

**SCMS SCHOOL OF ENGINEERING AND TECHNOLOGY,
KARUKUTTY**



CERTIFICATE

This is to certify that the report entitled "**ROBOTIC FIRE EXTINGUISHER WITH INTEGRATED IoT**" submitted by **AKSHAY R** to APJ Abdul Kalam Technological University in partial fulfillment of the requirements for the award of the Degree of Bachelor of Technology in Electronics and Communication Engineering of SCMS School of Engineering and Technology is a bonafide record of the project work carried out by him under our guidance and supervision. This report in any form has not been submitted to any other University or Institute for any purpose.

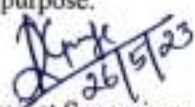

Project Coordinator

Mr. Vinoj P G

Assistant Professor

SSET Karukutty

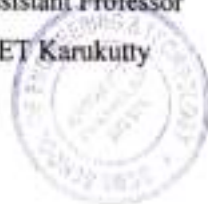

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HOME AUTOMATION USING HAND GESTURES AND VOICE

PROJECT REPORT

Submitted by

AKSHAYA AJAYAKUMAR(SCM19EC002)

to

APJ Abdul Kalam Technological University

in partial fulfillment of the requirements for the award of the Degree

of

Bachelor of Technology

In

Electronics and Communication Engineering



Department of Electronics and Communication Engineering

SCMS School of Engineering and Technology

Vidya Nagar, Karukutty, Kerala-683576

May 2023

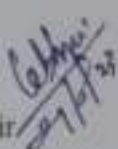
DEPARTMENT OF ELECTRONICS AND
COMMUNICATION ENGINEERING
SCMS SCHOOL OF ENGINEERING AND
TECHNOLOGY, KARUKUTTY

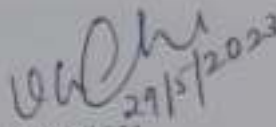


CERTIFICATE

This is to certify that the report entitled "HOME AUTOMATION USING
HAND GESTURES AND VOICE" submitted by AKSHAYA AJAYAKUMAR
to APJ Abdul Kalam Technological University in partial fulfilment of the requirements
for the award of the Degree of Bachelor of Technology in Electronics and
Communication Engineering of SCMS School of Engineering and Technology is a
bonafide record of the project work carried out by her under our guidance and
supervision. This report in any form has not been submitted to any other University or
Institute for any purpose.


Project Coordinator
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HOME AUTOMATION USING HAND GESTURES AND VOICE

PROJECT REPORT

Submitted by

AKSHAYA AJAYAKUMAR(SCM19EC002)

ARCHANA JOHN(SCM19EC007)

DHANUJA K A(SCM19EC010)

HAFIS WAZEER (SCM19EC014)

to

APJ Abdul Kalam Technological University

in partial fulfilment of the requirements for the award of the Degree

of

Bachelor of Technology

In

Electronics and Communication Engineering



Department of Electronics and Communication Engineering

SCMS School of Engineering and Technology

Vidya Nagar, Karukutty, Kerala-683576

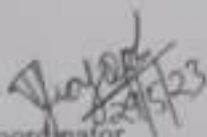
May 2023


DEPARTMENT OF ELECTRONICS AND
COMMUNICATION ENGINEERING
SCMS SCHOOL OF ENGINEERING AND
TECHNOLOGY, KARUKUTTY

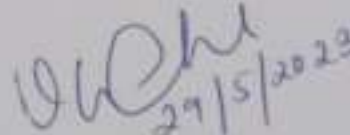


CERTIFICATE

This is to certify that the report entitled "HOME AUTOMATION USING HAND GESTURES AND VOICE" submitted by AKSHAYA AJAYKUMAR, ARCHANA JOHN, DHANUJA K A, HAFIS WAZEER to APJ Abdul Kalam Technological University in partial fulfilment of the requirements for the award of the Degree of Bachelor of Technology in Electronics and Communication Engineering of SCMS School of Engineering and Technology is a bonafide record of the project work carried out by her under our guidance and supervision. This report in any form has not been submitted to any other University or Institute for any purpose.


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FIRE FIGHTING FPV DRONE

PROJECT REPORT
Submitted by

ANANDU SURESH (SCM19EC005)
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SAYOOJ M J (SCM19EC027)
YUNUS A A (SCM19EC030)

to

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in partial fulfilment of the requirements for the award of the Degree

Of

Bachelor of Technology

In

Electronics and Communication Engineering



Department of Electronics and Communication Engineering

SCMS School of Engineering and Technology

Vidya Nagar, Karukutty, Kerala-683576

MAY 2023

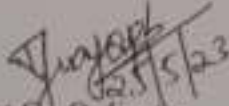
DEPARTMENT OF ELECTRONICS AND COMMUNICATION
ENGINEERING

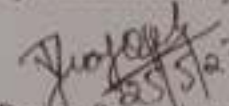
SCMS SCHOOL OF ENGINEERING AND TECHNOLOGY,
KARUKUTTY

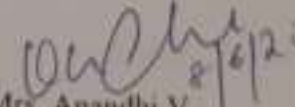


CERTIFICATE

This is to certify that the report entitled 'FIRE FIGHTING FPV DRONE' submitted by ANANDU SURESH to APJ Abdul Kalam Technological University in partial fulfilment of the requirements for the award of the Degree of Bachelor of Technology in Electronics and Communication Engineering of SCMS School of Engineering and Technology is a bonafide record of the project work carried out by him under our guidance and supervision. This report in any form has not been submitted to any other University or Institute for any purpose.

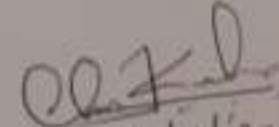

Project Co-Ordinator
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20/6/23
External Examiner

DEPARTMENT OF ELECTRONICS AND
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SCMS SCHOOL OF ENGINEERING AND
TECHNOLOGY, KARUKUTTY




CERTIFICATE

This is to certify that the report entitled 'RIVER CLEANING ROBOT USING IoT' submitted by **MUHAMMED ANWAR C P (SCM19EC018)** to APJ Abdul Kalam Technological University in partial fulfilment of the requirements for the award of the Degree of Bachelor of Technology in Electronics and Communication Engineering of SCMS School of Engineering and Technology is a bonafide record of the project work carried out by him under our guidance and supervision. This report in any form has not been submitted to any other University or Institute for any purpose.


Project Coordinator

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External Examiner

SOLAR POWERED IoT BASED AGROBOT FOR SMART IRRIGATION

PROJECT REPORT

Submitted By

APARNA RAJEEV (SCM19EC006)

to

the APJ Abdul Kalam Technological University

in partial fulfilment of the requirements for the award of the Degree

of

Bachelor of Technology

In

Electronics and Communication Engineering



Department of Electronics and Communication Engineering

SCMS School of Engineering and Technology

Vidya Nagar, Karukutty, Kerala-683576

MAY 2023

DEPARTMENT OF ELECTRONICS AND COMMUNICATION
ENGINEERING
SCMS SCHOOL OF ENGINEERING AND TECHNOLOGY
KARUKUTTY



CERTIFICATE

This is to certify that the report entitled 'Solar Powered IoT based Agrobot for Smart Irrigation' submitted by APARNA RAJEEV to the APJ Abdul Kalam Technological University in Electronics and Communication Engineering is a bonafide record of the seminar work carried out by her under my/our guidance and supervision. This report in any form has not been submitted to any other University or Institute for any purpose.

Project Coordinator

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Assistant Professor,

Department of ECE,

SSET

Project Supervisor

Ms. Anandhi V

Associate Professor,

Department of ECE,

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External Examiner

Jyojyotsna
19/6/23

Anandhi V
16/6/23

Anandhi V
16/6/23

Chandrasekhar
6/19/23

DECLARATION

I undersigned hereby declare that the project report "Solar Powered IoT based Agrobot for Smart Irrigation", submitted for partial fulfilment of the requirements for the award of degree of Bachelor of Technology of the APJ Abdul Kalam Technological University, Kerala is a bonafide work done by me under supervision of my guide Ms. Anandhi V, along with my project co-ordinators Dr. Sreeja K. A and Mr. Vinoj. P. G, Assistant Professors, Electronics and Communication Engineering Department. This submission represents my idea in my own words and where ideas or words of others have been included, I have adequately and accurately cited and referenced the original sources. I also declare that I have adhered to ethics of academic honesty and integrity and have not misinterpreted or fabricated any data or fact or source in my submission. I understand that any violation of the above will be a cause for disciplinary action by the institute and/or the University can also evoke penal action from the sources which thus not been properly cited or from whom proper permission has not been obtained. This report has not been previously formed the basis for the award of any degree, diploma or similar title of any other University.

Place: Karukutty

Date: 22.05.2023

Aparna Rajeev



HOME AUTOMATION USING HAND GESTURES AND VOICE

PROJECT REPORT

Submitted by

ARCHANA JOHN(SCM19EC007)

to

APJ Abdul Kalam Technological University

in partial fulfillment of the requirements for the award of the Degree

of

Bachelor of Technology

In

Electronics and Communication Engineering



Department of Electronics and Communication Engineering

SCMS School of Engineering and Technology

Vidya Nagar, Karukutty, Kerala-683576

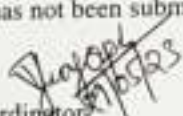
May 2023


DEPARTMENT OF ELECTRONICS AND
COMMUNICATION ENGINEERING
SCMS SCHOOL OF ENGINEERING AND
TECHNOLOGY, KARUKUTTY




CERTIFICATE

This is to certify that the report entitled "HOME AUTOMATION USING HAND GESTURES AND VOICE" submitted by ARCHANA JOHN to API Abdul Kalam Technological University in partial fulfilment of the requirements for the award of the Degree of Bachelor of Technology in Electronics and Communication Engineering of SCMS School of Engineering and Technology is a bonafide record of the project work carried out by her under our guidance and supervision. This report in any form has not been submitted to any other University or Institute for any purpose


Project Coordinator
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Assistant Professor
SSET Karukutty


Project Supervisor
Ms Lekshmi M Nair
Assistant Professor
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Mrs. Anandhi V
Head of the Department
Department of ECE
SSET Karukutty


Internal Examiner


External Examiner



SOLAR POWERED IoT BASED AGROBOT FOR SMART IRRIGATION

PROJECT REPORT

Submitted By

BHARATH KRISHNA MURALIDHARAN (SCM19EC009)

to

the APJ Abdul Kalam Technological University

in partial fulfilment of the requirements for the award of the Degree

of

Bachelor of Technology

In

Electronics and Communication Engineering



Department of Electronics and Communication Engineering

SCMS School of Engineering and Technology

Vidya Nagar, Karukutty, Kerala-683576

MAY 2023

DEPARTMENT OF ELECTRONICS AND COMMUNICATION
ENGINEERING
SCMS SCHOOL OF ENGINEERING AND TECHNOLOGY
KARUKUTTY



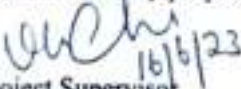
CERTIFICATE

This is to certify that the report entitled 'Solar Powered IoT based Agrobot for Smart Irrigation' submitted by **BHARATH KRISHNA MURALIDHARAN** to the APJ Abdul Kalam Technological University in **Electronics And Communication Engineering** is a bonafide record of the seminar work carried out by him under my/our guidance and supervision. This report in any form has not been submitted to any other University or Institute for any purpose.

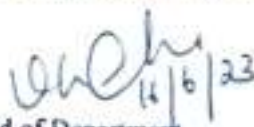

Project Coordinator

Mr. Vinoj P G
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Project Supervisor

Ms. Anandhi V
Associate Professor,
Department of ECE,
SSET


Head of Department

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SSET


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HOME AUTOMATION USING HAND GESTURES AND VOICE

PROJECT REPORT

Submitted by

DHANUJA K A(SCM19EC010)

to

APJ Abdul Kalam Technological University

in partial fulfilment of the requirements for the award of the Degree

of

Bachelor of Technology

in

Electronics and Communication Engineering



Department of Electronics and Communication Engineering

SCMS School of Engineering and Technology

Vidya Nagar, Karukutty, Kerala-683576

May 2023

DEPARTMENT OF ELECTRONICS AND
COMMUNICATION ENGINEERING
SCMS SCHOOL OF ENGINEERING AND
TECHNOLOGY, KARUKUTTY



CERTIFICATE

This is to certify that the report entitled "**HOME AUTOMATION USING HAND GESTURES AND VOICE**" submitted by **DHANUJA K A** to APJ Abdul Kalam Technological University in partial fulfilment of the requirements for the award of the Degree of Bachelor of Technology in Electronics and Communication Engineering of SCMS School of Engineering and Technology is a bonafide record of the project work carried out by her under our guidance and supervision. This report in any form has not been submitted to any other University or Institute for any purpose.

Project Coordinator
Mr. Vinoj P G
Assistant Professor
SSET Karukutty

Vinoj P G
29/5/23

Project Supervisor
Ms Lekshmi M Narayan
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Lekshmi M Narayan
29/5/23

Mrs. Anandhi V
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Anandhi V
29/5/2023

Internal Examiner

Vinoj P G
29/5/23



External Examiner

Anandhi V
6/19/23

SMART FLOOD PREDICTION SYSTEM USING IOT AND SVM

PROJECT REPORT

Submitted By

ANAND M (SCM19EC004)

GADHA SUDHEER C (SCM19EC011)

MIDHUN M NAIR (SCM19EC016)

MINAS K S (SCM19EC017)

to

the APJ Abdul Kalam Technological University

in partial fulfillment of the requirements for the award of the Degree

of Bachelor of Technology In

Electronics and Communication Engineering



Department of Electronics and Communication Engineering

SCMS School of Engineering and Technology

Vidya Nagar, Karukutty, Kerala-683576

JUNE 2023

**DEPARTMENT OF ELECTRONICS AND COMMUNICATION
ENGINEERING**

**SCMS SCHOOL OF ENGINEERING AND TECHNOLOGY,
KARUKUTTY**



CERTIFICATE

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Project Coordinator

Mr. Vinoj P G

Assistant Professor,

Department of ECE,

SSET


Internal Examiner

Project Supervisor

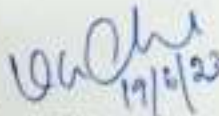
Dr. Sreeja K A

Assistant Professor,

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Project Supervisor


Head Of Department

Ms. Anandhi V

Associate Professor,

Department of ECE,

SSET


External Examiner

SMART SEPARATE BIN

PROJECT REPORT

Submitted by

SREELAKSHMI T U (SCM19EC029)

to

the APJ Abdul Kalam Technological University
in partial fulfilment of the requirements for the award of the Degree

Of

Bachelor of Technology

In

Electronics and Communication Engineering



Department of Electronics and Communication Engineering

SCMS School of Engineering and Technology
Vidya Nagar, Karukutty, Kerala-683576

JUNE 2023

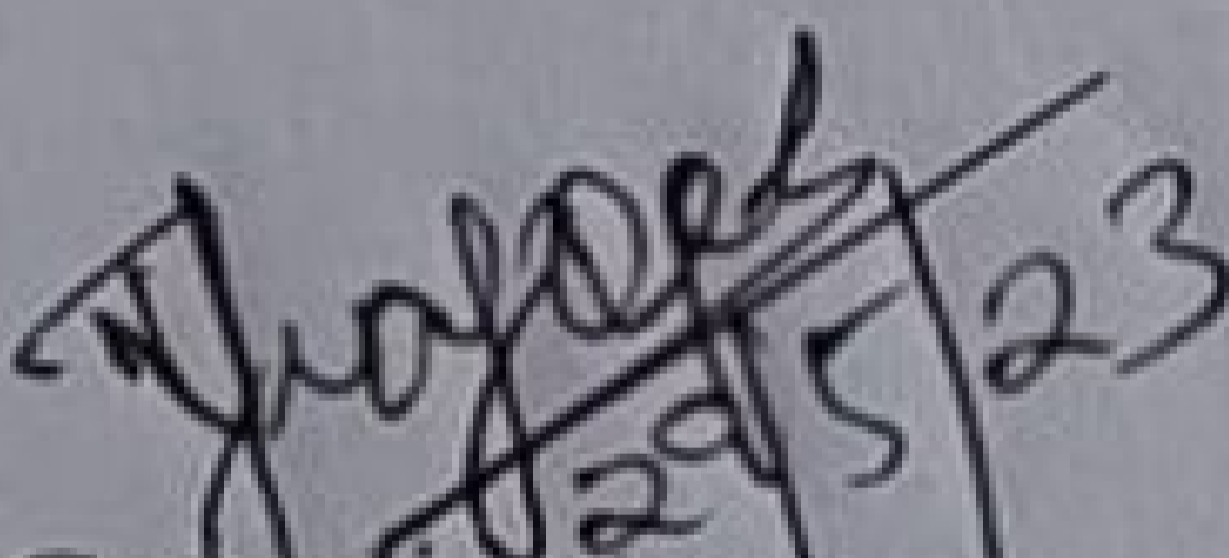
DEPARTMENT OF ELECTRONICS AND
COMMUNICATION ENGINEERING
SCMS SCHOOL OF ENGINEERING AND TECHNOLOGY,

KARUKUTTY

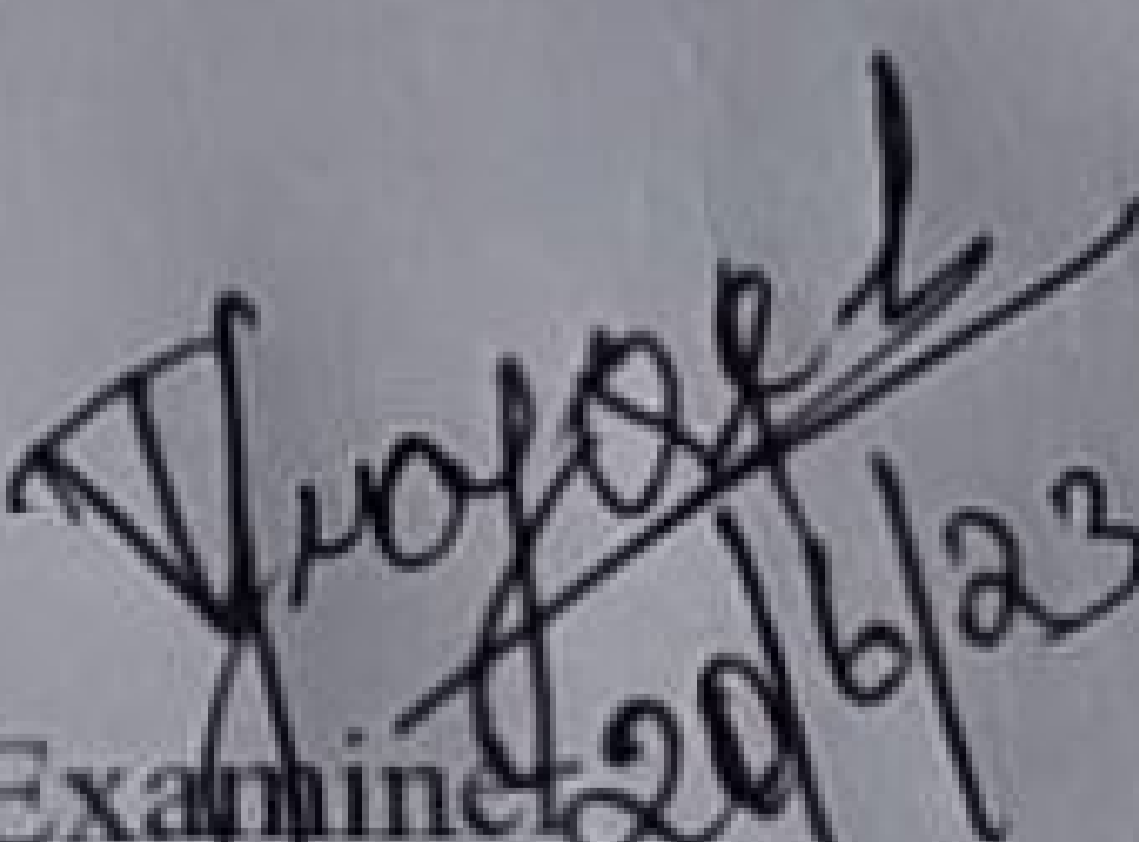



CERTIFICATE

This is to certify that the report entitled "**SMART SEPARATE BIN**" submitted By **SREELAKSHMI T U** to APJ Abdul Kalam Technological University in partial fulfilment of the requirements for the award of the Degree of Bachelor of Technology in Electronics and Communication Engineering is a bonafide record of the project carried out by her under our guidance and supervision. This report in any form has not been submitted to any other University or Institute for any purpose.


Project Coordinator

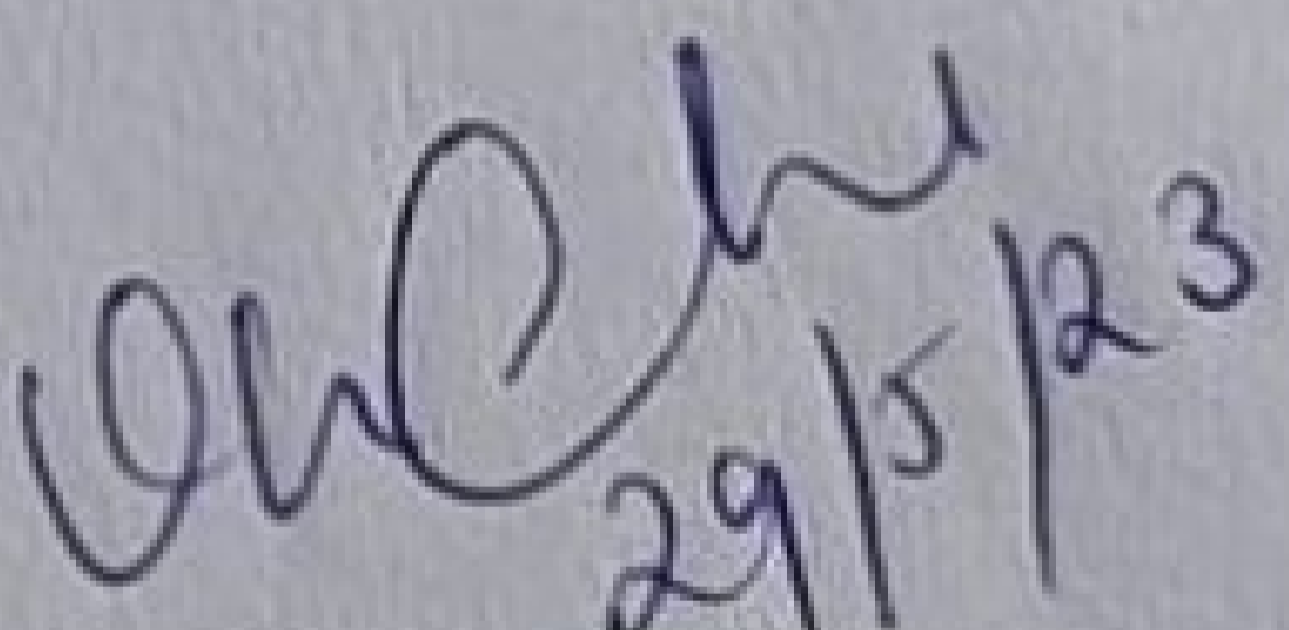
Mr. Vinoj P G
Assistant Professor,
Department of ECE,
SSET


Internal Examiner

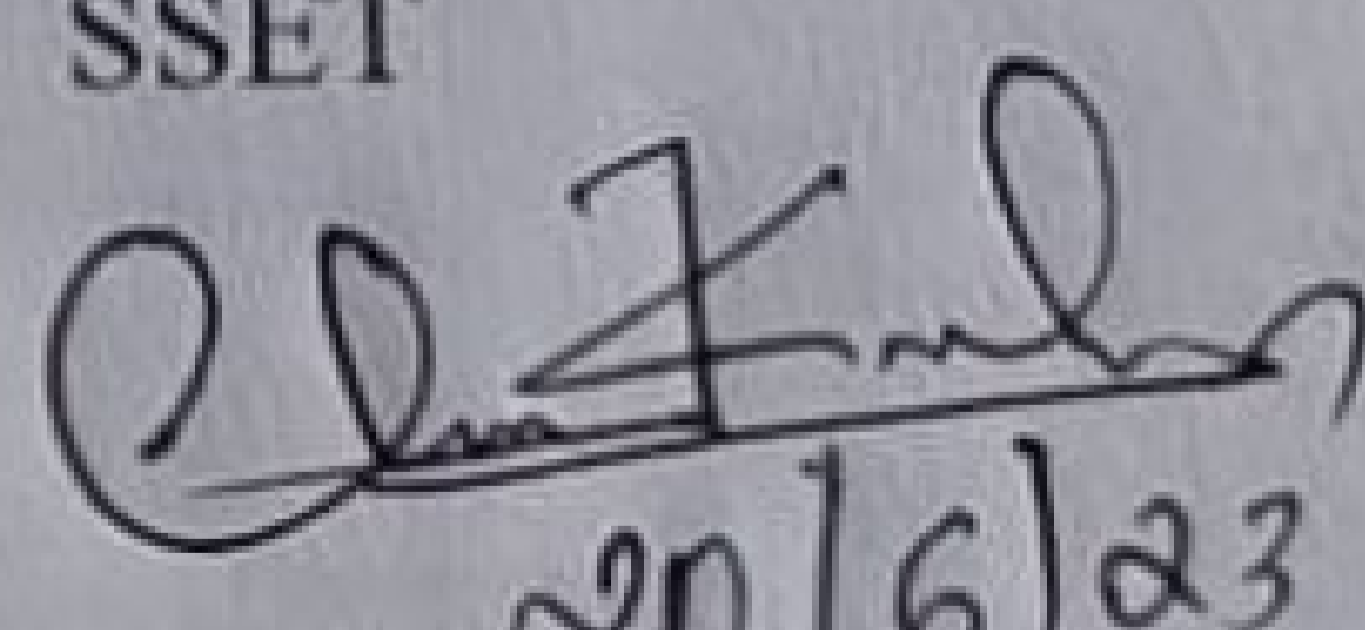

Project Supervisor

Ms. Vrinda V Gopal
Assistant Professor,
Department of ECE,




Head Of Department

Ms. Anandhi V
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Department of ECE,
SSET


External Examiner

SMART SEPARATE BIN

PROJECT REPORT

Submitted by

HARIPRIYA C H (SCM19EC015)

to

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in partial fulfilment of the requirements for the award of the Degree

Of

Bachelor of Technology

In

Electronics and Communication Engineering



Department of Electronics and Communication Engineering

SCMS School of Engineering and Technology
Vidya Nagar, Karukutty, Kerala-683576

JUNE 2023

DEPARTMENT OF ELECTRONICS AND
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SCMS SCHOOL OF ENGINEERING AND TECHNOLOGY,

KARUKUTTY



CERTIFICATE

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Project Coordinator

Mr. Vinoj P G

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Internal Examiner

Project Supervisor

Ms. Vrinda V Gopal

Assistant Professor,

Department of ECE,

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Head Of Department

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Associate Professor,

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SSET

External Examiner

SMART SEPARATE BIN

PROJECT REPORT

Submitted by

P S ABY ANTONY (SCM19EC021)

to

the APJ Abdul Kalam Technological University
in partial fulfilment of the requirements for the award of the Degree

Of

Bachelor of Technology

In

Electronics and Communication Engineering



Department of Electronics and Communication Engineering

SCMS School of Engineering and Technology
Vidya Nagar, Karukutty, Kerala-683576

JUNE 2023

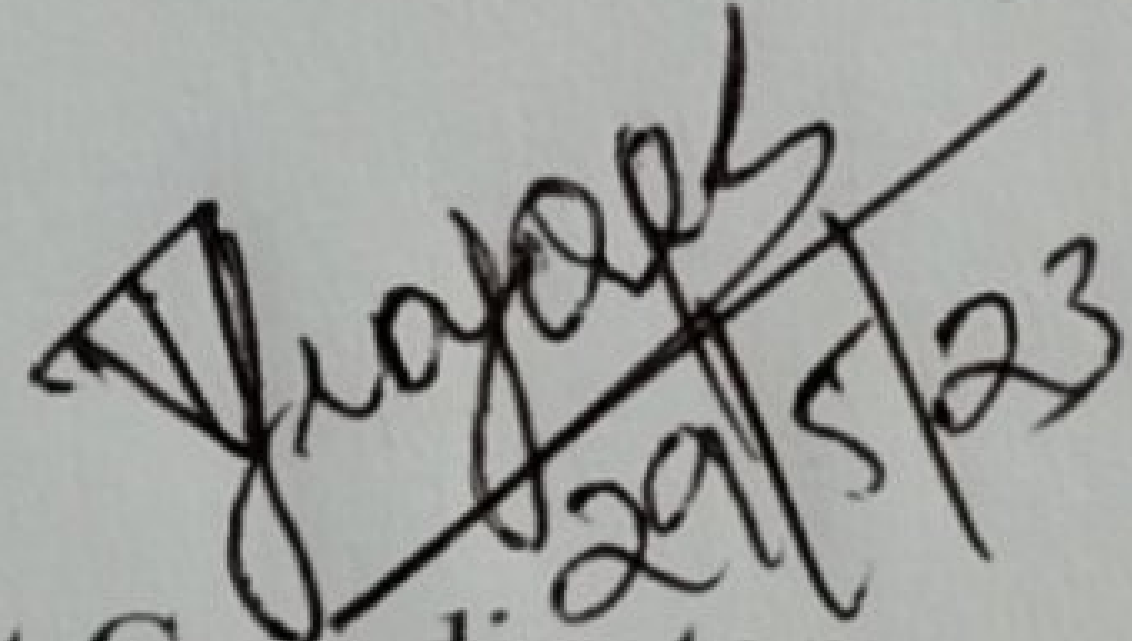
DEPARTMENT OF ELECTRONICS AND
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SCMS SCHOOL OF ENGINEERING AND TECHNOLOGY,

KARUKUTTY



CERTIFICATE

This is to certify that the report entitled "**SMART SEPARATE BIN**" submitted By **P S ABY ANTONY** to APJ Abdul Kalam Technological University in partial fulfilment of the requirements for the award of the Degree of Bachelor of Technology in Electronics and Communication Engineering is a bonafide record of the project carried out by her under our guidance and supervision. This report in any form has not been submitted to any other University or Institute for any purpose.


Project Coordinator

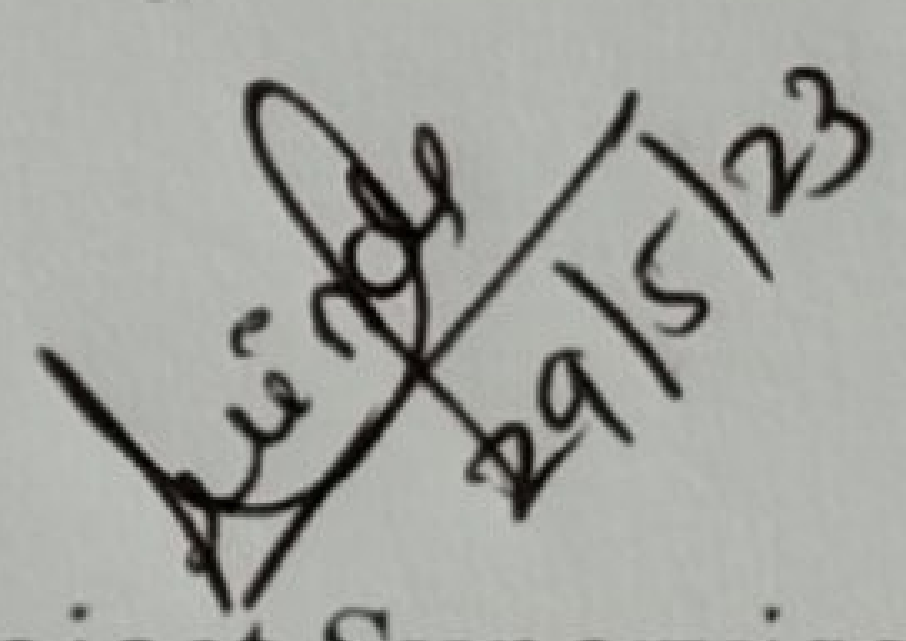
Mr. Vinoj P G

Assistant Professor,

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SSET

Internal Examiner


Project Supervisor

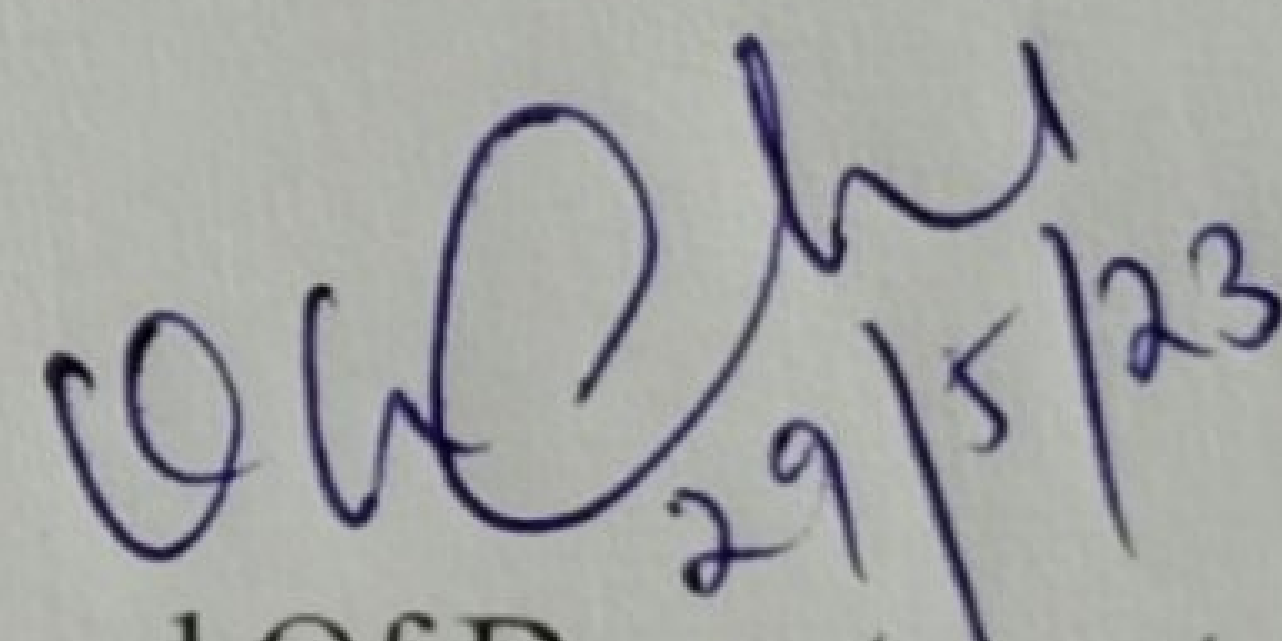
Ms. Vrinda V Gopal

Assistant Professor,

Department of ECE,



External Examiner

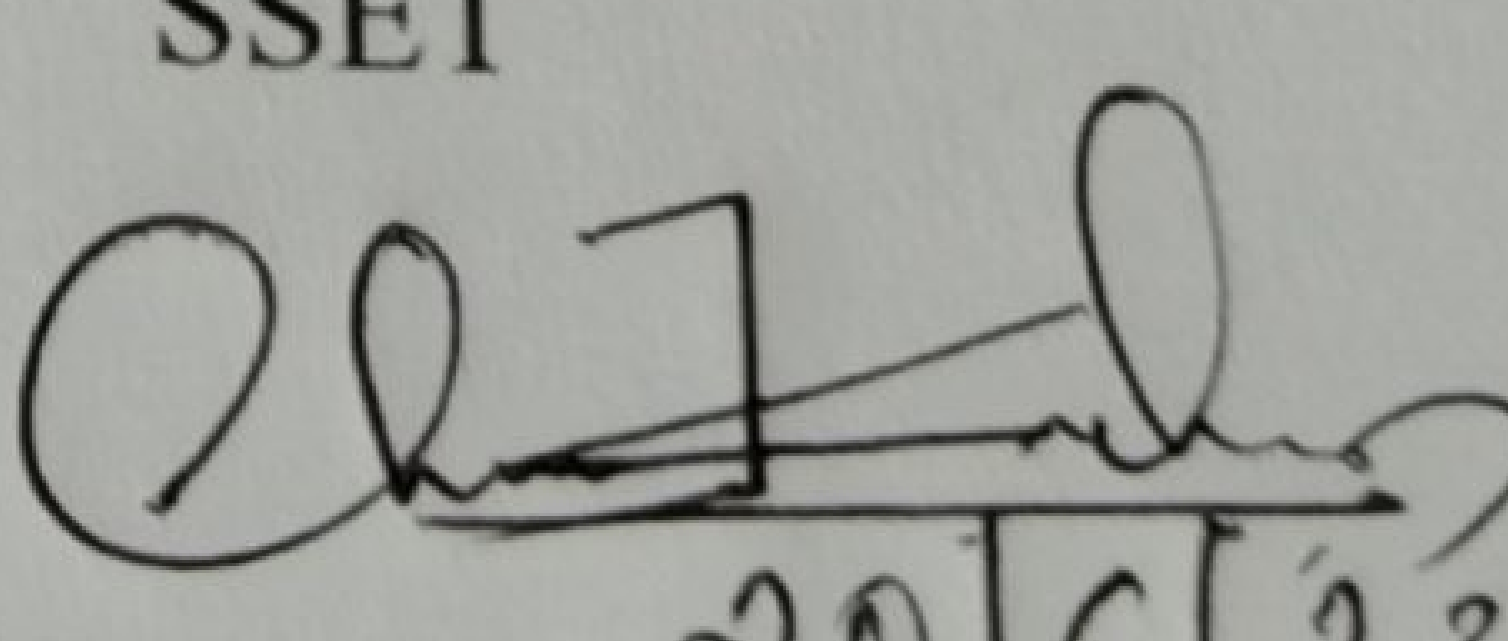

Head Of Department

Ms. Anandhi V

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20/6/23

SMART FLOOD PREDICTION SYSTEM USING IOT AND SVM

PROJECT REPORT

Submitted By

ANAND M (SCM19EC004)

GADHA SUDHEER C (SCM19EC011)

MIDHUN M NAIR (SCM19EC016)

MINAS K S (SCM19EC017)

to

the APJ Abdul Kalam Technological University

in partial fulfillment of the requirements for the award of the Degree

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Department of Electronics and Communication Engineering

SCMS School of Engineering and Technology

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JUNE 2023


DEPARTMENT OF ELECTRONICS AND COMMUNICATION
ENGINEERING

SCMS SCHOOL OF ENGINEERING AND TECHNOLOGY,
KARUKUTTY



CERTIFICATE

This is to certify that the report entitled 'SMART FLOOD PREDICTION SYSTEM USING IOT AND SVM' submitted by Anand M, Gadha Sudheer C, Minas K S, Midhun M Nair to APJ Abdul Kalam Technological University in partial fulfillment of the requirements for the award of the Degree of Bachelor of Technology in Electronics and Communication Engineering of SCMS School of Engineering and Technology is a bonafide record of the project work carried out by him under our guidance and supervision. This report in any form has not been submitted to any other University or Institute for any purpose.


Project Coordinator

Mr. Vinoj P G

Assistant Professor,

Department of ECE,

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Project Supervisor

Dr. Sreeja K A

Assistant Professor,

Department of ECE,

SSET


Project Supervisor

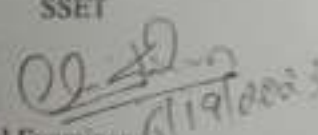

Head Of Department

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DEPARTMENT OF ELECTRONICS AND COMMUNICATION
ENGINEERING

SCMS SCHOOL OF ENGINEERING AND TECHNOLOGY,
KARUKUTTY



CERTIFICATE

This is to certify that the report entitled 'SMART FLOOD PREDICTION AND SYSTEM USING IOT AND SVM' submitted by MINAS K S (SCM19EC017) to APJ Abdul Kalam Technological University in partial fulfillment of the requirements for the award of the Degree of Bachelor of Technology in Electronics and Communication Engineering of SCMS School of Engineering and Technology is a bonafide record of the project work carried out by her under our guidance and supervision. This report in any form has not been submitted to any other University or Institute for any purpose.

Project Coordinator

Mr. Vinoj P G

Assistant Professor,

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DEPARTMENT OF ELECTRONICS AND COMMUNICATION
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CERTIFICATE

This is to certify that the report entitled 'SMART FLOOD PREDICTION SYSTEM USING IOT AND SVM' submitted by ANAND M (SCMI9EC004) to APJ Abdul Kalam Technological University in partial fulfillment of the requirements for the award of the Degree of Bachelor of Technology in Electronics and Communication Engineering of SCMS School of Engineering and Technology is a bonafide record of the project work carried out by him under our guidance and supervision. This report in any form has not been submitted to any other University or Institute for any purpose.

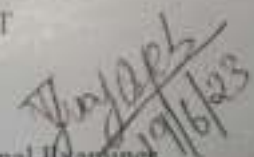

Project Coordinator

Mr. Vinoj P G

Assistant Professor,

Department of ECE,

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Internal Examiner

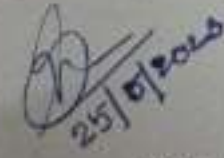
Project Supervisor

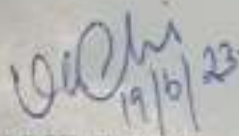
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External Examiner


Head Of Department

Ms. Anandhi V

Associate Professor,

Department of ECE,

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DEPARTMENT OF ELECTRONICS AND COMMUNICATION
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SCMS SCHOOL OF ENGINEERING AND TECHNOLOGY,
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CERTIFICATE

This is to certify that the report entitled 'SMART FLOOD PREDICTION SYSTEM USING IOT AND SVM' submitted by MIDHUN M NAIR (SCM19EC016) to APJ Abdul Kalam Technological University in partial fulfillment of the requirements for the award of the Degree of Bachelor of Technology in Electronics and Communication Engineering of SCMS School of Engineering and Technology is a bonafide record of the project work carried out by him under our guidance and supervision. This report in any form has not been submitted to any other University or Institute for any purpose.

Project Coordinator

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DEPARTMENT OF ELECTRONICS AND COMMUNICATION
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KARUKUTTY



CERTIFICATE

This is to certify that the report entitled 'SMART FLOOD PREDICTION SYSTEM USING IOT AND SVM' submitted by GADHA SUDHEER C (SCM19EC011) to APJ Abdul Kalam Technological University in partial fulfillment of the requirements for the award of the Degree of Bachelor of Technology in Electronics and Communication Engineering of SCMS School of Engineering and Technology is a bonafide record of the project work carried out by her under our guidance and supervision. This report in any form has not been submitted to any other University or Institute for any purpose.


Project Coordinator

Mr. Vinoj P G
Assistant Professor,
Department of ECE,
SSET

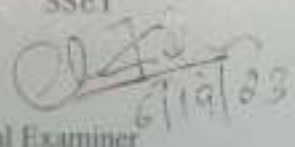

Internal Examiner

Project Supervisor

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Assistant Professor,
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Head Of Department

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HOME AUTOMATION USING HAND GESTURES AND VOICE

PROJECT REPORT

Submitted by

HAFIS WAZEER(SCM19EC014)

to

APJ Abdul Kalam Technological University

in partial fulfilment of the requirements for the award of the Degree

of

Bachelor of Technology

In

Electronics and Communication Engineering



Department of Electronics and Communication Engineering

SCMS School of Engineering and Technology

Vidya Nagar, Karukutty, Kerala-683576


May 2023

DEPARTMENT OF ELECTRONICS AND
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SCMS SCHOOL OF ENGINEERING AND
TECHNOLOGY, KARUKUTTY



CERTIFICATE

This is to certify that the report entitled "**HOME AUTOMATION USING HAND GESTURES AND VOICE**" submitted by **HAFIS WAZEER** to **API Abdul Kalam Technological University** in partial fulfilment of the requirements for the award of the Degree of Bachelor of Technology in Electronics and Communication Engineering of SCMS School of Engineering and Technology is a bonafide record of the project work carried out by her under our guidance and supervision. This report in any form has not been submitted to any other University or Institute for any purpose.


Project Coordinator

Mr. Vinoj P G

Assistant Professor

SSET Karukutty


Project Supervisor

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Assistant Professor

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Mrs. Anandhi

Head of the Department

Department of ECE

SSET Karukutty


Internal Examiner




External Examiner

SMART FLOOD PREDICTION SYSTEM USING IOT AND SVM

PROJECT REPORT

Submitted By

ANAND M (SCM19EC004)

GADHA SUDHEER C (SCM19EC011)

MIDHUN M NAIR (SCM19EC016)

MINAS K S (SCM19EC017)

to

the APJ Abdul Kalam Technological University

in partial fulfillment of the requirements for the award of the Degree

of Bachelor of Technology In

Electronics and Communication Engineering



Department of Electronics and Communication Engineering

SCMS School of Engineering and Technology

Vidya Nagar, Karukutty, Kerala-683576

JUNE 2023

DEPARTMENT OF ELECTRONICS AND COMMUNICATION
ENGINEERING

SCMS SCHOOL OF ENGINEERING AND TECHNOLOGY,
KARUKUTTY



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Project Coordinator

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Assistant Professor,

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SSET

Internal Examiner

Project Supervisor

Dr. Sreeja K A

Assistant Professor,

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SSET

External Examiner

Head Of Department

Ms. Anandhi V

Associate Professor,

Department of ECE,

SSET

SMART FLOOD PREDICTION SYSTEM USING IOT AND SVM

PROJECT REPORT

Submitted By

ANAND M (SCM19EC004)

GADHA SUDHEER C (SCM19EC011)

MIDHUN M NAIR (SCM19EC016)

MINAS K S (SCM19EC017)

to

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Department of Electronics and Communication Engineering

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Vidya Nagar, Karukutty, Kerala-683576

JUNE 2023

DEPARTMENT OF ELECTRONICS AND COMMUNICATION
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Vinoj P G
Project Coordinator

Mr. Vinoj P G

Assistant Professor,

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Vinoj P G
Internal Examiner

Project Supervisor

Dr. Sreeja K A

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Sreeja K A
25/5/2023
External Examiner

Anandhi V
19/6/23
Head Of Department

Ms. Anandhi V

Associate Professor,

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Anandhi V
External Examiner

RIVER CLEANING ROBOT USING IOT TECHNOLOGY

PROJECT REPORT Submitted By
MUHAMMED ANWAR (SCM19EC018)

to

the APJ Abdul Kalam Technological University
in partial fulfilment of the requirements for the award of the Degree
of Bachelor of Technology In
Electronics and Communication Engineering



Department of Electronics and Communication Engineering

SCMS School of Engineering and Technology

Vidya Nagar, Karukutty, Kerala-683576

MAY 2023

DEPARTMENT OF ELECTRONICS AND
COMMUNICATION ENGINEERING

SCMS SCHOOL OF ENGINEERING AND
TECHNOLOGY, KARUKUTTY



CERTIFICATE

This is to certify that the report entitled 'RIVER CLEANING ROBOT USING IoT' submitted by **MUHAMMED ANWAR C P (SCM19EC018)** to APJ Abdul Kalam Technological University in partial fulfillment of the requirements for the award of the Degree of Bachelor of Technology in Electronics and Communication Engineering of SCMS School of Engineering and Technology is a bonafide record of the project work carried out by him under our guidance and supervision. This report in any form has not been submitted to any other University or Institute for any purpose.

Vinoj P G
29/5/23

Project Coordinator

Mr. Vinoj P G

Assistant Professor,

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Vinoj P G
20/6/23

Internal Examiner

Dr. Parvathy M
29/5/2023

Project Supervisor

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Department of ECE,



Anandhi V
29/5/2023

Head Of Department

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Associate Professor,

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External Examiner

External Examiner

DEPARTMENT OF ELECTRONICS AND COMMUNICATION
ENGINEERING

SCMS SCHOOL OF ENGINEERING AND TECHNOLOGY,
KARUKUTTY



CERTIFICATE

This is to certify that the report entitled "ROBOTIC FIRE EXTINGUISHER WITH INTEGRATED IoT" submitted by NIRANJAN SANTHOSH to APJ Abdul Kalam Technological University in partial fulfillment of the requirements for the award of the Degree of Bachelor of Technology in Electronics and Communication Engineering of SCMS School of Engineering and Technology is a bonafide record of the project work carried out by him under our guidance and supervision. This report in any form has not been submitted to any other University or Institute for any purpose.

Project Coordinator

Mr. Vinoj P G

Assistant Professor

SSET Karukutty

Internal Examiner

Project Supervisor

Ms Retty George

Assistant Professor

SSET Karukutty

Mrs. Anandhi

Head of the Department

Department of ECE

SSET Karukutty

External Examiner



ROBOTIC FIRE EXTINGUISHER WITH INTEGRATED IoT

PROJECT REPORT

submitted by

NIRANJAN SANTHOSH (SCM19EC019)

to

the APJ Abdul Kalam Technological University in partial fulfillment of the
requirements for the award of the Degree

of

Bachelor of Technology

In

Electronics and Communication Engineering



Department of Electronics and Communication Engineering

SCMS School of Engineering and Technology

Vidya Nagar, Karukutty, Kerala-683576

MAY 2023

DEPARTMENT OF ELECTRONICS AND COMMUNICATION
ENGINEERING
SCMS SCHOOL OF ENGINEERING AND TECHNOLOGY,
KARUKUTTY



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Project Coordinator

Mr. Vinoj P G

Assistant Professor

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Internal Examiner

Project Supervisor

Ms Retty George

Assistant Professor

SSET Karukutty

Mrs. Anandhu

Head of the Department

Department of ECE

SSET Karukutty

External Examiner



RIVER CLEANING ROBOT USING IOT TECHNOLOGY

PROJECT REPORT Submitted By
PARVATHY RAJEEV (SCM19EC020)

to

the APJ Abdul Kalam Technological University
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of Bachelor of Technology In
Electronics and Communication Engineering



Department of Electronics and Communication Engineering

SCMS School of Engineering and Technology

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MAY 2023

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SCMS SCHOOL OF ENGINEERING AND
TECHNOLOGY, KARUKUTTY



CERTIFICATE

This is to certify that the report entitled 'RIVER CLEANING ROBOT USING IoT' submitted by **PARVATHY RAJEEV(SCM19EC020)** to APJ Abdul Kalam Technological University in partial fulfillment of the requirements for the award of the Degree of Bachelor of Technology in Electronics and Communication Engineering of SCMS School of Engineering and Technology is a bonafide record of the project work carried out by her under our guidance and supervision. This report in any form has not been submitted to any other University or Institute for any purpose.


Project Coordinator

Mr. Vinoj P G

Assistant Professor,

Department of ECE,

SSET


Internal Examiner


Project Supervisor

Dr. Parvathy M

Associate Professor,

Department of ECE,

SSET




Head Of Department

Ms. Anandhi V

Associate Professor,

Department of ECE,

SSET


External Examiner


DEPARTMENT OF ELECTRONICS AND
COMMUNICATION ENGINEERING

SCMS SCHOOL OF ENGINEERING AND
TECHNOLOGY, KARUKUTTY



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Project Coordinator

Mr. Vinoj P G
Assistant Professor,
Department of ECE,
SSET


Internal Examiner


Project Supervisor

Dr. Parvathy M
Associate Professor,
Department of ECE,




Head Of Department

Ms. Anasida V
Associate Professor,
Department of ECE,
SSET


External Examiner

IOT BASED SMART PET CAGE

PROJECT REPORT

Submitted by

GOPIKA RAJEEV(SCM19EC012)

to

APJ Abdul Kalam Technological University
in partial fulfillment of the requirements for the award of the Degree
of

Bachelor of Technology

In

Electronics And Communication Engineering



Department of Electronics and Communication Engineering

SCMS SCHOOL OF ENGINEERING AND TECHNOLOGY

KARUKUTTY

JUNE 2023

DEPARTMENT OF ELECTRONICS AND
COMMUNICATION ENGINEERING
SCMS SCHOOL OF ENGINEERING AND TECHNOLOGY
KARUKUTTY



CERTIFICATE

This is to certify that the report entitled 'IOT Based Smart Pet Cage' submitted by **Gopika Rajeev** to the APJ Abdul Kalam Technological University in **Electronics and Communication Engineering** is a bonafide record of the seminar work carried out by him/her under my/our guidance and supervision. This report in any form has not been submitted to any other University or Institute for any purpose.

Project coordinator:

Mr. Vinoj PG

Assistant professor,

Department of ECE,

SSET

Project Supervisor:

Ms. Nithya M

Assistant professor,

Department of ECE,

SSET

Head Of the Department:

Ms. Anandhi V

Associate professor,

Department of ECE,

SSET

Internal Examiner



External Examiner

IOT BASED SMART PET CAGE

PROJECT REPORT

Submitted by

GOVIND K M (SCM19EC013)

to

APJ Abdul Kalam Technological University
in partial fulfillment of the requirements for the award of the Degree
of

Bachelor of Technology

In

Electronics And Communication Engineering



Department of Electronics and Communication Engineering

SCMS SCHOOL OF ENGINEERING AND TECHNOLOGY

KARUKUTTY

JUNE 2023

DEPARTMENT OF ELECTRONICS AND
COMMUNICATION ENGINEERING
SCMS SCHOOL OF ENGINEERING AND TECHNOLOGY
KARUKUTTY



CERTIFICATE

This is to certify that the report entitled 'IOT Based Smart Pet Cage' submitted by Govind K M to the APJ Abdul Kalam Technological University in **Electronics and Communication Engineering** is a bonafide record of the seminar work carried out by him/her under my/our guidance and supervision. This report in any form has not been submitted to any other University or Institute for any purpose.


Project coordinator:

Mr. Vinoj PG
Assisitant professor,
Department of ECE,
SSET


Project Supervisor:


Ms. Nithya M
Assisitant professor,
Department of ECE,
SSET


Head Of the Department:

Ms. Anandhi V
Associate professor,
Department of ECE,
SSET


Internal Examiner




External Examiner

SOLAR POWERED IoT BASED AGROBOT FOR SMART IRRIGATION

PROJECT REPORT

Submitted By

ROHITH SREENIVASAN (SCM19EC022)
23

to

the APJ Abdul Kalam Technological University

in partial fulfilment of the requirements for the award of the Degree

of

Bachelor of Technology

In

Electronics and Communication Engineering



Department of Electronics and Communication Engineering
SCMS School of Engineering and Technology

Vidya Nagar, Karukutty, Kerala-683576

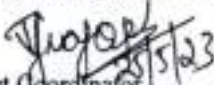
MAY 2023


**DEPARTMENT OF ELECTRONICS AND COMMUNICATION
ENGINEERING
SCMS SCHOOL OF ENGINEERING AND TECHNOLOGY
KARUKUTTY**

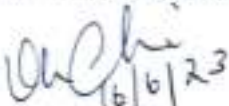


CERTIFICATE


This is to certify that the report entitled '**Solar Powered IoT based Agrobot for Smart Irrigation**' submitted by **ROHITH SREENIVASAN** to the APJ Abdul Kalam Technological University in **Electronics And Communication Engineering** is a bonafide record of the seminar work carried out by him under my/our guidance and supervision. This report in any form has not been submitted to any other University or Institute for any purpose.


Project Coordinator
Mr. Vinoj P G
Assistant Professor,
Department of ECE,
SSET


Project Supervisor
Ms. Anandhi V
Associate Professor,
Department of ECE,
SSET


Head of Department
Ms. Anandhi V
Associate Professor,
Department of ECE,
SSET


Internal Examiner


External Examiner

FIRE FIGHTING FPV DRONE

PROJECT REPORT

Submitted by

ANANDU SURESH (SCM19EC005)
SAGAR P GOKUL (SCM19EC024)
SAYOOJ M J (SCM19EC027)
YUNUS A A (SCM19EC030)

to

the APJ Abdul Kalam Technological University

in partial fulfilment of the requirements for the award of the Degree

Of

Bachelor of Technology

In

Electronics and Communication Engineering



Department of Electronics and Communication Engineering

SCMS School of Engineering and Technology

Vidya Nagar, Karukutty, Kerala-683576

MAY 2023

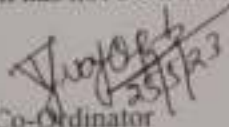
DEPARTMENT OF ELECTRONICS AND COMMUNICATION
ENGINEERING

SCMS SCHOOL OF ENGINEERING AND TECHNOLOGY,
KARUKUTTY



CERTIFICATE

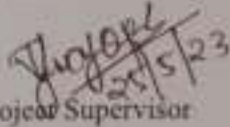
This is to certify that the report entitled '**FIRE FIGHTING FPV DRONE**' submitted by **SAGAR P GOKUL** to APJ Abdul Kalam Technological University in partial fulfilment of the requirements for the award of the Degree of Bachelor of Technology in Electronics and Communication Engineering of SCMS School of Engineering and Technology is a bonafide record of the project work carried out by him under our guidance and supervision. This report in any form has not been submitted to any other University or Institute for any purpose.


Project Co-Ordinator

Mr. Vinoj P G

Assistant Professor

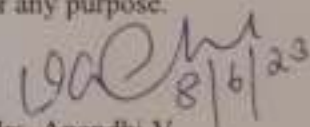
SSET Karukutty


Project Supervisor

Mr. Vinoj P G

Assistant Professor

SSET Karukutty


Mrs. Anandhi V

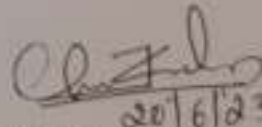
Head of the Department

Department of ECE

SSET Karukutty

Internal Examiner




External Examiner

ROBOTIC FIRE EXTINGUISHER WITH INTEGRATED IoT

PROJECT REPORT

submitted by

SAITHYA THOMAS (SCM19EC025)

to

the APJ Abdul Kalam Technological University in partial fulfillment of the
requirements for the award of the Degree

of

Bachelor of Technology

In

Electronics and Communication Engineering



Department of Electronics and Communication Engineering

SCMS School of Engineering and Technology

Vidya Nagar, Karukutty, Kerala-683576

MAY 2023

DEPARTMENT OF ELECTRONICS AND COMMUNICATION
ENGINEERING
SCMS SCHOOL OF ENGINEERING AND TECHNOLOGY,
KARUKUTTY

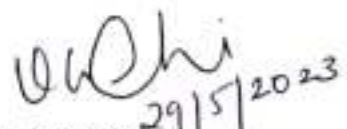


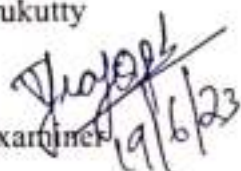
CERTIFICATE

This is to certify that the report entitled "ROBOTIC FIRE EXTINGUISHER WITH INTEGRATED IoT" submitted by SAITHYA THOMAS to APJ Abdul Kalam Technological University in partial fulfillment of the requirements for the award of the Degree of Bachelor of Technology in Electronics and Communication Engineering of SCMS School of Engineering and Technology is a bonafide record of the project work carried out by her under our guidance and supervision. This report in any form has not been submitted to any other University or Institute for any purpose.



Project Coordinator
Mr. Vinoj P G
Assistant Professor
SSET Karukutty


Project Supervisor
Ms Retty George
Assistant Professor
SSET Karukutty


Mrs. Anandhi V
Head of the Department
Department of ECE
SSET Karukutty


Internal Examiner
19/6/23




External Examiner
6/19/2023

DEPARTMENT OF ELECTRONICS AND
COMMUNICATION ENGINEERING

SCMS SCHOOL OF ENGINEERING AND
TECHNOLOGY, KARUKUTTY



CERTIFICATE

This is to certify that the report entitled 'RIVER CLEANING ROBOT USING IoT' submitted by SALIL C L (SCM19EC026) to APJ Abdul Kalam Technological University in partial fulfillment of the requirements for the award of the Degree of Bachelor of Technology in Electronics and Communication Engineering of SCMS School of Engineering and Technology is a bonafide record of the project work carried out by him under our guidance and supervision. This report in any form has not been submitted to any other University or Institute for any purpose.


Project Coordinator

Mr. Vinoj P G
Assistant Professor,
Department of ECE,
SSET


Internal Examiner


Project Supervisor

Dr. Parvathy M
Associate Professor,
Department of ECE,




Head Of Department

Ms. Avandhi V
Associate Professor,
Department of ECE,
SSET


External Examiner

RIVER CLEANING ROBOT USING IOT TECHNOLOGY

PROJECT REPORT Submitted By
SALIL C L (SCM19EC026)

to

the APJ Abdul Kalam Technological University
in partial fulfilment of the requirements for the award of the Degree
of Bachelor of Technology In
Electronics and Communication Engineering



Department of Electronics and Communication Engineering

SCMS School of Engineering and Technology

Vidya Nagar, Karukutty, Kerala-683576

MAY 2023

DEPARTMENT OF ELECTRONICS AND
COMMUNICATION ENGINEERING

SCMS SCHOOL OF ENGINEERING AND
TECHNOLOGY, KARUKUTTY



CERTIFICATE

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Project Coordinator

Mr. Vinoj P G

Assistant Professor,

Department of ECE,

SSET

Internal Examiner

Project Supervisor

Dr. Parvathy M

Associate Professor,

Department of ECE,

SSET



Head Of Department

Ms. Anandhi V

Associate Professor,

Department of ECE,

SSET

External Examiner

Vinoj P G
29/5/23

Dr. Parvathy M
29/5/2023

Anandhi V
29/5/2023

Vinoj P G
31/6/23

External Examiner
20/6/23

DEPARTMENT OF ELECTRONICS AND
COMMUNICATIONENGINEERING
SCMS SCHOOL OF ENGINEERING AND TECHNOLOGY,

KARUKUTTY



CERTIFICATE

This is to certify that the report entitled "**SMART SEPARATE BIN**" submitted By **SIDHARTH K S** to APJ Abdul Kalam Technological University in partial fulfilment of the requirements for the award of the Degree of Bachelor of Technology in Electronics and Communication Engineering is a bonafide record of the project carried out by her under our guidance and supervision. This report in any form has not been submitted to any other University or Institute for any purpose.


Project Coordinator

Mr. Vinoj P G

Assistant Professor,

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SSET


Internal Examiner


Project Supervisor

Ms. Vrinda V Gopal

Assistant Professor,

Department of ECE,

SSET


Head Of Department

Mr. Anand V

Associate Professor,

Department of ECE,

SSET


External Examiner

SMART SEPARATE BIN

PROJECT REPORT

Submitted by

SIDHARTH K S (SCM19EC028)

to

the APJ Abdul Kalam Technological University

in partial fulfilment of the requirements for the award of the Degree

OF

Bachelor of Technology

In

Electronics and Communication Engineering



Department of Electronics and Communication Engineering

SCMS School of Engineering and Technology

Vidya Nagar, Karukutty, Kerala-683576

JUNE 2023

DEPARTMENT OF ELECTRONICS AND
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SCMS SCHOOL OF ENGINEERING AND TECHNOLOGY,

KARUKUTTY




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Project Coordinator

Mr. Vinoj P G
Assistant Professor,
Department of ECE,
SSET


Internal Examiner


Project Supervisor

Ms. Vrinda V Gopal
Assistant Professor,
Department of ECE,
SSET




Head of Department

Ms. Anandhi V
Associate Professor,
Department of ECE,
SSET


External Examiner

External Examiner

SMART SEPARATE BIN

PROJECT REPORT

Submitted by

SREELAKSHMI T U (SCM19EC029)

to

the APJ Abdul Kalam Technological University
in partial fulfilment of the requirements for the award of the Degree

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Bachelor of Technology

In

Electronics and Communication Engineering



Department of Electronics and Communication Engineering

SCMS School of Engineering and Technology
Vidya Nagar, Karukutty, Kerala-683576

JUNE 2023

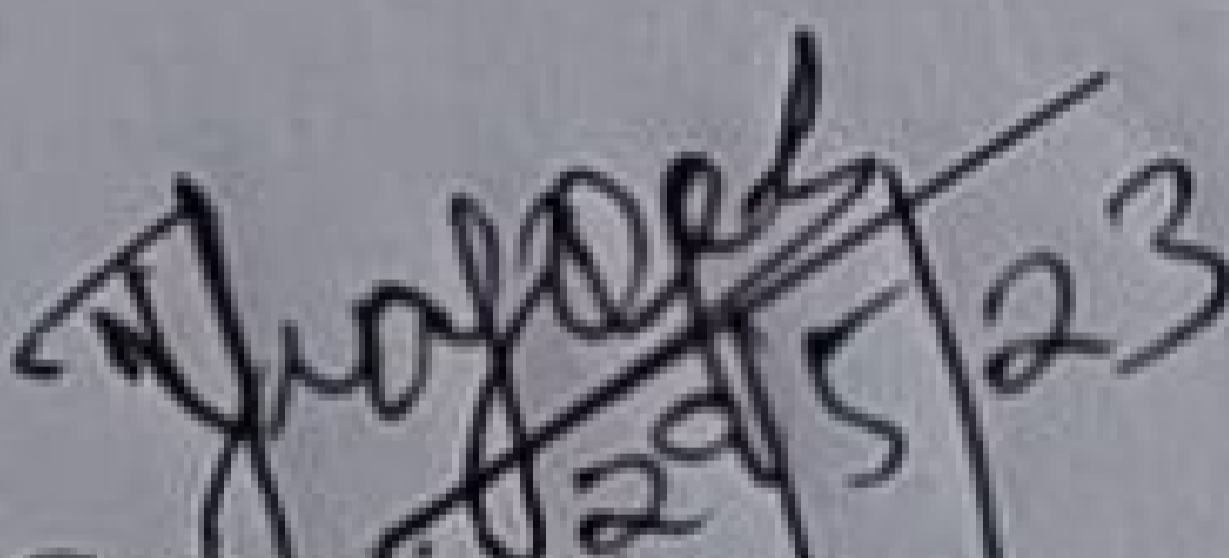
DEPARTMENT OF ELECTRONICS AND
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SCMS SCHOOL OF ENGINEERING AND TECHNOLOGY,

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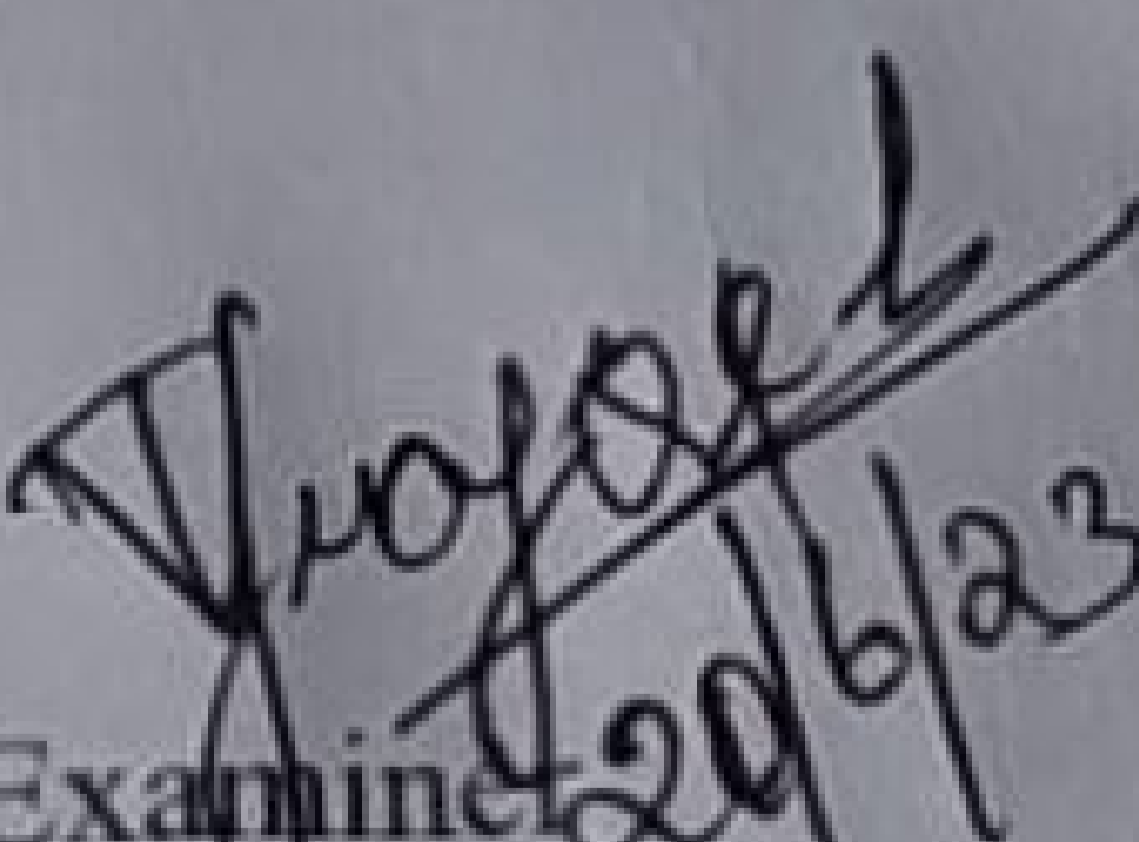



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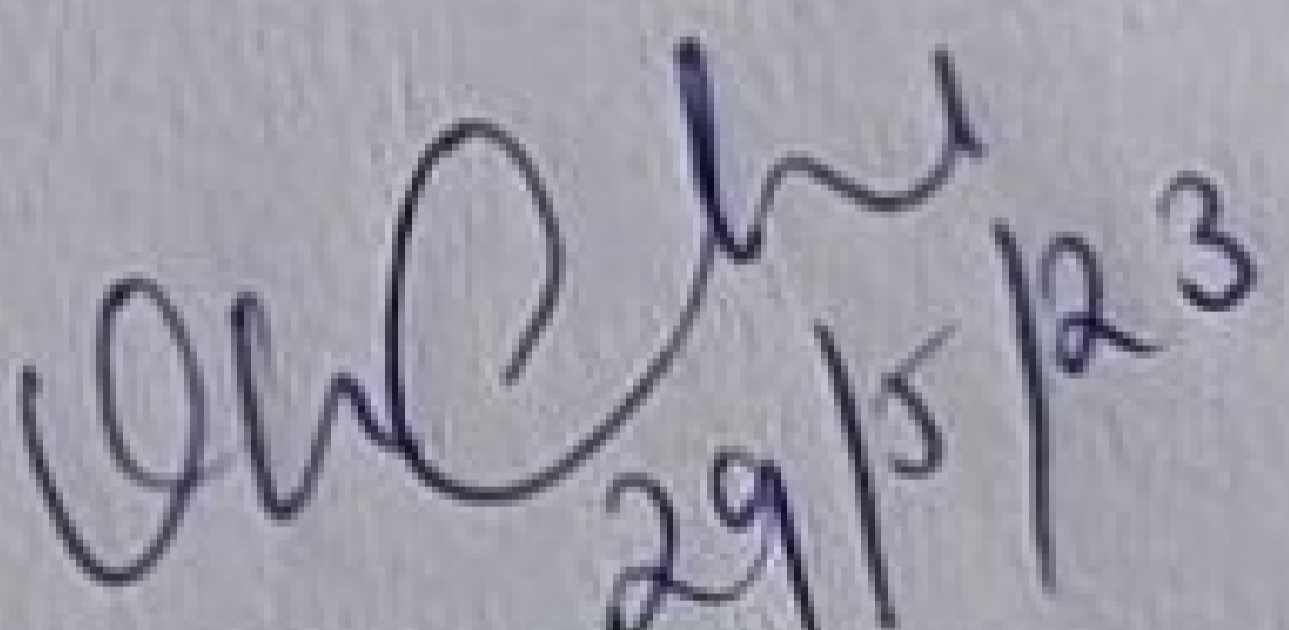
Mr. Vinoj P G
Assistant Professor,
Department of ECE,
SSET


Internal Examiner

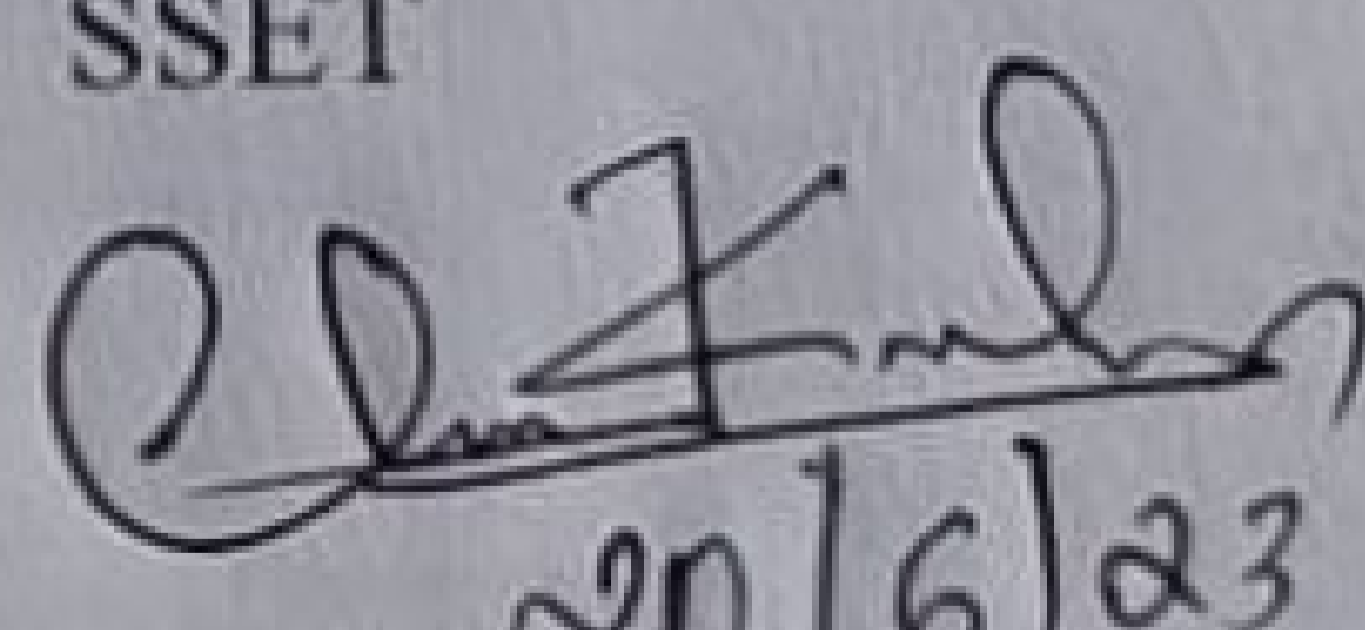

Project Supervisor

Ms. Vrinda V Gopal
Assistant Professor,
Department of ECE,




Head Of Department

Ms. Anandhi V
Associate Professor,
Department of ECE,
SSET


External Examiner

SMART SEPARATE BIN

PROJECT REPORT

Submitted by

HARIPRIYA C H (SCM19EC015)

to

the APJ Abdul Kalam Technological University
in partial fulfilment of the requirements for the award of the Degree

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Bachelor of Technology

In

Electronics and Communication Engineering



Department of Electronics and Communication Engineering

SCMS School of Engineering and Technology
Vidya Nagar, Karukutty, Kerala-683576

JUNE 2023

DEPARTMENT OF ELECTRONICS AND
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SCMS SCHOOL OF ENGINEERING AND TECHNOLOGY,

KARUKUTTY



CERTIFICATE

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Project Coordinator

Mr. Vinoj P G

Assistant Professor,

Department of ECE,

SSET

Internal Examiner

Project Supervisor

Ms. Vrinda V Gopal

Assistant Professor,

Department of ECE,

SSET



Head Of Department

Ms. Anandhi V

Associate Professor,

Department of ECE,

SSET

External Examiner

SMART SEPARATE BIN

PROJECT REPORT

Submitted by

P S ABY ANTONY (SCM19EC021)

to

the APJ Abdul Kalam Technological University
in partial fulfilment of the requirements for the award of the Degree

Of

Bachelor of Technology

In

Electronics and Communication Engineering



Department of Electronics and Communication Engineering

SCMS School of Engineering and Technology
Vidya Nagar, Karukutty, Kerala-683576

JUNE 2023

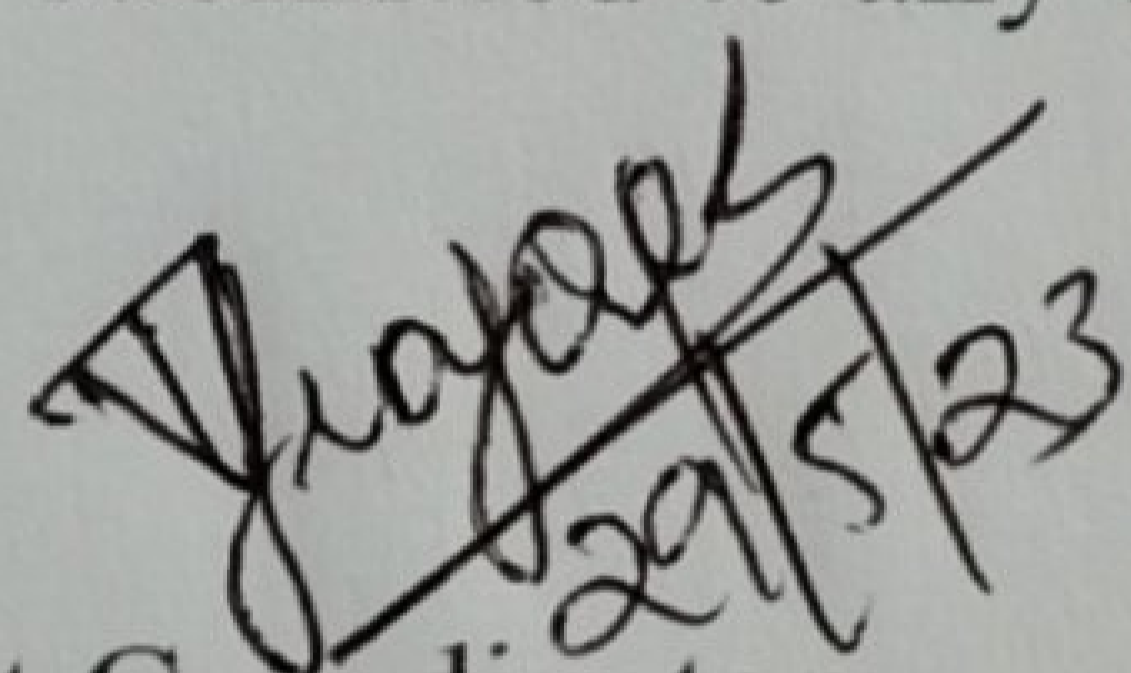
DEPARTMENT OF ELECTRONICS AND
COMMUNICATION ENGINEERING
SCMS SCHOOL OF ENGINEERING AND TECHNOLOGY,

KARUKUTTY



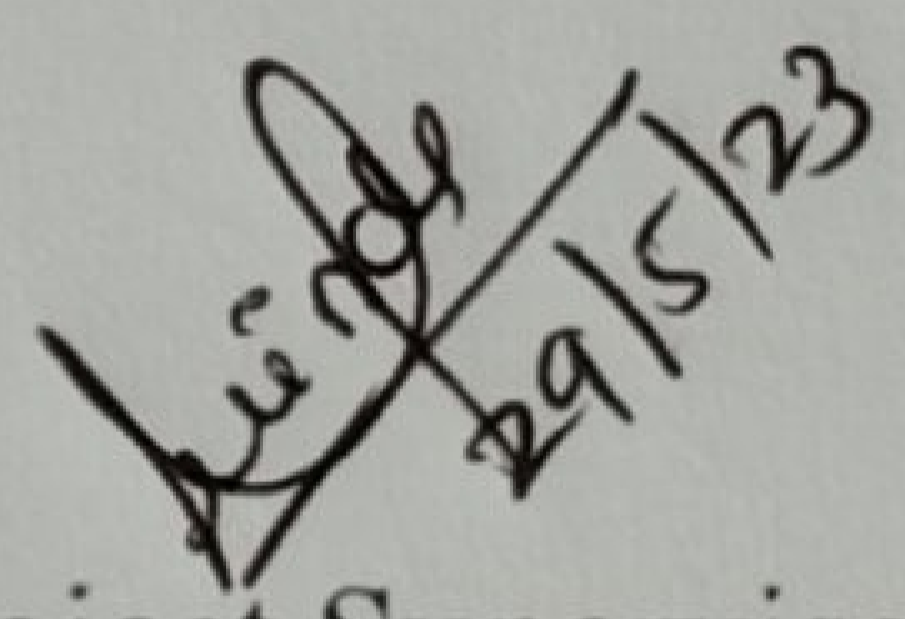
CERTIFICATE

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Project Coordinator

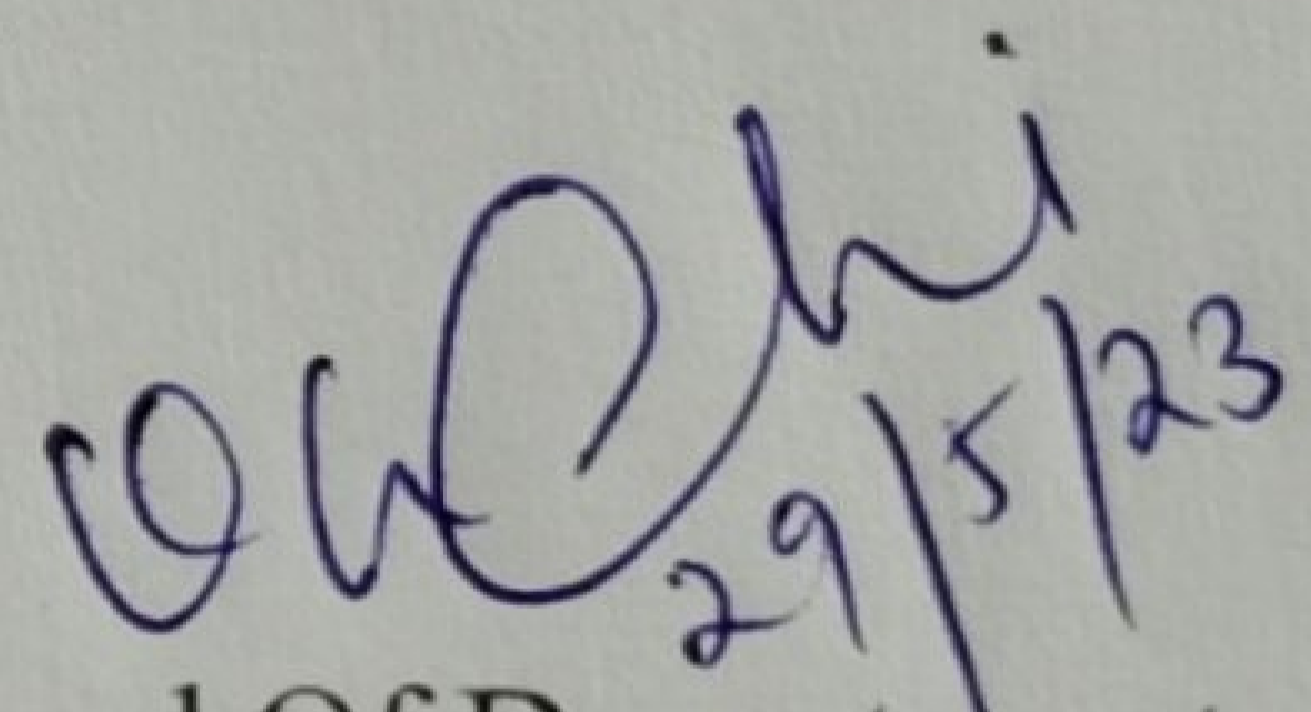
Mr. Vinoj P G
Assistant Professor,
Department of ECE,
SSET

Internal Examiner

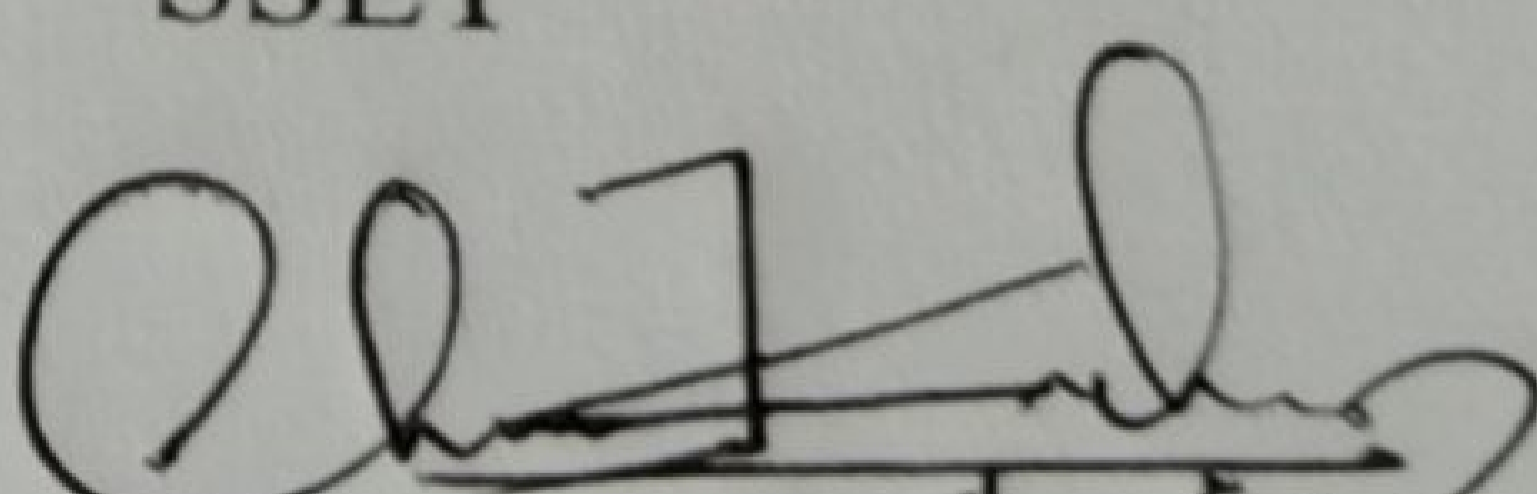

Project Supervisor

Ms. Vrinda V Gopal
Assistant Professor,
Department of ECE,




Head Of Department

Ms. Anandhi V
Associate Professor,
Department of ECE,
SSET


External Examiner 20/6/23

FIRE FIGHTING FPV DRONE

PROJECT REPORT

Submitted by

ANANDU SURESH (SCM19EC005)
SAGAR P GOKUL (SCM19EC024)
SAYOOJ M J (SCM19EC027)
YUNUS A A (SCM19EC030)

to

the APJ Abdul Kalam Technological University

in partial fulfilment of the requirements for the award of the Degree

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Electronics and Communication Engineering



Department of Electronics and Communication Engineering

SCMS School of Engineering and Technology

Vidya Nagar, Karukutty, Kerala-683576

MAY 2023

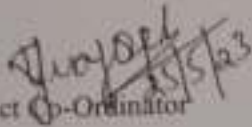
DEPARTMENT OF ELECTRONICS AND COMMUNICATION
ENGINEERING

SCMS SCHOOL OF ENGINEERING AND TECHNOLOGY,
KARUKUTTY



CERTIFICATE

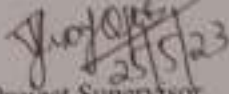
This is to certify that the report entitled '**FIRE FIGHTING FPV DRONE**' submitted by **YUNUS A A** to APJ Abdul Kalam Technological University in partial fulfilment of the requirements for the award of the Degree of Bachelor of Technology in Electronics and Communication Engineering of SCMS School of Engineering and Technology is a bonafide record of the project work carried out by him under our guidance and supervision. This report in any form has not been submitted to any other University or Institute for any purpose.


Project Co-Ordinator

Mr. Vinoj P G

Assistant Professor

SSET Karukutty


Project Supervisor

Mr. Vinoj P G

Assistant Professor

SSET Karukutty


Mrs. Anandhi V


Head of the Department

Department of ECE

SSET Karukutty

Internal Examiner




External Examiner

PROJECT REPORT ON

**APPLICATION OF CRUSHED BRICK AND RICE HUSK ASH
AS SUBBASE MATERIALS IN FLEXIBLE PAVEMENT**

Submitted by

AARON VENUGOPAL Reg. No. SCM19CE001

LAKSHMI CC Reg. No. SCM19CE021

MEENU MURALEEDHARAN Reg. No. SCM19CE022

PU ARCHITHA KRISHNA Reg. No. SCM19CE032

to the APJ Abdul Kalam Technological University
in partial fulfilment of the requirements for the award of the Degree of
Bachelor of Technology
in
Civil Engineering



Department of Civil Engineering
SCMS School of Engineering & Technology
Vidya Nagar, Karukutty, Kerala - 683 576

JUNE 2023

DEPARTMENT OF CIVIL ENGINEERING
SCMS SCHOOL OF ENGINEERING & TECHNOLOGY



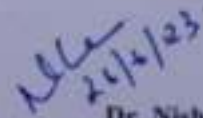
CERTIFICATE

This is to certify that this project report titled "Application of crushed brick and rice husk ash as subbase materials in flexible pavement" is a bonafide record of the project presented by **Aaron Venugopal**, Lakshmi CC, Meenu Muraleedharan and PU Architha Krishna Reg. No. **SCM19CE001**, Reg. No. SCM19CE021, Reg. No. SCM19CE022, Reg. No. SCM19CE032 during DECEMBER 2022 in partial fulfilment of the requirement for the award of the Degree of Bachelor of Technology in Civil Engineering of the APJ Abdul Kalam Technological University.



5/7/23

Dr. Rahul R. Pai,
Project Guide,
Asst. Professor,
Department of Civil Engg.,
SCMS School of Engg.
& Technology, Karukutty.



24/6/23

Dr. Nisha L.,
Associate Professor,
& Head of the Department
Department of Civil Engg.,
SCMS School of Engineering,
& Technology, Karukutty.

PROJECT REPORT ON

**GEOSPATIAL MAPPING OF WATER ASSETS
IN IRINJALAKUDA**

Submitted by

Adarsh Raj (SCM19CE003)

Anamika P (SCM19CE007)

Muthu B Shanavas (SCM19CE027)

Sidharth B Elamana (SCM19CE037)

to the APJ Abdul Kalam Technological University
in partial fulfilment of the requirements for the award of the Degree
of Bachelor of Technology in
Civil Engineering



Department of Civil Engineering
SCMS School of Engineering & Technology
Vidya Nagar, Karukutty, Kerala - 683 576


June 2023

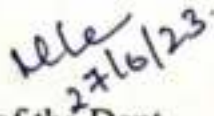
**DEPARTMENT OF CIVIL ENGINEERING
SCMS SCHOOL OF ENGINEERING & TECHNOLOGY**



CERTIFICATE

This is to certify that the report entitled “**GEOSPATIAL MAPPING OF WATER ASSETS IN IRINJALAKUDA**” is a bonafide record of the project presented by **Adarsh Raj**, **Anamika P**, **Muthu B Shanavas**, **Sidharth B Elamana** during June 2023 in partial fulfilment of the requirements for the award of the Degree of Bachelor of Technology in Civil engineering of the APJ Abdul Kalam Technological University . This report in any form has not been submitted to any other University or Institute for any purpose.


Internal Supervisor
Ms. Sruthy S
Asst Professor,
Department of Civil Engineering
SCMS School of Engineering
& Technology, Karukutty


Head of the Dept.
Dr Nisha L
Associate Professor,
Department of Civil Engineering
SCMS School of Engineering
& Technology, Karukutty



**EFFECT OF GEOMETRY OF COMBINED CURVES
ON ROLLOVER STABILITY OF VEHICLES**

A PROJECT REPORT

Submitted by

AMALA SANY(SCM19CE004)

BHAVYA LAKSHMI M (SCM19CE010)

GOPIKA ASOK (SCM19CE014)

HIZANA K M(SCM19CE016)

the APJ Abdul Kalam Technological University
in partial fulfillment of the requirements for the award of the Degree

of
Bachelor of Technology
in

Civil Engineering



Department of Civil Engineering

SCMS SCHOOL OF ENGINEERING AND TECHNOLOGY
Vidya Nagar, Karukutty, Kerala - 683 576

June 2023

DEPARTMENT OF CIVIL ENGINEERING
SCMS SCHOOL OF ENGINEERING & TECHNOLOGY
KARUKUTTY



CERTIFICATE

This is to certify that this project report titled “**Effect of Geometry of Combined Curves on Rollover Stability of Vehicles**” a bonafide record of the project presented by **AMALA SANY**, BHAVYA LAKSHMI M M, GOPIKA ASOK, HIZANA K M during MAY 2023 in the fulfillment of the requirement for the award of the Degree of Bachelor of Technology in Civil Engineering of the APJ Abdul Kalam Technological University.

Ms.Remya YK

Project Guide
Assistant Professor
Department of Civil Engg.,
SCMS School of
Engineering & Technology,
Karukutty

Dr. Nisha L.,

Associate Professor & Head
of the Department
Department of Civil Engg.,
SCMS School of
Engineering & Technology,
Karukutty



PROJECT REPORT ON

**CHARACTERIZATION OF MICROPLASTICS IN STREET
DUST - KOCHI CITY, INDIA.**

Submitted by

AMBILY P R (SCM19CE005)

IRENE ROSE SHYJU (SCM19CE017)

JAIN GEORGE (SCM19CE018)

RIYA FATHIMA HARIS (SCM19CE034)

to the APJ Abdul Kalam Technological University
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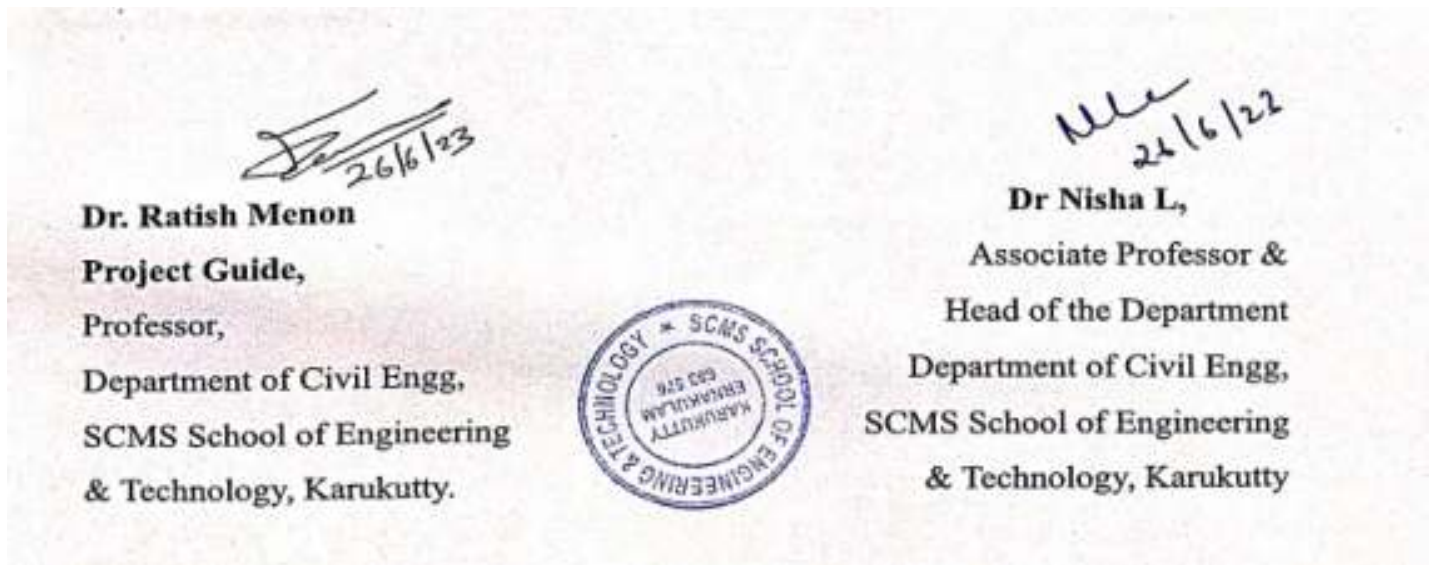
June 2023

**DEPARTMENT OF CIVIL ENGINEERING
SCMS SCHOOL OF ENGINEERING & TECHNOLOGY**



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Dr. Ratish Menon
Project Guide,
Professor,
Department of Civil Engg,
SCMS School of Engineering
& Technology, Karukutty.

Dr Nisha L,
Associate Professor &
Head of the Department
Department of Civil Engg,
SCMS School of Engineering
& Technology, Karukutty

PROJECT REPORT ON
PHYTOREMEDIATION OF HEAVY METALS USING WATER HYACINTH

Submitted by

AMEY (SCM19CE006)

DEVI CHANDANA AP (SCM19CE011)

GAYATHRI K (SCM19CE013)

MUHAMMED FARZEEN KOLETH (SCM19CE025)

NASEEH AHAMED (SCM19CE028)

to the APJ Abdul Kalam Technological University

in partial fulfilment of the requirements for the award of the Degree of

Bachelor of Technology

in

Civil Engineering



Department of Civil Engineering

SCMS School of Engineering & Technology

Vidya Nagar, Karukutty, Kerala - 683 576

JUNE 2023

DEPARTMENT OF CIVIL ENGINEERING
SCMS SCHOOL OF ENGINEERING & TECHNOLOGY



CERTIFICATE

This is to certify that this project report titled "PHYTOREMEDIATION OF HEAVY METALS USING WATER HYACINTH" is a bonafide record of the project presented by **AMEY (SCM19CE006)**, **DEVI CHANDANA AP (SCM19CE011)**, **GAYATHRI K (SCM19CE013)**, **MUHAMMED FARZEEN KOLETH (SCM19CE025)**, **NASEEH AHAMED (SCM19CE028)** during JUNE 2023 in partial fulfilment of the requirement for the award of the Degree of Bachelor of Technology in Civil Engineering of the APJ Abdul Kalam Technological University.

Dr. Nisha L,

Project Guide,

Associate Professor &

Head of the Department,

Department of Civil Engg,

SCMS School of Engineering.

& Technology, Karukutty



Dr. Nisha L,

Associate Professor &

Head of the Department

Department of Civil Engg,

SCMS School of Engineering

& Technology, Karukutty

PROJECT REPORT ON

**GEOSPATIAL MAPPING OF WATER ASSETS
IN IRINJALAKUDA**

Submitted by

Anamika P (SCM19CE007)

Adarsh Raj (SCM19CE003)

Muthu B Shanavas (SCM19CE027)

Sidharth B Elamana (SCM19CE037)

to the APJ Abdul Kalam Technological University
in partial fulfilment of the requirements for the award of the Degree
of Bachelor of Technology in
Civil Engineering



Department of Civil Engineering
SCMS School of Engineering & Technology
Vidya Nagar, Karukutty, Kerala - 683 576


June 2023

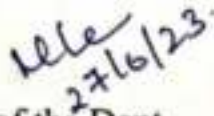
**DEPARTMENT OF CIVIL ENGINEERING
SCMS SCHOOL OF ENGINEERING & TECHNOLOGY**



CERTIFICATE

This is to certify that the report entitled “**GEOSPATIAL MAPPING OF WATER ASSETS IN IRINJALAKUDA**” is a bonafide record of the project presented by **Adarsh Raj, Anamika P, Muthu B Shanavas, Sidharth B Elamana** during June 2023 in partial fulfilment of the requirements for the award of the Degree of Bachelor of Technology in Civil engineering of the APJ Abdul Kalam Technological University . This report in any form has not been submitted to any other University or Institute for any purpose.


Internal Supervisor
Ms. Sruthy S
Asst Professor,
Department of Civil Engineering
SCMS School of Engineering
& Technology, Karukutty


Head of the Dept.
Dr Nisha L
Associate Professor,
Department of Civil Engineering
SCMS School of Engineering
& Technology, Karukutty



PROJECT REPORT ON

APPLICATION OF CRUSHED BRICK AND RICE HUSK ASH AS SUBBASE MATERIALS IN FLEXIBLE PAVEMENT

Submitted by

PU ARCHITHA KRISHNA Reg. No. SCM19CE032

AARON VENUGOPAL Reg. No. SCM19CE001

LAKSHMI CC Reg. No. SCM19CE021

MEENU MURALEEDHARAN Reg. No. SCM19CE022

to the APJ Abdul Kalam Technological University
in partial fulfilment of the requirements for the award of the Degree of
Bachelor of Technology
in
Civil Engineering



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JUNE 2023

DEPARTMENT OF CIVIL ENGINEERING
SCMS SCHOOL OF ENGINEERING & TECHNOLOGY

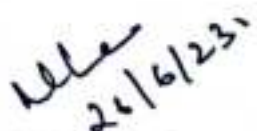


CERTIFICATE

This is to certify that this project report titled "Application of crushed brick and rice husk ash as subbase materials in flexible pavement" is a bonafide record of the project presented by Aaron Venugopal, Lakshmi CC, Meenu Muraleedharan and **PU Architha Krishna** Reg. No. SCM19CE001, Reg. No. SCM19CE021, Reg. No. SCM19CE022, Reg. No. **SCM19CE032** during DECEMBER 2022 in partial fulfilment of the requirement for the award of the Degree of Bachelor of Technology in Civil Engineering of the APJ Abdul Kalam Technological University.


3/7/23
Dr. Rahul R Pai,
Project Guide,
Asst. Professor,
Department of Civil Engg,
SCMS School of Engg,
& Technology, Karukutty.




26/6/23
Dr. Nisha L,
Associate Professor,
& Head of the Department
Department of Civil Engg,
SCMS School of Engineering,
& Technology, Karukutty.

DEPARTMENT OF CIVIL ENGINEERING
SCMS SCHOOL OF ENGINEERING & TECHNOLOGY



CERTIFICATE

This is to certify that this project report titled “Pedestrian level of service analysis at unsignalized intersections” is a bonafide record of the project presented by Sreebhadra P S, Krishnapriya K, **Aswathymol K V**, Dhriya O H, Reg. No. SCM19CE038, LSCM19CE040, SCM19CE008, SCM19CE012 during JUNE 2023 in complete fulfilment of the requirement for the award of the Degree of Bachelor of Technology in Civil Engineering of the APJ Abdul Kalam Technological University.

Mr. Deeraj A D
Project Guide,
Assistant Professor,
Department of Civil Engg,
SCMS School of Engineering
& Technology, Karukutty



Dr. Nisha L,
Associate Professor & Head of the Department
Department of Civil Engg,
SCMS School of Engineering
& Technology, Karukutty

PROJECT REPORT ON
**PEDESTRIAN LEVEL OF SERVICE ANALYSIS AT
UNSIGNALISED INTERSECTIONS**

Submitted by

ASWATHYMOL K V

SCM19CE008

DHRISYA O H

SCM19CE012

SREEBHADRA P S

SCM19CE038

KRISHNAPRIYA K

LSCM19CE040

to the APJ Abdul Kalam Technological University
in partial fulfilment of the requirements for the award of the Degree of
Bachelor of Technology
in
Civil Engineering



Department of Civil Engineering
SCMS School of Engineering & Technology
Vidya Nagar, Karukutty, Kerala - 683 576

JUNE 2023

PROJECT REPORT ON
PHYTOREMEDIATION OF HEAVY METALS USING WATER HYACINTH

Submitted by

DEVI CHANDANA AP (SCM19CE011)

AMEY (SCM19CE006)

GAYATHRI K (SCM19CE013)

MUHAMMED FARZEEN KOLETH (SCM19CE025)

NASEEH AHAMED (SCM19CE028)

to the APJ Abdul Kalam Technological University

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Department of Civil Engineering

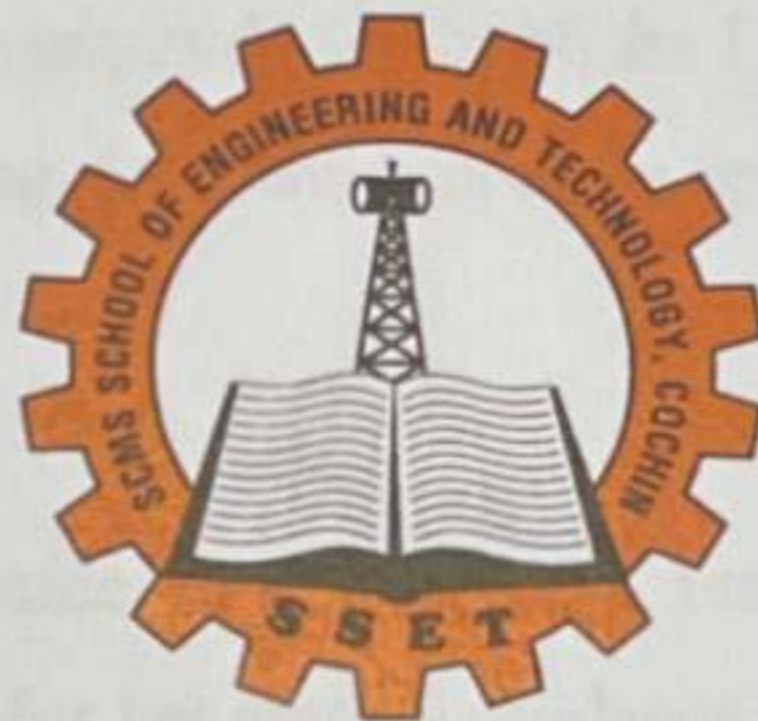
SCMS School of Engineering & Technology

Vidya Nagar, Karukutty, Kerala - 683 576

JUNE 2023

DEPARTMENT OF CIVIL ENGINEERING

SCMS SCHOOL OF ENGINEERING & TECHNOLOGY



CERTIFICATE

This is to certify that this project report titled "PHYTOREMEDIATION OF HEAVY METALS USING WATER HYACINTH" is a bonafide record of the project presented by **DEVI CHANDANA AP (SCM19CE011), AMEY (SCM19CE006), GAYATHRI K (SCM19CE013), MUHAMMED FARZEEN KOLETH (SCM19CE025), NASEEH AHAMED (SCM19CE028)** during JUNE 2023 in partial fulfilment of the requirement for the award of the Degree of Bachelor of Technology in Civil Engineering of the APJ Abdul Kalam Technological University.

Dr. Nisha L,

Project Guide,

Associate Professor &

Head of the Department,

Department of Civil Engg,

SCMS School of Engineering.

& Technology, Karukutty

Nisha
26/6/23

Dr. Nisha L,

Associate Professor &

Head of the Department

Department of Civil Engg,

SCMS School of Engineering

& Technology, Karukutty



DEPARTMENT OF CIVIL ENGINEERING
SCMS SCHOOL OF ENGINEERING & TECHNOLOGY



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Mr. Deeraj A D
Project Guide,
Assistant Professor,
Department of Civil Engg,
SCMS School of Engineering
& Technology, Karukutty.

Dr. Nisha L,
Associate Professor & Head of the Department
Department of Civil Engg,
SCMS School of Engineering
& Technology, Karukutty



PROJECT REPORT ON
**PEDESTRIAN LEVEL OF SERVICE ANALYSIS AT
UNSIGNALISED INTERSECTIONS**

Submitted by

DHRISYA O H

SCM19CE012

SREEBHADRA P S

SCM19CE038

KRISHNAPRIYA K

LSCM19CE040

ASWATHYMOL K V

SCM19CE008

to the APJ Abdul Kalam Technological University
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Department of Civil Engineering
SCMS School of Engineering & Technology
Vidya Nagar, Karukutty, Kerala - 683 576

JUNE 2023

PROJECT REPORT ON
PHYTOREMEDIATION OF HEAVY METALS USING WATER HYACINTH

Submitted by

MUHAMMED FARZEEN KOLETH (SCM19CE025)

AMEY (SCM19CE006)

DEVI CHANDANA AP (SCM19CE011)

GAYATHRI K (SCM19CE013)

NASEEH AHAMED (SCM19CE028)

to the APJ Abdul Kalam Technological University

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Vidya Nagar, Karukutty, Kerala - 683 576

JUNE 2023

DEPARTMENT OF CIVIL ENGINEERING
SCMS SCHOOL OF ENGINEERING & TECHNOLOGY



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This is to certify that this project report titled "PHYTOREMEDIATION OF HEAVY METALS USING WATER HYACINTH" is a bonafide record of the project presented by **MUHAMMED FARZEEN KOLETH (SCM19CE025), AMEY (SCM19CE006), DEVI CHANDANA AP (SCM19CE011), GAYATHRI K (SCM19CE013), NASEEH AHAMED (SCM19CE028)** during JUNE 2023 in partial fulfilment of the requirement for the award of the Degree of Bachelor of Technology in Civil Engineering of the APJ Abdul Kalam Technological University.

Dr. Nisha L.,
Nisha
26/6/23
Project Guide,
Associate Professor &
Head of the Department,
Department of Civil Engg.,
SCMS School of Engineering,
& Technology, Karukutty



Nisha
26/6/23
Dr. Nisha L.,
Associate Professor &
Head of the Department
Department of Civil Engg.,
SCMS School of Engineering
& Technology, Karukutty

PROJECT REPORT ON

PHYTOREMEDIATION OF HEAVY METALS USING WATER HYACINTH

Submitted by

GAYATHRI K (SCM19CE013)

AMEY (SCM19CE006)

DEVI CHANDANA AP (SCM19CE011)

MUHAMMED FARZEEN KOLETH (SCM19CE025)

NASEEH AHAMED (SCM19CE028)

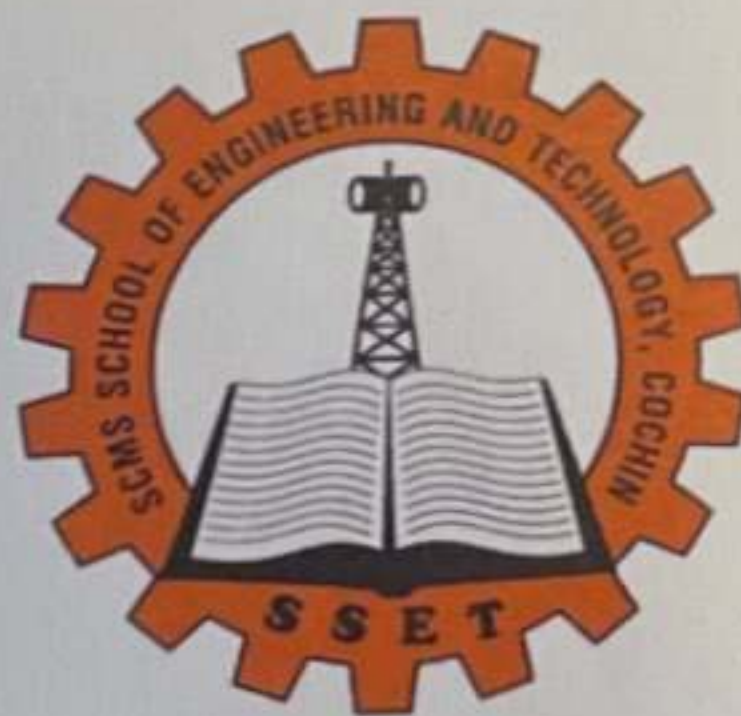
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JUNE 2023

DEPARTMENT OF CIVIL ENGINEERING

SCMS SCHOOL OF ENGINEERING & TECHNOLOGY



CERTIFICATE

This is to certify that this project report titled "PHYTOREMEDIATION OF HEAVY METALS USING WATER HYACINTH" is a bonafide record of the project presented by **GAYATHRI K (SCM19CE013)**, **AMEY (SCM19CE006)**, **DEVI CHANDANA AP (SCM19CE011)**, **MUHAMMED FARZEEN KOLETH (SCM19CE025)**, **NASEEH AHAMED (SCM19CE028)** during JUNE 2023 in partial fulfilment of the requirement for the award of the Degree of Bachelor of Technology in Civil Engineering of the APJ Abdul Kalam Technological University.

Dr. Nisha L,

Project Guide,

Associate Professor &

Head of the Department,

Department of Civil Engg,

SCMS School of Engineering.

& Technology, Karukutty

Nisha L
26/6/23

Dr. Nisha L,

Associate Professor &

Head of the Department

Department of Civil Engg,

SCMS School of Engineering

& Technology, Karukutty



PROJECT REPORT ON
**DEFLUORIDATION OF WATER USING
ACTIVATED CARBON
DERIVED FROM SUGARCANE BAGASSE**

Submitted by
HARIKRISHNAN I.S
Reg. No. SCM19CE015

to the APJ Abdul Kalam Technological University
in partial fulfilment of the requirements for the award of the Degree of
Bachelor of Technology in
Civil Engineering



Department of Civil Engineering
SCMS School of Engineering & Technology
Vidya Nagar, Karukutty, Kerala - 683 576

January 2023

DECLARATION

We undersigned hereby declare that the project report "DEFLUORIDATION OF WATER USING ACTIVATED CARBON DERIVED FROM SUGARCANE BAGASSE", submitted for partial fulfilment of the requirements for the award of the degree of Bachelor of Technology of the APJ Abdul Kalam Technological University, Kerala is a bonafide work done by us under supervision of Dr. Sanju Sreedharan. This submission represents our ideas in our own words and where ideas or words of others have been included, we have adequately and accurately cited and referenced the sources. We also declare that we have adhered to ethics of academic honesty and integrity and have not misrepresented or fabricated any data or idea or fact or source in our submission. We understand that any violation of the above will be a cause for disciplinary action by the institute and/or the University and can also evoke penal action from the sources which have thus not been properly cited or from whom proper permission has not been obtained. This report has not been previously formed as the basis for the award of any degree, diploma or similar title of any other University.

Place: Ernakulam

Date: 19/06/2023

Name: Harikrishnan LS


**DEPARTMENT OF CIVIL ENGINEERING
SCMS SCHOOL OF ENGINEERING & TECHNOLOGY**



CERTIFICATE

This is to certify that this project report titled “**DEFLOURIDATION OF WATER USING ACTIVATED CARBON DERIVED FROM SUGARCANE BAGASSE**” is a bonafide record of the project work presented by **HARIKRISHNAN I.S**, Reg. No. **SCM19CE015** during June 2023 in partial fulfilment of the requirement for the award of the Degree of Bachelor of Technology in Civil Engineering of the APJ Abdul Kalam Technological University.

Dr. Sanju Sreedharan,
Project Guide,
Associate Professor,
Department of Civil Engg.,
SCMS School of Engineering
& Technolgy,Karukutty


Dr. Nisha L,
Associate Professor & Head of Department,
Department of Civil Engg.,
SCMS School of Engineering
& Technolgy,Karukutty

EFFECT OF GEOMETRY OF COMBINED CURVES ON ROLLOVER STABILITY OF VEHICLES

A PROJECT REPORT

Submitted by

AMALA SANY(SCE/8538/19)

BHAVYA LAKSHMI M M(SCE/8452/19)

GOPIKA ASOK (SCE/8545/19)

HIZANA K M(SCE/8595/19)

the APJ Abdul Kalam Technological University
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Department of Civil Engineering

SCMS SCHOOL OF ENGINEERING AND TECHNOLOGY
Vidya Nagar, Karukutty, Kerala - 683 576

June 2023

DEPARTMENT OF CIVIL ENGINEERING
SCMS SCHOOL OF ENGINEERING & TECHNOLOGY
KARUKUTTY



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Ms. Remya YK

Project Guide
Assistant Professor
Department of Civil Engg,
SCMS School of
Engineering & Technology,
Karukutty

Dr. Nisha L,

Associate Professor & Head
of the Department
Department of Civil Engg,
SCMS School of
Engineering & Technology,
Karukutty

PROJECT REPORT ON

**CHARACTERIZATION OF MICROPLASTICS IN STREET
DUST - KOCHI CITY, INDIA.**

Submitted by

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to the APJ Abdul Kalam Technological University
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Department of Civil Engineering
SCMS School of Engineering and Technology
Vidya Nagar, Karukutty, Kerala - 683 576

June 2023

**DEPARTMENT OF CIVIL ENGINEERING
SCMS SCHOOL OF ENGINEERING & TECHNOLOGY**



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A handwritten signature in black ink, appearing to be "Ratish Menon", with the date "26/6/23" written below it.

Dr. Ratish Menon
Project Guide,
Professor,
Department of Civil Engg,
SCMS School of Engineering
& Technology, Karukutty.

A handwritten signature in black ink, appearing to be "Nisha L", with the date "24/6/22" written below it.

Dr. Nisha L,
Associate Professor & Head
of the Department
Department of Civil Engg,
SCMS School of
Engineering & Technology,
Karukutty

PROJECT REPORT ON

**CHARACTERIZATION OF MICROPLASTICS IN STREET
DUST - KOCHI CITY, INDIA.**

Submitted by

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June 2023

**DEPARTMENT OF CIVIL ENGINEERING
SCMS SCHOOL OF ENGINEERING & TECHNOLOGY**



CERTIFICATE

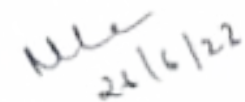
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26/6/23

Dr. Ratish Menon
Project Guide,

Professor,
Department of Civil Engg,
SCMS School of Engineering
& Technology, Karukutty.




22/6/22

Dr. Nisha L,

Associate Professor & Head
of the Department
Department of Civil Engg,
SCMS School of
Engineering & Technology,
Karukutty

PROJECT REPORT ON

**WATER QUALITY ANALYSIS ALONG SELECTED COASTAL AQUIFERS OF
ALAPPUZHA-CHERTHALA REGION**

Submitted by

JESLIN MARIA JACOB(SCM19CE019)

JISHNU P J(SCM19CE020)

MERLIN JOSEPH(SCM19CE023)

MUHAMMED FARHAN K S(SCM19CE024)

to the APJ Abdul Kalam Technological University
in partial fulfillment of the requirements for the award of the Degree of
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Department of Civil Engineering
SCMS School of Engineering and Technology
Vidya Nagar, Karukutty, Kerala - 683 576

June 2023

DEPARTMENT OF CIVIL ENGINEERING
SCMS SCHOOL OF ENGINEERING & TECHNOLOGY



CERTIFICATE

This is to certify that this project report titled "Water quality analysis along selected coastal aquifers of Alappuzha-Cherthala region" is a bonafide record of the project presented by **Jeslin Maria Jacob(SCM19CE019)**, **Jishnu P J(SCM19CE020)**, **Merlin Joseph (SCM19CE023)**, **Muhammed Farhan K S(SCM19CE024)** during JUNE 2023 in partial fulfillment of the requirement for the award of the Degree of Bachelor of Technology in Civil Engineering of the APJ Abdul Kalam Technological University.

Mrs. Meera Varghese
Project Guide,
Assistant Professor,
Department of Civil Engg.
SCMS School of Engineering &
Technology, Karukutty.



UCC
26/6/23

Dr Nisha L,
Associate Professor &
Head of the Department
Department of Civil Engg.
SCMS School of Engineering
& Technology, Karukutty.

PROJECT REPORT ON

**WATER QUALITY ANALYSIS ALONG SELECTED COASTAL AQUIFERS OF
ALAPPUZHA-CHERTHALA REGION**

Submitted by

JISHNU P J(SCM19CE020)

JESLIN MARIA JACOB(SCM19CE019)

MERLIN JOSEPH(SCM19CE023)

MUHAMMED FARHAN K S(SCM19CE024)

to the APJ Abdul Kalam Technological University
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Department of Civil Engineering
SCMS School of Engineering and Technology
Vidya Nagar, Karukutty, Kerala - 683 576

June 2023

**DEPARTMENT OF CIVIL ENGINEERING
SCMS SCHOOL OF ENGINEERING & TECHNOLOGY**



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Mrs. Meera Varghese
Project Guide,
Assistant Professor,
Department of Civil Engg,
SCMS School of Engineering &
Technology, Karukutty.



Dr Nisha L,
Associate Professor &
Head of the Department
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DEPARTMENT OF CIVIL ENGINEERING
SCMS SCHOOL OF ENGINEERING & TECHNOLOGY



CERTIFICATE

This is to certify that this project report titled "**Pedestrian level of service analysis at unsignalized intersections**" is a bonafide record of the project presented by Sreebhadra P S, **Krishnapriya K**, Aswathymol K V, Dhrisya O H, Reg. No SCM19CE038, **LSCM19CE040**, SCM19CE008, SCM19CE012 during JUNE 2023 in complete fulfilment of the requirement for the award of the Degree of Bachelor of Technology in Civil Engineering of the APJ Abdul Kalam Technological University.

Mr. Deeraj A D
Project Guide,
Assistant Professor,
Department of Civil Engg.,
SCMS School of Engineering
& Technology, Karukutty.

Dr. Nisha L,
Associate Professor & Head of the Department
Department of Civil Engg.,
SCMS School of Engineering
& Technology, Karukutty



PROJECT REPORT ON

APPLICATION OF CRUSHED BRICK AND RICE HUSK ASH AS SUBBASE MATERIALS IN FLEXIBLE PAVEMENT

Submitted by

LAKSHMI CC	Reg. No. SCM19CE021
AARON VENUGOPAL	Reg. No. SCM19CE001
MEENU MURALEEDHARAN	Reg. No. SCM19CE022
PU ARCHITHA KRISHNA	Reg. No. SCM19CE032

to the APJ Abdul Kalam Technological University
in partial fulfilment of the requirements for the award of the Degree of
Bachelor of Technology
in
Civil Engineering



Department of Civil Engineering
SCMS School of Engineering & Technology
Vidya Nagar, Karukutty, Kerala - 683 576

JUNE 2023

DEPARTMENT OF CIVIL ENGINEERING
SCMS SCHOOL OF ENGINEERING & TECHNOLOGY



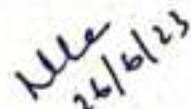
CERTIFICATE

This is to certify that this project report titled "Application of crushed brick and rice husk ash as subbase materials in flexible pavement" is a bonafide record of the project presented by Aaron Venugopal, Lakshmi CC, Meenu Muraleedharan and PU Architha Krishna Reg. No. SCM19CE001, Reg. No. SCM19CE021, Reg. No. SCM19CE022, Reg. No. SCM19CE032 during DECEMBER 2022 in partial fulfilment of the requirement for the award of the Degree of Bachelor of Technology in Civil Engineering of the APJ Abdul Kalam Technological University.


3/7/23

Dr. Rahul R Pai ,
Project Guide,
Asst. Professor,
Department of Civil Engg.,
SCMS School of Engg.
& Technology, Karukutty.




26/6/23.

Dr. Nisha L,
Associate Professor,
& Head of the Department
Department of Civil Engg.,
SCMS School of Engineering,
& Technology, Karukutty.

PROJECT REPORT ON

**WATER QUALITY ANALYSIS ALONG SELECTED COASTAL AQUIFERS OF
ALAPPUZHA-CHERTHALA REGION**

Submitted by

MERLIN JOSEPH(SCM19CE023)

JESLIN MARIA JACOB(SCM19CE019)

JISHNU P J(SCM19CE020)

MUHAMMED FARHAN K S(SCM19CE024)

to the APJ Abdul Kalam Technological University
in partial fulfillment of the requirements for the award of the Degree of
Bachelor of Technology
in
Civil Engineering



Department of Civil Engineering
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Vidya Nagar, Karukutty, Kerala - 683 576


June 2023

DEPARTMENT OF CIVIL ENGINEERING
SCMS SCHOOL OF ENGINEERING & TECHNOLOGY

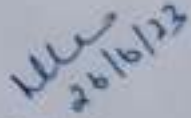


CERTIFICATE

This is to certify that this project report titled "Water quality analysis along selected coastal aquifers of Alappuzha-Cherthala region" is a bonafide record of the project presented by Jeslin Maria Jacob(SCM19CE019), Jishnu P J(SCM19CE020), **Merlin Joseph (SCM19CE023)**, Muhammed Farhan K S(SCM19CE024) during JUNE 2023 in partial fulfillment of the requirement for the award of the Degree of Bachelor of Technology in Civil Engineering of the APJ Abdul Kalam Technological University.


Mrs. Meera Varghese
Project Guide,
Assistant Professor,
Department of Civil Engg,
SCMS School of Engineering &
Technology, Karukutty.




Dr Nisha L.
Associate Professor &
Head of the Department
Department of Civil Engg,
SCMS School of Engineering
& Technology, Karukutty.

PROJECT REPORT ON
**WATER QUALITY ANALYSIS ALONG SELECTED COASTAL AQUIFERS OF
ALAPPUZHA-CHERTHALA REGION**

Submitted by

MUHAMMED FARHAN K S(SCM19CE024)

MERLIN JOSEPH(SCM19CE023)

JESLIN MARIA JACOB(SCM19CE019)

JISHNU P J(SCM19CE020)

to the APJ Abdul Kalam Technological University
in partial fulfillment of the requirements for the award of the Degree of
Bachelor of Technology
in
Civil Engineering



Department of Civil Engineering
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June 2023

DEPARTMENT OF CIVIL ENGINEERING
SCMS SCHOOL OF ENGINEERING & TECHNOLOGY



CERTIFICATE

This is to certify that this project report titled "Water quality analysis along selected coastal aquifers of Alappuzha-Cherthala region" is a bonafide record of the project presented by Jeslin Maria Jacob(SCM19CE019), Jishnu P J(SCM19CE020), Merlin Joseph (SCM19CE023), **Muhammed Farhan K S(SCM19CE024)** during JUNE 2023 in partial fulfillment of the requirement for the award of the Degree of Bachelor of Technology in Civil Engineering of the APJ Abdul Kalam Technological University.

Mrs. Meera Varghese
Project Guide,
Assistant Professor,
Department of Civil Engg,
SCMS School of Engineering &
Technology, Karukutty.



26/6/23

Dr Nisha L.,
Associate Professor &
Head of the Department
Department of Civil Engg,
SCMS School of Engineering
& Technology, Karukutty.

PROJECT REPORT ON
PHYTOREMEDIATION OF HEAVY METALS USING WATER HYACINTH

Submitted by

NASEEH AHAMED (SCM19CE028)

AMEY (SCM19CE006)

DEVI CHANDANA AP (SCM19CE011)

GAYATHRI K (SCM19CE013)

MUHAMMED FARZEEN KOLETH (SCM19CE025)

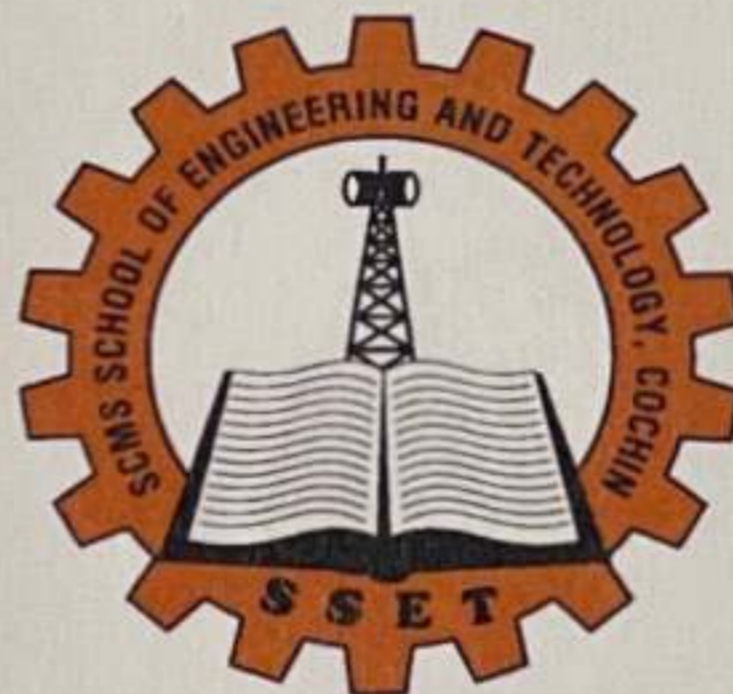
to the APJ Abdul Kalam Technological University

in partial fulfilment of the requirements for the award of the Degree of

Bachelor of Technology

in

Civil Engineering



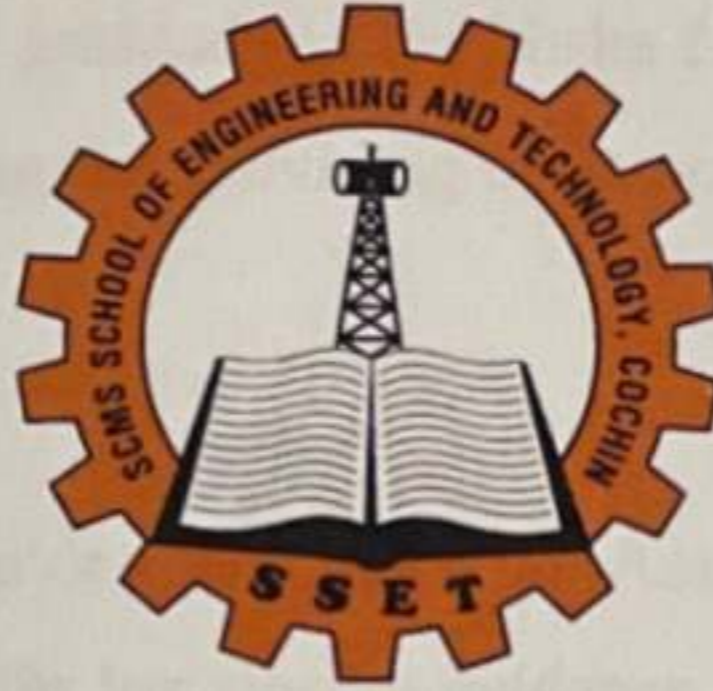
Department of Civil Engineering

SCMS School of Engineering & Technology

Vidya Nagar, Karukutty, Kerala - 683 576

JUNE 2023

DEPARTMENT OF CIVIL ENGINEERING
SCMS SCHOOL OF ENGINEERING & TECHNOLOGY



CERTIFICATE

This is to certify that this project report titled "PHYTOREMEDIATION OF HEAVY METALS USING WATER HYACINTH" is a bonafide record of the project presented by **NASEEH AHAMED (SCM19CE028)**, AMEY (SCM19CE006), DEVI CHANDANA AP (SCM19CE011), GAYATHRI K (SCM19CE013), MUHAMMED FARZEEN KOLETH (SCM19CE025) during JUNE 2023 in partial fulfilment of the requirement for the award of the Degree of Bachelor of Technology in Civil Engineering of the APJ Abdul Kalam Technological University.

Dr. Nisha L,

Project Guide,

Associate Professor &

Head of the Department,

Department of Civil Engg,

SCMS School of Engineering.

& Technology, Karukutty

Nisha L
26/6/23
Dr. Nisha L,

Associate Professor &

Head of the Department

Department of Civil Engg,

SCMS School of Engineering

& Technology, Karukutty



COMPARATIVE STUDY OF STEEL STRUCTURES TO CONVENTIONAL CONCRETE STRUCTURES

PROJECT REPORT

submitted by

Navaneeth Pankaj P R (SCM19CE029)

to

The APJ Abdul Kalam Technological University
in partial fulfilment of the requirements for the award of the Degree
of

Bachelor of Technology
in
Civil Engineering



Department of Civil Engineering
SCMS School of Engineering & Technology
Vidya Nagar, Karukutty, Kerala - 683 576


JUNE 2023

**DEPARTMENT OF CIVIL ENGINEERING
SCMS SCHOOL OF ENGINEERING & TECHNOLOGY**

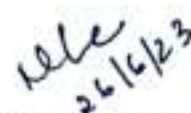


CERTIFICATE

This is to certify that the report entitled **“COMPARATIVE STUDY OF STEEL STRUCTURES TO CONVENTIONAL CONCRETE STRUCTURES”** submitted by **NAVANEETH PANKAJ PR (SCM19CE029)** to the APJ Abdul Kalam Technological University in partial fulfilment of the requirements for the award of the Degree of Bachelor of Technology in Civil engineering is a bonafide record of the project work carried out by him under my guidance and supervision. This report in any form has not been submitted to any other University or Institute for any purpose.


Internal Supervisor
DEEPU R
Assistant Professor,
Department of Civil Engineering
SCMS School of Engineering
& Technology, Karukutty




26/6/23
Head of Civil Department
Dr. Nisha L
Associate Professor,
Department of Civil Engineering
SCMS School of Engineering
& Technology, Karukutty

COMPARATIVE STUDY OF STEEL STRUCTURES TO CONVENTIONAL CONCRETE STRUCTURES

PROJECT REPORT

submitted by

Muhammed Noufal C N (SCM19CE026)

Navaneeth Pankaj P R (SCM19CE029)

Novaneeth S S (SCM19CE030)

Vivitha V N (SCM19CE039)

to

The APJ Abdul Kalam Technological University
in partial fulfilment of the requirements for the award of the Degree
of

Bachelor of Technology
in
Civil Engineering



Department of Civil Engineering
SCMS School of Engineering & Technology
Vidya Nagar, Karukutty, Kerala - 683 576

JUNE 2023

DEPARTMENT OF CIVIL ENGINEERING
SCMS SCHOOL OF ENGINEERING & TECHNOLOGY



CERTIFICATE

This is to certify that the report entitled “**COMPARATIVE STUDY OF STEEL STRUCTURES TO CONVENTIONAL CONCRETE STRUCTURES**” submitted by **MUHAMMED NOUFAL CN**, **NAVANEETH PANKAJ PR**, **NOVANEETH SS** and **VIVITHA VN** to the APJ Abdul Kalam Technological University in partial fulfilment of the requirements for the award of the Degree of Bachelor of Technology in Civil engineering is a bonafide record of the project work carried out by him/her under my/our guidance and supervision. This report in any form has not been submitted to any other University or Institute for any purpose.

Internal Supervisor
DEEPU R
Assistant Professor,
Department of Civil Engineering
SCMS School of Engineering
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Head of Civil Department
Dr. Nisha L
Associate Professor,
Department of Civil Engineering
SCMS School of Engineering
& Technology, Karukutty

EFFECT OF GEOMETRY OF COMBINED CURVES ON ROLLOVER STABILITY OF VEHICLES

A PROJECT REPORT

Submitted by

AMALA SANY(SCE/8538/19)

BHAVYA LAKSHMI M M(SCE/8452/19)

GOPIKA ASOK (SCE/8545/19)

HIZANA K M(SCE/8595/19)

the APJ Abdul Kalam Technological University
in partial fulfillment of the requirements for the award of the Degree
of
Bachelor of Technology
in
Civil Engineering



Department of Civil Engineering

SCMS SCHOOL OF ENGINEERING AND TECHNOLOGY
Vidya Nagar, Karukutty, Kerala - 683 576

June 2023

DEPARTMENT OF CIVIL ENGINEERING
SCMS SCHOOL OF ENGINEERING & TECHNOLOGY
KARUKUTTY



CERTIFICATE

This is to certify that this project report titled “**Effect of Geometry of Combined Curves on Rollover Stability of Vehicles**” a bonafide record of the project presented by **AMALA SANY, BHAVYA LAKSHMI M M, GOPIKA ASOK, HIZANA K M** during MAY 2023 in the fulfillment of the requirement for the award of the Degree of Bachelor of Technology in Civil Engineering of the APJ Abdul Kalam Technological University.

Ms. Remya YK

Project Guide
Assistant Professor
Department of Civil Engg,
SCMS School of
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Karukutty

Dr. Nisha L,

Associate Professor & Head
of the Department
Department of Civil Engg,
SCMS School of
Engineering & Technology,
Karukutty

COMPARATIVE STUDY OF STEEL STRUCTURES TO CONVENTIONAL CONCRETE STRUCTURES

PROJECT REPORT

submitted by

Novaneeth S S (SCM19CE030)

to

The APJ Abdul Kalam Technological University
in partial fulfilment of the requirements for the award of the Degree
of

Bachelor of Technology
in
Civil Engineering



Department of Civil Engineering
SCMS School of Engineering & Technology
Vidya Nagar, Karukutty, Kerala - 683 576

JUNE 2023

DEPARTMENT OF CIVIL ENGINEERING
SCMS SCHOOL OF ENGINEERING & TECHNOLOGY



CERTIFICATE

This is to certify that the report entitled "COMPARATIVE STUDY OF STEEL STRUCTURES TO CONVENTIONAL CONCRETE STRUCTURES" submitted by NOVANEETH SS (SCM19CE030) to the APJ Abdul Kalam Technological University in partial fulfilment of the requirements for the award of the Degree of Bachelor of Technology in Civil engineering is a bonafide record of the project work carried out by him/her under my/our guidance and supervision. This report in any form has not been submitted to any other University or Institute for any purpose.

Internal Supervisor
DEEPU R
Assistant Professor,
Department of Civil Engineering
SCMS School of Engineering
& Technology, Karukutty

Handwritten signature and date: Nisha L, 26/6/23

Head of Civil Department
Dr. Nisha L
Associate Professor,
Department of Civil Engineering
SCMS School of Engineering
& Technology, Karukutty



PROJECT REPORT ON
**DEFLUORIDATION OF WATER USING
ACTIVATED CARBON
DERIVED FROM SUGARCANE BAGASSE**

Submitted by
HARIKRISHNAN I.S

Reg. No. SCM19CE015

PARVATHY SANJEEVA KUMAR

Reg. No. SCM19CE031

RAHUL K.H

Reg. No. SCM19CE033

SHREVYA PRADEEP

Reg. No. SCM19CE036

to the APJ Abdul Kalam Technological University
in partial fulfilment of the requirements for the award of the Degree of
Bachelor of Technology in
Civil Engineering



Department of Civil Engineering
SCMS School of Engineering & Technology
Vidya Nagar, Karukutty, Kerala - 683 576

June 2023

**DEPARTMENT OF CIVIL ENGINEERING
SCMS SCHOOL OF ENGINEERING & TECHNOLOGY**



CERTIFICATE

This is to certify that this project report titled “**DEFLOURIDATION OF WATER USING ACTIVATED CARBON DERIVED FROM SUGARCANE BAGASSE**” is a bonafide record of the project presented by **HARIKRISHNAN I.S, PARVATHY SANJEEVA KUMAR, RAHUL K.H, SHREVYA PRADEEP**, Reg. No. SCM19CE014, **Reg. No. SCM19CE031**, Reg. No. SCM19CE033, Reg. No. SCM19CE036 during JUNE 2023 in partial fulfilment of the requirement for the award of the Degree of Bachelor of Technology in Civil Engineering of the APJ Abdul Kalam Technological University.

Dr. Sanju Sreedharan,
Project Guide,
Associate Professor,
Department of Civil Engg,
SCMS School of Engineering
& Technolgy,Karukutty

Dr. Nisha L,
Associate Professor & Head of Department,
Department of Civil Engg,
SCMS School of Engineering
& Technolgy,Karukutty

PROJECT REPORT ON
**DEFLUORIDATION OF WATER USING
ACTIVATED CARBON
DERIVED FROM SUGARCANE BAGASSE**

Submitted by
RAHUL K.H
Reg. No. SCMI9C0033

to the *API Abdul Kalam Technological University*
in partial fulfillment of the requirements for the award of the Degree of
Bachelor of Technology in
Civil Engineering



Department of Civil Engineering
SCMS School of Engineering & Technology
Vidya Nagar, Karukatty, Kerala - 683 576

January 2023

DECLARATION

We undersigned hereby declare that the project report "DEFLUORIDATION OF WATER USING ACTIVATED CARBON DERIVED FROM SUGARCANE BAGASSE", submitted for partial fulfillment of the requirements for the award of the degree of Bachelor of Technology of the API Abdul Kalam Technological University, Kerala is a bonafide work done by us under supervision of Dr. Sanja Sreedharan. This submission represents our ideas in our own words and where ideas or words of others have been included, we have adequately and accurately cited and referenced the sources. We also declare that we have adhered to ethics of academic honesty and integrity and have not misrepresented or fabricated any data or idea or fact or source in our submission. We understand that any violation of the above will be a cause for disciplinary action by the institute and/or the University and can also evoke penal action from the sources which have thus not been properly cited or from whom proper permission has not been obtained. This report has not been previously formed as the basis for the award of any degree, diploma or similar title of any other University.

Name: Rahul K.H

Place: Ernakulam

Date: 14/06/2023

**DEPARTMENT OF CIVIL ENGINEERING
SCMS SCHOOL OF ENGINEERING & TECHNOLOGY**



CERTIFICATE

This is to certify that this project report titled "DEFLOURIDATION OF WATER USING ACTIVATED CARBON DERIVED FROM SUGARCANE BAGASSE" is a bonafide record of the project work presented by RAHUL K.H, Reg. No. SCM19CE033 during June 2023 in partial fulfillment of the requirement for the award of the Degree of Bachelor of Technology in Civil Engineering of the APJ Abdul Kalam Technological University.

Dr. Sanju Sreedharan,
Project Guide,
Associate Professor,
Department of Civil Engg.
SCMS School of Engineering
& Technology, Karukutty

Dr. Nisha L,
Associate Professor & Head of Department,
Department of Civil Engg.
SCMS School of Engineering
& Technology, Karukutty

ACKNOWLEDGEMENT

We would like to express our deep and sincere gratitude to Dr Anitha G Pillai, Principal of SCMS School of Engineering and Technology and Dr Nisha L, Professor & Head of the Department of Civil Engineering, for providing us with the opportunity to present this project.

We are deeply indebted to our guide Dr Sanju Sreedharan, Associate Professor, Department of Civil Engineering, for her sincere guidance and timely help during every step of this work. We would also like to thank all other faculty members of the Civil Engineering Department, for their support in this endeavour.

Finally, yet importantly, we would like to thank the authors of various research articles and books that we referred to.

PROJECT REPORT ON

**CHARACTERIZATION OF MICROPLASTICS IN STREET
DUST - KOCHI CITY, INDIA.**

Submitted by

AMBILY P R (SCM19CE005)

IRENEROSE SHYJU (SCM19CE017)

JAIN GEORGE (SCM19CE018)

RIYA FATHIMA HARIS (SCM19CE034)

to the APJ Abdul Kalam Technological University
in partial fulfillment of the requirements for the award of the Degree of
Bachelor of Technology in
Civil Engineering



Department of Civil Engineering
SCMS School of Engineering and Technology
Vidya Nagar, Karukutty, Kerala - 683 576

June 2023

**DEPARTMENT OF CIVIL ENGINEERING
SCMS SCHOOL OF ENGINEERING & TECHNOLOGY**



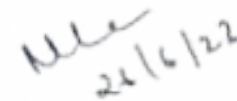
CERTIFICATE

This is to certify that this project report titled “**Characterization of microplastics in street dust- Kochi city, India**” is a bonafide record of the project presented by **Ambily P R, Irene Rose Shyju, Jain George, Riya Fathima Haris**, during June 2023 in partial fulfillment of the requirement for the award of the Degree of Bachelor of Technology in Civil Engineering of the APJ Abdul Kalam Technological University.


26/6/23

Dr. Ratish Menon
Project Guide,
Professor,
Department of Civil Engg,
SCMS School of Engineering
& Technology, Karukutty.




24/6/22

Dr. Nisha L,
Associate Professor & Head
of the Department
Department of Civil Engg,
SCMS School of
Engineering & Technology,
Karukutty

PROJECT REPORT ON
**DEFLUORIDATION OF WATER USING
ACTIVATED CARBON
DERIVED FROM SUGARCANE BAGASSE**

Submitted by
HARIKRISHNAN I.S

Reg. No. SCM19CE015

PARVATHY SANJEEVA KUMAR

Reg. No. SCM19CE031

RAHUL K.H

Reg. No. SCM19CE033

SHREVYA PRADEEP

Reg. No. SCM19CE036

to the APJ Abdul Kalam Technological University
in partial fulfilment of the requirements for the award of the Degree of
Bachelor of Technology in
Civil Engineering



Department of Civil Engineering
SCMS School of Engineering & Technology
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January 2023

DEPARTMENT OF CIVIL ENGINEERING
SCMS SCHOOL OF ENGINEERING & TECHNOLOGY

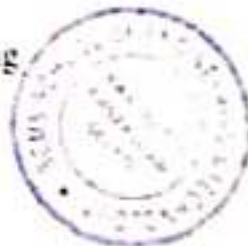


CERTIFICATE

This is to certify that this project report titled "DEFLOURIDATION OF WATER USING ACTIVATED CARBON DERIVED FROM SUGARCANE BAGASSE" is a bonafide record of the project work presented by SHREVYA PRADEEP, Reg. No. SCM19CE036 during June 2023 in partial fulfilment of the requirement for the award of the Degree of Bachelor of Technology in Civil Engineering of the APJ Abdul Kalam Technological University.

Sanju
26/6/23

Dr. Sanju Sreedharan,
Project Guide,
Associate Professor,
Department of Civil Engg.,
SCMS School of Engineering
& Technolgy, Karukutty



Nisha L
26/6/23

Dr. Nisha L,
Associate Professor & Head of Department,
Department of Civil Engg.,
SCMS School of Engineering
& Technolgy, Karukutty

PROJECT REPORT ON
**PEDESTRIAN LEVEL OF SERVICE ANALYSIS AT
UNSIGNALISED INTERSECTIONS**

Submitted by

SREEBHADRA P S	SCM19CE038
KRISHNAPRIYA K	LSCM19CE040
ASWATHYMOL K V	SCM19CE008
DHRISYA O H	SCM19CE012

to the APJ Abdul Kalam Technological University
in partial fulfilment of the requirements for the award of the Degree of
Bachelor of Technology
in
Civil Engineering



Department of Civil Engineering
SCMS School of Engineering & Technology
Vidya Nagar, Karukutty, Kerala - 683 576

JUNE 2023

**DEPARTMENT OF CIVIL ENGINEERING
SCMS SCHOOL OF ENGINEERING & TECHNOLOGY**



CERTIFICATE

This is to certify that this project report titled **“Pedestrian level of service analysis at unsignalized intersections”** is a bonafide record of the project presented by **Sreebhadra P S, Krishnapriya K, Aswathymol K V, Dhriya O H**, Reg. No. **SCM19CE038, LSCM19CE040, SCM19CE008, SCM19CE012** during JUNE 2023 in complete fulfilment of the requirement for the award of the Degree of Bachelor of Technology in Civil Engineering of the APJ Abdul Kalam Technological University.

Mr. Deeraj A D
Project Guide,
Assistant Professor,
Department of Civil Engg,
SCMS School of Engineering
& Technology, Karukutty.

Dr. Nisha L,
Associate Professor & Head of the Department
Department of Civil Engg,
SCMS School of Engineering
& Technology, Karukutty

COMPARATIVE STUDY OF STEEL STRUCTURES TO CONVENTIONAL CONCRETE STRUCTURES

PROJECT REPORT

submitted by

Vivitha V N (SCM19CE039)

to

The APJ Abdul Kalam Technological University
in partial fulfilment of the requirements for the award of the Degree
of

Bachelor of Technology
in
Civil Engineering



Department of Civil Engineering
SCMS School of Engineering & Technology
Vidya Nagar, Karukutty, Kerala - 683 576

JUNE 2023

**DEPARTMENT OF CIVIL ENGINEERING
SCMS SCHOOL OF ENGINEERING & TECHNOLOGY**



CERTIFICATE

This is to certify that the report entitled "**COMPARATIVE STUDY OF STEEL STRUCTURES TO CONVENTIONAL CONCRETE STRUCTURES**" submitted by **VIVITHA VN (SCM19CE039)** to the APJ Abdul Kalam Technological University in partial fulfilment of the requirements for the award of the Degree of Bachelor of Technology in Civil engineering is a bonafide record of the project work carried out by her under my guidance and supervision. This report in any form has not been submitted to any other University or Institute for any purpose.

Internal Supervisor
DEEPU R
Assistant Professor,
Department of Civil Engineering
SCMS School of Engineering
& Technology, Karukutty



Nisha L
26/6/23

Head of Civil Department
Dr. Nisha L
Associate Professor,
Department of Civil Engineering
SCMS School of Engineering
& Technology, Karukutty

MISROUTING ATTACK ON NoC BY HARDWARE TROJAN AND ITS IMPACT ANALYSIS

A PROJECT REPORT

Submitted by

ANTONY K SHAJI [SCM19CS028]

BISHITHA KP [SCM19CS041]

GEORGE OOMMEN VARGHESE [SCM19CS051]

HRIDYA S [SCM19CS060]

to

The APJ Abdul Kalam Technological University
In partial fulfilment of the requirements for the award of the Degree

of

Bachelor of Technology

In

Computer Science and Engineering



Department of Computer Science and Engineering

SCMS School of Engineering & Technology
Vidya Nagar, Karukutty, Kerala - 683 582

MAY 2023

SCMS SCHOOL OF ENGINEERING AND TECHNOLOGY
(Affiliated to APJ ABDUL KALAM TECHNOLOGICAL UNIVERSITY)

VIDYA NAGAR, PALISSERY, KARUKUTTY

ERNAKULAM – 683 582



CERTIFICATE

This is to certify that the report entitled **MISROUTING ATTACK ON NoC BY HARDWARE TROJAN AND ITS IMPACT ANALYSIS** submitted by ANTONY K SHAJI [SCM19CS028], BISHITHA K P [SCM19CS041], GEORGE OOMMEN VARGESE [SCM19CS051], HRIDYA S [SCM19CS061] to the APJ Abdul Kalam Technological University in partial fulfilment of the requirements for the award of the Degree of Bachelor of Technology in COMPUTER SCIENCE AND ENGINEERING is a bonafide record of the project work carried out by him/her under my/our guidance and supervision. This report in any form has not been submitted to any other University or Institute for any purpose.

PROJECT GUIDE
Ms. Josna Philomina
Assistant Professor
Department of CSE

PROJECT COORDINATOR
Dr. Sonal Ayyapan
Associate Professor
Department of CSE

HEAD OF DEPARTMENT
Dr. Varun G Menon
Professor
Department of CSE

AUTOMATIC DIAGNOSIS OF SCHIZOPHRENIA IN EEG SIGNALS USING CNN-LSTM MODEL

PROJECT REPORT

Submitted by

ANILA C S	[SCM19CS024]
BEN REJI	[SCM19CS039]
FITHA NAZAR	[SCM19CS048]
HANCE STEVE	[SCM19CS059]

to

the APJ Abdul Kalam Technological University
in partial fulfillment of the requirements for the awards of degree

of

Bachelor of Technology

in

Computer Science and Engineering



Department of Computer Science and Technology

SCMS SCHOOL OF ENGINEERING AND TECHNOLOGY

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VIDYA NAGAR, PALISSERY, KARUKUTTY, ERNAKULAM – 683576

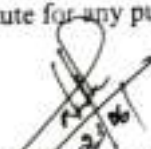
May 2023

**SCMS SCHOOL OF ENGINEERING AND TECHNOLOGY
VIDYANAGAR, PALISSERY, KARUKUTTY
ERNAKULAM-683 576**



CERTIFICATE

This is to certify that the report entitled "AUTOMATIC DIAGNOSIS OF SCHIZOPHRENIA IN EEG SIGNALS USING CNN-LSTM MODEL" submitted by ANILA CS (SCM19CS024), BEN REJI (SCM19CS039), FITHA NAZAR (SCM19CS048) and HANCE STEVE (SCM19CS059) to the APJ Abdul Kalam Technological University in partial fulfillment of the requirements for the award of the Degree of Bachelor of Technology in COMPUTER SCIENCE & ENGINEERING is a bonafide record of the project work carried out by them under guidance and supervision. This report in any form has not been submitted to any other University or Institute for any purpose.


PROJECT GUIDE

Ms. Neethu Krishna
Assistant Professor
Department of CSE


PROJECT COORDINATOR

Dr. Sonal Ayyappan
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Department of CSE


HEAD OF THE DEPARTMENT

Dr. Varun G Menon
Professor
Department of CSE

**DEEPFAKE DETECTION USING STABLE VERSION OF
ResNext and LSTM**

A PROJECT REPORT

*Submitted in partial fulfilment of the
Requirements for the award of degree of*

BACHELOR OF TECHNOLOGY

BY

AMALNA K HARRISH Reg.No: SCM19CS020

ANTRIN SANTHOSH Reg.No: SCM19CS029

ANURENJ K P Reg.No: SCM19CS030

GOUTHAM GOPI S PILLAI Reg.No: SCM19CS057



**SCMS SCHOOL OF ENGINEERING AND TECHNOLOGY
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VIDYA NAGAR, PALISSERY, KARUKUTTY

ERNAKULAM -683576

June -2023



SCMS SCHOOL OF ENGINEERING AND TECHNOLOGY
(Affiliated to APJ ABDUL KALAM TECHNOLOGICAL UNIVERSITY)
VIDYA NAGAR, PALISSERY, KARUKUTTY
ERNAKULAM -683576

June -2023

CERTIFICATE

This is to certify that the project report on the topic "**Deepfake detection using stable version of ResNext and LSTM**" submitted by **AMALNA K HARISH (SCM19CS020), ANTRIN SANTHOSH (SCM19CS029), ANURENJ K P (SCM19CS030), GOUTHAM GOPI S PILLAI (SCM19CS057)** to the APJ Abdul Kalam Technological University in partial fulfillment of the requirements for the award of the Degree of Bachelor of Technology in **COMPUTER SCIENCE & ENGINEERING** is a bonafide record of the project work carried out by him/her under my/our guidance and supervision. This report in any form has not been submitted to any other University or Institute for any purpose.

PROJECT GUIDE

Mr.Mahesh K M
Assistant Professor
Department of CSE

PROJECT COORDINATOR

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Dr.Varun G Menon
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LANGUAGE INDEPENDENT WRITER IDENTIFIER TO VERIFY THE AUTHORSHIP OF HANDWRITTEN DOCUMENTS

PROJECT REPORT

Submitted By

ABHIRAMI A	[SCM19CS002]
ANNMARY JACOB	[SCM19CS026]
CHANDINI P S	[SCM19CS042]
GOKUL KRISHNAN V G	[SCM19CS053]

to

the APJ Abdul Kalam Technological University
in partial fulfillment of the requirements for the awards of degree

of

Bachelor of Technology

In

Computer Science and Engineering



Department of Computer Science and Technology

SCMS SCHOOL OF ENGINEERING AND TECHNOLOGY

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VIDYA NAGAR, PALISSERY, KARUKUTTY, ERNAKULAM – 683576

June 2023

SCMS SCHOOL OF ENGINEERING AND TECHNOLOGY
VIDYA NAGAR, PALISSERY, KARUKUTTY
ERNAKULAM – 683 576



CERTIFICATE

This is to certify that the report entitled "**LANGUAGE INDEPENDENT WRITER IDENTIFIER TO VERIFY THE AUTHORSHIP OF HANDWRITTEN DOCUMENTS**" submitted by **ABHIRAMI A (SCM19CS002)**, **ANNMARY JACOB(SCM19CS026)**, **CHANDINI P S (SCM19CS042)**, **GOKUL KRISHNAN V G (SCM19CS053)** to the APJ Abdul Kalam Technological University in partial fulfillment of the requirements for the award of the degree of Bachelor of Technology in **COMPUTER SCIENCE & ENGINEERING** is a bonafide record of the project work carried out by him/her under my/our guidance and supervision. This report in any form has not been submitted to any other University or Institute for any purpose.

PROJECT GUIDE
Ms. Asha S Rakesh
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PROJECT COORDINATOR
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Associate Professor
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Dr. Varun G Menon
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 Assistant Professor
 Department of CSE

PROJECT COORDINATOR

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 Department of CSE

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Dr. Varun G Menon
 Professor
 Department of CSE

**ANALYSIS OF NETWORK INTRUSION DETECTION USING MACHINE
LEARNING AND DEEP LEARNING**

PROJECT REPORT

*Submitted in partial fulfillment of the
requirements for the award of degree of*

BACHELOR OF TECHNOLOGY

By

AKHILA

Reg.no: SCM19CS012

ANEENA K S

Reg.no: SCM19CS023

ARYA ANIL KUMAR

Reg.no: SCM19CS032

GOPIKA JAIDEEP

Reg.no: SCM19CS055



SCMS SCHOOL OF ENGINEERING AND TECHNOLOGY

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May 2023



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VIDYA NAGAR, PALISSERY, KARUKUTTY

ERNAKULAM – 683 576

BONAFIDE CERTIFICATE

This is to certify that the project report entitled “**Analysis Of Network Intrusion Detection Using Machine Learning And Deep Learning**” is a bonafide record of the project presented by Akhila [SCM19CS012], Aneena K S [SCM19CS024], Arya Anil Kumar [SCM19CS032], Gopika Jaideep [SCM19CS055] submitted in fulfillment of the requirement for the award of degree of Bachelor of Technology in Computer Science and Engineering is a bonafide work carried out by them under my/our supervision, during the academic year 2022 - 2023.

PROJECT GUIDE

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Department of CSE

HEAD OF THE DEPARTMENT

Dr. Varun G Menon

Professor

Department of CSE

DETECTION OF SPEECH EMOTIONS USING DEEP LEARNING TECHNIQUES

A PROJECT REPORT

Submitted by

AKHILA AJITH	[SCM19CS012]
ATHUL V NAIR	[SCM19CS037]
AVILA JAMES	[SCM19CS038]
GOPIKA DINESAN	[SCM19CS054]

to

the APJ Abdul Kalam Technological University
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JUNE 2023

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ERNAKULAM – 683 576



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PROJECT GUIDE

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DETECTION OF SPEECH EMOTIONS USING DEEP LEARNING TECHNIQUES

A PROJECT REPORT

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Litty Koshy
19/6/23

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DETECTION OF SPEECH EMOTIONS USING DEEP LEARNING TECHNIQUES

A PROJECT REPORT

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DETECTION OF SPEECH EMOTIONS USING DEEP LEARNING TECHNIQUES

A PROJECT REPORT

Submitted by

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ATHUL V NAIR	[SCM19CS037]
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PROJECT GUIDE

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FACE RECOGNITION ATTENDANCE SYSTEM BASED ON RETINA FACE & ARCFACE

PROJECT REPORT

submitted by

ADITHYA KRISHNAN (SCM19CS006)

ADITYA MUKUNDAN (SCM19CS007)

AJAYSURYAN P A (SCM19CS010)

GEORGE ANIL (SCM19CS050)

to

The APJ Abdul Kalam Technological University
in partial fulfilment of the requirements for the award of the Degree

of

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SCMS SCHOOL OF ENGINEERING AND TECHNOLOGY

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VIDYA NAGAR, PALISSERY, KARUKUTTY

ERNAKULAM – 683 576

MAY 2023

DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING
SCMS SCHOOL OF ENGINEERING AND TECHNOLOGY



BONAFIDE CERTIFICATE

This is to certify that the report entitled “**A FACE RECOGNITION ATTENDANCE SYSTEM BASED ON RETINA FACE & ARCFACE**” is a bonafide record of the project presented by ADITHYA KRISHNAN [SCM19CS006], ADITYA MUKUNDAN [SCM19CS007], AJAYSURYAN P A [SCM19CS010], **GEORGE ANIL [SCM19CS050]** to the APJ Abdul Kalam Technological University in partial fulfillment of the requirements for the award of the Degree of Bachelor of Technology in Computer Science and Engineering is a Bonafide record of the work carried out under the guidance and supervision, during the academic year 2022-2023.

PROJECT GUIDE

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**LANGUAGE INDEPENDENT WRITER IDENTIFIER
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PROJECT REPORT

Submitted By

ABHIRAMI A
ANNMAY JACOB
CHANDINI P S
GOKUL KRISHNAN V G

[SCM19CS002]
[SCM19CS026]
[SCM19CS042]
[SCM19CS053]

to

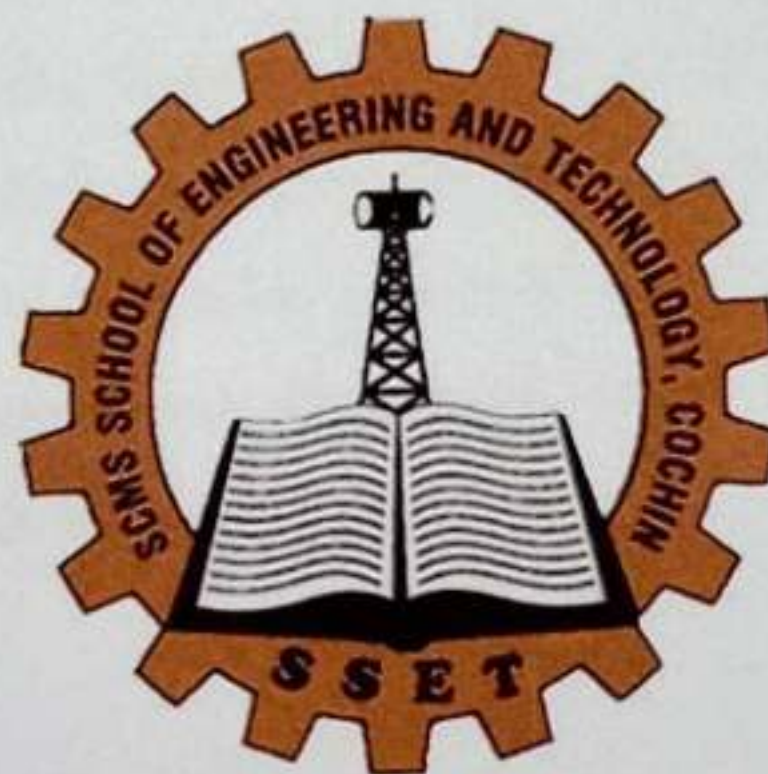
the APJ Abdul Kalam Technological University
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June 2023

SCMS SCHOOL OF ENGINEERING AND TECHNOLOGY

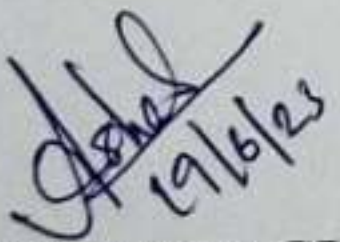
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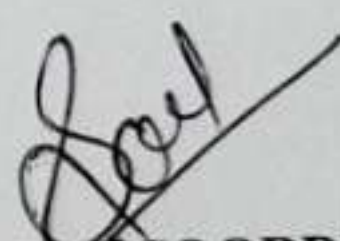


CERTIFICATE

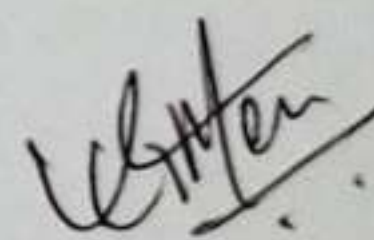
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19/6/23
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**ANALYSIS OF NETWORK INTRUSION DETECTION USING MACHINE
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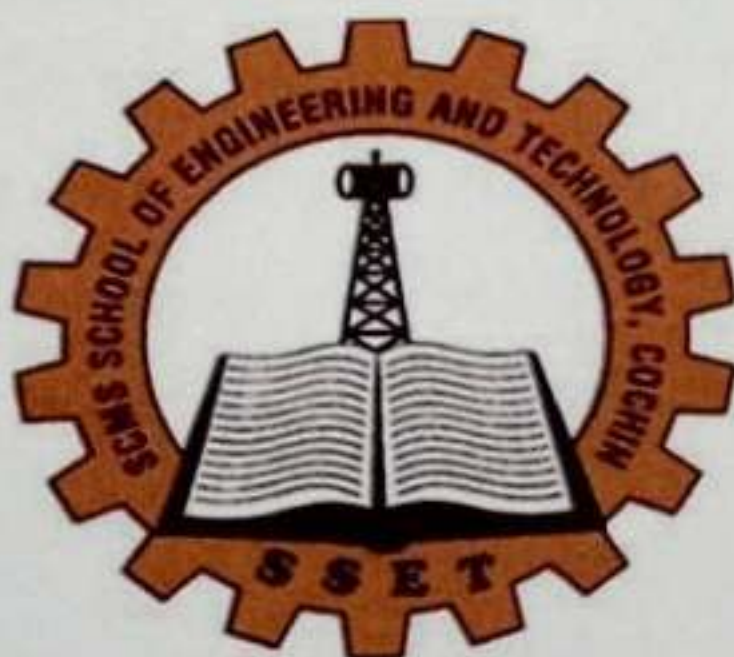
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BACHELOR OF TECHNOLOGY

By

AKHILA	Reg.no: SCM19CS012
ANEENA K S	Reg.no: SCM19CS023
ARYA ANIL KUMAR	Reg.no: SCM19CS032
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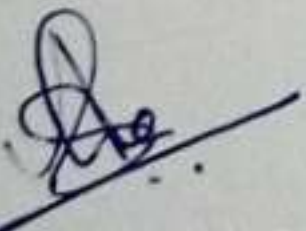
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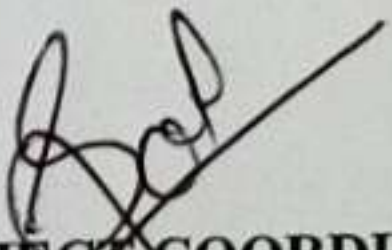
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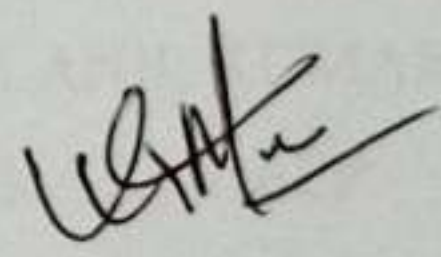
ERNAKULAM – 683 576

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PROJECT COORDINATOR
Dr. Sonal Ayyappan
Associate Professor
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HEAD OF THE DEPARTMENT
Dr. Varun G Menon
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Department of CSE

**ANALYSIS OF NETWORK INTRUSION DETECTION USING MACHINE
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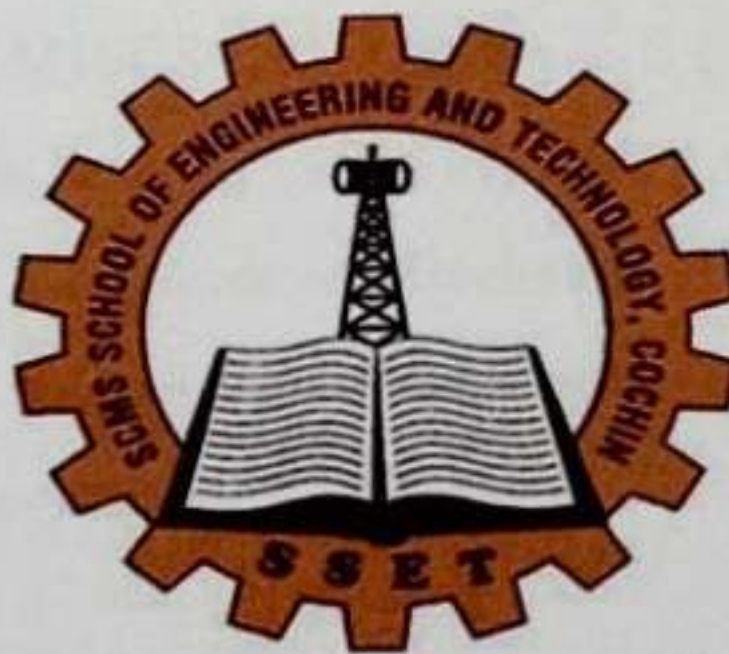
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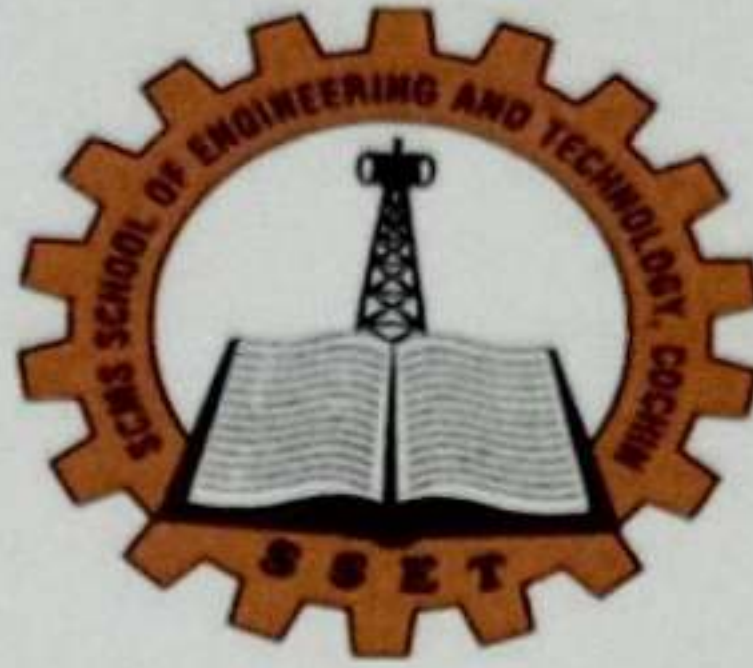
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VIDYA NAGAR, PALISSERY, KARUKUTTY

ERNAKULAM – 683 576

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PROJECT COORDINATOR

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DETECTION OF SPEECH EMOTIONS USING DEEP LEARNING TECHNIQUES

A PROJECT REPORT

Submitted by

AKHILA AJITH	[SCM19CS012]
ATHUL V NAIR	[SCM19CS037]
AVILA JAMES	[SCM19CS038]
GOPIKA DINESAN	[SCM19CS054]

to

the APJ Abdul Kalam Technological University
University in partial fulfillment of the requirements for the award of the degree
of
Bachelor of Technology
in
Computer Science and Engineering



Department of Computer Science and Engineering
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VIDYANAGAR, PALISSERY, KARUKUTTY, ERNAKULAM – 683 576

JUNE 2023

SCMS SCHOOL OF ENGINEERING AND TECHNOLOGY
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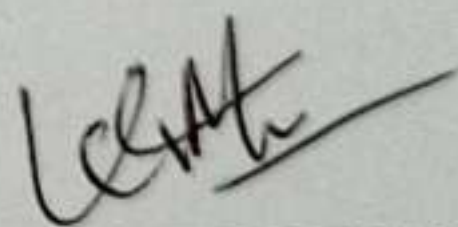
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i

FACE RECOGNITION ATTENDANCE SYSTEM BASED ON RETINA FACE & ARCFACE

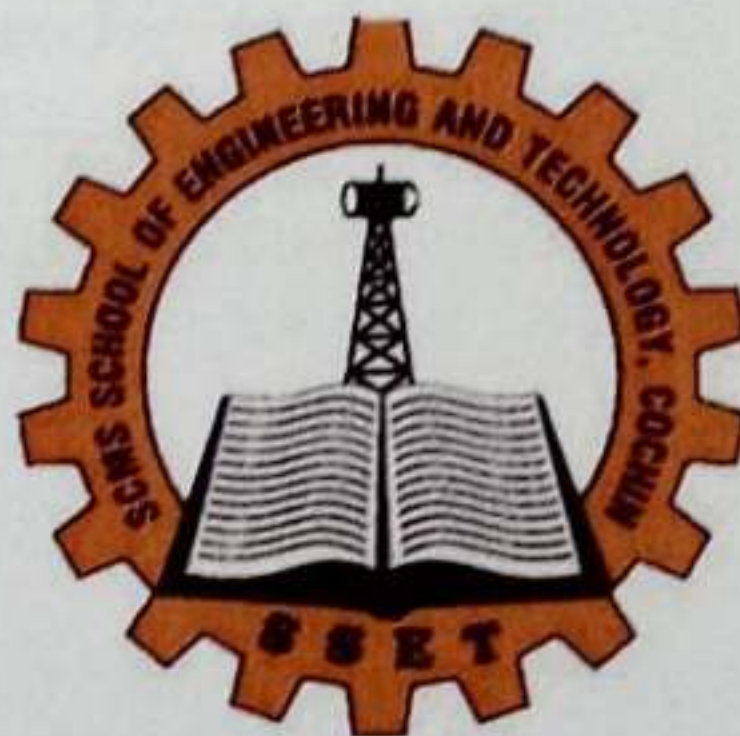
PROJECT REPORT

Submitted By

ADITHYA KRISHNAN	(SCM19CS006)
ADITYA MUKUNDAN	(SCM19CS007)
AJAYSURYAN P A	(SCM19CS010)
GEORGE ANIL	(SCM19CS050)

to

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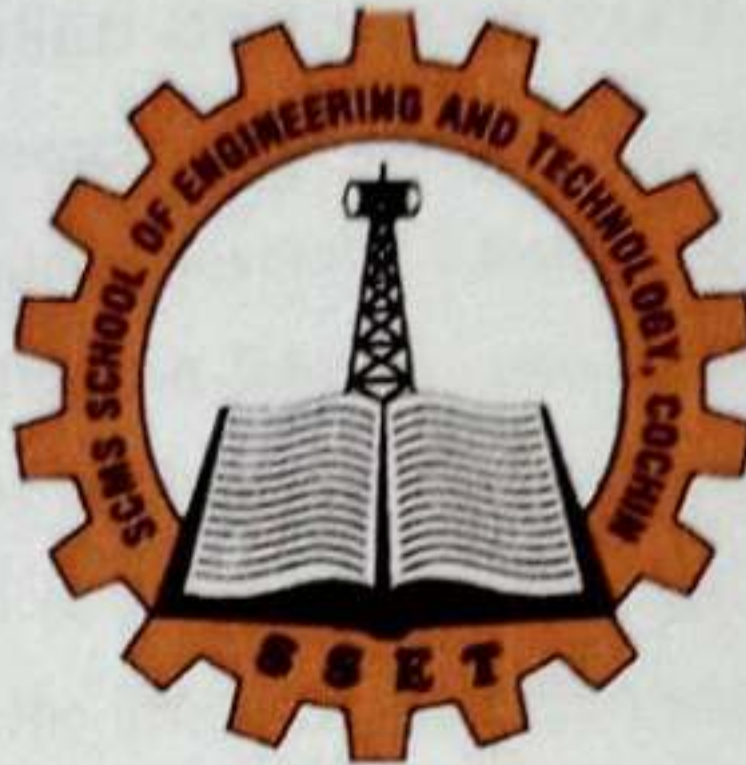
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MAY 2023

DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING
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This is to certify that the report entitled “A FACE RECOGNITION ATTENDANCE SYSTEM BASED ON RETINA FACE & ARCFACE” is a bonafide record of the project presented by **ADITHYA KRISHNAN [SCM19CS006]**, **ADITYA MUKUNDAN [SCM19CS007]**, **AJAYSURYAN P A [SCM19CS010]**, **GEORGE ANIL [SCM19CS050]** to the APJ Abdul Kalam Technological University in partial fulfillment of the requirements for the award of the Degree of Bachelor of Technology in Computer Science and Engineering is a Bonafide record of the work carried out under the guidance and supervision, during the academic year 2022-2023.

PROJECT GUIDE

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**FACE RECOGNITION ATTENDANCE SYSTEM
BASED ON RETINA FACE & ARCFACE**

PROJECT REPORT

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ADITHYA KRISHNAN (SCM19CS006)

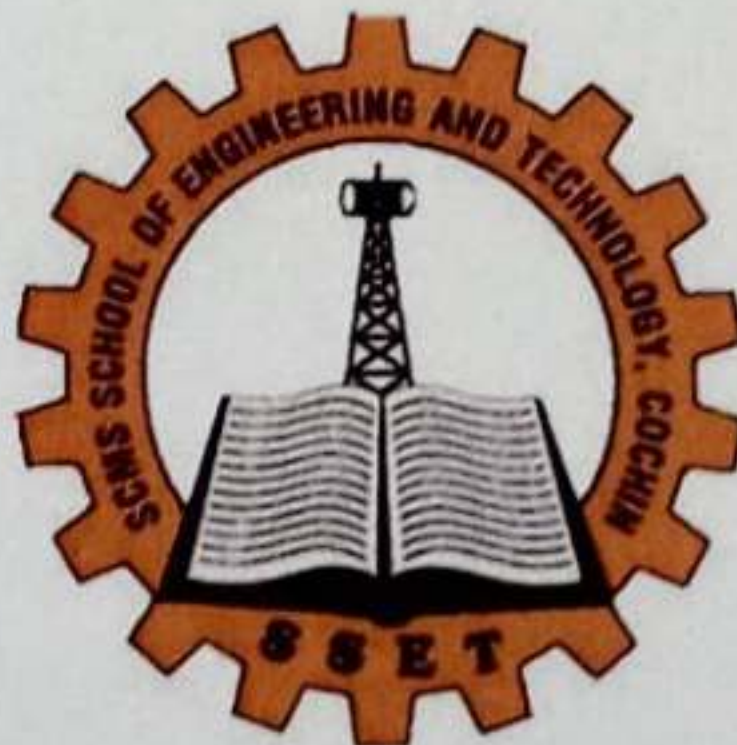
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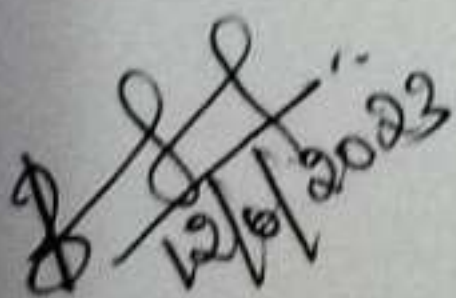
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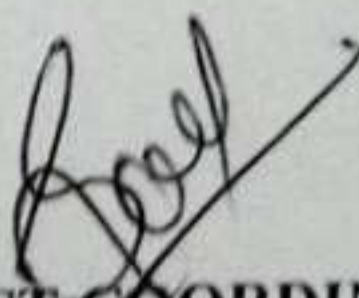
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12/11/2023

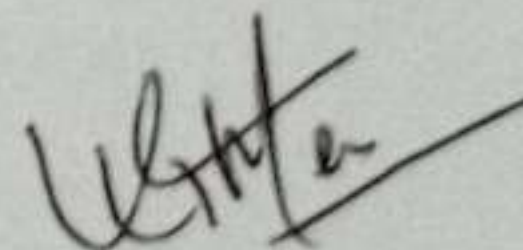
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**A Multimodal Approach for Text Response Generating System
Using Image Context**

PROJECT REPORT

submitted by

ABAY RAJU M (SCM19CS001)
ASWINKUMAR T S (SCM19CS033)
DELVIN M SHINOY (SCM19CS044)
EDWIN BENNY (SCM19CS045)

to

the APJ Abdul Kalam Technological University
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Department of Computer Science and Engineering
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Vidya Nagar, Karukutty, Kerala-683576
May 2023

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**A Multimodal Approach for Text Response Generating System
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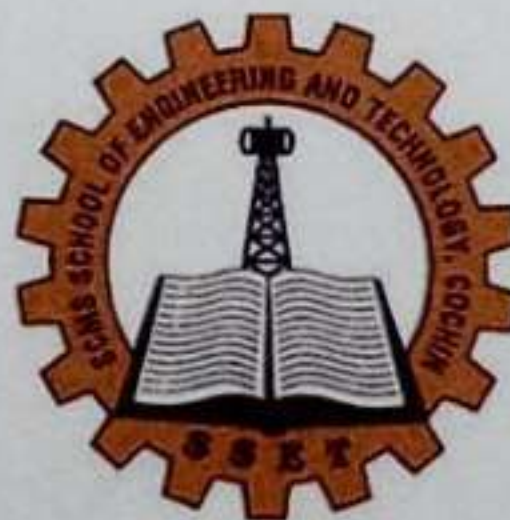
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A Multimodal Approach for Text Response Generating System Using Image Context

PROJECT REPORT

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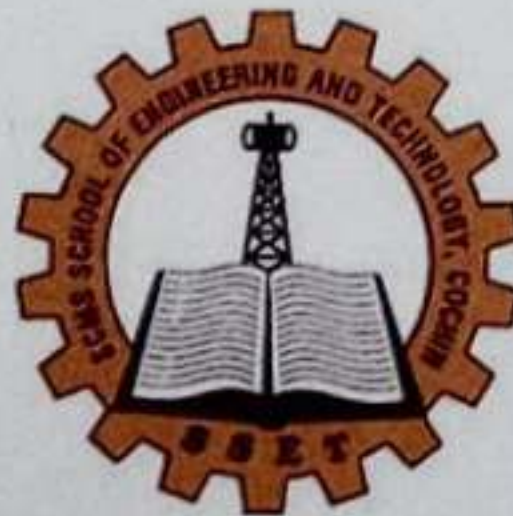
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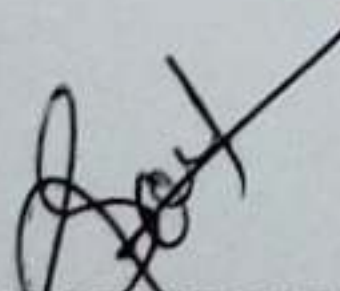
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**A Multimodal Approach for Text Response Generating System
Using Image Context**

PROJECT REPORT

submitted by

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SIEM IMPLEMENTATION IN CYBER SECURITY USING MACHINE LEARNING

A PROJECT REPORT
Submitted By

AKSHARA A S	[SCM19CS016]
ANANTHAKRISHNAN V R	[SCM19CS022]
ASWIN SANIL BHASKAR	[SCM19CS035]
GAUTHAM KRISHNA S	[SCM19CS049]

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In

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May 2023

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This is to certify that the project report on the topic “**SIEM Implementation in Cyber Security using Machine Learning**” by **AKSHARA A S (SCM19CS016), ANANTHAKRISHNAN V R (SCM19CS022), ASWIN SANIL BHASKAR (SCM19CS035), GAUTHAM KRISHNA S (SCM19CS049)** to the APJ Abdul Kalam Technological University in partial fulfillment of the requirements for the award of the Degree of Bachelor of Technology in **COMPUTER SCIENCE & ENGINEERING** is a bonafide record of the project work carried out by him/her under my/our guidance and supervision. This report in any form has not been submitted to any other University or Institute for any purpose.

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A SWARM DRONE SYSTEM FOR HUMAN DETECTION AND ALERT SYSTEMS IN DISASTER SCENARIOS

PROJECT REPORT

Submitted By

ABIN SIBY [SCM19CS004]

AKHILDAS.H [SCM19CS014]

AKHINASH PRASAD [SCM19CS015]

GOPIKA SASIKUMAR [SCM19CS056]

to

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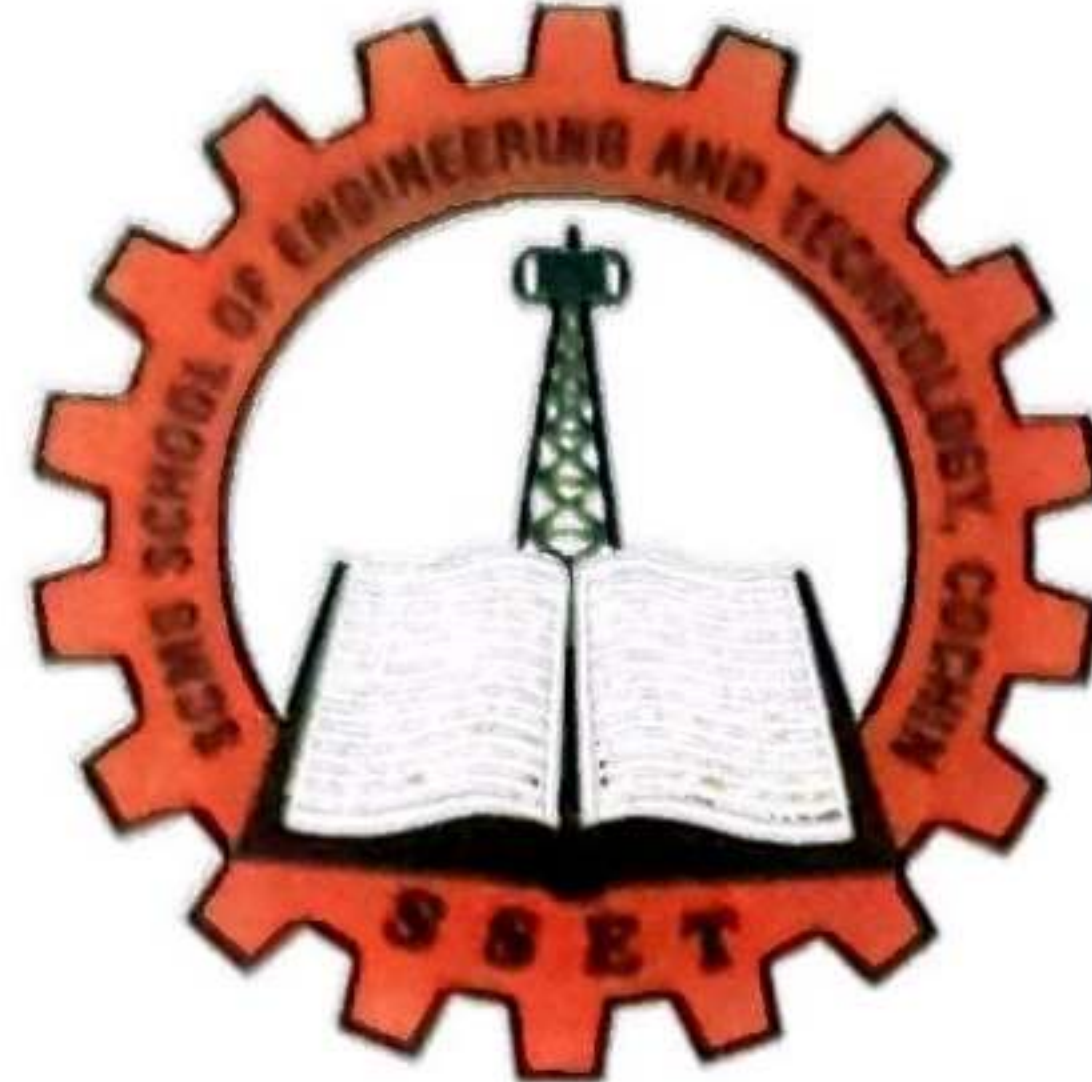
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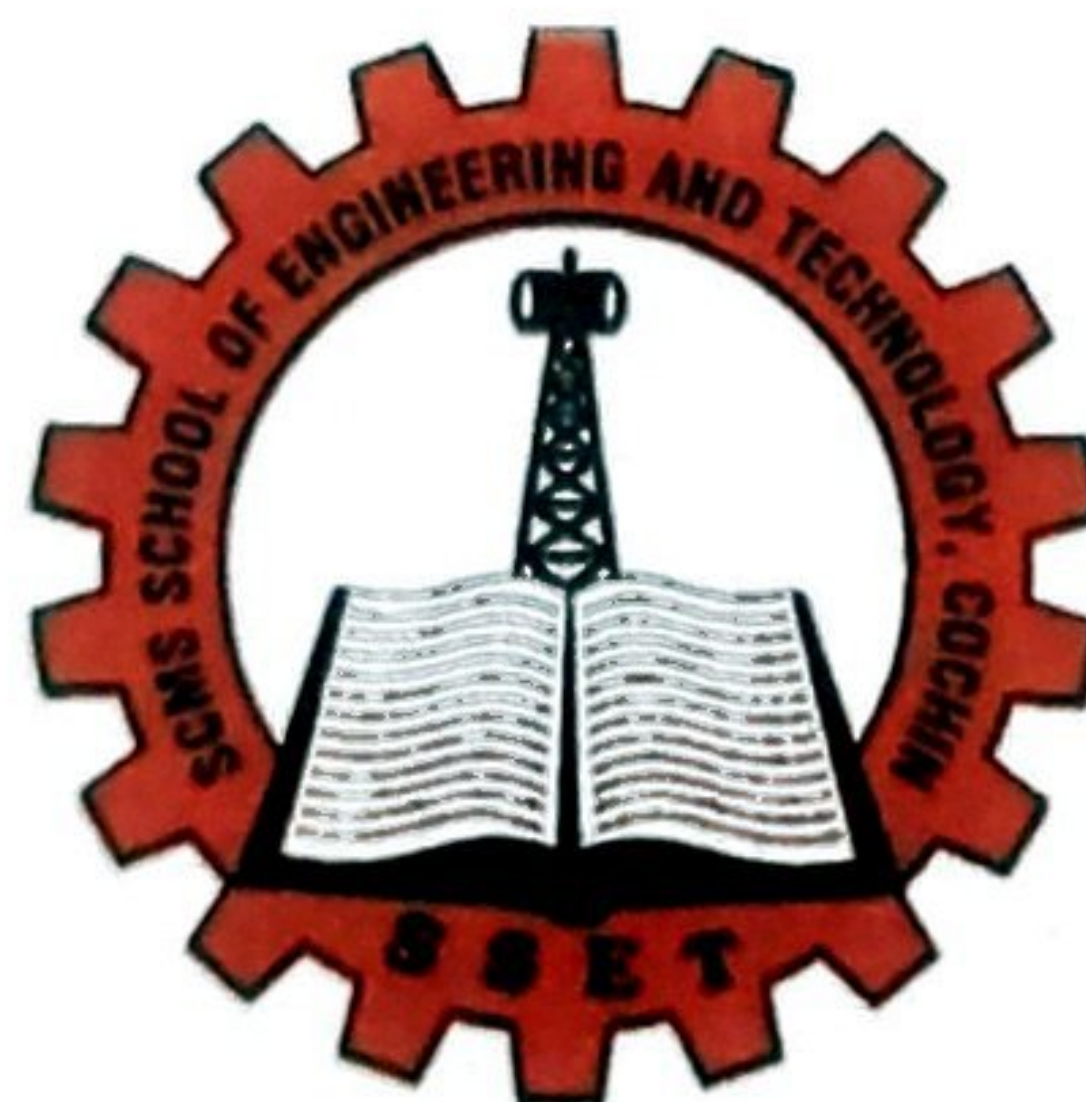
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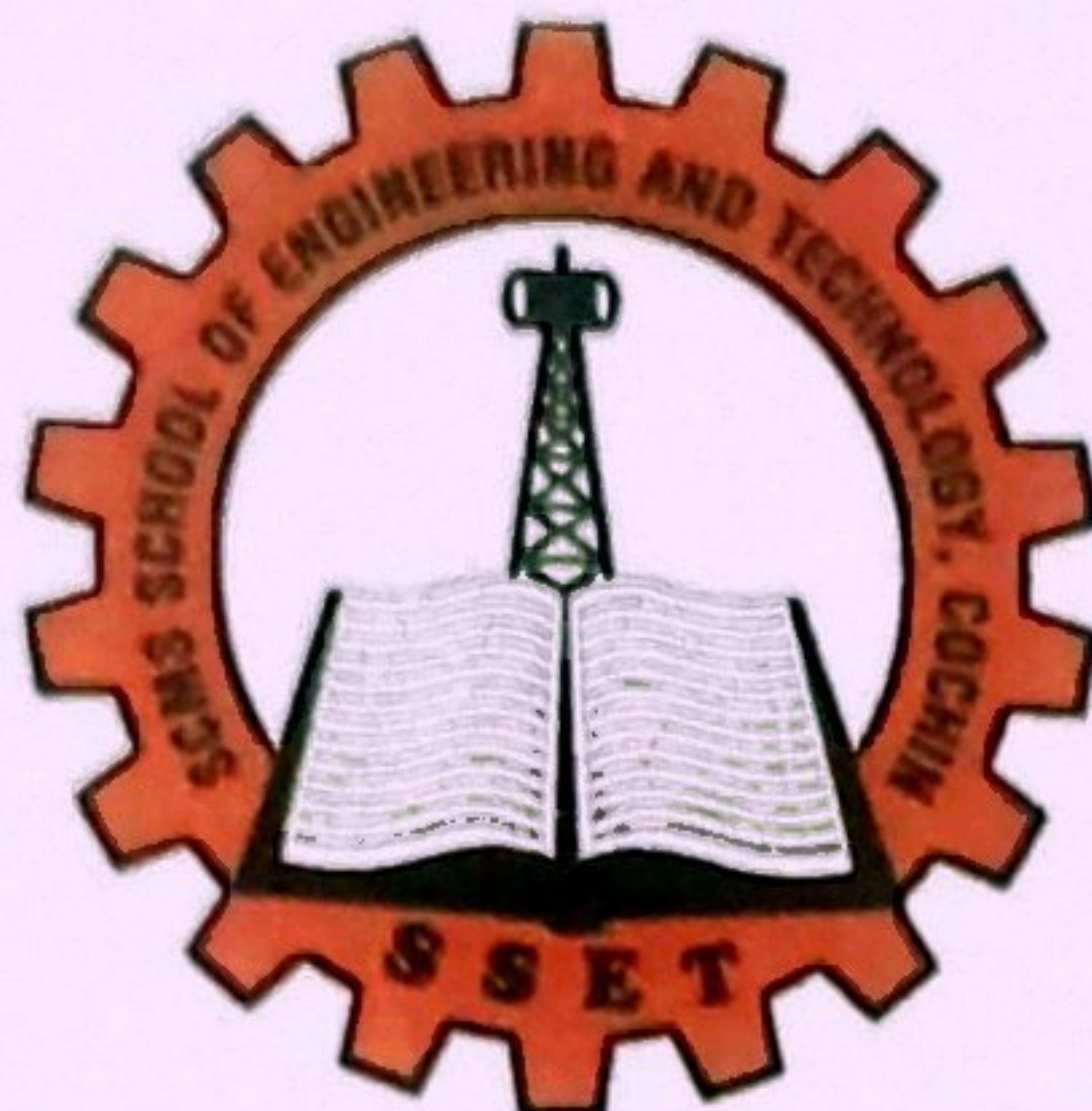
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IOT BASED WATER LEAKAGE AND POISON DETECTION SYSTEM

PROJECT REPORT

Submitted By

AKSHAY A	[SCM19CS017]
DELVIN AUGUSTINE	[SCM19CS043]
EMIL JAISON THOMAS	[SCM19CS046]
FEBIN ALEX	[SCM19CS047]

to

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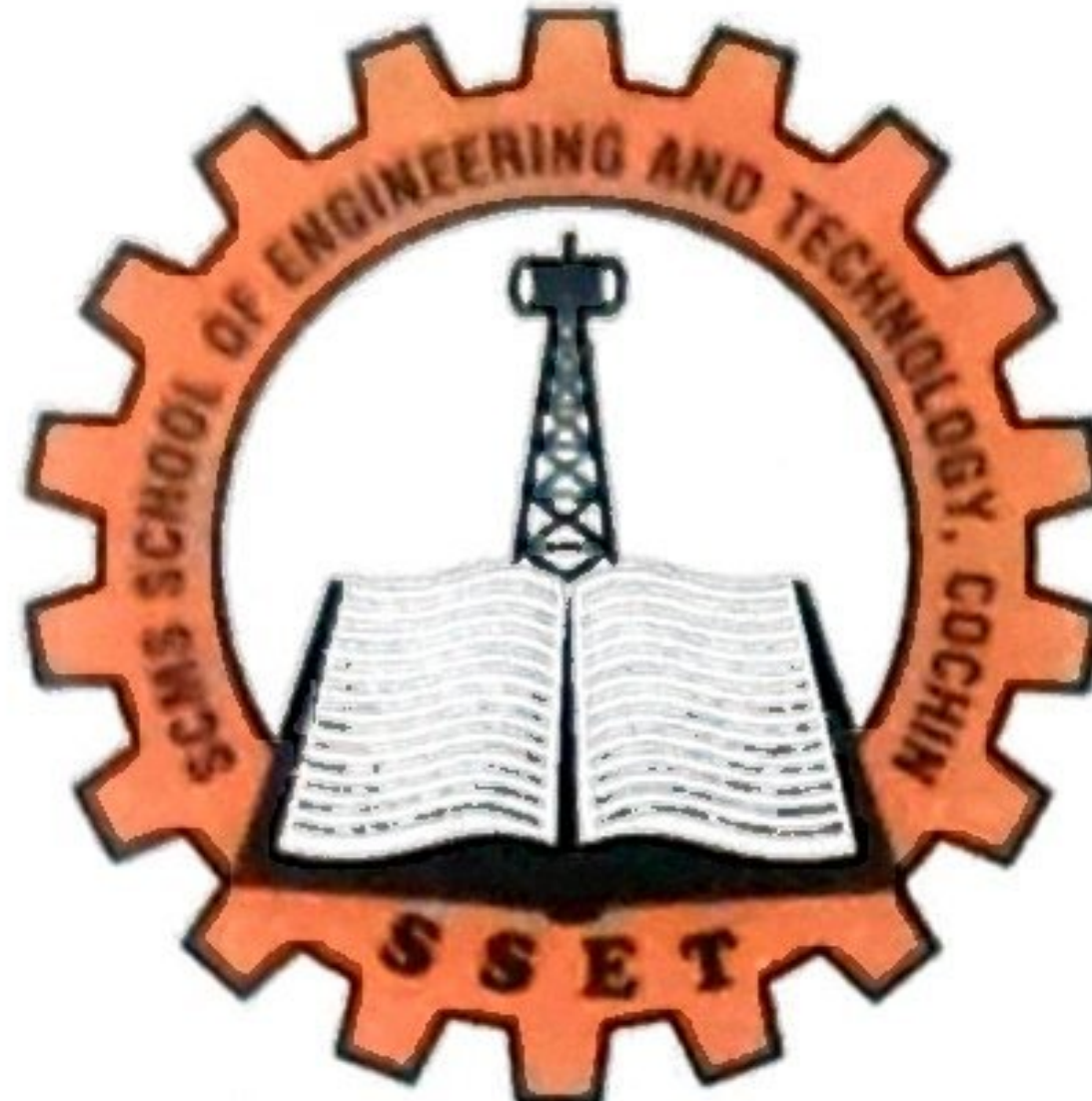
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KARUKUTTY




CERTIFICATE

This is to certify that the report entitled “**IOT BASED WATER LEAKAGE AND POISON DETECTION SYSTEM**” submitted by **AKSHAY A (SCM19CS017), DELVIN AUGUSTINE (SCM19CS043) , EMIL JAISON THOMAS (SCM19CS046) , FEBIN ALEX (SCM19CS047)** to the APJ Abdul Kalam Technological University in partial fulfillment of the requirements for the award of the Degree of Bachelor of Technology in **COMPUTER SCIENCE & ENGINEERING** is a bonafide record of the project work carried out by him/her under my/our guidance and supervision. This report in any form has not been submitted to any other University or Institute for any purpose.


PROJECT GUIDE
Dr. Sonal Ayyappan
Associate Professor
Department of CSE


PROJECT COORDINATOR
Dr. Sonal Ayyappan
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HEAD OF THE DEPARTMENT
Dr. Varun G Menon
Professor
Department of CSE

**FACE DETECTION AND RECOGNITION USING HAAR
CASCADE AND LBPH, HARMFUL OBJECT DETECTION
USING YOLOv3 IN CCTV**

A PROJECT REPORT

*Submitted in partial fulfillment of the
requirements for the award of degree of*

BACHELOR OF TECHNOLOGY

By

AJAY SADHASIVAN K Reg.no: SCM19CS009

ASWIN N Reg.no: SCM19CS034

ASWIN SURESH P Reg.no: SCM19CS036

BHAVYA P S Reg.no: SCM19CS040



**SCMS SCHOOL OF ENGINEERING AND TECHNOLOGY (Affiliated to APJ
ABDUL KALAM TECHNOLOGICAL UNIVERSITY) VIDYA NAGAR, PALISSERY,
KARUKUTTY, ERNAKULAM – 683 576**

May 2023



**SCHOOL OF ENGINEERING AND TECHNOLOGY (Affiliated to APJ
ABDUL KALAM TECHNOLOGICAL UNIVERSITY) VIDYA NAGAR, PALISSERY,
KARUKUTTY, ERNAKULAM – 683 576**

CERTIFICATE

I hereby certify that the project report on the topic "FACE DETECTION AND RECOGNITION USING HAAR CASCADE AND LBPH, HARMFUL OBJECT DETECTION USING YOLOv3 IN CCTV" by AJAY SADHASIVAN K (REG NO: SCM19CS033), ASWIN N (REG NO: SCM19CS034), ASWIN SURESH P (REG NO: SCM19CS035) & BHAVYA P S (REG NO: SCM19CS040), submitted in partial fulfillment of the requirements for the award of the degree of Bachelor of Technology, is a bonafide work of the student/s under my/our supervision, the project, during the academic year 2019-2020.


PROJECT COORDINATOR

Dr. Sonal Ayyappan

Associate Professor

Department of CSE


HEAD OF DEPARTMENT

Dr. Varun G Menon

Professor

Department of CSE

SCMS SCHOOL OF ENGINEERING
ABDUL KALAM TECHNOLOGICAL UNIVERSITY
KARUKUTTY, ERNAKULAM

OFFENSIVE MESSAGE DETECTION ON SOCIAL MEDIA

A PROJECT REPORT

*Submitted in partial fulfilment of the
requirements for the award of degree of*

BACHELOR OF TECHNOLOGY

By

ABHISHEK P Reg.no: SCM19CS003

ALEN ROY Reg.no: SCM19CS018

ALLEN LAWRENCE Reg.no: SCM19CS019

HADIYA Reg.no: SCM19CS058



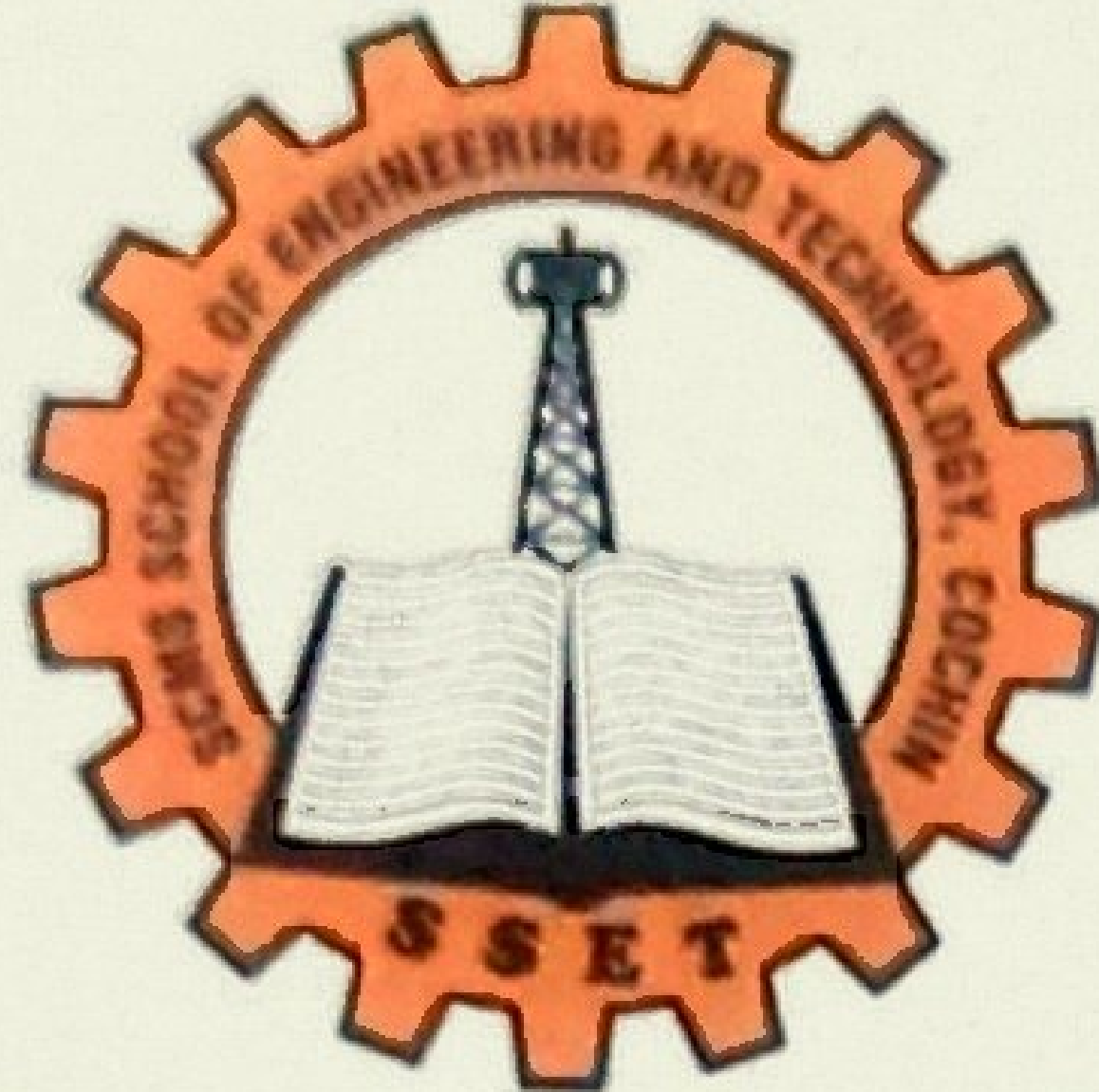
SCMS SCHOOL OF ENGINEERING AND TECHNOLOGY
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VIDYA NAGAR, PALISSERY, KARUKUTTY

ERNAKULAM -683576

June -2023

DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING
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KARUKUTTY



CERTIFICATE

This is to certify that the project report on the topic **OFFENSIVE MESSAGE DETECTION ON SOCIAL MEDIA** submitted by ABHISHEK P (SCM19CS003), ALEN ROY(SCM19CS018), ALLEN LAWRENCE(SCM19CS019), HADIYA(SCM19CS058) to the APJ Abdul Kalam Technological University in partial fulfilment of the requirements for the award of the degree of Bachelor of Technology in Computer Science and Engineering is a bonafide work carried out by them under guidance and supervision. This report in any form has not been submitted to any other University or Institute for any purpose.

PROJECT GUIDE

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BREAST CANCER PREDICTION USING BIO-INSPIRED ALGORITHMS

PROJECT REPORT

Submitted By

ANJANA SANJAY	[SCM19CS025]
ANOOP FRANCIS	[SCM19CS027]
AQIL ANWAR	[SCM19CS031]
GESMI P RAJAN	[SCM19CS052]

to

the APJ Abdul Kalam Technological University
in partial fulfillment of the requirements for the awards of degree

of

Bachelor of Technology

In

Computer Science and Engineering



Department of Computer Science and Technology

SCMS SCHOOL OF ENGINEERING AND TECHNOLOGY

(Affiliated to APJ ABDUL KALAM TECHNOLOGICAL UNIVERSITY)

VIDYA NAGAR, PALISSERY, KARUKUTTY, ERNAKULAM - 683 582

MAY 2023

SCMS SCHOOL OF ENGINEERING AND TECHNOLOGY

VIDYA NAGAR, PALISSERY, KARUKUTTY

ERNAKULAM – 683 582



CERTIFICATE

This is to certify that the report entitled **BREAST CANCER PREDICTION USING BIO-INSPIRED ALGORITHMS** submitted by ANJANA SANJAY (SCM19CS025), ANOOP FRANCIS (SCM19CS027), AQIL ANWAR (SCM19CS031), GESMI P RAJAN (SCM19CS052) to the APJ Abdul Kalam Technological University in partial fulfilment of the requirements for the award of the degree of Bachelor of Technology in COMPUTER SCIENCE & ENGINEERING is a bonafide record of the project work carried out by him/her under my/our guidance and supervision. This report in any form has not been submitted to any other University or Institute for any purpose.

Arshey M
29/6/23
PROJECT GUIDE

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Assistant Professor
Department of CSE

Sonal
PROJECT COORDINATOR

Dr. Sonal Ayyapan
Associate Professor
Department of CSE

Varun G Menon
HEAD OF THE DEPARTMENT

Dr. Varun G Menon
Professor
Department of CSE

DDB SIGN LANGUAGE DETECTION

PROJECT REPORT

submitted by

AFTHAB K NAUFAL (SCM19CS008)

AMAL RAJESH (SCM19CS021)

ADIL ABDUL KHADAR (SCM19CS005)

to

the APJ Abdul Kalam Technological University

in partial fulfillment of the requirements for the award of the Degree

of

Bachelor of Technology

In

Computer Science and Engineering



Department of Computer Science and Engineering

SCMS School of Engineering and Technology

Vidya Nagar, Karukutty, Kerala-683576

May 2023

DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING
SCMS SCHOOL OF ENGINEERING & TECHNOLOGY
KARUKUTTY



CERTIFICATE

This is to certify that the report entitled "DDB SIGN LANGUAGE DETECTION" submitted by AFTHAB K NAUFAL (SCM19CS008), AMAL RAJESH (SCM19CS021), ADIL ABDUL KHADAR (SCM19CS005) to the APJ Abdul Kalam Technological University in partial fulfillment of the requirements for the award of the Degree of Bachelor of Technology in COMPUTER SCIENCE & ENGINEERING is a bonafide record of the project work carried out by him/her under my/our guidance and supervision. This report in any form has not been submitted to any other University or Institute for any purpose.


PROJECT GUIDE

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PROJECT COORDINATOR

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HEAD OF THE DEPARTMENT

Dr. Varun G Menon
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Department of CSE

DDB SIGN LANGUAGE DETECTION

PROJECT REPORT

submitted by

AFTHAB K NAUFAL (SCM19CS008)

AMAL RAJESH (SCM19CS021)

ADIL ABDUL KHADAR (SCM19CS005)

to

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in partial fulfillment of the requirements for the award of the Degree

of

Bachelor of Technology

In

Computer Science and Engineering



Department of Computer Science and Engineering

SCMS School of Engineering and Technology

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May 2023

**DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING
SCMS SCHOOL OF ENGINEERING & TECHNOLOGY
KARUKUTTY**



CERTIFICATE

This is to certify that the report entitled “**DDB SIGN LANGUAGE DETECTION**” submitted by **AFTHAB K NAUFAL (SCM19CS008)**, **AMAL RAJESH (SCM19CS021)**, **ADIL ABDUL KHADAR (SCM19CS005)** to the APJ Abdul Kalam Technological University in partial fulfillment of the requirements for the award of the Degree of Bachelor of Technology in **COMPUTER SCIENCE & ENGINEERING** is a bonafide record of the project work carried out by him/her under my/our guidance and supervision. This report in any form has not been submitted to any other University or Institute for any purpose.


PROJECT GUIDE

Dr. Sonal Ayyappan
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PROJECT COORDINATOR

Dr. Sonal Ayyappan
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Department of CSE


HEAD OF THE DEPARTMENT

Dr. Varun G Menon
Professor
Department of CSE

DDB SIGN LANGUAGE DETECTION
PROJECT REPORT

submitted by

AFTHAB K NAUFAL (SCM19CS008)

AMAL RAJESH (SCM19CS021)

ADIL ABDUL KHADAR (SCM19CS005)

to

the APJ Abdul Kalam Technological University

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of

Bachelor of Technology

In

Computer Science and Engineering



Department of Computer Science and Engineering

SCMS School of Engineering and Technology

Vidya Nagar, Karukutty, Kerala-683576

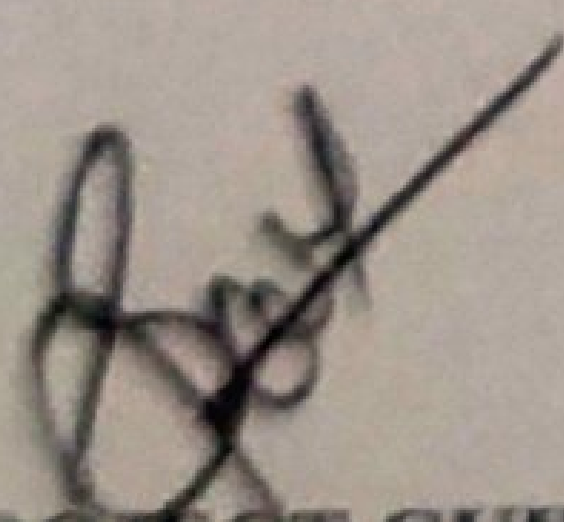
May 2023

DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING
SCMS SCHOOL OF ENGINEERING & TECHNOLOGY
KARUKUTTY

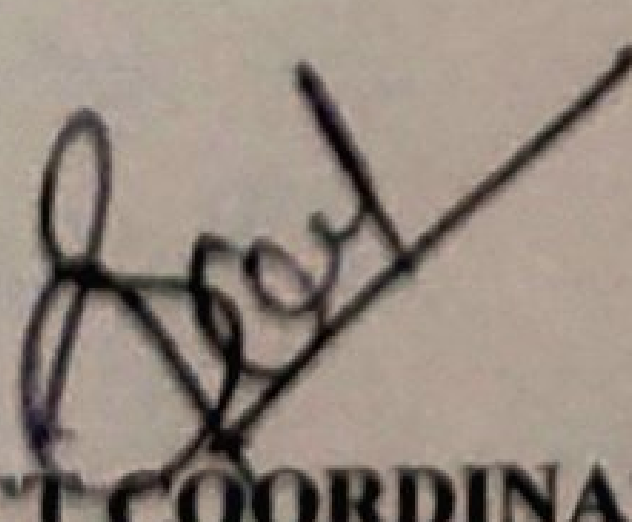


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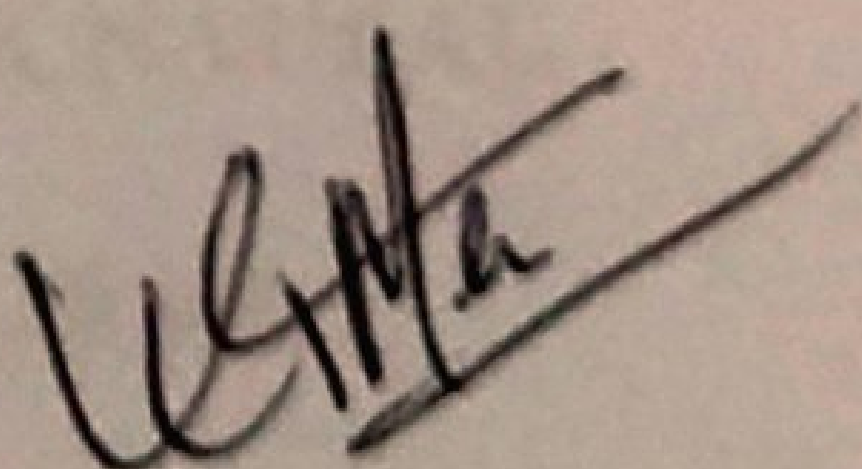
This is to certify that the report entitled “**DDB SIGN LANGUAGE DETECTION**” submitted by **AFTHAB K NAUFAL (SCM19CS008)**, **AMAL RAJESH (SCM19CS021)**, **ADIL ABDUL KHADAR (SCM19CS005)** to the APJ Abdul Kalam Technological University in partial fulfillment of the requirements for the award of the Degree of Bachelor of Technology in **COMPUTER SCIENCE & ENGINEERING** is a bonafide record of the project work carried out by him/her under my/our guidance and supervision. This report in any form has not been submitted to any other University or Institute for any purpose.


PROJECT GUIDE

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DDB SIGN LANGUAGE DETECTION
PROJECT REPORT

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AFTHAB K NAUFAL (SCM19CS008)

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ADIL ABDUL KHADAR (SCM19CS005)

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in partial fulfillment of the requirements for the award of the Degree

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Bachelor of Technology

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Computer Science and Engineering



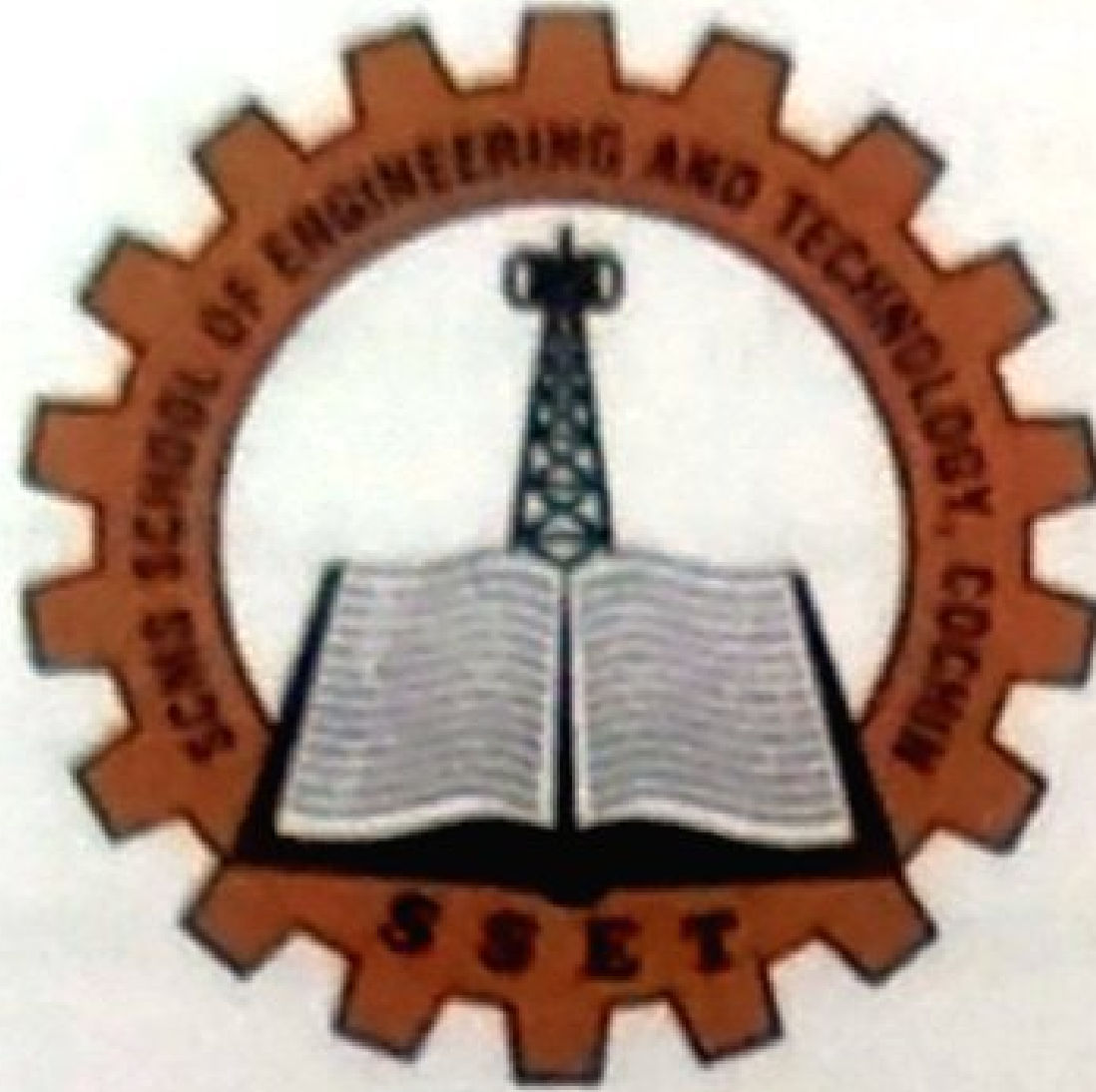
Department of Computer Science and Engineering

SCMS School of Engineering and Technology

Vidya Nagar, Karukutty, Kerala-683576

May 2023

DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING
SCMS SCHOOL OF ENGINEERING & TECHNOLOGY
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CERTIFICATE

This is to certify that the report entitled “**DDB SIGN LANGUAGE DETECTION**” submitted by **AFTHAB K NAUFAL (SCM19CS008)**, **AMAL RAJESH (SCM19CS021)**, **ADIL ABDUL KHADAR (SCM19CS005)** to the APJ Abdul Kalam Technological University in partial fulfillment of the requirements for the award of the Degree of Bachelor of Technology in **COMPUTER SCIENCE & ENGINEERING** is a bonafide record of the project work carried out by him/her under my/our guidance and supervision. This report in any form has not been submitted to any other University or Institute for any purpose.

PROJECT GUIDE

Dr. Sonal Ayyappan
 Associate Professor
 Department of CSE

PROJECT COORDINATOR

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Dr. Varun G Menon
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 Department of CSE

**A Multimodal Approach for Text Response Generating System
Using Image Context**

PROJECT REPORT

submitted by

ABAY RAJU M (SCM19CS001)
ASWINKUMAR T S (SCM19CS033)
DELVIN M SHINOY (SCM19CS044)
EDWIN BENNY (SCM19CS045)

to

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in partial fulfillment of the requirements for the award of the Degree

of

Bachelor of Technology

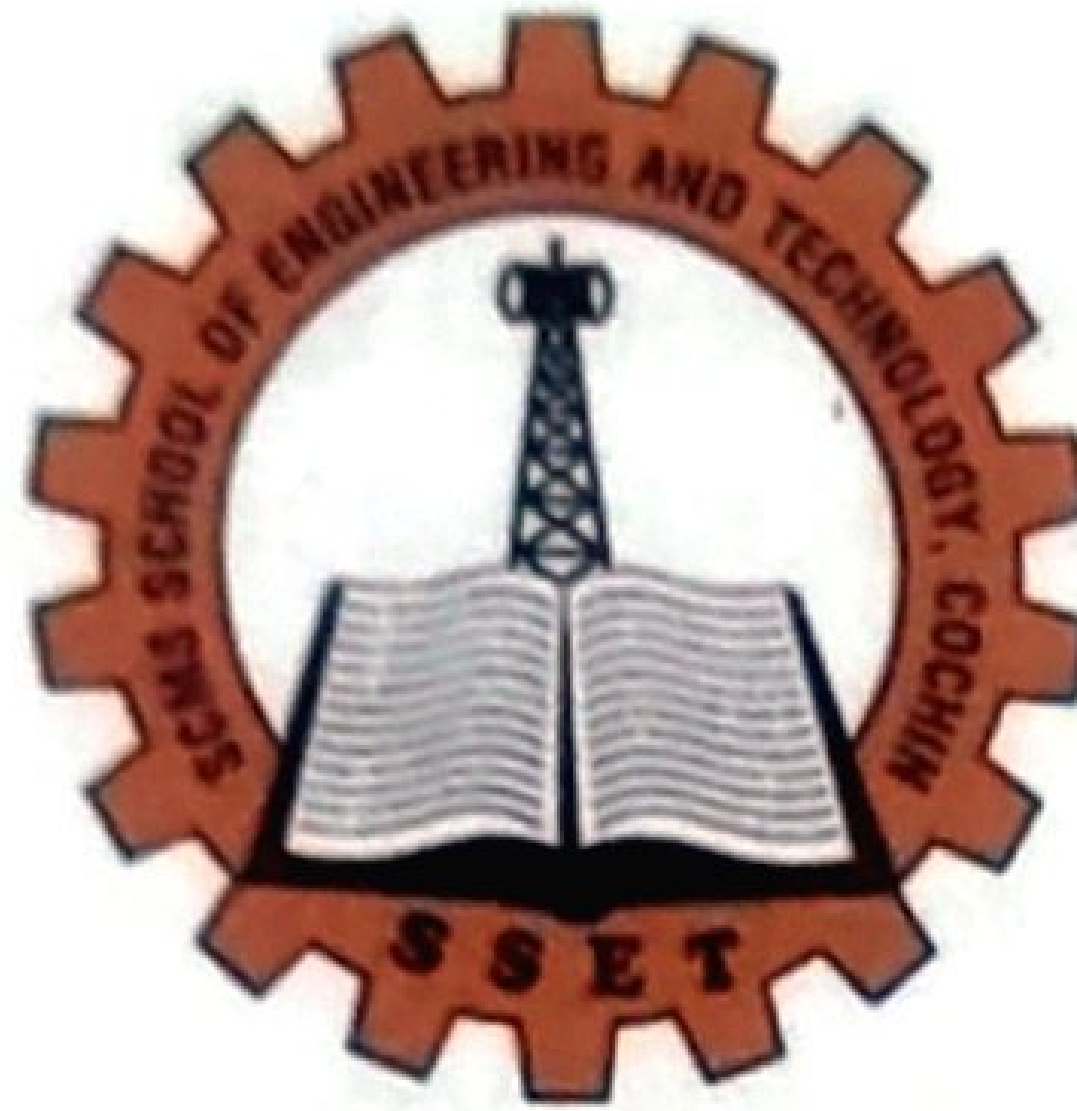
in

Computer Science and Engineering



Department of Computer Science and Engineering
SCMS School of Engineering and Technology
Vidya Nagar, Karukutty, Kerala-683576
May 2023

**DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING
SCMS SCHOOL OF ENGINEERING & TECHNOLOGY
KARUKUTTY**

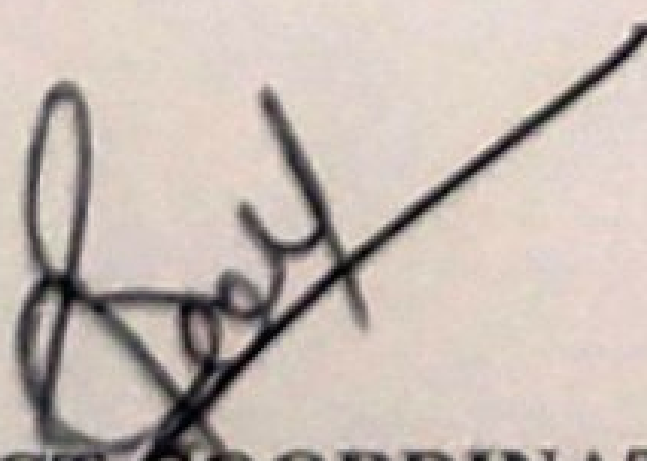


CERTIFICATE

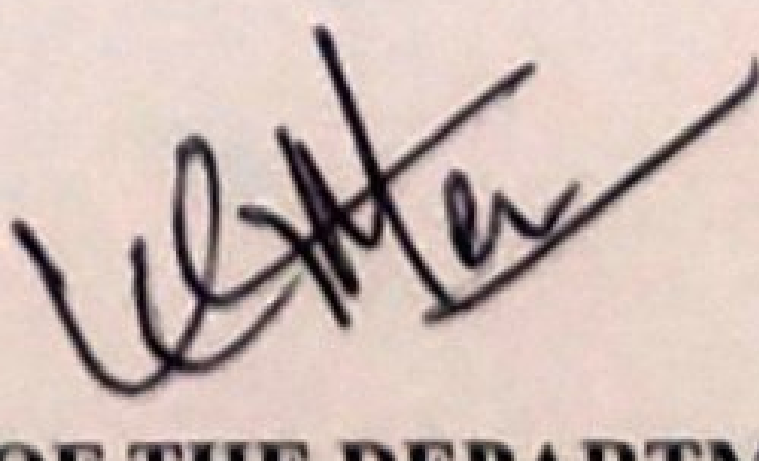
This is to certify that the report entitled “**A Multimodal Approach for Text Response Generating System Using Image Context**” submitted by **ABAY RAJU M (SCM19CS001)**, **ASWINKUMAR T S (SCM19CS033)**, **DELVIN M SHINOY (SCM19CS044)** and **EDWIN BENNY (SCM19CS045)** to the APJ Abdul Kalam Technological University in partial fulfillment of the requirements for the award of the Degree of Bachelor of Technology in **COMPUTER SCIENCE & ENGINEERING** is a bonafide record of the project work carried out by him/her under my/our guidance and supervision. This report in any form has not been submitted to any other University or Institute for any purpose.


PROJECT GUIDE

Dr. Sonal Ayyappan
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FACE RECOGNITION ATTENDANCE SYSTEM BASED ON RETINA FACE & ARCFACE

PROJECT REPORT

submitted by

ADITHYA KRISHNAN (SCM19CS006)

ADITYA MUKUNDAN (SCM19CS007)

AJAYSURYAN P A (SCM19CS010)

GEORGE ANIL (SCM19CS050)

to

The APJ Abdul Kalam Technological University

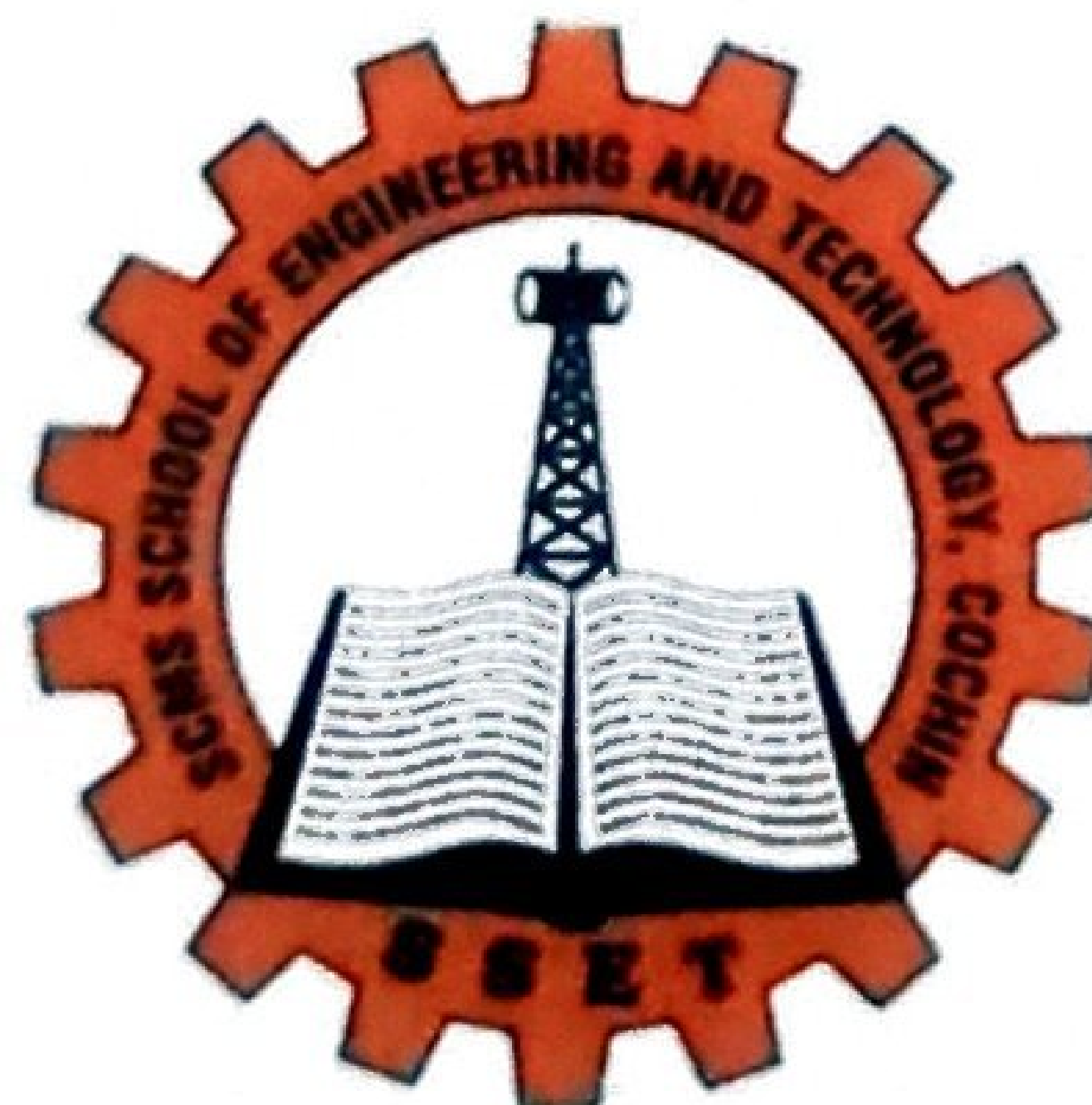
in partial fulfilment of the requirements for the award of the Degree

of

Bachelor of technology

in

Computer Science and Engineering



SCMS SCHOOL OF ENGINEERING AND TECHNOLOGY

(Affiliated to APJ ABDUL KALAM TECHNOLOGICAL UNIVERSITY)

VIDYA NAGAR, PALISSERY, KARUKUTTY

ERNAKULAM – 683 576

MAY 2023

DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING
SCMS SCHOOL OF ENGINEERING AND TECHNOLOGY



BONAFIDE CERTIFICATE

This is to certify that the report entitled “**A FACE RECOGNITION ATTENDANCE SYSTEM BASED ON RETINA FACE & ARCFACE**” is a bonafide record of the project presented by **ADITHYA KRISHNAN [SCM19CS006]**, **ADITYA MUKUNDAN [SCM19CS007]**, **AJAYSURYAN P A [SCM19CS010]**, **GEORGE ANIL [SCM19CS050]** to the APJ Abdul Kalam Technological University in partial fulfillment of the requirements for the award of the Degree of Bachelor of Technology in Computer Science and Engineering is a Bonafide record of the work carried out under the guidance and supervision, during the academic year 2022-2023.

PROJECT GUIDE

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PROJECT COORDINATOR

Dr. Sonal Ayyappan
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Dr. Varun G Menon
Professor
Department of CSE

RIOT: Reinforced Internet Of Things

A Project Report

*Submitted to the APJ Abdul Kalam Technological University
in partial fulfillment of requirements for the award of degree*

Bachelor of Technology

in

Computer Science and Engineering

by

Nivin Omar(SCM19CS086)

Rohan V Sunil(SCM19CS093)

Saurabh Sunil(SCM19CS098)

Suraj Ramachandran(SCM19CS106)



**DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING
SCMS SCHOOL OF ENGINEERING AND TECHNOLOGY ERNAKULAM**

KERALA

June 2023

DEPT. OF COMPUTER SCIENCE & ENGINEERING
SCMS SCHOOL OF ENGINEERING AND TECHNOLOGY ERNAKULAM


2022 - 23



CERTIFICATE

This is to certify that the report entitled **RIOT: Reinforced Internet Of Things** submitted by **Nivin Omar** (SCM19CS086), **Rohan V Sunil** (SCM19CS093), **Saurabh Sunil** (SCM19CS098) & **Suraj Ramachandran** (SCM19CS106) to the APJ Abdul Kalam Technological University in partial fulfillment of the B.Tech. degree in Computer Science and Engineering is a bonafide record of the project work carried out by him under our guidance and supervision. This report in any form has not been submitted to any other University or Institute for any purpose.

Dr. Anu V R
(Project Guide)
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Dept.of CSE
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Dr. Manish T I
(Project Coordinator)
Professor
Dept.of CSE
SCMS SSET
Ernakulam

Dr. Varun G Menon
Professor and Head
Dept.of CSE
SCMS SSET
Ernakulam

**A SMARTPHONE AUTHENTICATION SCHEME
DURING CALLS/VOICE INTERACTIONS
THROUGH IN-EAR WEARABLES**

A Project Report

*Submitted to the APJ Abdul Kalam Technological University
in partial fulfillment of requirements for the award of degree*

Bachelor of Technology

in

Computer Science and Engineering

by

MOHAMMED SHAHABAS E V(SCM19CS077)

SREERAG(SCM19CS101)

SUHAIL NASSAR KARUKAPADATH(SCM19CS105)

RIJAS SALI(MBC19CS042)



**DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING
SCMS SCHOOL OF ENGINEERING AND TECHNOLOGY ERNAKULAM**

KERALA

June 2023


DEPT. OF COMPUTER SCIENCE & ENGINEERING
SCMS SCHOOL OF ENGINEERING AND TECHNOLOGY ERNAKULAM


2022 - 23




CERTIFICATE

This is to certify that the report entitled **A SMARTPHONE AUTHENTICATION SCHEME DURING CALLS/VOICE INTERACTIONS THROUGH IN-EAR WEARABLES** submitted by **MOHAMMED SHAHABAS E V (SCM19CS077)**, **SREERAG (SCM19CS101)**, **SUHAIL NASSAR KARUKAPADATH (SCM19CS105)** & **RIJAS SALI (MBC19CS042)** to the APJ Abdul Kalam Technological University in partial fulfillment of the B.Tech. degree in Computer Science and Engineering is a bonafide record of the project work carried out by him under our guidance and supervision. This report in any form has not been submitted to any other University or Institute for any purpose.


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Dr. Varun G Menon
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EMOTION DETECTION OF TWEETS USING SENN MODEL.

A PROJECT REPORT

Submitted in partial fulfillment of the requirements for the award of degree of

BACHELOR OF TECHNOLOGY

By

**LAKSHMI N R Reg.no: SCM19CS068
MEKHIA ANN BINU Reg.no: SCM19CS075
SWETHA SARANG Reg.no: SCM19CS108
VARSHA MOHANDAS Reg.no: SCM19CS113**



SCMS SCHOOL OF ENGINEERING AND TECHNOLOGY
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VIDYA NAGAR, PALISSERY, KARUKUTTY
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June -2023



SCMS SCHOOL OF ENGINEERING AND TECHNOLOGY
(Affiliated to APJ ABDUL KALAM TECHNOLOGICAL UNIVERSITY)
VIDYA NAGAR, PALISSERY, KARUKUTTY
ERNAKULAM -683576

BONAFIDE CERTIFICATE

This is to certify that the project report on the topic **EMOTION DETECTION FROM TWEETS USING SENN MODEL** submitted by LAKSHMI N R, MEKHA ANN BINU, SWETHA SARANG, VARSHA MOHANDAS to the APJ Abdul Kalam Technological University in partial fulfilment of the requirements for the award of the degree of Bachelor of Technology in Computer Science and Engineering is a bonafide work carried out by them under guidance and supervision. This report in any form has not been submitted to any other University or Institute for any purpose.

Project Guide

Dr. Sonal Ayyappan

Associate Professor

Dept of Computer Science
and Engineering

Project Coordinator

Dr. Manish T I

Professor

Dept of Computer Science
and Engineering

Head of Department

Dr. Varun G Menon

Professor

Dept of Computer Science
and Engineering

LUNG CANCER DETECTION USING MACHINE LEARNING ALGORITHMS

PROJECT REPORT

submitted by

MEGHANA MURALEEDHARAN NAIR(SCM19CS073)

SREELAKSHMI V MENON (SCM19CS100)

MARIA BABU(SCM19CS072)

MUHAD K(SCM19CS078)

to

The APJ Abdul Kalam Technological University
in partial fulfillment of the requirements for the award of the Degree

of

Bachelor of Technology

in

Computer Science and Engineering



Department of Computer Science and Engineering

SCMS School of Engineering and Technology

Vidya Nagar, Karukutty, Kerala-683576

**DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING
SCMS SCHOOL OF ENGINEERING & TECHNOLOGY
KARUKUTTY**



CERTIFICATE

This is to certify that the report entitled "**Lung cancer Detection Using Machine Learning Algorithms**" submitted by **MARIA BABU (SCM19CS072)**, **MEGHANA MURALEEDHARAN NAIR(SCM19CS073)**, **MUHAD K(SCM19CS078)** and **SREELAKSHMI V MENON (SCM19CS100)** to The APJ Abdul Kalam Technological University in partial fulfillment of the requirements for the award of the Degree of Bachelor of Technology in **COMPUTER SCIENCE & ENGINEERING** is a bonafide record of the project work carried out by him/her under my/our guidance and supervision. This report in any form has not been submitted to any other University or Institute for any purpose.

PROJECT GUIDE

Gayathry S Warrier
Ms. Gayathry S Warrier
Associate Professor
Department of CSE



PROJECT COORDINATOR

Manish T I
Dr. Manish T I
Professor
Department of CSE

Varun G Menon

HEAD OF THE DEPARTMENT

Dr. Varun G Menon
Professor
Department of CSE

EXTERNAL EXAMINER

TrueRX- An Online Digital Prescription System

Project Report

Submitted to the APJ Abdul Kalam Technological University in partial fulfillment
requirements for the award of the degree

Bachelor of Technology

in

Computer Science and Engineering

by

PRASANTH V. P. (SCM19CS090)

PRATYUSH NAIR (SCM19CS091)

RON ROY(SCM19CS094)

SRIRAM A MADHU(SCM19CS102)



Department of Computer Science and Engineering
SCMS SCHOOL OF ENGINEERING AND TECHNOLOGY
VIDYA NAGAR, PALISSERY, KARUKUTTY
ERNAKULAM-683582
JUNE 2023

**DEPARTMENT OF COMPUTER SCIENCE AND
ENGINEERING**

SCMS SCHOOL OF ENGINEERING AND TECHNOLOGY

KARUKUTTY



CERTIFICATE

This is to certify that the report entitled **TrueRX - An Online Digital Prescription System** submitted by **Prasanth V. P. (SCM19CS090)**, **Pratyush Nair (SCM19CS091)**, **Ron Roy (SCM19CS094)**, **Sriram A Madhu (SCM19CS102)** to the APJ Abdul Kalam Technological University in partial fulfillment of the requirements for the award of the Degree of Bachelor of Technology in Computer Science and Engineering is a bonafide record of the project work carried out by him/her under my/our guidance and supervision. This report in any form has not been submitted to any other University or Institute for any purpose.


Internal Supervisor

Dr Manish T. I


Project Guide

Dr Manish T.I


Head of Department

Dr. Varun G Menon

A SECURE IMAGE PROCESSING SCHEME FOR DETECTION OF PNEUMONIA USING TRANSFER LEARNING

A Project Report

*Submitted to the APJ Abdul Kalam Technological University
in partial fulfillment requirements for the award of the degree*

Bachelor of Technology

in

Computer Science and Engineering

by

HYDER RASAK (SCM19CS061)

KENAS VARGHESE (SCM19CS067)

NAVYA GEORGE (SCM19CS083)

NEENA MARY ALEX (SCM19CS084)



**DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING
SCMS SCHOOL OF ENGINEERING AND TECHNOLOGY
VIDYA NAGAR, PALISSERY, KARUKUTTY
ERNAKULAM-6
JUNE 2023**

DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING
SCMS SCHOOL OF ENGINEERING AND TECHNOLOGY, ERNAKULAM

2022-23



CERTIFICATE

This is to certify that the report entitled "A Secure Medical Image Processing Scheme For Detection Of Pneumonia Using Transfer Learning" submitted by **HYDER RASAK** (SCM19CS061), **KENAS VARGHESE** (SCM19CS067), **NAVYA GEORGE** (SCM19CS083), **NEENA MARY ALEX** (SCM19CS084) to the APJ Abdul Kalam Technological University in partial fulfillment of the award of the Degree of Bachelor of Technology in Computer Science and Engineering is a bonafide record of the project work carried out by them under our guidance and supervision. This report in any form has not been submitted to any other University or Institute for any purpose.


Ms. Neenu Sebastian

(Project Guide)

Assistant Professor

Dept. of CSE, SSET


Dr. Varun G Menon

Professor and Head

Dept. of CSE, SSET




Dr. Manish T I

(Project Coordinator)

Professor

Dept. of CSE, SSET

External Examiner

PESCATORE – URL BASED PHISHING WEBSITE DETECTION USING MACHINE LEARNING

A Project Report

*Submitted to the APJ Abdul Kalam Technological University
In partial fulfillment of requirements for the award of degree*

Bachelor of Technology

in

Computer Science and Engineering

By

SANDEEP KURIAN JACOB (SCM19CS095)



**DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING
SCMS SCHOOL OF ENGINEERING AND TECHNOLOGY ERNAKULAM**

KERALA

June 2023


DEPARTMENT OF COMPUTER SCIENCE & ENGINEERING
SCMS SCHOOL OF ENGINEERING AND TECHNOLOGY,
ERNAKULAM

2022-23



CERTIFICATE

This is to certify that the report entitled, **PESCATORE – URL BASED PHISHING WEBSITE DETECTION USING MACHINE LEARNING** submitted by **Sandeep Kurian Jacob (SCM19CS095)** to APJ Abdul Kalam Technological University in partial fulfillment of the requirements for the award of the Degree of Bachelor of Technology in Computer Science and Engineering is a Bonafede record of the project work carried out by him under my guidance and supervision. This report in any form has not been submitted to any other University or Institute for any purpose.

 20/6/23

Project Guide & Coordinator

Dr. Manish T I

Professor

Dept. of CSE

SSET, Ernakulam



Head of The Department

Dr. Varun G Menon

Professor & HoD

Dept. of CSE

SSET, Ernakulam



LUNG CANCER DETECTION USING MACHINE LEARNING ALGORITHMS

PROJECT REPORT

submitted by

MEGHANA MURALEEDHARAN NAIR(SCM19CS073)

SREELAKSHMI V MENON (SCM19CS100)

MARIA BABU(SCM19CS072)

MUHAD K(SCM19CS078)

to

The APJ Abdul Kalam Technological University
in partial fulfillment of the requirements for the award of the Degree

of

Bachelor of Technology

in

Computer Science and Engineering



Department of Computer Science and Engineering
SCMS School of Engineering and Technology
Vidya Nagar, Karukutty, Kerala-683576

**DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING
SCMS SCHOOL OF ENGINEERING & TECHNOLOGY
KARUKUTTY**



CERTIFICATE

This is to certify that the report entitled “Lung cancer Detection Using Machine Learning Algorithms” submitted by MARIA BABU (SCM19CS072), MEGHANA MURALEEDHARAN NAIR(SCM19CS073), MUHAD K(SCM19CS078) and SREELAKSHMI V MENON (SCM19CS100) to The APJ Abdul Kalam Technological University in partial fulfillment of the requirements for the award of the Degree of Bachelor of Technology in COMPUTER SCIENCE & ENGINEERING is a bonafide record of the project work carried out by him/her under my/our guidance and supervision. This report in any form has not been submitted to any other University or Institute for any purpose.

PROJECT GUIDE

Ms. Gayathry S Warrick
Associate Professor
Department of CSE

PROJECT COORDINATOR

Dr. Manish T I
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Department of CSE



HEAD OF THE DEPARTMENT

Dr. Varun G Menon
Professor
Department of CSE

EXTERNAL EXAMINER

Tamper Resistant IoT Evidence Storage With Distributed & Decentralized System

A Project Report

*Submitted to the APJ Abdul Kalam Technological University
in partial fulfillment of requirements for the award of degree*

Bachelor of Technology

in

Computer Science and Engineering

by

Vyshnav K Vinodh(SCM19CS115)

Abhishek C D(LSCM19CS116)

Mithran C(SCM19CS076)



**DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING
SCMS SCHOOL OF ENGINEERING AND TECHNOLOGY ERNAKULAM
KERALA
June 2023**

DEPT. OF COMPUTER SCIENCE & ENGINEERING
SCMS SCHOOL OF ENGINEERING AND TECHNOLOGY ERNAKULAM

2022 - 23



CERTIFICATE

This is to certify that the report entitled **Tamper Resistant IoT Evidence Storage With Distributed & Decentralized System** submitted by **Vyshnav K Vinodh** (SCM19CS115), **Abhishek C D** (LSCM19CS116), **Mithran C** (SCM19CS076) to the APJ Abdul Kalam Technological University in partial fulfillment of the B.Tech. degree in Computer Science and Engineering is a bonafide record of the project work carried out by them under our guidance and supervision. This report in any form has not been submitted to any other University or Institute for any purpose.

Dr Anu V.R
(Project Guide)
Associate Professor
Dept.of CSE
SCMS SSET
Ernakulam

Dr. Manish T I
(Project Coordinator)
Professor
Dept.of CSE
SCMS SSET
Ernakulam

Dr. Varun G Menon
Professor and Head
Dept.of CSE
SCMS SSET
Ernakulam

Decentralized Voting System Using Block Chain Technology

A Project Report

Submitted to the APJ Abdul Kalam Technological University
in partial fulfillment requirements for the award of the degree

Bachelor of Technology
in
Computer Science and Engineering
by

JOSHNA GEORGE(SCM19CS066)

MEGHA PS (SCM19CS074)

NEERAJA BABU(SCM19CS085)

SRUTHI SANTHOSH(SCM19CS103)



DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING
SCMS SCHOOL OF ENGINEERING AND TECHNOLOGY
VIDYA NAGAR, PALISSERY, KARUKUTTY
ERNAKULAM-6
JUNE 2023

2022-23



CERTIFICATE

This is to certify that the report entitled "Decentralized Voting System Using Block Chain Technology" submitted by **JOSHNA GEORGE** (SCM19CS066), **MEGHA PS**(SCM19CS074), **NEERAJA BABU**(SCM19CS085), **SRUTHI SANTHOSH** (SCM19CS103) to the APJ Abdul Kalam Technological University in partial fulfillment of the award of the Degree of Bachelor of Technology in Computer Science and Engineering is a bonafide record of the project work carried out by them under our guidance and supervision. This report in any form has not been submitted to any other University or Institute for any purpose.



Ms. Rosaleen Paul

(Project Guide)

Asst. Professor

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Dr. Manish TI

(Project Coordinator)

Professor

Dept. Of CSE,SSET



Dr. Varun G Menon

Professor and Head

Dept. of CSE,SSET

Tamper Resistant IoT Evidence Storage With Distributed & Decentralized System

A Project Report

*Submitted to the APJ Abdul Kalam Technological University
in partial fulfillment of requirements for the award of degree*

Bachelor of Technology

in

Computer Science and Engineering

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Vyshnav K Vinodh(SCM19CS115)

Abhishek C D(LSCM19CS116)

Mithran C(SCM19CS076)



**DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING
SCMS SCHOOL OF ENGINEERING AND TECHNOLOGY ERNAKULAM
KERALA
June 2023**

DEPT. OF COMPUTER SCIENCE & ENGINEERING
SCMS SCHOOL OF ENGINEERING AND TECHNOLOGY ERNAKULAM

2022 - 23



CERTIFICATE

This is to certify that the report entitled **Tamper Resistant IoT Evidence Storage With Distributed & Decentralized System** submitted by **Vyshnav K Vinodh** (SCM19CS115), **Abhishek C D** (LSCM19CS116), **Mithran C** (SCM19CS076) to the APJ Abdul Kalam Technological University in partial fulfillment of the B.Tech. degree in Computer Science and Engineering is a bonafide record of the project work carried out by them under our guidance and supervision. This report in any form has not been submitted to any other University or Institute for any purpose.

Dr Anu V.R
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Associate Professor
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Ernakulam

Dr. Varun G Menon
Professor and Head
Dept.of CSE
SCMS SSET
Ernakulam

**A SMARTPHONE AUTHENTICATION SCHEME
DURING CALLS/VOICE INTERACTIONS
THROUGH IN-EAR WEARABLES**

A Project Report

*Submitted to the APJ Abdul Kalam Technological University
in partial fulfillment of requirements for the award of degree*

Bachelor of Technology

in

Computer Science and Engineering

by

MOHAMMED SHAHABAS E V(SCM19CS077)

SREERAG(SCM19CS101)

SUHAIL NASSAR KARUKAPADATH(SCM19CS105)

RIJAS SALI(MBC19CS042)



**DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING
SCMS SCHOOL OF ENGINEERING AND TECHNOLOGY ERNAKULAM**

KERALA

June 2023


DEPT. OF COMPUTER SCIENCE & ENGINEERING
SCMS SCHOOL OF ENGINEERING AND TECHNOLOGY ERNAKULAM

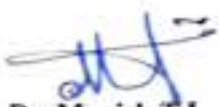
2022 - 23




CERTIFICATE

This is to certify that the report entitled **A SMARTPHONE AUTHENTICATION SCHEME DURING CALLS/VOICE INTERACTIONS THROUGH IN-EAR WEARABLES** submitted by **MOHAMMED SHAHABAS E V (SCM19CS077)**, **SREERAG (SCM19CS101)**, **SUHAIL NASSAR KARUKAPADATH (SCM19CS105)** & **RIJAS SALI (MBC19CS042)** to the APJ Abdul Kalam Technological University in partial fulfillment of the B.Tech. degree in Computer Science and Engineering is a bonafide record of the project work carried out by him under our guidance and supervision. This report in any form has not been submitted to any other University or Institute for any purpose.


Mrs. Susmi Jacob
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Programmable Tickets for Online Events using NFTs

A Project Report

Submitted to the APJ Abdul Kalam Technological University

in partial fulfillment of requirements for the award of degree

Bachelor of Technology

in

Computer Science and Engineering

by

Indrajith Gopeekrishnan(SCM19CS062)

Navaneeth Gopalakrishnan(SCM19CS082)

Pranav Narendran(SCM19CS087)

Pranav Pramod(SCM19CS088)



**DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING
SCMS SCHOOL OF ENGINEERING AND TECHNOLOGY ERNAKULAM**

KERALA

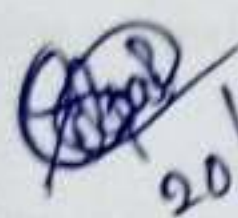
June 2023

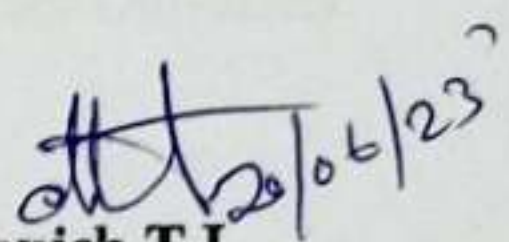
DEPT. OF COMPUTER SCIENCE & ENGINEERING SCMS SCHOOL OF
ENGINEERING AND TECHNOLOGY
ERNAKULAM 2019 - 23

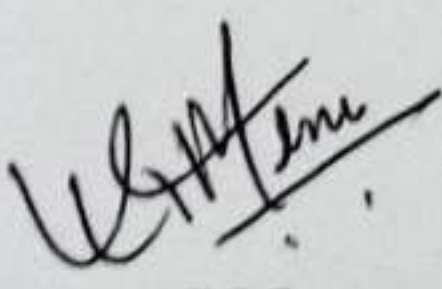


CERTIFICATE

This is to certify that the report entitled **Programmable Tickets for Online Events using NFTs** submitted by **Indrajith Gopeekrishnan (SCM19CS062), Navaneeth Gopalakrishnan (SCM19CS082), Pranav Narendran (SCM19CS087) & Pranav Pramod (SCM19CS088)** to the APJ Abdul Kalam Technological University in partial fulfillment of the B.Tech. degree in Computer Science and Engineering is a bonafide record of the project work carried out by him under our guidance and supervision. This report in any form has not been submitted to any other University or Institute for any purpose.


20/06/2023
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Ernakulam



**A SMARTPHONE AUTHENTICATION SCHEME
DURING CALLS/VOICE INTERACTIONS
THROUGH IN-EAR WEARABLES**

A Project Report

Submitted to the APJ Abdul Kalam Technological University

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Bachelor of Technology

in

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SUHAIL NASSAR KARUKAPADATH(SCM19CS105)

RIJAS SALI(MBC19CS042)



**DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING
SCMS SCHOOL OF ENGINEERING AND TECHNOLOGY ERNAKULAM**

KERALA

June 2023

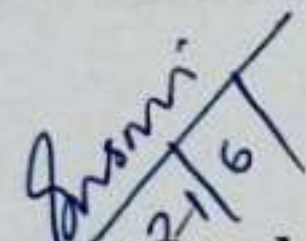
DEPT. OF COMPUTER SCIENCE & ENGINEERING
SCMS SCHOOL OF ENGINEERING AND TECHNOLOGY ERNAKULAM

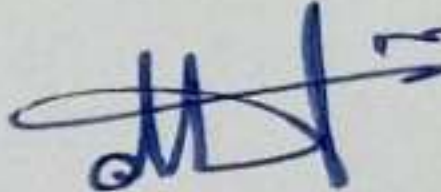
2022 - 23




CERTIFICATE

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Dr. Manish T I
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SCMS SSET
Ernakulam

**SMARTPHONE AUTHENTICATION USING HEAD GESTURE MODELLED
THROUGH MOTION SENSORS**

A PROJECT REPORT

SUBMITTED BY

MAHESH S [SCM19CS069]

MAHESH V.C [SCM19CS070]

SYED ABRAR [SCM19CS109]

VARGHESE JOSEPH [SCM19CS112]

to

THE APJ Abdul Kalam Technological University

in partial fulfilment of the requirements for the awards of degree

of

Bachelor of Technology

In

Computer Science and Engineering



Department of Computer Science and Technology

SCMS SCHOOL OF ENGINEERING AND TECHNOLOGY

(Affiliated to APJ ABDUL KALAM TECHNOLOGICAL UNIVERSITY)

VIDYA NAGAR, PALISSERY, KARUKUTTY, ERNAKULAM – 683576

June 2023

SCMS SCHOOL OF ENGINEERING AND TECHNOLOGY
(Affiliated to APJ ABDUL KALAM TECHNOLOGICAL
UNIVERSITY)

VIDYA NAGAR, PALISSERY, KARUKUTTY

ERNAKULAM - 683 576



BONA FIDE CERTIFICATE

This is to certify that the project report on the topic "Smartphone Authentication using Head Gestures modelled through Motion Sensors" by MAHESH S (SCM19CS069), MAHESH V.C (SCM19CS070), SYED ABRAR (SCM19CS109), VARGHESE JOSEPH (SCM19CS112) submitted in partial fulfillment of the requirements for the award of the degree of Bachelor of Technology, is a bona fide work carried out by her.

PROJECT GUIDE

Ms. Susmi Jacob

Assistant Professor

Department of Computer
Science and Engineering

HEAD OF THE DEPARTMENT

Dr. Varun G Menon

Professor

Department of Computer
Science and Engineering

LeakGuard: Intelligent Oil Leak Detection System

Project Report

Submitted to the APJ Abdul Kalam Technological University in partial fulfilment
requirements for the award of the degree

Bachelor of Technology

in

Computer Science and Engineering

by

SAROD S MOOTHAT (SCM19CS097)

SHYAMJITH SR (SCM19CS099)

THEJAS RANJITH (SCM19CS110)



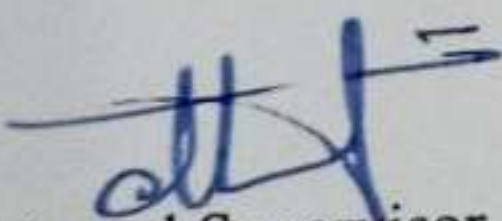
Department of Computer Science and Engineering
SCMS SCHOOL OF ENGINEERING AND TECHNOLOGY
VIDYA NAGAR, PALISSERY, KARUKUTTY
ERNAKULAM-683582

DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING
SCMS SCHOOL OF ENGINEERING AND TECHNOLOGY
KARUKUTTY

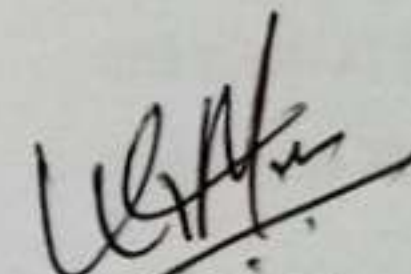


CERTIFICATE


This is to certify that the report entitled **LeakGuard: Intelligent Oil Leak Detection System System** submitted by **SAROD S MOOTHAT (SCM19CS097), SHYAMJITH SR (SCM19CS099), THEJAS RANJITH (SCM19CS110)** to the APJ Abdul Kalam Technological University in partial fulfilment of the requirements for the award of the Degree of Bachelor of Technology in Computer Science and Engineering is a bonafide record of the project work carried out by him/her under my/our guidance and supervision. This report in any form has not been submitted to any other University or Institute for any purpose.


Internal Supervisor

Dr Manish T. I


Project Guide

Dr. Varun G Menon


Head of Department

Dr. Varun G Menon

VAYGO: CLOUD-DEPLOYED EXCURSION MANAGEMENT APPLICATION

A PROJECT REPORT

Submitted By

JOMISH S. CHIRAMEL [SCM19CS065]
MUHAMMADH AMAN [SCM19CS079]
MUKUL MEHTA [SCM19CS080]
THOUFIQUE ASLAM N.J. [SCM19CS111]

to

the APJ Abdul Kalam Technological University
in partial fulfillment of the requirements for the awards of degree

of

Bachelor of Technology
In
Computer Science and Engineering



Department of Computer Science and Technology

SCMS SCHOOL OF ENGINEERING AND TECHNOLOGY

(Affiliated to APJ ABDUL KALAM TECHNOLOGICAL UNIVERSITY)

VIDYA NAGAR, PALISSERY, KARUKUTTY, ERNAKULAM – 683576

June 2023

SCMS SCHOOL OF ENGINEERING AND TECHNOLOGY

*(Affiliated to APJ ABDUL KALAM TECHNOLOGICAL
UNIVERSITY)*

VIDYA NAGAR, PALISSERY, KARUKUTTY

ERNAKULAM – 683 576



BONAFIDE CERTIFICATE

This is to certify that the project report on the topic "**VayGo: Cloud-Deployed Excursion Management Application**" by **JOMISH S. CHIRAMEL (SCM19CS065), MUHAMMADH AMAN (SCM19CS079), MUKUL MEHTA (SCM19CS080), THOUFIQUE ASLAM N.J. (SCM19CS111)** submitted in partial fulfilment of the requirement for the award of the degree of Bachelor of Technology, is a bonafide work carried out by her.

A handwritten signature in blue ink, with the date "20/6/2023" written below it.

PROJECT GUIDE

Ms. Surya S. G.

Assistant Professor

Department of Computer

Science and Engineering

A handwritten signature in blue ink.

HEAD OF DEPARTMENT

Dr. Varun G Menon

Associate Professor

Department of Computer

Science and Engineering

SMARTPHONE AUTHENTICATION USING HEAD GESTURE MODELLED THROUGH MOTION SENSORS

A PROJECT REPORT

SUBMITTED BY

MAHESH V.C [SCM19CS070]

to

THE APJ Abdul Kalam Technological University

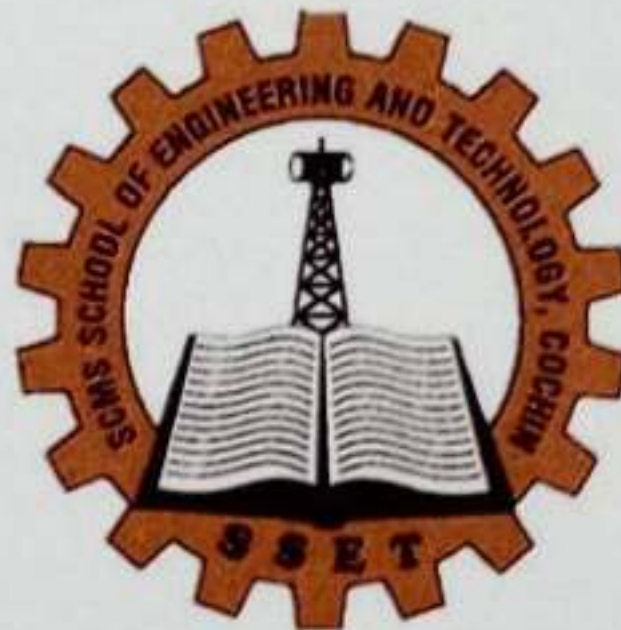
in partial fulfilment of the requirements for the awards of degree

of

Bachelor of Technology

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Department of Computer Science and Technology

SCMS SCHOOL OF ENGINEERING AND TECHNOLOGY

(Affiliated to APJ ABDUL KALAM TECHNOLOGICAL UNIVERSITY)

VIDYA NAGAR, PALISSERY, KARUKUTTY, ERNAKULAM – 683576

June 2023

DECLARATION

We undersigned hereby declare that the project report SMARTPHONE AUTHENTICATION USING HEAD GESTURES MODELLED THROUGH MOTION SENSORS, submitted for

SCMS SCHOOL OF ENGINEERING AND TECHNOLOGY

(Affiliated to APJ ABDUL KALAM TECHNOLOGICAL
UNIVERSITY)

VIDYA NAGAR, PALISSERY, KARUKUTTY

ERNAKULAM - 683 576



BONA FIDE CERTIFICATE

This is to certify that the project report on the topic "Smartphone Authentication using Head Gestures modelled through Motion Sensors" by MAHESH S (SCM19CS069), MAHESH V.C (SCM19CS070), SYED ABRAR (SCM19CS109), VARGHESE JOSEPH (SCM19CS112) submitted in partial fulfillment of the requirements for the award of the degree of Bachelor of Technology, is a bona fide work carried out by her.

PROJECT GUIDE

Ms. Susmi Jacob

Assistant Professor

Department of Computer
Science and Engineering

HEAD OF THE DEPARTMENT

Dr. Varun G Menon

Professor

Department of Computer
Science and Engineering

LeakGuard: Intelligent Oil Leak Detection System

Project Report

Submitted to the APJ Abdul Kalam Technological University in partial fulfilment
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SAROD S MOOTHAT (SCM19CS097)

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Department of Computer Science and Engineering

SCMS SCHOOL OF ENGINEERING AND TECHNOLOGY

VIDYA NAGAR, PALISSERY, KARUKUTTY

ERNAKULAM-683582

DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING
SCMS SCHOOL OF ENGINEERING AND TECHNOLOGY
KARUKUTTY



CERTIFICATE

This is to certify that the report entitled **LeakGuard: Intelligent Oil Leak Detection System System** submitted by **SAROD S MOOTHAT (SCM19CS097)**, **SHYAMJITH SR (SCM19CS099)**, **THEJAS RANJITH (SCM19CS110)** to the APJ Abdul Kalam Technological University in partial fulfilment of the requirements for the award of the Degree of Bachelor of Technology in Computer Science and Engineering is a bonafide record of the project work carried out by him/her under my/our guidance and supervision. This report in any form has not been submitted to any other University or Institute for any purpose.

Internal Supervisor

Dr Manish T. I

Project Guide

Dr. Varun G Menon

Head of Department

Dr. Varun G Menon

TrueRX- An Online Digital Prescription System

Project Report

Submitted to the APJ Abdul Kalam Technological University in partial fulfillment
requirements for the award of the degree

Bachelor of Technology

in

Computer Science and Engineering

by

PRASANTH V. P. (SCM19CS090)

PRATYUSH NAIR (SCM19CS091)

RON ROY(SCM19CS094)

SRIRAM A MADHU(SCM19CS102)



Department of Computer Science and Engineering

SCMS SCHOOL OF ENGINEERING AND TECHNOLOGY

VIDYA NAGAR, PALISSERY, KARUKUTTY

ERNAKULAM-683582

JUNE 2023

**DEPARTMENT OF COMPUTER SCIENCE AND
ENGINEERING**

SCMS SCHOOL OF ENGINEERING AND TECHNOLOGY

KARUKUTTY



CERTIFICATE

This is to certify that the report entitled **TrueRX - An Online Digital Prescription System** submitted by **Prasanth V. P. (SCM19CS090)**, **Pratyush Nair (SCM19CS091)**, **Ron Roy (SCM19CS094)**, **Sriram A Madhu (SCM19CS102)** to the APJ Abdul Kalam Technological University in partial fulfillment of the requirements for the award of the Degree of Bachelor of Technology in Computer Science and Engineering is a bonafide record of the project work carried out by him/her under my/our guidance and supervision. This report in any form has not been submitted to any other University or Institute for any purpose.

Internal Supervisor

Dr Manish T. I

Project Guide

Dr Manish T.I

Head of Department

Dr. Varun G Menon

LeakGuard: Intelligent Oil Leak Detection System

Project Report

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Bachelor of Technology

in

Computer Science and Engineering

by

SAROD S MOOTHAT (SCM19CS097)

SHYAMJITH SR (SCM19CS099)

THEJAS RANJITH (SCM19CS110)



Department of Computer Science and Engineering

SCMS SCHOOL OF ENGINEERING AND TECHNOLOGY

VIDYA NAGAR, PALISSERY, KARUKUTTY

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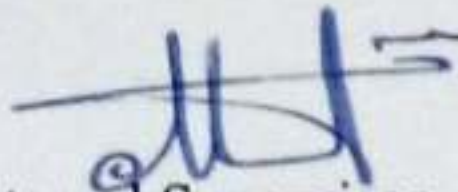
JUNE 2023

DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING
SCMS SCHOOL OF ENGINEERING AND TECHNOLOGY
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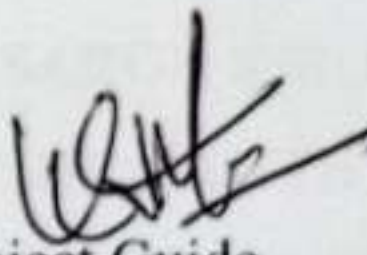


CERTIFICATE

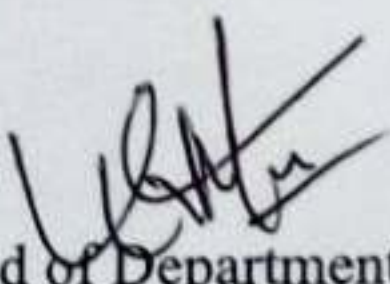
This is to certify that the report entitled **LeakGuard: Intelligent Oil Leak Detection System System** submitted by **SAROD S MOOTHAT (SCM19CS097)**, **SHYAMJITH SR (SCM19CS099)**, **THEJAS RANJITH (SCM19CS110)** to the APJ Abdul Kalam Technological University in partial fulfilment of the requirements for the award of the Degree of Bachelor of Technology in Computer Science and Engineering is a bonafide record of the project work carried out by him/her under my/our guidance and supervision. This report in any form has not been submitted to any other University or Institute for any purpose.


Internal Supervisor

Dr Manish T. I


Project Guide

Dr. Varun G Menon


Head of Department

Dr. Varun G Menon

TrueRX- An Online Digital Prescription System

Project Report

Submitted to the APJ Abdul Kalam Technological University in partial fulfillment
requirements for the award of the degree

Bachelor of Technology

in

Computer Science and Engineering

by

PRASANTH V. P. (SCM19CS090)

PRATYUSH NAIR (SCM19CS091)

RON ROY(SCM19CS094)

SRIRAM A MADHU(SCM19CS102)



Department of Computer Science and Engineering

SCMS SCHOOL OF ENGINEERING AND TECHNOLOGY

VIDYA NAGAR, PALISSERY, KARUKUTTY

ERNAKULAM-683582

JUNE 2023

**DEPARTMENT OF COMPUTER SCIENCE AND
ENGINEERING**

SCMS SCHOOL OF ENGINEERING AND TECHNOLOGY

KARUKUTTY



CERTIFICATE

This is to certify that the report entitled **TrueRX - An Online Digital Prescription System** submitted by **Prasanth V. P. (SCM19CS090)**, **Pratyush Nair (SCM19CS091)**, **Ron Roy (SCM19CS094)**, **Sriram A Madhu (SCM19CS102)** to the APJ Abdul Kalam Technological University in partial fulfillment of the requirements for the award of the Degree of Bachelor of Technology in Computer Science and Engineering is a bonafide record of the project work carried out by him/her under my/our guidance and supervision. This report in any form has not been submitted to any other University or Institute for any purpose.



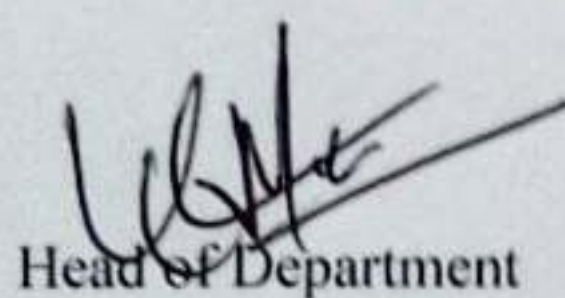
Internal Supervisor

Dr Manish T. I



Project Guide

Dr Manish T.I



Head of Department

Dr.Varun G Menon

**SMARTPHONE AUTHENTICATION USING HEAD GESTURE MODELLED
THROUGH MOTION SENSORS**

A PROJECT REPORT

SUBMITTED BY

VARGHESE JOSEPH [SCM19CS112]

to

THE APJ Abdul Kalam Technological University

in partial fulfilment of the requirements for the awards of degree

of

Bachelor of Technology

In

Computer Science and Engineering



Department of Computer Science and Technology

SCMS SCHOOL OF ENGINEERING AND TECHNOLOGY

(Affiliated to APJ ABDUL KALAM TECHNOLOGICAL UNIVERSITY)

VIDYA NAGAR, PALISSERY, KARUKUTTY, ERNAKULAM – 683576

June 2023

DECLARATION

We undersigned hereby declare that the project report SMARTPHONE AUTHENTICATION USING HEAD GESTURES MODELLED THROUGH MOTION SENSORS, submitted for

SCMS SCHOOL OF ENGINEERING AND TECHNOLOGY

(Affiliated to APJ ABDUL KALAM TECHNOLOGICAL
UNIVERSITY)

VIDYA NAGAR, PALISSERY, KARUKUTTY

ERNAKULAM - 683 576



BONA FIDE CERTIFICATE

This is to certify that the project report on the topic "Smartphone Authentication using Head Gestures modelled through Motion Sensors" by MAHESH S (SCM19CS069), MAHESH V.C (SCM19CS070), SYED ABRAR (SCM19CS109), VARGHESE JOSEPH (SCM19CS112) submitted in partial fulfillment of the requirements for the award of the degree of Bachelor of Technology, is a bona fide work carried out by her.

PROJECT GUIDE

Ms. Susmi Jacob

Assistant Professor

Department of Computer
Science and Engineering

HEAD OF THE DEPARTMENT

Dr. Varun G Menon

Professor

Department of Computer
Science and Engineering

Tamper Resistant IoT Evidence Storage With Distributed & Decentralized System

A Project Report

*Submitted to the APJ Abdul Kalam Technological University
in partial fulfillment of requirements for the award of degree*

Bachelor of Technology

in

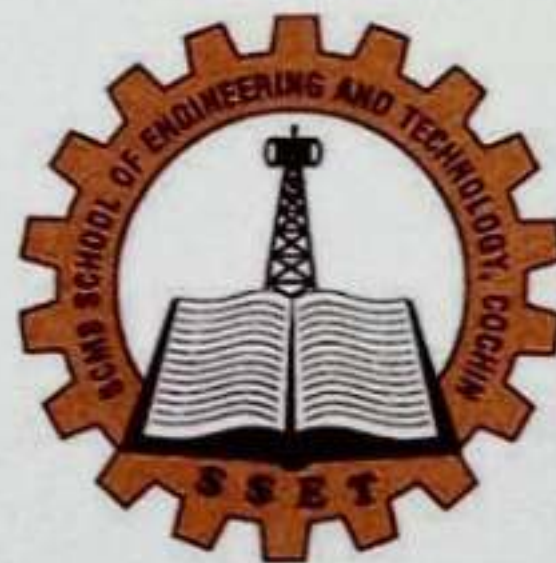
Computer Science and Engineering

by

Vyshnav K Vinodh(SCM19CS115)

Abhishek C D(LSCM19CS116)

Mithran C(SCM19CS076)



**DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING
SCMS SCHOOL OF ENGINEERING AND TECHNOLOGY ERNAKULAM
KERALA
June 2023**

DEPT. OF COMPUTER SCIENCE & ENGINEERING
SCMS SCHOOL OF ENGINEERING AND TECHNOLOGY ERNAKULAM

2022 - 23



CERTIFICATE

This is to certify that the report entitled **Tamper Resistant IoT Evidence Storage With Distributed & Decentralized System** submitted by **Vyshnav K Vinodh** (SCM19CS115), **Abhishek C D** (LSCM19CS116), **Mithran C** (SCM19CS076) to the APJ Abdul Kalam Technological University in partial fulfillment of the B.Tech. degree in Computer Science and Engineering is a bonafide record of the project work carried out by them under our guidance and supervision. This report in any form has not been submitted to any other University or Institute for any purpose.

Dr Anu V.R
(Project Guide)
Associate Professor
Dept.of CSE
SCMS SSET
Ernakulam

Dr. Manish T I
(Project Coordinator)
Professor
Dept.of CSE
SCMS SSET
Ernakulam

Dr. Varun G Menon
Professor and Head
Dept.of CSE
SCMS SSET
Ernakulam

DETECTION OF CARDIOVASCULAR DISEASE WITH MACHINE LEARNING AND ECG ANALYSIS

A Project Report

Submitted to the APJ Abdul Kalam Technological University

in partial fulfillment requirements for the award of the degree

Bachelor of Technology

in

Computer Science and Engineering

By

JAHANA JABBAR - SCM19CS063

JOBAN K JOSEPH - SCM19CS064

MANUAL SOMAN - SCM19CS071

NASWEEBA K N - SCM19CS081



**DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING
SCMS SCHOOL OF ENGINEERING AND TECHNOLOGY
VIDYA NAGAR, PALISSERY, KARUKUTTY
ERNAKULAM-683576
JUNE 2023**

**DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING
SCMS SCHOOL OF ENGINEERING AND TECHNOLOGY**

ERNAKULAM

2022-23



CERTIFICATE

This is to certify that the report entitled “**DETECTION OF CARDIOVASCULAR DISEASE WITH MACHINE LEARNING AND ECG ANALYSIS**” submitted by **JAHANA JABBAR** (SCM19CS063), **JOBAN K JOSEPH** (SCM19CS064), **MANUAL SOMAN** (SCM19CS071), **NASWEEBA K N** (SCM19CS081) to The APJ Abdul Kalam Technological University in partial fulfillment of the requirements for the award of the Degree of Bachelor of Technology in **COMPUTER SCIENCE & ENGINEERING** is a bonafide record of the project work carried out by him/her under my/our guidance and supervision. This report in any form has not been submitted to any other University or Institute for any purpose.


PROJECT GUIDE

Mrs. Athira Manikuttan
Assistant Professor
Department of CSE


PROJECT COORDINATOR

Dr. Manish T I
Professor
Department of CSE


HEAD OF THE DEPARTMENT

Dr. Varun G Menon
Professor
Department of CSE



TrueRX- An Online Digital Prescription System

Project Report

Submitted to the APJ Abdul Kalam Technological University in partial fulfillment
requirements for the award of the degree

Bachelor of Technology

in

Computer Science and Engineering

by

PRASANTH V. P. (SCM19CS090)

PRATYUSH NAIR (SCM19CS091)

RON ROY(SCM19CS094)

SRIRAM A MADHU(SCM19CS102)



Department of Computer Science and Engineering

SCMS SCHOOL OF ENGINEERING AND TECHNOLOGY

VIDYA NAGAR, PALISSERY, KARUKUTTY

ERNAKULAM-683582

JUNE 2023

DEPARTMENT OF COMPUTER SCIENCE AND
ENGINEERING

SCMS SCHOOL OF ENGINEERING AND TECHNOLOGY

KARUKUTTY



CERTIFICATE

This is to certify that the report entitled **TrueRX - An Online Digital Prescription System** submitted by **Prasanth V. P. (SCM19CS090)**, **Pratyush Nair (SCM19CS091)**, **Ron Roy (SCM19CS094)**, **Sriram A Madhu (SCM19CS102)** to the APJ Abdul Kalam Technological University in partial fulfillment of the requirements for the award of the Degree of Bachelor of Technology in Computer Science and Engineering is a bonafide record of the project work carried out by him/her under my/our guidance and supervision. This report in any form has not been submitted to any other University or Institute for any purpose.

Internal Supervisor

Dr Manish T. I

Project Guide

Dr Manish T.I

Head of Department

Dr. Varun G Menon

LeakGuard: Intelligent Oil Leak Detection System

Project Report

Submitted to the APJ Abdul Kalam Technological University in partial fulfilment
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Bachelor of Technology

in

Computer Science and Engineering

by

SAROD S MOOTHAT (SCM19CS097)

SHYAMJITH SR (SCM19CS099)

THEJAS RANJITH (SCM19CS110)



Department of Computer Science and Engineering

SCMS SCHOOL OF ENGINEERING AND TECHNOLOGY

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DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING
SCMS SCHOOL OF ENGINEERING AND TECHNOLOGY
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Internal Supervisor

Dr Manish T. I


Project Guide

Dr. Varun G Menon


Head of Department

Dr. Varun G Menon

**A SMARTPHONE AUTHENTICATION SCHEME
DURING CALLS/VOICE INTERACTIONS
THROUGH IN-EAR WEARABLES**

A Project Report

*Submitted to the APJ Abdul Kalam Technological University
in partial fulfillment of requirements for the award of degree*

Bachelor of Technology

in

Computer Science and Engineering

by

MOHAMMED SHAHABAS E V(SCM19CS077)

SREERAG(SCM19CS101)

SUHAIL NASSAR KARUKAPADATH(SCM19CS105)

RIJAS SALI(MBC19CS042)



**DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING
SCMS SCHOOL OF ENGINEERING AND TECHNOLOGY ERNAKULAM**

KERALA

June 2023


DEPT. OF COMPUTER SCIENCE & ENGINEERING
SCMS SCHOOL OF ENGINEERING AND TECHNOLOGY ERNAKULAM


2022 - 23




CERTIFICATE

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Mrs. Susmi Jacob
(Project Guide)
Assistant Professor
Dept. of CSE
SCMS SSET
Ernakulam


Dr. Manish T I
(Project Coordinator)
Professor
Dept. of CSE
SCMS SSET
Ernakulam


Dr. Varun G Menon
Professor and Head
Dept. of CSE
SCMS SSET
Ernakulam

TrueRX- An Online Digital Prescription System

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Department of Computer Science and Engineering

SCMS SCHOOL OF ENGINEERING AND TECHNOLOGY

VIDYA NAGAR, PALISSERY, KARUKUTTY

ERNAKULAM-683582

JUNE 2023

DEPARTMENT OF COMPUTER SCIENCE AND
ENGINEERING

SCMS SCHOOL OF ENGINEERING AND TECHNOLOGY

KARUKUTTY



CERTIFICATE

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Internal Supervisor

Dr Manish T. I

Project Guide

Dr Manish T.I

Head of Department

Dr. Varun G Menon

LUNG CANCER DETECTION USING MACHINE LEARNING ALGORITHMS

PROJECT REPORT

submitted by

MEGHANA MURALEEDHARAN NAIR(SCM19CS073)

SREELAKSHMI V MENON (SCM19CS100)

MARIA BABU(SCM19CS072)

MUHAD K(SCM19CS078)

to

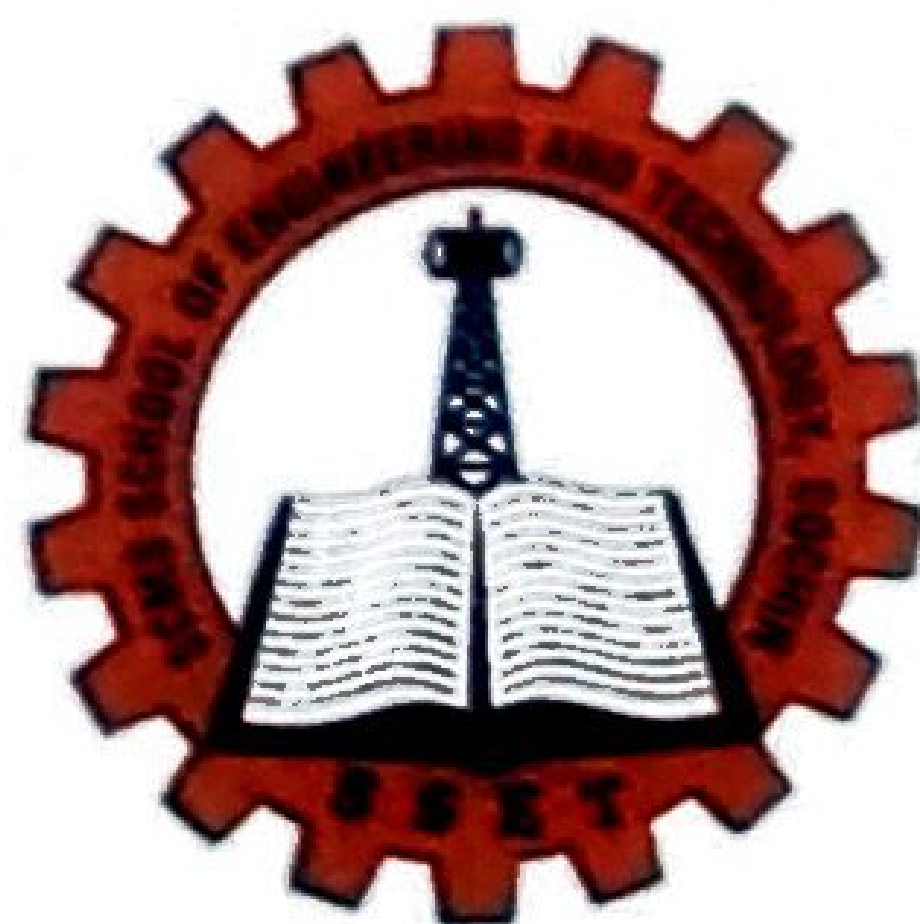
The APJ Abdul Kalam Technological University
in partial fulfillment of the requirements for the award of the Degree

of

Bachelor of Technology

in

Computer Science and Engineering



Department of Computer Science and Engineering
SCMS School of Engineering and Technology
Vidya Nagar, Karukutty, Kerala-683576

**DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING
SCMS SCHOOL OF ENGINEERING & TECHNOLOGY
KARUKUTTY**



CERTIFICATE

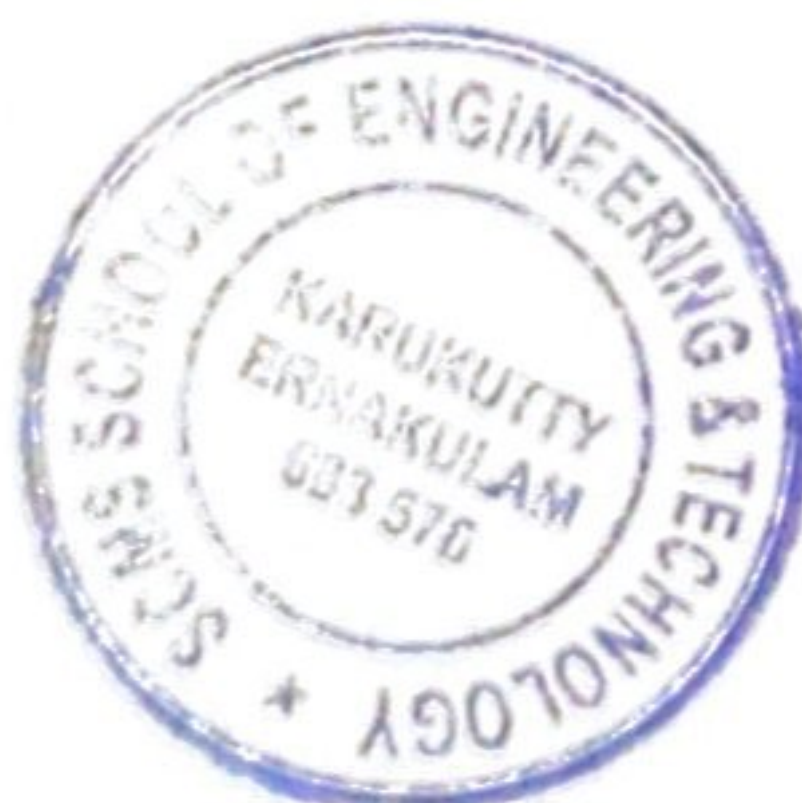
This is to certify that the report entitled “**Lung cancer Detection Using Machine Learning Algorithms**” submitted by MARIA BABU (SCM19CS072), MEGHANA MURALEEDHARAN NAIR(SCM19CS073), **MUHAD K(SCM19CS078)** and SREELAKSHMI V MENON (SCM19CS100) to The APJ Abdul Kalam Technological University in partial fulfillment of the requirements for the award of the Degree of Bachelor of Technology in **COMPUTER SCIENCE & ENGINEERING** is a bonafide record of the project work carried out by him/her under my/our guidance and supervision. This report in any form has not been submitted to any other University or Institute for any purpose.

PROJECT GUIDE

Gayathry
Ms. Gayathry S. Warriar
Associate Professor
Department of CSE

PROJECT COORDINATOR

Manish T I
Dr. Manish T I
Professor
Department of CSE



HEAD OF THE DEPARTMENT

Varun G Menon
Dr. Varun G Menon
Professor
Department of CSE

EXTERNAL EXAMINER

LUNG CANCER DETECTION USING MACHINE LEARNING ALGORITHMS

PROJECT REPORT

submitted by

MEGHANA MURALEEDHARAN NAIR(SCM19CS073)

SREELAKSHMI V MENON (SCM19CS100)

MARIA BABU(SCM19CS072)

MUHAD K(SCM19CS078)

to

The APJ Abdul Kalam Technological University
in partial fulfillment of the requirements for the award of the Degree

of

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in

Computer Science and Engineering



Department of Computer Science and Engineering
SCMS School of Engineering and Technology
Vidya Nagar, Karukutty, Kerala-683576

**DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING
SCMS SCHOOL OF ENGINEERING & TECHNOLOGY
KARUKUTTY**



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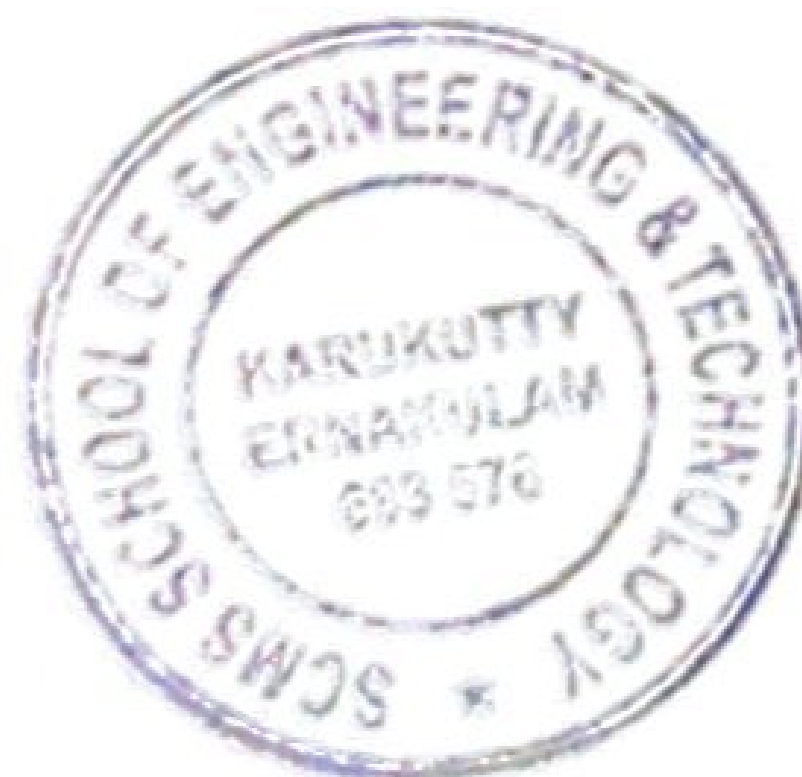
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PROJECT GUIDE

Gayathry
Ms. Gayathry S Warriar
Associate Professor
Department of CSE

PROJECT COORDINATOR

Manish T I
Dr. Manish T I
Professor
Department of CSE



HEAD OF THE DEPARTMENT

Varun G Menon
Dr. Varun G Menon
Professor
Department of CSE

EXTERNAL EXAMINER

AUTHENTER

(Fake product Identification using Block chain)

PROJECT REPORT

Submitted by

RAHUL K MILAN (SCM19CS092)

SANJAY K SUNIL (SCM19CS096)

SUDHEESH N S (SCM19CS104)

SURAJ SIDHARTH (SCM19CS107)

to

the APJ Abdul Kalam Technological University
in partial fulfillment of the requirements for the award of the Degree

of

Bachelor of Technology

In

Computer Science and Engineering



Department of Computer Science and Engineering

SCMS SCHOOL OF ENGINEERING AND TECHNOLOGY

(Affiliated TO APJ ABDUL KALAM TECHNOLOGICAL UNIVERSITY)

VIDYA NAGAR, PALISSERY, KARUKUTTY

ERNAKULAM-683582

JUNE 2023

DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING
SCMS SCHOOL OF ENGINEERING AND TECHNOLOGY
(Affiliated TO APJ ABDUL KALAM TECHNOLOGICAL UNIVERSITY)
VIDYA NAGAR, PALISSERY, KARUKUTTY

ERNAKULAM-683582

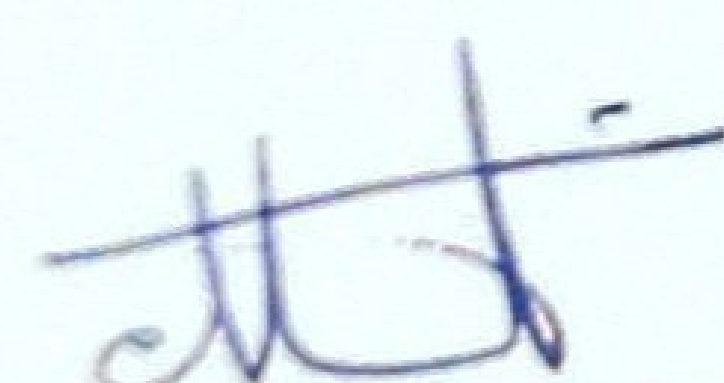


CERTIFICATE


This is to certify that the report entitled **AUTHENTER (Fake product Identification using Block chain)** submitted by **RAHUL K MILAN (SCM19CS092), SANJAY K SUNIL (SCM19CS096), SUDHEESH N S (SCM19CS104), SURAJ SIDHARTH (SCM19CS107)** to the APJ Abdul Kalam Technological University in partial fulfillment of the requirements for the award of the Degree of Bachelor of Technology in Computer Science and Engineering is a bonafide record of the project work carried out by him/her under my/our guidance and supervision.. This report in any form has not been submitted to any other University or Institute for any purpose.


PROJECT GUIDE

Mrs. Reshma K V
Assistant Professor
Department of CSE


PROJECT COORDINATOR

Dr. Manish T I
Professor
Department of CSE


HEAD OF THE DEPARTMENT

Dr. Varun G Menon
Professor
Department of CSE

PESCATORE – URL BASED PHISHING WEBSITE DETECTION USING MACHINE LEARNING

A Project Report

*Submitted to the APJ Abdul Kalam Technological University
In partial fulfillment of requirements for the award of degree*

Bachelor of Technology

in

Computer Science and Engineering

by

PRANAV PRAVEEN

SCM19CS089

SANDEEP KURIAN JACOB

SCM19CS095

V GOWRISANKAR MENON

SCM19CS114



**DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING
SCMS SCHOOL OF ENGINEERING AND TECHNOLOGY ERNAKULAM**

KERALA

June 2023


DEPARTMENT OF COMPUTER SCIENCE & ENGINEERING
SCMS SCHOOL OF ENGINEERING AND TECHNOLOGY,
ERNAKULAM

2022-23




CERTIFICATE

This is to certify that the report entitled, **PESCATORE – URL BASED PHISHING WEBSITE DETECTION USING MACHINE LEARNING** submitted by **Pranav Praveen (SCM19CS059)**, **Sandeep Kurian Jacob(SCM19CS095)** & **V Gowrisankar Menon(SCM19CS114)** to APJ Abdul Kalam Technological University in partial fulfillment of the requirements for the award of the Degree of Bachelor of Technology in Computer Science and Engineering is a Bonafede record of the project work carried out by him under my guidance and supervision. This report in any form has not been submitted to any other University or Institute for any purpose.


Project Guide & Coordinator
Dr. Manish T I
Professor
Dept. of CSE
SSET, Ernakulam




Head of The Department
Dr. Varun G Menon
Professor & HoD
Dept. of CSE
SSET, Ernakulam

**SMARTPHONE AUTHENTICATION USING HEAD GESTURE MODELLED
THROUGH MOTION SENSORS**

A PROJECT REPORT

SUBMITTED BY

MAHESH S [SCM19CS069]

to

THE APJ Abdul Kalam Technological University

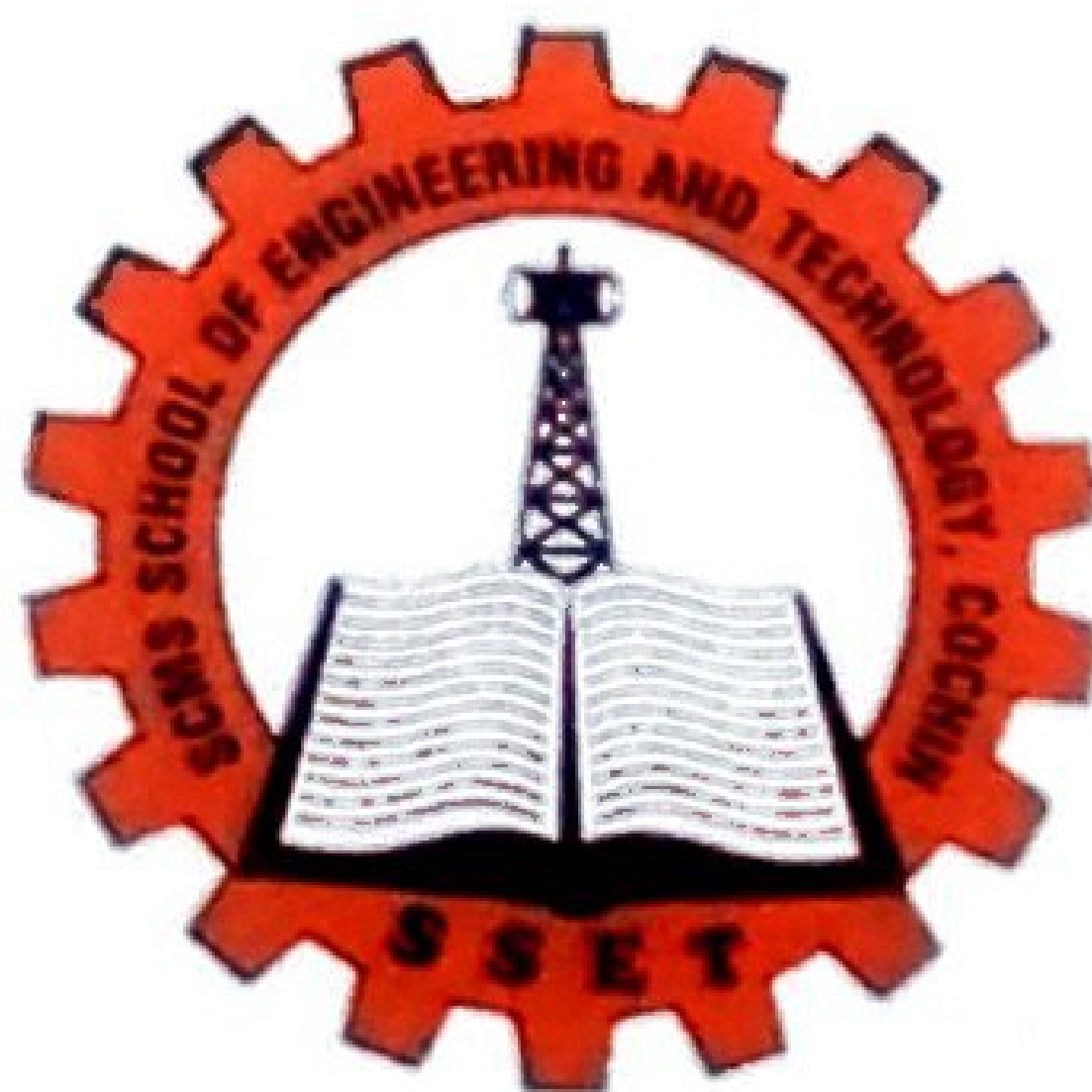
in partial fulfilment of the requirements for the awards of degree

of

Bachelor of Technology

In

Computer Science and Engineering



Department of Computer Science and Technology

SCMS SCHOOL OF ENGINEERING AND TECHNOLOGY

(Affiliated to APJ ABDUL KALAM TECHNOLOGICAL UNIVERSITY)

VIDYA NAGAR, PALISSERY, KARUKUTTY, ERNAKULAM – 683576

June 2023

DECLARATION

We undersigned hereby declare that the project report SMARTPHONE AUTHENTICATION USING HEAD GESTURES MODELLED THROUGH MOTION SENSORS, submitted for

SCMS SCHOOL OF ENGINEERING AND TECHNOLOGY

**(Affiliated to APJ ABDUL KALAM TECHNOLOGICAL
UNIVERSITY)**

VIDYA NAGAR, PALISSERY, KARUKUTTY

ERNAKULAM - 683 576



BONA FIDE CERTIFICATE

This is to certify that the project report on the topic **"Smartphone Authentication using Head Gestures modelled through Motion Sensors"** by **MAHESH S (SCM19CS069), MAHESH V.C (SCM19CS070), SYED ABRAR (SCM19CS109), VARGHESE JOSEPH (SCM19CS112)** submitted in partial fulfillment of the requirements for the award of the degree of Bachelor of Technology, is a bona fide work carried out by her.

PROJECT GUIDE

Ms. Susmi Jacob

Assistant Professor

Department of Computer
Science and Engineering


HEAD OF THE DEPARTMENT

Dr. Varun G Menon

Professor

Department of Computer
Science and Engineering

**SMARTPHONE AUTHENTICATION USING HEAD GESTURE MODELLED
THROUGH MOTION SENSORS**

A PROJECT REPORT

SUBMITTED BY

SYED ABRAR [SCM19CS109]

to

THE APJ Abdul Kalam Technological University

in partial fulfilment of the requirements for the awards of degree

of

Bachelor of Technology

In

Computer Science and Engineering



Department of Computer Science and Technology

SCMS SCHOOL OF ENGINEERING AND TECHNOLOGY

(Affiliated to APJ ABDUL KALAM TECHNOLOGICAL UNIVERSITY)

VIDYA NAGAR, PALISSERY, KARUKUTTY, ERNAKULAM – 683576

June 2023

DECLARATION

**We undersigned hereby declare that the project report SMARTPHONE AUTHENTICATION
USING HEAD GESTURES MODELLED THROUGH MOTION SENSORS, submitted for**

SCMS SCHOOL OF ENGINEERING AND TECHNOLOGY

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PROJECT GUIDE

Ms. Susmi Jacob

Assistant Professor

Department of Computer
Science and Engineering


HEAD OF THE DEPARTMENT

Dr. Varun G Menon

Professor

Department of Computer
Science and Engineering

**A SMARTPHONE AUTHENTICATION SCHEME
DURING CALLS/VOICE INTERACTIONS
THROUGH IN-EAR WEARABLES**

A Project Report

*Submitted to the APJ Abdul Kalam Technological University
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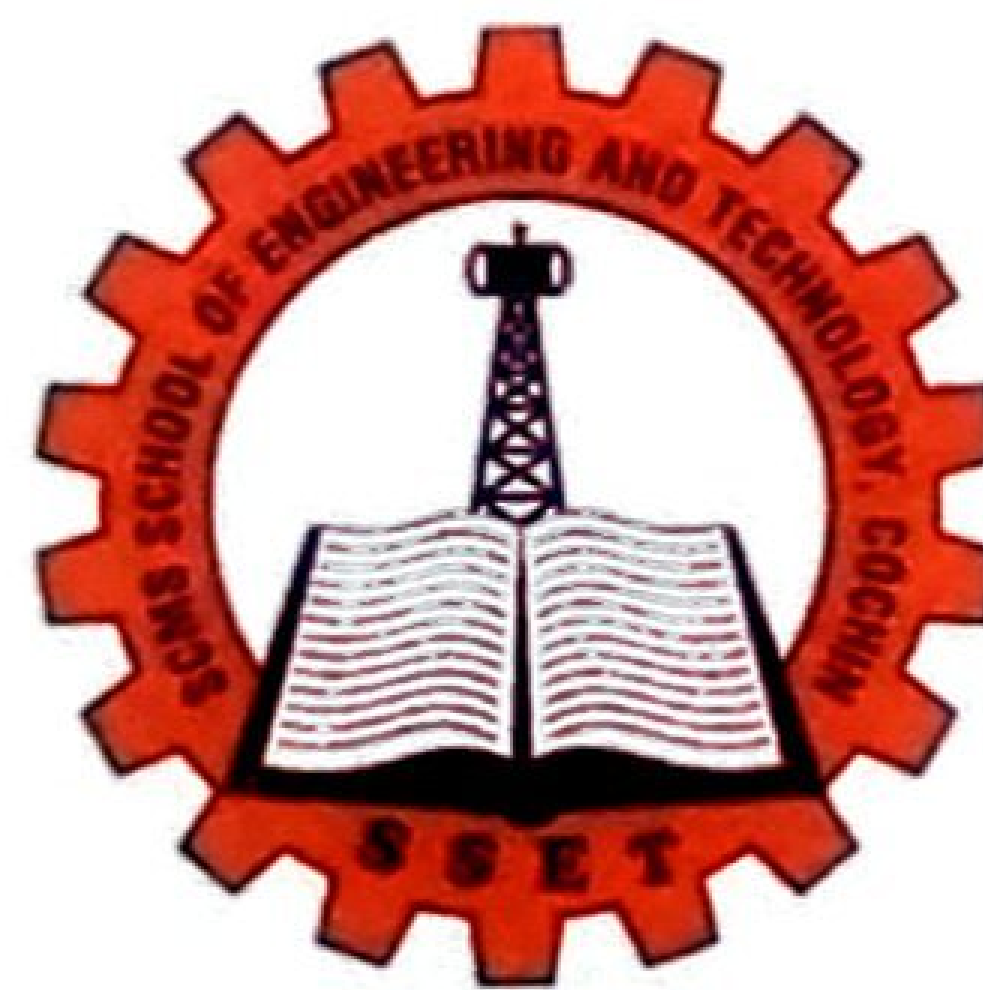
by

MOHAMMED SHAHABAS E V(SCM19CS077)

SREERAG(SCM19CS101)

SUHAIL NASSAR KARUKAPADATH(SCM19CS105)

RIJAS SALI(MBC19CS042)



**DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING
SCMS SCHOOL OF ENGINEERING AND TECHNOLOGY ERNAKULAM**

KERALA

June 2023

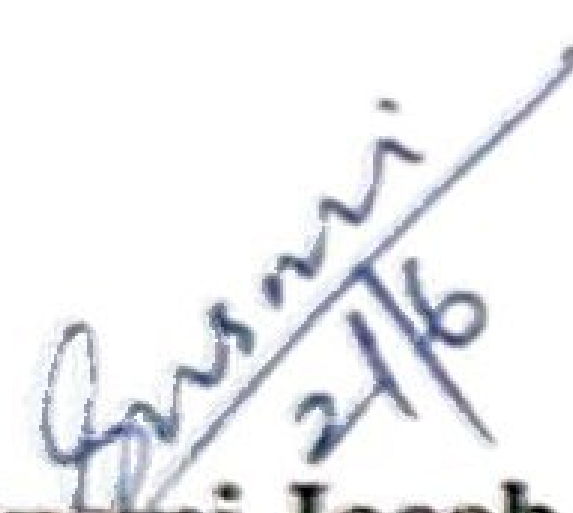
DEPT. OF COMPUTER SCIENCE & ENGINEERING
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2022 - 23




CERTIFICATE

This is to certify that the report entitled **A SMARTPHONE AUTHENTICATION SCHEME DURING CALLS/VOICE INTERACTIONS THROUGH IN-EAR WEARABLES** submitted by **MOHAMMED SHAHABAS E V (SCM19CS077)**, **SREERAG (SCM19CS101)**, **SUHAIL NASSAR KARUKAPADATH (SCM19CS105)** & **RIJAS SALI (MBC19CS042)** to the APJ Abdul Kalam Technological University in partial fulfillment of the B.Tech. degree in Computer Science and Engineering is a bonafide record of the project work carried out by him under our guidance and supervision. This report in any form has not been submitted to any other University or Institute for any purpose.


Mrs. Susmi Jacob
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**PESCATORE – URL BASED PHISHING WEBSITE
DETECTION USING MACHINE LEARNING**

A Project Report

*Submitted to the APJ Abdul Kalam Technological University
In partial fulfillment of requirements for the award of degree*

Bachelor of Technology

in

Computer Science and Engineering

By

V GOWRISANKAR MENON (SCM19CS144)



**DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING
SCMS SCHOOL OF ENGINEERING AND TECHNOLOGY ERNAKULAM**

KERALA

June 2023


DEPARTMENT OF COMPUTER SCIENCE & ENGINEERING
SCMS SCHOOL OF ENGINEERING AND TECHNOLOGY,
ERNAKULAM

2022-23



CERTIFICATE

This is to certify that the report entitled, **PESCATORE – URL BASED PHISHING WEBSITE DETECTION USING MACHINE LEARNING** submitted by **V Gowrisankar Menon (SCM19CS114)** to APJ Abdul Kalam Technological University in partial fulfillment of the requirements for the award of the Degree of Bachelor of Technology in Computer Science and Engineering is a Bonafede record of the project work carried out by him under my guidance and supervision. This report in any form has not been submitted to any other University or Institute for any purpose.


29/6/23'

Project Guide & Coordinator

Dr. Manish T I

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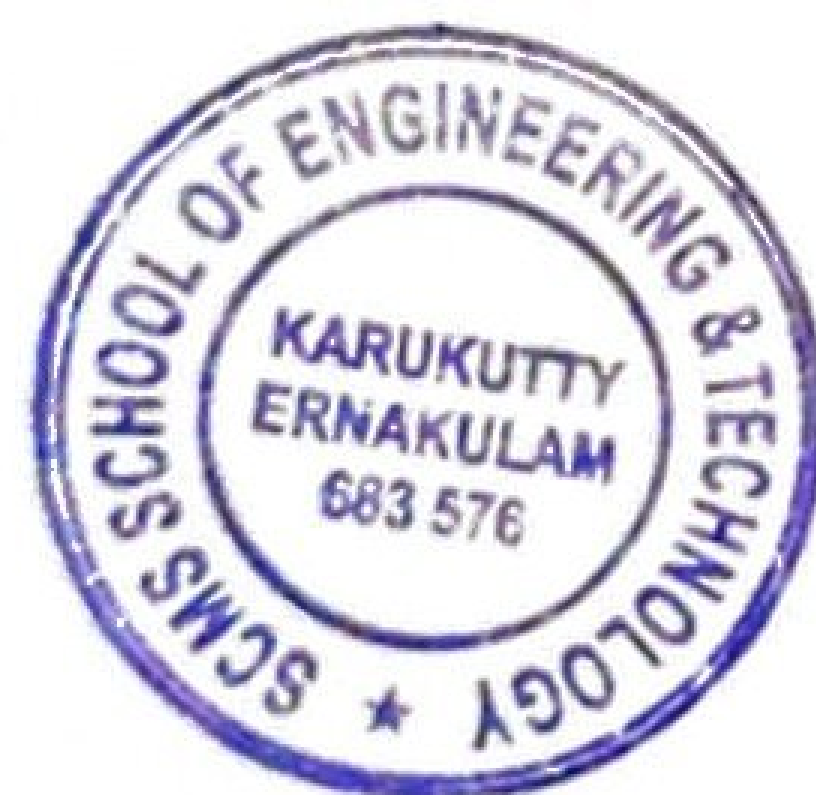
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LUNG CANCER DETECTION USING MACHINE LEARNING ALGORITHMS

PROJECT REPORT

submitted by

MEGHANA MURALEEDHARAN NAIR(SCM19CS073)

SREELAKSHMI V MENON (SCM19CS100)

MARIA BABU(SCM19CS072)

MUHAD K(SCM19CS078)

to

The APJ Abdul Kalam Technological University
in partial fulfillment of the requirements for the award of the Degree

of

Bachelor of Technology

in

Computer Science and Engineering



Department of Computer Science and Engineering
SCMS School of Engineering and Technology
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**DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING
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CERTIFICATE

This is to certify that the report entitled “**Lung cancer Detection Using Machine Learning Algorithms**” submitted by MARIA BABU (SCM19CS072), MEGHANA MURALEEDHARAN NAIR(SCM19CS073), MUHAD K(SCM19CS078) and **SREELAKSHMI V MENON (SCM19CS100)** to The APJ Abdul Kalam Technological University in partial fulfillment of the requirements for the award of the Degree of Bachelor of Technology in **COMPUTER SCIENCE & ENGINEERING** is a bonafide record of the project work carried out by him/her under my/our guidance and supervision. This report in any form has not been submitted to any other University or Institute for any purpose.

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EXTERNAL EXAMINER

**PESCATORE – URL BASED PHISHING WEBSITE
DETECTION USING MACHINE LEARNING**

A Project Report

*Submitted to the APJ Abdul Kalam Technological University
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Bachelor of Technology

in

Computer Science and Engineering

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PRANAV PRAVEEN (SCM19CS089)



**DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING
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KERALA

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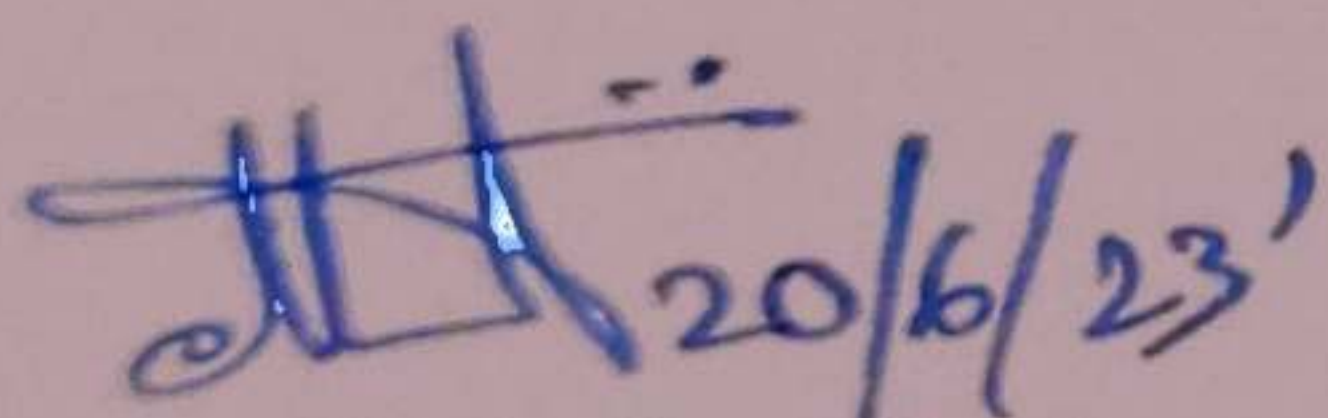
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CERTIFICATE

This is to certify that the report entitled, **PESCATORE – URL BASED PHISHING WEBSITE DETECTION USING MACHINE LEARNING** submitted by **Pranav Praveen (SCM19CS089)** to APJ Abdul Kalam Technological University in partial fulfillment of the requirements for the award of the Degree of Bachelor of Technology in Computer Science and Engineering is a Bonafede record of the project work carried out by him under my guidance and supervision. This report in any form has not been submitted to any other University or Institute for any purpose.


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Decentralized Voting System Using Block Chain Technology

A Project Report

Submitted to the APJ Abdul Kalam Technological University
in partial fulfillment requirements for the award of the degree

Bachelor of Technology
in
Computer Science and Engineering
by

JOSHNA GEORGE(SCM19CS066)

MEGHA PS (SCM19CS074)

NEERAJA BABU(SCM19CS085)

SRUTHI SANTHOSH(SCM19CS103)



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SCMS SCHOOL OF ENGINEERING AND TECHNOLOGY

VIDYA NAGAR, PALISSERY, KARUKUTTY

ERNAKULAM-6

JUNE 2023

DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING
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2022-23



CERTIFICATE

This is to certify that the report entitled "Decentralized Voting System Using Block Chain Technology" submitted by **JOSHINA GEORGE** (SCM19CS066), **MEGHA PS**(SCM19CS074), **NEERAJA BABU**(SCM19CS085), **SRUTHI SANTHOSH** (SCM19CS103) to the APJ Abdul Kalam Technological University in partial fulfillment of the award of the Degree of Bachelor of Technology in Computer Science and Engineering is a bonafide record of the project work carried out by them under our guidance and supervision. This report in any form has not been submitted to any other University or Institute for any purpose.

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Tamper Resistant IoT Evidence Storage With Distributed & Decentralized System

A Project Report

*Submitted to the APJ Abdul Kalam Technological University
in partial fulfillment of requirements for the award of degree*

Bachelor of Technology

in

Computer Science and Engineering

by

Vyshnav K Vinodh(SCM19CS115)

Abhishek C D(LSCM19CS116)

Mithran C(SCM19CS076)



DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING
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June 2023

2022 - 23



CERTIFICATE

This is to certify that the report entitled **Tamper Resistant IoT Evidence Storage With Distributed & Decentralized System** submitted by **Vyshnav K Vinodh (SCM19CS115), Abhishek C D (LSCM19CS116), Mithran C (SCM19CS076)** to the APJ Abdul Kalam Technological University in partial fulfillment of the B.Tech. degree in Computer Science and Engineering is a bonafide record of the project work carried out by them under our guidance and supervision. This report in any form has not been submitted to any other University or Institute for any purpose.

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**Tamper Resistant IoT Evidence Storage With
Distributed & Decentralized System**

A Project Report

*Submitted to the APJ Abdul Kalam Technological University
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Bachelor of Technology

in

Computer Science and Engineering

by

Vyshnav K Vinodh(SCM19CS115)

Abhishek C D(LSCM19CS116)

Mithran C(SCM19CS076)



**DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING
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FUZZY CONTROLLED PNEUMATIC SYSTEM

PROJECT REPORT

Submitted by

Akhil P Saji: SCM19ME005

Ashwin T S: SCM19ME012

Govind V Menon: SCM19ME024

Jerrin Jordan: SCM19ME026

to

the A P J Abdul Kalam Technological University

in partial fulfilment of the requirements for the award of the Degree

of

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DEPARTMENT OF MECHANICAL ENGINEERING

SCMS SCHOOL OF ENGINEERING AND TECHNOLOGY

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KARUKUTTY
2022 - 2023



CERTIFICATE

This is to certify that the report entitled **Fuzzy controlled pneumatic system** submitted by **Akhil P Saji, Ashwin T S, Govind V Menon, Jerrin Jordan**, to the APJ Abdul Kalam Technological University in partial fulfillment of the B.tech. degree in Mechanical Engineering is a bonafide record of the project work carried out by him/her under my/our guidance and supervision. This report in any form has not been submitted to any other University or Institute for any purpose.

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FUZZY CONTROLLED PNEUMATIC SYSTEM

PROJECT REPORT

Submitted by

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FUZZY CONTROLLED PNEUMATIC SYSTEM

PROJECT REPORT

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**MECHANICAL CHARACTERIZATION OF
Al-Cu-Gr-AHA COMPOSITES SYNTHESIZED
USING STIR CASTING**

PROJECT REPORT

Submitted by

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AVINASH T G LSCM19ME052

SHABEEB K NOWSHAD SCM19ME044

YADU R VARMA LSCM19ME056

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MAY 2023

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KARUKUTTY

2022 - 2023



CERTIFICATE

This is to certify that the project report (phase 2) entitled **MECHANICAL CHARACTERIZATION OF Al-Cu-Gr-AHA COMPOSITES SYNTHESIZED USING STIR CASTING PROCESS** submitted by **Althaf K A, Avinash T G, Shabeeb Kalluparambil Nowshad and Yadu R Varma**, to the APJ Abdul Kalam Technological University in partial fulfillment of the B.tech. degree in Mechanical Engineering is a bonafide record of the project work carried out by him/her under my/our guidance and supervision. This report in any form has not been submitted to any other University or Institute for any purpose.


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CERTIFICATE

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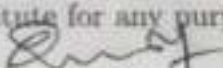
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ANALYSIS AND FABRICATION OF GLASS FIBER COMPOSITE BULLETPROOF VEST

A PROJECT REPORT

Submitted by

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SANJAYKRISHNA K MENON SCM19ME042

BONY JOSE SCM19ME019

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2022 - 2023



CERTIFICATE

This is to certify that the report entitled **Analysis and Fabrication of Glass Fiber Sandwich Composite Bulletproof Vest** submitted by VINAY P MONY, SANJAYKRISHNA K MENON, BONY JOSE and JISHNU VENUGOPAL, to the APJ Abdul Kalam Technological University in partial fulfillment of the B.tech. degree in Mechanical Engineering is a bonafide record of the project work carried out by him/her under my/our guidance and supervision. This report in any form has not been submitted to any other University or Institute for any purpose.

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2022 - 2023



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DESIGN OF ROBOTIC DIGIT FOR REHAB

A PROJECT REPORT (PHASE-II)

Submitted by

ABHISHEK DAMODHAR SCM19ME003

JITHIN RAJ K LSCM19ME054

PISHARODY ABHAY HARIDAS SCM19ME036

R ASHWIN KRISHNA SCM19ME038

to

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in partial fulfillment of the requirements for the award of the Degree

of

Bachelor of Technology

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DEPARTMENT OF MECHANICAL ENGINEERING

SCMS SCHOOL OF ENGINEERING AND TECHNOLOGY

KARUKUTTY

JUNE 2023

DEPARTMENT OF MECHANICAL ENGINEERING
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2022 - 2023



CERTIFICATE

This is to certify that the report entitled "DESIGN OF ROBOTIC DIGIT FOR REHAB" submitted by Abhishek Damodhar, Jithin Raj K, Pisharody Abhay Haridas, R Ashwin Krishna, to the APJ Abdul Kalam Technological University in partial fulfillment of the B.Tech degree in Mechanical Engineering is a bonafide record of the project work carried out by us under our mentor's guidance and supervision. This report in any form has not been submitted to any other University or Institute for any purpose.

Project Coordinator

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2022 - 2023



CERTIFICATE

This is to certify that the report entitled **”DESIGN OF ROBOTIC DIGIT FOR REHAB”** submitted by **Abhishek Damodhar, Jithin Raj K, Pisharody Abhay Haridas, R Ashwin Krishna**, to the APJ Abdul Kalam Technological University in partial fulfillment of the B.Tech degree in Mechanical Engineering is a bonafide record of the project work carried out by us under our mentor’s guidance and supervision. This report in any form has not been submitted to any other University or Institute for any purpose.

Project Coordinator

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Head of the Department

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DEPARTMENT OF MECHANICAL ENGINEERING
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KARUKUTTY
2022 - 2023



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Data Analysis for Pattern Recognition in Steel Castings

PROJECT REPORT

Submitted by

Harikrishnan T P SCM19ME025

Dekshant Dileep SCM19ME021

Shyam Sankar K R SCM19ME046

Varun Pradeep Kumar SCM19ME049

to

the A P J Abdul Kalam Technological University

in partial fulfillment of the requirements for the award of the Degree

of

Bachelor of Technology

In

Mechanical Engineering



DEPARTMENT OF MECHANICAL ENGINEERING

SCMS SCHOOL OF ENGINEERING AND TECHNOLOGY

KARUKUTTY

MAY 2020

DEPARTMENT OF MECHANICAL ENGINEERING
SCMS SCHOOL OF ENGINEERING AND TECHNOLOGY
KARUKUTTY

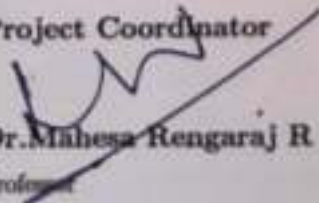
2019-2023



CERTIFICATE

This is to certify that the report entitled **Data Analysis for Casting Defect Pattern Recognition** submitted by **Shyam Sankar K R, Harikrishnan T P, Varun Pradeep Kumar, Dekshant Dileep** to the APJ Abdul Kalam Technological University in partial fulfillment of the B.tech. degree in Mechanical Engineering is a bonafide record of the project work carried out by him/her under my/our guidance and supervision. This report in any form has not been submitted to any other University or Institute for any purpose.

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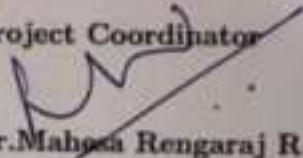
2019-2023



CERTIFICATE

This is to certify that the report entitled **Data Analysis for Casting Defect Pattern Recognition** submitted by **Varun Pradeep Kumar, Harikrishnan T P, Shyam Sanlar K R, Dekshant Dileep** to the APJ Abdul Kalam Technological University in partial fulfillment of the B.tech. degree in Mechanical Engineering is a bonafide record of the project work carried out by him/her under my/our guidance and supervision. This report in any form has not been submitted to any other University or Institute for any purpose.

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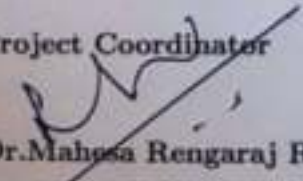
2019-2023



CERTIFICATE

This is to certify that the report entitled **Data Analysis for Casting Defect Pattern Recognition** submitted by **Dekshant Dileep, Harikrishnan T P, Varun Pradeep Kumar, Shyam Sankar K R** to the APJ Abdul Kalam Technological University in partial fulfillment of the B.tech. degree in Mechanical Engineering is a bonafide record of the project work carried out by him/her under my/our guidance and supervision. This report in any form has not been submitted to any other University or Institute for any purpose.

Project Coordinator

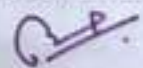

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CERTIFICATE

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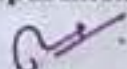

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ELECTRIC VEHICLE BATTERY COOLING SYSTEM USING HEAT PIPES

A PROJECT REPORT

Submitted by

ARUN M S : SCM19ME010

MUHAMMED SAMIN : SCM19ME031

ALEN BENNY : SCM19ME007

SANJAY E : SCM19ME041

to

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in partial fulfillment of the requirements for the award of the Degree

of

Bachelor of Technology

In

Mechanical Engineering



DEPARTMENT OF MECHANICAL ENGINEERING

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KARUKUTTY

JUNE 2023

DEPARTMENT OF MECHANICAL ENGINEERING
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KARUKUTTY

2019 - 2023



CERTIFICATE

This is to certify that the report entitled **Electric Battery Cooling System Using Heat Pipes** submitted by **Arun M S Muhammed Samin, Aen Benny, Sanjay E.** to the APJ Abdul Kalam Technological University in partial fulfillment of the B.tech degree in Mechanical Engineering is a bonafide record of the project work carried out by him/her under my/our guidance and supervision. This report in any form has not been submitted to any other University or Institute for any purpose.

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2019 - 2023



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FABRICATION OF NANOFIBERS USING CENTRIFUGAL SPINNING MACHINE

A PROJECT REPORT (PHASE II)

Submitted by

**SHIVA SURESH
MOHAMMED FAHIM
NAWJYOTH MADHAV
P SASHANK**

to

the A P J Abdul Kalam Technological University
in partial fulfillment of the requirements for the award of the Degree
of
Bachelor of Technology
In
Mechanical Engineering



**DEPARTMENT OF MECHANICAL ENGINEERING
SCMS SCHOOL OF ENGINEERING AND TECHNOLOGY
KARUKUTTY
JUNE 2023**

DEPARTMENT OF MECHANICAL ENGINEERING
SCMS SCHOOL OF ENGINEERING AND TECHNOLOGY
KARUKUTTY

2022-2023



CERTIFICATE

This is to certify that the project report entitled **Fabrication of Nanofibers Using Centrifugal Spinning Machine** submitted by **SHIVA SURESH(Reg No. SCM19ME045)**, **MOHAMMED FAHIM (Reg No. SCM19ME030)**, **NAWJYOTH MADHAV (Reg No. SCM19ME032)**, **P SASHANK(Reg No. SCM19ME037)** , to the A P J Abdul Kalam Technological University in partial fulfillment of the B.Tech degree in Mechanical Engineering is a bonafide record of the project work carried out by them under my guidance and supervision. This report in any form has not been submitted to any other University or Institute for any purpose.

Dr. Gibin George
23.06.23
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Dr.Rag R L
Professor
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R.P.
Dr.Rag R L

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MOHAMMED FAHIM
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EXPERIMENTAL ANALYSIS ON STEPPED SOLAR STILL WITH FEEDING SYSTEM

A PROJECT REPORT

Submitted by

GROUP 10

AKSHAY C S (SCM19ME006)

ASWIN JAGADEESAN (SCM19ME015)

ASWIN HARISHKUMAR (SCM19ME014)

NIHAS MUHAMMED K N (SCM19ME034)

to

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KARUKUTTY

2022 - 2023



CERTIFICATE

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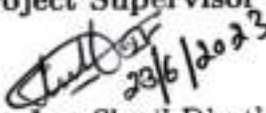
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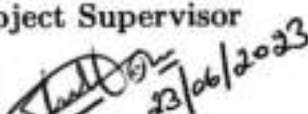
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Optimization In 3-Part Hematological Analyzer

A PROJECT REPORT

Submitted by

ASWIN SURENDRAN SCM19ME016

ATHUL M SCM19ME017

SANDEEP BIJU SCM19ME040

Sanjay T J SCM19ME043

to

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CERTIFICATE

This is to certify that the report entitled **Optimization of 3-part hemato-logical analyzer** submitted by **Aswin Surendran, Athul M, Sandeep Biju, Sanjay T J**, to the APJ Abdul Kalam Technological University in partial fulfillment of the B.tech. degree in Mechanical Engineering is a bonafide record of the project work carried out by him/her under my/our guidance and supervision. This report in any form has not been submitted to any other University or Institute for any purpose.

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ROTATION EFFECT ON HEAT TRANSFER IN SMOOTH ROTATING CHANNEL WITH HEATED WALL

A PROJECT REPORT

Submitted by

ABHINAV BABY-SCM19ME002

ABHINAV ANOOP-SCM19ME001

AB NANDHU-SCM19ME004

JOHN BENNY-SCM19ME028

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CERTIFICATE

This is to certify that the report entitled **Rotational effect on heat transfer in smooth rotating channel with heated wall** submitted by Abhinav Baby [Reg. No. SCM19ME002], Abhinav Anoop [Reg. No. SCM19ME001], AB Nandhu [Reg. No. SCM19ME004] **John Benny** [Reg. No. **SCM19ME028**], to the APJ Abdul Kalam Technological University in partial fulfillment of the B.tech. degree in Mechanical Engineering.

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ROTATION EFFECT ON HEAT TRANSFER IN SMOOTH ROTATING CHANNEL WITH HEATED WALL

A PROJECT REPORT

Submitted by

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KARUKUTTY

JUNE 2023

DEPARTMENT OF MECHANICAL ENGINEERING
SCMS SCHOOL OF ENGINEERING AND TECHNOLOGY
KARUKUTTY



CERTIFICATE

This is to certify that the report entitled **Rotational effect on heat transfer in smooth rotating channel with heated wall** submitted by Abhinav Baby [Reg. No. SCM19ME002], Abhinav Anoop [Reg. No. SCM19ME001], **AB Nandhu** [Reg. No. **SCM19ME004**] John Benny [Reg. No. SCM19ME028], to the APJ Abdul Kalam Technological University in partial fulfillment of the B.tech. degree in Mechanical Engineering.

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ROTATION EFFECT ON HEAT TRANSFER IN SMOOTH ROTATING CHANNEL WITH HEATED WALL

A PROJECT REPORT

Submitted by

ABHINAV BABY-SCM19ME002

ABHINAV ANOOP-SCM19ME001

AB NANDHU-SCM19ME004

JOHN BENNY-SCM19ME028

to

the A P J Abdul Kalam Technological University

in partial fulfillment of the requirements for the award of the Degree

of

Bachelor of Technology

In

Mechanical Engineering



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PACKING PEANUTS USING BANANA LEAF STEM

A PROJECT REPORT

Submitted by

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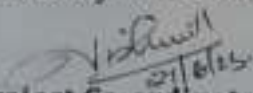
KARUKUTTY

2022 - 2023



CERTIFICATE

This is to certify that the report entitled **PACKING PEANUTS USING BANANA LEAF STEM** submitted by Aman S, Arun P, Gopikrishna Premchand, Richu Shaju, to the APJ Abdul Kalam Technological University in partial fulfilment of the B.Tech. degree in Mechanical Engineering is a Bonafide record of the project work carried out by him/her under my/our guidance and supervision. This report in any form has not been submitted to any other University or Institute for any purpose.


21/6/23
Project Co-ordinator

Mr. Vishnu H

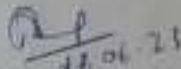
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