



**HINDUSTHAN INSTITUTE OF TECHNOLOGY,  
COIMBATORE – 641 032**



**DEPARTMENT OF ELECTRONICS AND COMMUNICATION  
ENGINEERING  
DETAILS OF PATENT PUBLISHED**

| <b>ACADEMIC YEAR:2018-2019(3)</b> |  |   |                                 |                     |                            |
|-----------------------------------|--|---|---------------------------------|---------------------|----------------------------|
| <b>S.No</b>                       | <b>Name of the Authors</b>   | <b>Title of Invention</b>   | <b>Ref No./ Application No.</b> | <b>Status</b>       | <b>Date of Publication</b> |
| 1                                 | Dr.B.Paulchamy<br>et.al  | System for optimizing eight – Dimensional (8D) Audio signals in a pair of three dimensional (3D) spectacles | 201941002364 A                  | Published           | 25/01/2019                 |
| 2                                 | Dr.B.Paulchamy<br>et.al  | Metal crack Identification using computer aided detection system employing image process technique          | 201941005979                    | Published           | 22/02/2019                 |
| 3                                 | Dr.B.Paulchamy<br>et.al  | Disease Identification system through ocular diagnosis  | 201941005618 A                  | Published           | 22/02/2019                 |
| <b>ACADEMIC YEAR:2019-2020(4)</b> |  |   |                                 |                     |                            |
| 1                                 | Dr.B.Paulchamy<br>Ms.R.Umamaheshwari<br>Ms.R.Priyadharshini<br>Ms.K.Kalpana<br>et.al | Method of Denoising Signals from Electroencephalogram   | 201941037238 A                  | Published           | 11/10/2019                 |
| 2                                 | Mr.N.Rathan,<br>Mr.B.Hakkem  | Smart self Defence Gadget for ensuring women’s safety from abusing and harassment                           | 202041019516                    | Published           | 29/05/2020                 |
| 3                                 | Dr.S.Saravanakumar<br>et.al  | Low Radiation Wearable Micro Strip Antenna for Embedded Skin Patch  | 2020102000                      | Published & Granted | 2020                       |
| 4                                 | Dr.S.Saravanakumar<br>et.al  | Metamaterial Inspired MIMO Triple Band antenna with Improved Isolation                                      | 202041039227 A                  | Published           | 2020                       |

| <b>ACADEMIC YEAR:2020-2021(5)</b>  |                                     |  |                |                     |            |
|------------------------------------|-------------------------------------|--|----------------|---------------------|------------|
| 1                                  | Dr.V.Sureshbabu<br>et.al            | Embedded Real-Time Finger-Vein Detection Based Advanced Security System  | 202041035424 A | Published           | 04/09/2020 |
| 2                                  | Dr.S.Chinnapparaj<br>et.al          | A Contactless Thermostat For The Measurement Of Calefaction Using CNN  | 202041047321 A | Published           | 06/11/2020 |
| 3                                  | Dr.S.Chinnapparaj<br>et.al          | Novel Approach For Medical Record & Stock Inventory Optimization with WOT Enabled AI Platform  | 202041053075 A | Published           | 11/12/2020 |
| 4                                  | Dr.B.Paulchamy<br>et.al             | An Artificial Intelligence based System for Medicine Dispensing<br>DOF:12.11.2020  | 2020103411     | Published & Granted | 13/01/2021 |
| 5                                  | Dr.B.Paulchamy<br>et.al             | System and method for optimal feature selection for hyper spectral imagery Classification using adaptive spectral-spatial clustering | 2021101584     | Published & Granted | 05/05/2021 |
| <b>ACADEMIC YEAR:2021-2022(11)</b> |                                     |  |                |                     |            |
| 1                                  | K.R.Kannan<br>Dr.S.Kavitha<br>et.al | The Design of an Internet of Things Architecture in the Cloud for Preventing the Diabetic Foot                                       | 202141040833 A | Published           | 17/09/2021 |
| 2                                  | R.Umamaheshwari<br>et.al            | An Image Processing and Deep learning based system for advertisement   | 202141042379   | Published           | 01/10/2021 |
| 3                                  | Dr.B.Paulchamy<br>et.al             | Biometric ATM Using GLCM Algorithm   | 202141025403A  | Published           | 19/11/2021 |
| 4                                  | Mr.A.Abdul<br>Hayum et.al           | Artificial Regular Parenting Assistance and Care using IoT as a Boon for Work Prone Parents  | 202141053490 A | Published           | 10/12/2021 |

|                                    |  |  |                |           |            |
|------------------------------------|--|--|----------------|-----------|------------|
| 5                                  | Mr.Hakkem.B<br>et.al   | Artificial Intelligence<br>Employed To Create A<br>Revolutionary Energy-Efficient<br>Intelligent Device for Weather<br>Observation | 202141057649 A | Published | 17/12/2021 |
| 6                                  | Dr.A.Purushotham<br>an<br>Mr.A.Abdul<br>Hayum<br>Mr.A.Vidyasekar<br>et.al                                      | Economic and Environmental<br>Controls for Smart Grids from<br>Spatiotemporal Optimization of<br>Electric Vehicle Charging         | 202241001294 A | Published | 28/01/2022 |
| 7                                  | Hindusthan<br>Institute of<br>Technology,<br>Dr.B.Paulchamy,<br>Dr.A.Purushotham<br>an,<br>Mr.A.Abdul<br>Hayum | An IOT & AI based pneumonia<br>Detection Device<br><b>(DESIGN PATENT)</b>  | 358710-001     | Published | 16/02/2022 |
| 8                                  | K.R.Kannan<br>et al  | Design an Intelligent Irrigation<br>System Using IOT and Cloud<br>Computing  | 202241021368 A | Published | 22/04/2022 |
| 9                                  | K.R.Kannan<br>et al  | Smart Poultry Farming Using<br>Microcontroller   | 202241022650 A | Published | 29/04/2022 |
| 10                                 | K.R.Kannan<br>et al  | Image Based Wild Plant<br>Detection and Sprinkling of<br>Growth by Smart Robot   | 202241022672 A | Published | 06/05/2022 |
| 11                                 | K.R.Kannan<br>et al  | A Smart Chair with Posture<br>Recognition and Temperature<br>Monitoring System   | 202241022669 A | Published | 06/05/2022 |
| <b>ACADEMIC YEAR:2022-2023(16)</b> |  |  |                |           |            |

|    |   |   |                |           |            |
|----|---|---|----------------|-----------|------------|
| 1. | T.Sivamani<br>et al                     | Automatic Brake System For<br>Controlling A Vehicle Using<br>AI And ML Model  | 202241042519A  | Published | 19.08.2022 |
| 2. | T.Sivamani,<br>Ms.A.S.Narmadha<br>et.al | A Real Time Patient Data<br>Acquisition Method In A<br>Hospital For Medical<br>Applications Based On ML   | 202221056061 A | Published | 14/10/2022 |
| 3. | Mr.A.Abdul<br>Hayum et.al               | Error Detection in PCB Using<br>Image Processing  | 202241057162A  | Published | 18/11/2022 |
| 4. | Mr.A.Abdul<br>Hayum et.al               | Deep Learning Based System<br>to Analyse and Support the<br>process Of Cleaning Solar<br>Separators in Solar Energy<br>Enabled Devices for Harvesting<br>Solar Energy | 202211060209A  | Published | 04/11/2022 |
| 5. | Mr.A.Abdul<br>Hayum et.al               | Blockchain Based Technique to<br>Facilitate Security in the Online<br>Transactions of E-Commerce<br>Site for Smooth Financial<br>Management                           | 202211059361A  | Published | 28/10/2022 |
| 6. | Mr.A.Abdul<br>Hayum et.al               | Methodology Integrated with<br>Machine Learning Algorithms<br>to Predict the Soil Quality and<br>Crop Yield as Per the Soil<br>Fertility                              | 202241057065A  | Published | 21/10/2022 |
| 7. | Mr.A.Abdul<br>Hayum et.al               | Artificial Intelligence Based<br>Approach to Study the<br>Anticancer Effects of<br>Thymoquinone on Breast<br>Cancer Cells Through Natural<br>Killer Cell Activity     | 202211056590A  | Published | 14/10/2022 |

|     |                                    |  |                |           |            |
|-----|------------------------------------|--|----------------|-----------|------------|
| 8.  | Mr.A.Abdul Hayum et.al             | Artificial Intelligence Based Approach for Predicting the Impact of Antioxidants in Delaying Cell Damage in Cancer Patients  | 202241056473A  | Published | 14/10/2022 |
| 9.  | Mr.A.Abdul Hayum et.al             | A Smart Image Processing Based IOT Integrated Glasses for Visually Challenged Person   | 202241056591A  | Published | 14/10/2022 |
| 10. | Mr.A.Abdul Hayum et.al             | Artificial Intelligence Based Detection and Prevention of Thyroid Disease on Hormone Level for All Ages of People Using IOT and Machine Learning for Smart Health Care Management System | 202211053796A  | Published | 23/09/2022 |
| 11. | Mr.A.Abdul Hayum et.al             | Structural Health Monitoring System with Narrowband Using IOT  | 202241030420 A | Published | 03/06/2022 |
| 12. | Ms.S.Suganya, Ms.K.Kowsalya et al. | AI based Car Tire Blowout Security System  | 202241067480A  | Published | 23.12.2022 |
| 13. | Ms.S.Suganya                       | IOT based method and device for obtaining Electronic Transaction Certificate and Storage medium  | 202341026630A  | Published | 05.05.2023 |
| 14. | K.R.Kannan                         | Systematic Techniques to study the Impact of Novel Approaches in Brain tumor Therapy   | 202331033540 A | Published | 19.5.2023  |
|     |                                    |  |                |           |            |

**ACADEMIC YEAR:2023-2024**

|  |   |   |                |           |            |
|--|---|---|----------------|-----------|------------|
|  | 1. S.Suganya                                    | Multi - Sensor Vehicle Positioning System Employing Shared Data Protocol  | 202321055491A  | Published | 01.09.2023 |
|  | 2. T.Sivamani                                   | Environmental condition Monitoring in Green House by using IOT  | 202341037998A  | Published | 07.07.2023 |
|  | 3. K.Kowsalya                                   | Method of Analyzing or Generating Sequences of Encoding Elements  | 202341044029A  | Published | 01.09.2023 |
|  | 4.Dr.C.Natarajan<br>Dr.B.Paulchamy<br>Mr.Hakkem | Endorsing Employment Confidence Of Women Through Appropriate Coir Cluster Merchandises Training Development For Their Life Uplifting In Rural Environment | 202341026668 A | Published | 05.05.2023 |