College of Engineering Trivandrum

Department of Electronics & Communication Engineering

Research Supervision

Sl. No.	Name of the Faculty	Name of Research Scholar	Title of Thesis	University	Year of Registration
1.	Dr. Jiji C.V.	Anitha Edison	Action Recognition	Kerala University	2014
2.		Blossom Treesa Bastian	Object Detection	Kerala University	2014
3.		Parvathi V. S.	Dense 3D Reconstruction of Objects from Blurred Image Sequences	Kerala University	2014
4.		Neetha George	Study and Investigation on Algorithms for Segmentation of Optical Coherence Tomography (OCT) Images for Ophthalmic Applications.	Kerala University	2015
5.		Linu Shine	Study and Investigation on Algorithms for Anomaly Detection in Surveillance Videos	Kerala University	2015
6.		Anoop K Johnson	Investigation on Techniques for High Dynamic Range (HDR) Image Generation	Kerala University	2015
7.		Deepa P. L.	Image Deblurring using Blind Deconvolution	Kerala University	2015
8.		Sreena V. G	Super Resolution of Hyper Spectral Images	Kerala University	2015
9.		Cynara Justine	Android Malware Detection Using Deep learning	KTU	2017
10.		Devika R G	Medical Image Classification Using Deep Learning	KTU	2020
11.		Jisa David	Information Theoretic Approach to Distributed Denial of Service Attack Detection	Kerala University	2014
12.		Anne Dickson	Optimization Techniques for effective detection of Intrusions	Kerala University	2013
13.		Bindu V.	Adaptive, Intelligent, Ontological Spam Filter	Kerala University	2013

14.	Dr. Ciza Thomas	Rejimol Robinson	Mitigation Techniques for Distributed Denial of Service Attacks	Kerala University	2013
15.		Satheesh	Detection of adversaries on Mobile Android Networks	Kerala University	2015
16.		Rendhir R.Prasad	Self Healing and Self Evolving Cyber SecuritySystems	KTU	2016
17.		Anagha A.S.	Intrusion Detection Using Explainable AI	KTU	2020
18.	Dr. Santhosh Kumar S.	Sathya Jose	Study and Recognition of Animal Muzzle Patterns	Kerala University	2008
19.		S. Rishidas	Motor Current Signature Analysis Using Multi Resolution Methods	Kerala University	2007
20.		Suma Sekhar	Techniques to improve Time and Frequency Synchronisation technique in MIMO-OFDM System	Kerala University	2013
21.		Asha J	Analysis of Satellite Cloud Images For Rain Fall Prediction Using Transform Domain Methods	KTU	2019
22.		Sanoj Viswasom	Study of Optimized And Filter Structures For Wirelesss Communication Systems	KTU	2019
23.		Sureshkumar K S		KTU	2021
24.		Anju S		KU	2014
25.		Monisha Menon A	Space vector based pulse density modulation of multi-level inverter	KTU	2017

26.	Dr.Biji Jacob	Poornima Indusekhar	Improved maximum Power Point Tracking of Solar Cell	KTU	2017
27.		Jeeshma Mary Paul	3D Space vector based sigma delta modulation scheme for Induction Motor Drive	KTU	2018
28.		Monisha Menon A	Space Vector Pulse Density Modulation Scheme for Multilevel Inverters	KTU	2017
29.	Dr. Suresh Babu V	Reshmi R		KU	2014
30.		Sulficar A		KU	2014
31.	Dr. Leena Mary	Sreehari V. R.	Study On Features For Forensic Automatic Speaker Recognition	KU	2014
32.	Dr. Haris P A	Bino N	Retinal Image Processing For Quantification And Diagnosis Of Macular Diseases	KU	2014
33.		Shefin Shoukath	Performance Evaluation Of Multiuser Detection In Large Scale Mimo Ofdm	KU	2014

34.		Jazir S	Performance Analysis of Channel Estimation Techniques for Massive MIMO-OFDM systems	KTU	2017
35.		Ambily N	Deep Learning Applications in Biomedical Signal Processing	KTU	2017
36.	Dr. Suresh K	Aswathy Madhu	Deep Learning Methods for Automatic Identification of Environmental Sounds and Acoustic Scenes	KTU	2017
37.		Salini S	Environmental Sound Analysis	KTU	2018
38.		Reshmi S Bhooshan	Development of Deep Learning Framework For Video Analytics	KTU	2019
39.	Dr. Tara Raveendran	T. S. Anu	Channel Estimation in Wireless Communication	APJAKTU	2018
40.		Chandini G S	PWM Based Common Mode Voltage Elimination Techniques for Open-End Winding Induction Motor Drives	Kerala University	2013
41.		Anish Gopinath	Three Dimensional Space Vector PWM for MultilevelInverters	Kerala University	2013
42.		Sumam M J	FPGA Implementation Of Space Vector Pulse WidthModulator for Multilevel Inverters	Kerala University	2016
43.		Latha V.	OCT/Image segmentation	Kerala University	2016
44.		Smitha P S	Investigations On Hybrid Energy Storage Systems ForRenewable Energy	KTU	2017
45.	Dr. Shiny G.	Surashmi N L	Power Quality Improvement Using ActiveFilters In Induction Motor vDrives	KTU	2017
46.		Lakshmylal P L	Study And Evaluation Of Physiological Features Of Autism Using EEG ThroughComputational Techniques	KTU	2018
47.		Shani S J	Space Vector PWM Techniques for Multiphase Multilevel Inverters	KTU	2018

48.		A Gauri	Direct Talk Control of Induction Motor Drive	KTU	2019
49.		Lalu V	Fault Diagnosis For Electric Drive Applications Using Machine Learning Approach.	KTU	2020
50.		Aravind Sekhar	Haptic Rendering	Kerala University	2016
51.		Joaquim Ignatious Monterio	Music Signal Processing	APJKTU	2019
52.		Chippy M Manu	Image/video dehazing	KTU	2019
53.	Dr. Sreeni K.G.	Rehna T S	Signal Processing	KTU	2020
54.		Shijin Knox G U	Biomedical Imaging	KTU	2021
55.		Lekshmi C K	Instrument Recognition	KTU	2019
56.		Ajitha K P	Mimicing Speech Recognition	KTU	2019
57.		Amlu Anna Joshy	Dysarthria severity classification and speech transcription using deep learning frameworks	KTU	2019
58.		Lekshmi C.R	Predominant instrument recognition and separation in polyphonic music using deep learning frameworks	KTU	2019
59.	Dr. Rajeev Rajan	Kavya Manohar	Linguistic challenges in Malayalam speech recognition: Analysis and solutions	KTU	2019
60.		Parvathy Harikumar	Mimicking Speech Recognition	KTU	2020
61.		Noumida A	Speech Processing	KTU	2021
62.		Archa Chandrasenan	Radio Over Fiber	KTU	2020
63.		Anu S S	Image Processing	KTU	2020
64.		Akhilaraj D	Image Processing	KTU	2020

| 65. | Dr. Joseph Zacharias | Aneesh R P | Biomedical Image processing | KTU | 2020 |
| 66. | | Supriya S S | Optical Fiber Communication | KTU | 2021 |

67.		Libya Thomas	Compressed MRI Sensing	KTU	2021
68.		Abhishek Krishnan	Biomedical Image Processing	KTU	2021
69.		R. D. Soumitra	Performance enhancement of optical Fiber systems	KTU	2022
70.	Dr. Sreelatha G	Viji R	Study and implementation of efficient VOT algorithms to address the VOT challenges	KTU	2019
71.		Shehan P R	Machine Learning and Deep learning techniques for Visual Perception in Autonomous driving vehicles	KTU	2020
72.		Divya Prasad K H	Deep learning techniques for object detection and scene perception	KTU	2021
73.		Sreedivya R S	Emotion detection and classification using deep learning techniques	KTU	2021
74.		Rajasree R	Human Action Recognition	KTU	2024
75.	Dr. Alex Raj S M	Greeshma S L	Image Based Object Detection	KTU	2021
76.		Gayathri R	Object recognition from image samples	KTU	2021
77.		Surjith S	Detection of Adulteration	KTU	2021
78.		Mala J B	Speaker diarisation and content analysis	KTU	2022
79.	Dr. Sivakumar R	Dinu A G		KTU	2021
80.		Lakshmi Priya C V		KTU	2021
81.		Devika R G	Medical Image Classification Using Deep Learning	KTU	2020
82.		Sajitha V. Raj	Anotation of Indian Classical Dance	KTU	2021
83.		Smriti Govind	Mobile Camera Image Enhancement	KTU	2021

84.	Dr. Pradeep R	Arya M Krishna	Image Fusion	KTU	2021
85.		Archana S Sekhar	Optical Wireless Hybrid Network	KTU	2021
86.		Anju J S	Haptics	KTU	2022
87.	Dr. Binu L S	Hema S Mahesh		KTU	2021
88.		Minnu Jayan C	Fault diagnosis and rectification in HVAC system using Deep Learning	KTU	2021
89.	Dr. Biju K S	Jesna K A	Sleep signal processing using Deep Learning	KTU	2022
90.	Dr. Birenjith P.S.	Jijina N	Coded Gradient Aggregation in Federated Learning	KTU	2022
91.	Dr. Nelsa Abraham	Sangeetha Gopan G S	Investigations on Supercapacitors for Sustainable Energy Storage	KTU	2022
92.	Dr. Asha Prasad	Archana S Sekhar	Optical wireless communication networks	KTU	2021
93.		Soorya Suresh	Security in optical wireless communication.	KTU	2025
94.	Dr. Linu Shine	Cynara Justine	Decentralized Defense for Adversarial Robustness in Federated Learning	KTU	2017
95.		Kailas Nath V D	Dementia detection from multimodal biomedical signals.	KTU	2024
96.		Arunima C V	Coherent Scene Reconstruction in Adverse Sensing Conditions	KTU	2025
97.	Dr. Vinod B. R.	Aswathy G.	Machine learning based SVPWM inverter fed induction motor drive	KTU	2024

Ph.D. Awarded

Ph.D. Degree Awarded in the Department of Electronics & Communication Engineering

2017

No	Year	Name of the Scholar	Name of the Supervisor	Thesis Title	Date of degree awarded
1	2017	Mrs. Nitha V Panicker	Dr.A.Sukesh Kumar	Real time monitoring of physiological Parameters through telemedicine	12/20/2017

2018

No	Year	Name of the Scholar	Name of the Supervisor	Thesis Title	Date of degree awarded
1	2018	Tony Jose	Dr. N Vijayakumar	Minimizing Total Harmonic Distortion (THD) in Radio over Fiber Systems	01/10/2018 (open defence)
2	2018	Joseph Zacharias	Dr. N Vijayakumar	Performance Improvement of Optical Wireless Systems	17/04/2018
3	2018	Pradeep R.	Dr .N Vijayakumar	Performance Enhancement of Radio over Fiber Systems	24/03/2018

2019

No	Year	Name of the Scholar	Name of the Supervisor	Thesis Title	Date of degree awarded
1	2019	Yamuna K Moorthy	Dr. Shiny G. & Dr. Sakuntala S Pillai	Energy Efficient Design in Cognitive Radio Networks	03-05-2019 (Open Defence)
2	2019	Reshmalaksmi C.	Dr. Shiny G. & Dr. M. Sasikumar	Improved Image Enhancement using Fuzzy Logic	25/02/2019 (Open Defence)
3	2019	Sreedevi P.	Dr. N Vijayakumar	Performance enhancement of OFDM based Radio Over Fibre Systems	11/01/2019 (open defence)
4	2019	Malini S	Dr. Jiji C. V.	Novel multiresolution techniques for Gray and Color Image Denoising	19/02/2019
5	2019	Vinod BR	Dr. Shiny G	Direct Torque Control Techniques For Inverter Fed Open-End Winding Induction Motor Drives	20/09/2019 (open defence)
6	2019	Paul Thomas	Dr. Jiji C. V.	Investigation On Biomedical Signal Analysis Using Artificial Neural Networks And Wavelets	18/07/2019

2020

No	Year	Name of the Scholar	Name of the Supervisor	Thesis Title	Date of degree awarded
1	2020	Anitha Edison	Dr. Jiji C. V.	Study and investigation of algorithms for actionrecognition in videos and images	17/07/2020
2	2020	Blossom Treesa Bastian	Dr. Jiji C. V.	Study and Investigation on Appropriate Feature Sets for Detecting Objects in Images	24/08/2020

No	Year	Name of the Scholar	Name of the Supervisor	Thesis Title	Date of degree awarded
3	2020	Chandini G S	Dr Shiny G	PWM Based Common-mode voltage elimination techniques for Open-end winding induction motor drives	10/11/2020

2021

No	Year	Name of the Scholar	Name of the Supervisor	Thesis Title	Date of degree awarded
1	2021	Jeena R S	Dr. Shiny G	Study & Performance analysis of Medical Images in Stroke Patients	07/05/2021
2	2021	Satya Jose S L	Dr. S. Santhosh Kumar	'Study And Recognition Of Animal Muzzle Patterns'.	03/05/2021
3	2021	Swapna P S	Dr. Sakuntala S Pillai & Dr. Sreeni K G	Resource Allocation In OFDMA Systems For Joint Uplink/Downlink Directions	12/07/2021 (Open Defence)
4	2021	Ramu R	Dr.Shiny G	Real-Time Assessment of Cardiac Patients Through Telemedicine	04/08/2021 (Open Defence)
5	2021	Sandeep C S	Dr. N Vijayakumar	Early Diagnosis of Alzheimer's Disease Using Image Analysis & Soft Computing Techniques	October 2021
6	2021	Fathima Rasheed J	Dr. Suresh Babu V	Investigations on Graded Bandgap Thin Film Solar Cells	October 2021
7	2021	Nisha Jose K	Dr. Suresh Babu V		October 2021

2022

No	Year	Name of the Scholar	Name of the Supervisor	Thesis Title	Date of degree awarded
1	2022	Harish T V	Dr. Rajeev V R	Effect of Stroke Length Variation On The Wear Behaviour of Aluminium Alloy Composites Under Reciprocating Sliding Contact	24-01-2022 (Open Defence)
2	2022	Neetha George	Dr. Jiji C V	Study and Investigation on Algorithms for Segmentation of Optical Coherence Tomography (OCT) Images for Ophthalmic Applications.	25-02-2022
3	2022	Linu Shine	Dr. Jiji C V	Study And Investigation on Algorithms For Anomaly Detection In Surveillance Videos.	07-07-2022

No	Year	Name of the Scholar	Name of the Supervisor	Thesis Title	Date of degree awarded
4	2022	Anju S	Dr. Biji Jacob	Studies On Modeling & Optimization Of Non Planar Non Silicon Fet Devices For High Frequency Applications	25-08-2022
5	2022	Ancy S Ansalem	Dr. Sreeni K G	Optimization Of Low Bit Rate And Low Delay Coders For Speech Signals	02-09-2022
6	2022	Suma Sekhar	Dr. Santhosh kumar S	Techniques to Improve Time and Frequency Synchronization in MIMO - OFDM Systems	07-11-2022
7	2022	Reshmi S Bhooshan	Dr.Suresh K	Development of Deep Learning Framework for Video Analytics	11-11-2022 (Open Defence)
8	2022	Luxy Mathews	Dr. Vijayakumar	Investigations to Improve the Performance of MIMO- OFDM in LTE	29-12-2022
9	2022	Reshmi R	Dr. Suresh Babu V	Investigations on Thermo elastic Damping Effects in RF MEMS Resonators	29-12-2022

2023

No	Year	Name of the Scholar	Name of the Supervisor	Thesis Title	Date of degree awarded
1	2023	Anne Dickson	Dr. Ciza Thomas	Optimization Of Intrusion Detection Over False Alerts Using Swarm Intelligence	17-01-2023
2	2023	Anish Gopinath	Dr. Shiny G	Three Dimensional Space Vector PWM For Multilevel Inverters	09-02-2023
3	2023	Monisha Menon	Dr.Biji Jacob	Space Vector Pulse Density Modulation Schemes For Multilevel Inverters	15-02-2023 (Open Defence)
4	2023	Aswathy Madhu	Dr.Suresh K	Deep Learning Methods for Automatic Identification of Environmental Sounds and Acoustic Scenes	16-02-2023

No	Year	Name of the Scholar	Name of the Supervisor	Thesis Title	Date of degree awarded
5	2023	Sreehari V. R.	Dr. Leena Mary	Study On Features For Forensic Automatic Speaker Recognition	03-04-2023 (Open Defence)
6	2023	Sumam M J	Dr. Shiny G	Fpga Implementation Of Space Vector Pulse Width Modulator For Multilevel Inverters	13-04-2023
7	2023	Shefin Shoukath	Dr. Haris P. A.	Performance Evaluation Of Multiuser Detection In Large Scale MIMO OFDM	17-04-2023 (Open Defence)
8	2023	Bino N.	Dr. Haris P. A.	Retinal Image Processing For Quantification And Diagnosis Of Macular Diseases	25-04-2023 (Open Defence)
9	2023	Kavya Manohar	Dr. Jayan A. R., Dr. Rajeev Rajan	Linguistic challenges in Malayalam speech recognition: Analysis and solutions	26-10-2023 (Open Defence)
10	2023	Lekshmi C. R	Dr. Rajeev Rajan	Predominant instrument recognition and separation in polyphonic music using deep learning frameworks	27-10-2023 (Open Defence)
11	2023	Amlu Anna Joshy	Dr. Rajeev Rajan	Dysarthria severity classification and speech transcription using deep learning frameworks	28-11-2023 (Open Defence)
12	2023	Suresh K. S	N. Vijayakumar	Early Detection of Diabetic Foot Infection using Image Processing and Soft Computing Techniques	28-11-2023

2024

No	Year	Name of the Scholar	Name of the Supervisor	Thesis Title	Date of degree awarded
1	2024	Chippy M. Manu	Dr. Sreeni K. G.	Investigations on image dehazing using machine learning techniques	12-11-2024 (Open Defence)

2025

No	Year	Name of the Scholar	Name of the Supervisor	Thesis Title	Date of degree awarded
1	2025	Soumya Babu H.	Dr.Gopakumar K.	Studies on stability analysis and circuit realizations of various iterated maps	22-02-2025
1	2025	Nissa Surling S N	Dr. N Vijayakumar	Detection of EEG abnormalities for the prognosis of major neurological disorders in children	13-05-2025
2	2025	Preethi Elizabeth Iype	Dr. Suresh Babu V	Thermal Modeling of Semiconductor Devices and Validation	13-05-2025