## **College of Engineering Trivandrum**

## **Department of Electronics & Communication Engineering**

# **Research Supervision**

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

| 14. | Dr. Ciza<br>Thomas | Ms. Rejimol<br>Robinson | Mitigation Techniques for<br>Distributed Denial of Service<br>Attacks | Kerala<br>University | 2013 |
|-----|--------------------|-------------------------|---|----------------------|------|
| 15. |                    | Mr. Satheesh            | Detection of adversaries on<br>Mobile Android Networks                | Kerala<br>University | 2015 |
| 16. |                    | Mr. Rendhir R.          | Self Healing and Self Evolving  Cyber SecuritySystems                 | APJAKTU              | 2016 |

| 17. |                          | Sathya Jose            | Study and Recognition of<br>Animal Muzzle Patterns  | Kerala<br>University | 2008 |
|-----|--------------------------|------------------------|---|----------------------|------|
| 18. |                          | S. Rishidas            | Motor Current Signature<br>Analysis Using Multi<br>Resolution Methods                               | Kerala<br>University | 2007 |
| 19. | Dr. Santhosh<br>Kumar S. | Suma Sekhar            | Techniques to improve Time and Frequency Synchronisation technique in MIMO-OFDM System              | Kerala<br>University | 2013 |
| 20. |                          | Asha J                 | Analysis of Satellite Cloud<br>Images For Rain Fall<br>Prediction Using Transform<br>Domain Methods | APJAKTU              | 2019 |
| 21. |                          | Sanoj<br>Viswasom      | Study of Optimized And Filter Structures For Wirelesss Communication Systems                        | APJAKTU              | 2019 |
| 22. |                          | Monisha Menon A        | Space vector based pulse density modulation of multi-level inverter                                 | APJAKTU              | 2017 |
| 23. | Dr.Biji Jacob            | Poornima<br>Indusekhar | Improved maximum Power Point Tracking of Solar Cell   | APJAKTU              | 2017 |
| 24. |                          | Jeeshma Mary<br>Paul   | 3D Space vector based<br>sigma delta modulation<br>scheme for Induction Motor<br>Drive              | APJAKTU              | 2018 |
| 25. |                          | Monisha<br>Menon A     | Space Vector Pulse Density<br>Modulation Scheme for<br>Multilevel Inverters                         | KTU                  | 2017 |
| 26. |                          | Jeeshma Mary<br>Paul   | 3D-SVPDM  | KTU                  | 2018 |
| 27. | Dr. Suresh K             | Jazir S                | Performance Analysis of<br>Channel Estimation<br>Techniques for Massive<br>MIMO-OFDM systems        | APJAKTU              | 2017 |
| 28. |                          | Ambily N               | Deep Learning Applications<br>in Biomedical Signal<br>Processing                                    | APJAKTU              | 2017 |

| 29. |                                | Aswathy Madhu                 | Classification of<br>Environmental Sounds  | APJAKTU                 | 2017 |
|-----|--------------------------------|-------------------------------|--|-------------------------|------|
| 30. |                                | Salini S                      | Environmental Sound<br>Analysis  | APJAKTU                 | 2018 |
| 31. | Dr. Tara<br>Raveendran         | T. S. Anu                     | Channel Estimation in<br>Wireless Communication  | APJAKTU                 | 2018 |
| 32. |                                | Chandini G S                  | PWM Based Common Mode<br>Voltage Elimination<br>Techniques for Open-End<br>Winding Induction<br>Motor Drives | University<br>of Kerala | 2013 |
| 33. |                                | Anish Gopinath                | Three Dimensional Space<br>Vector PWM for Multilevel<br>Inverters  | University of Kerala    | 2013 |
| 34. |                                | Sumam M J                     | FPGA Implementation Of<br>Space Vector Pulse Width<br>Modulator<br>for Multilevel Inverters                  | University<br>of Kerala | 2016 |
| 35. | Dr. Shiny G.                   | Smitha P S                    | Investigations On Hybrid<br>Energy Storage Systems For<br>Renewable Energy                                   | APJAKTU                 | 2017 |
| 36. |                                | Surashmi N L                  | Power Quality Improvement<br>Using Active Filters In<br>Induction Motor Drives                               | APJAKTU                 | 2017 |
| 37. |                                | Lakshmylal P L                | Study And Evaluation Of<br>Physiological Features Of<br>Autism Using EEG Through<br>Computational Techniques | APJAKTU                 | 2018 |
| 38. |                                | Shani S J                     | Space Vector PWM Techniques for Multiphase Multilevel Inverters  | APJAKTU                 | 2018 |
| 39. |                                | Latha V.                      | OCT/Image segmentation   | Kerala<br>University    | 2016 |
| 40. |                                | Aravind Sekhar                | Haptic Rendering   | Kerala<br>University    | 2016 |
| 41. | Dr. Sreeni                     | Joaquim Ignatious<br>Monterio | Music Signal Processing  | APJKTU                  | 2019 |
| 42. | K.G.                           | Chippy M Manu                 | Image/video dehazing   | KTU                     | 2019 |
| 43. |                                | Rehna T S                     | Signal Processing  | KTU                     | 2020 |
| 44. | Dr. David<br>Solomon<br>George | Kavya Manohar                 | Malayalam Speech<br>Recognition  | APJKTU                  | 2019 |

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|-----|------------|-----------------------|--|---------|------|
| 45. |            | Lekshmi C K           | Instrument Recognition   | APJKTU  | 2019 |
| 46. |            | Amlu Anna Joshi       | Speech Recognition   | APJKTU  | 2019 |
| 47. |            | Ajitha K P            | Mimicing Speech<br>Recognition   | APJKTU  | 2019 |
| 48. | Dr. Rajeev | Jazir S               | Performance Analysis of<br>Channel Estimation<br>Techniques for Massive<br>MIMO-OFDM systems<br>(Co-guide) | APJAKTU | 2017 |
| 49. | Rajan      | Ms.Amlu Anna<br>Joshy | Dysrathic speech recognition   | KTU     | 2019 |
| 50. |            | Ms. Lekshmi C.R       | Predominant instrument recognition   | KTU     | 2019 |
| 51. |            | Ms. Kavya<br>Manohar  | Automatic speech recognition   | KTU     | 2019 |
| 52. |            | Ms. Parvathy          | Mimicking Speech<br>Recognition  | KTU     | 2020 |
| 53. |            | Archa<br>Chandrasenan | Radio over fiber   | KTU     | 2020 |
| 54. | Dr. Joseph | Anu S S               | Image processing   | KTU     | 2020 |
| 55. | Zacharias  | Akhilaraj D           | Image processing   | KTU     | 2020 |
| 56. |            | Aneesh R P            | Biomedical Image processing  | KTU     | 2021 |
| 57. |            | Viji R                | Study and implementation of efficient VOT algorithms to address the VOT challenges                         | KTU     | 2019 |
| 58. |            | Shehan P R            | Machine Learning and Deep learning techniques for  | KTU     | 2020 |

|     | Dr. Sreelatha |                  | Visual Perception in<br>Autonomous driving vehicles                 |     |      |
|-----|---------------|------------------|---|-----|------|
| 59. | G             | Divya Prasad K H | Deep learning techniques for object detection and scene perception  | KTU | 2021 |
| 60. |               | Sreedivya R S    | Emotion detection and classification using deep learning techniques | KTU | 2021 |

## Ph.D. Awarded

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

# 2017

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

## 2018

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

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

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

| 3 | 2020 | Chandini G S | Dr Shiny G | PWM Based Common-mode          | 10/11/2020 |
|---|------|--------------|------------|--------------------------------|------------|
|   |      |              |            | voltage elimination techniques |            |
|   |      |              |            | for Open-end winding induction |            |
|   |      |              |            | motor drives                   |            |

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| No | Year | Name of the<br>Scholar | Name of the<br>Supervisor | Thesis Title   | Date of<br>degree<br>awarded |
|----|------|------------------------|---------------------------|--|------------------------------|
| 1  | 2021 | Jeena R S              | Dr. Shiny G               | Study & Performance analysis of<br>Medical Images in Stroke Patients | 07/05/2021                   |
| 2  | 2021 | Satya Jose S<br>L      | Dr. S. Santhosh<br>kumar  | 'Study And Recognition Of<br>Animal Muzzle Patterns'.                | 03/05/2021                   |