

Centre for Intellectual Property Rights (CIPR)  
Anna University, Chennai – 600 025

**3.3.2.1:**

(i) Number of Patent Published during the last Five Years

| <b>Name of the Applicant</b>                        | <b>Application Number</b> | <b>Title of the Application</b>   | <b>Year of publication</b> |
|---|---------------------------|---|----------------------------|
| Dr. A. Pandurangan<br>S. Chandrakishore             | 5605/CHE/2014             | Novel catalyst-free self seeded method for the production of C-SI-GE and nanotubes by CVD | 21.11.2014                 |
| Dr. M. Alagar,<br>S. Devaraju,<br>M. R. Vengatesan, | 3636/CHE/2014             | One pot synthesis of bismaleimide derivations.  | 08.08.2014                 |
| Dr. K.V. Radha,<br>P. Thyriyalakshmi,               | 5144/CHE/2014             | Synthesis of FMPC and preparation of chitosan – FMPC particles                            | 24.10.2014                 |
| University of<br>Hyderabad                          | 2506/CHE/2014             | Sintered in-situ titanium carbide ceramic cutting tool and method of making the same      | 15.01.2016                 |
| Dr. K. Malathi,<br>M. Gulam Nabi Alsath,            | 6413/CHE/2014             | Shared aperture multi-service design for automotive communications                        | 09.01.2015                 |

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| Dr. K. Malathi,<br>Aswathy K Sarma,<br>A. Henridass,<br>C. Raviteja,<br>V. Sangeetha,<br>M. Gulam Nabi Alsath, | 2660/CHE/2014 | Mutual coupling reduction in MIMO antenna with serpentine type structure resonator  | 13.06.2014 |
| Dr. D.Sangeetha,<br>Ayyaru Sivasankaran  | 3031/CHE/2014 | Sulphonated polyether –ether-ketone/<br>Sulphonated TIO2 composite as proton exchange membrane for microbial fuel cell    | 18.07.2014 |
| Dr. S. Subramanian,<br>S. Kubera Sampath<br>Kumar,   | 2285/CHE/2014 | Nanomaterial based multilayer wound dressing system   | 06.06.2014 |
| P. Pathalamuthu,<br>A. Siddharthan,<br>Dr. V. R. Giridev,  | 5603/CHE/2014 | Spirograph based mechanical assembly for fabrication testing and measurement of product with near uniform characteristics | 21.11.2014 |

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|---|----------------------|--|-------------------|
| <p>Director, Tamil Nadu<br/>Veterinary and Animal<br/>Sciences University,<br/>Chennai,<br/>Co-ordinator, National<br/>HUB for Healthcare<br/>Instrumentation<br/>Development (NHHID)<br/>Anna University,<br/>Chennai</p>                                    | <p>1867/CHE/2014</p> | <p>Novel multi epitope antigen<br/>for diagnosis of leptospirosis</p>  | <p>25.04.2014</p> |
| <p>Christian Medical<br/>College Vellore<br/>Association, Vellore,<br/>Co-ordinator, National<br/>HUB for Healthcare<br/>Instrumentation<br/>Development (NHHID)<br/>, Anna University,<br/>Chennai<br/>&amp;<br/>Registrar, Anna<br/>University, Chennai</p> | <p>4732/CHE/2014</p> | <p>Physiological data acquisition system capable<br/>of indefinite<br/>duration recording with full electrical<br/>isolation</p> | <p>25.04.2014</p> |

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|--|---------------|---|------------|
| Dr. S. Thanigalarasu,<br>Dharmahiner Singh<br>Chand,<br>R. Asad Ahmed, | 3765/CHE/2015 | Method and device for controlling sonic<br>under -expanded jets                                   | 07.08.2015 |
| Dr. K. Sankaran,<br>T. Elavarasan,                                     | 1496/CHE/2015 | Simple rapid method for estimation of milk<br>protein   | 10.04.2015 |
| Dr. S. Kanmani,<br>V. Preethi,   | 870/CHE/2015  | Gas-phase recovery of hydrogen<br>from hydrogen sulphide using photocatalysis                     | 06.03.2015 |
| Dr. K. Malathi,<br>K .P. Jayaram,<br>M. Gulam Nabi Alsath,             | 5336/CHE/2015 | A UHF RFID reader antenna integrated<br>with near field and far field operations                  | 30.10.2015 |
| Dr. K. Malathi,<br>M. Gulam Nabi Alsath,<br>Livya Lawrance,            | 5337/CHE/2015 | A device and method for fabrication of<br>ultra-wide band micro strip grid array antenna<br>(GAA) | 30.10.2015 |
| Dr. K. Malathi,<br>R. Vimal Samsingh,<br>S. Esther Florence,           | 5338/CHE/2015 | Method and apparatus for non-destructive<br>testing of composites using planar sensor             | 23.10.2015 |

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|--|---------------|--|------------|
| Dr. K. Malathi,<br>S. Esther Florence,<br>R. Vimal Samsingh, | 5620/CHE/2015 | A method to fully integrate multi-layer woven electro-textile patch antenna                | 06.11.2015 |
| Dr. K. Malathi,<br>S. Ramparabhu,<br>M. Balaji,              | 5621/CHE/2015 | A method and device for a passive reconfigurable frequency selective surface               | 06.11.2015 |
| Dr. C. Senthil Kumar,<br>M. Ramakrishna,                     | 201641018606  | Saw toothed leading edge delta wings   | 10.06.2016 |
| Dr. C. Senthil<br>Kumar,<br>M. Ramakrishna,                  | 201641018605  | Sinusoidal toothed leading edge delta wings  | 10.06.2016 |
| Dr. K.M.<br>Parammasivam,<br>B. Navin Kumar,                 | 201641016085  | Aerodynamic braking system for wind turbine using chordwise spacing                        | 10.06.2016 |
| Dr. K.V. Radha,<br>V. Thamilselvi,                           | 201641009242  | Biosynthesis of silver nanoparticles loaded corncob for effluent treatment                 | 15.07.2016 |
| Dr. K. Malathi,<br>S. Ramprabhu,                             | 201641032341  | Polarization independent reconfigurable 3 D frequency selective surface and method thereof | 30.09.2016 |

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|--|--------------|---|------------|
| Dr. Malathi,<br>K. P. Jayaram,   | 201641032342 | A multiservice chipless RFID transponder  | 30.09.2016 |
| Dr. Malathi,<br>R. Vimal Samsingh,<br>S. Sangeetha,<br>P. Yogeshwari,<br>Saffrine Kingsly,                         | 201641032343 | Electromagnetic nondestructive material characterization of dielectrics deploying planar EBG based transmission line sensor | 30.09.2016 |
| Dr. Malathi,<br>K. P. Jayaram,   | 201641032344 | A magnetic coupling UHF near field rfid reader antenna deploying CSRR elements  | 30.09.2016 |
| Dr. Malathi,<br>V. Sangeetha,<br>Saffrine Kingsly,<br>P. Yogeshwari,   | 201641032345 | Planar quad-band rat-race coupler with spurious pass-band suppression   | 30.09.2016 |
| Malathi Kanagasabai,<br>Yogeshwari Panneer Selvam,<br>P. Sandeep Kumar,<br>Saffrine Kingsly,<br>Sangeetha Subbaraj | 201641024647 | Dual mode polarization diverse antenna array  | 31.03.2017 |
| K. Vigneshwaran,<br>A. Sureshkumar,  | 201641024483 | Footboard accident prevention system  | 31.03.2017 |

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|--|--------------|--|------------|
| Anna University,<br>Chennai<br>&<br>Department of Atomic<br>Energy, Mumbai | 201641005129 | Mechanical grippers for handling plurality of<br>micro components  | 08.07.2016 |
| Dr. M. Kanthababu,<br>Dr. S. Gowri,<br>M. Venkateshwaran,                  | 201641018235 | Focusing nozzle condition monitoring system<br>of abrasive water jet machine comprising<br>accelerometer | 10.06.2016 |
| Dr. M. Kanthababu,<br>Dr. S. Gowri,<br>M. Venkateshwaran,                  | 201641018236 | Focusing nozzle condition monitoring unit of<br>abrasive water jet machine comprising sound<br>sensor    | 10.06.2016 |
| Dr. M. Kanthababu,<br>V. Mohan Kumar,<br>V. Sailesh,<br>G. Anuradha,       | 201641020717 | Smart seat belt system   | 24.06.2016 |
| Dr. A. Peer Mohamed,<br>Dr. S. Subramanian,<br>P. Kathirvel,               | 201641027276 | Tension roller drafting system to improve<br>yarn quality  | 08.09.2017 |

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|--|--------------|--|------------|
| Dr. N. Gobi  | 201641032148 | Construction of polymeric/electrospun composite membrane for water filtration and a method thereof | 30.09.2016 |
| Dr. S. Subramanian,<br>Dr. A. Peer Mohamed,                                    | 201641043615 | Modified cradle and nose bar for apron drafting system   | 24.11.2017 |
| Noel Jacob Kaleekkal<br>D. Mohan,  | 201741031660 | Method of preparing fouling resistant polyetherimide mixed matrix membranes                        | 22.09.2017 |
| B. Dhayalini,<br>R. Senthil  | 201741004535 | A Biodegradable acoustic panel from small millets husk   | 31.03.2017 |
| K. ThanigaI Arul,<br>S. Narayana Kalkura,<br>J. Ramana Ramya,<br>E. Manikandan | 201741031668 | Bionanocomposite coating and its method thereof  | 22.09.2017 |
| J.Kumar<br>C. Bagavath   | 201741043550 | Disposable nitric oxide sensor construction using gallium nitride nanowires and its method thereof | 15.12.2017 |



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|---|--------------|--|------------|
| Malathi Kanagasabai,<br>P. Sandeep Kumar,<br>E. Lavanya,<br>P. Yogeshwari,<br>S. Sangeetha,<br>Saffrine Kingsly | 201741008383 | Rhombic compound reconfigurable antenna  | 24.03.2017 |
| Malathi Kanagasabai,<br>N. Rajesh   | 201741008376 | Integrated vivaldi antenna with switchable radiation pattern   | 24.03.2017 |
| M. Kanthababu,<br>R. Giri   | 201741012118 | A method for operating optimal assembly sequence in an indexing table using genetic algorithm                          | 21.04.2017 |
| M. Kanthababu,<br>S. Gowri,<br>R. Prabhakaran,<br>K. R. Sunilkumar,<br>M.S. Ajmal Deen Ali                      | 201741016668 | Condition monitoring system for focusing nozzle wear in abrasive waterjet machine comprising acoustic emission sensor  | 19.05.2017 |
| S. Gowri,<br>R. Prabhakaran,<br>K. R. Sunilkumar,<br>M.S. Ajmal Deen Ali  | 201741016669 | Condition monitoring system for focusing nozzle wear in abrasive waterjet machine comprising cutting force dynamometer | 19.05.2017 |

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|---|--------------|---|------------|
| Vaidheeswaran<br>Sivanesan,<br>Subramanian<br>Sundaramoorthy                | 201741000650 | Leakless facial shape fitting component for respirators   | 27.01.2017 |
| A.J.D Nanthakumar,<br>J. Jancirani  | 201741036049 | A real time adaptable damper  | 20.10.2017 |
| M. Kanthababu,<br>V. Vidya  | 201741046617 | Fatigue testing machine for mechanical microgrippers  | 05.01.2018 |
| M. Kanthababu<br>V. Vidya   | 201741046610 | Micro arc welding machine   | 05.01.2018 |
| M. Kanthababu,<br>S. Anish Kumar,<br>M. S. Ajmal Deen Ali,<br>R. Madhumathi | 201741046614 | Iot enabled online condition monitoring of the exhaust gas emission system of the automobiles using gas sensors | 05.01.2018 |
| J. Jancirani<br>A. Sangeet Sahaya<br>Jeyangel<br>G. Anandraj                | 201841001033 | Air curtain side skirt for reducing underbody drag  | 19.01.2018 |

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|--|--------------|---|------------|
| M. Kanthababu,<br>S. Akash,<br>M. Jeeva,<br>B. Manikandan<br>Shreyas M Kabirdass | 201841013438 | Internet of things based cam actuated bell  | 13.04.2018 |
| M. Kanthababu,<br>K. R. Sunil Kumar  | 201841022047 | IOT enabled tool wear condition monitoring system for cnc turning comprising acoustic emission sensor             | 22.06.2018 |
| M. Kanthababu,<br>K. R. Sunil Kumar  | 201841022035 | OT enabled tool wear condition monitoring system for CNC tuning comprising Accelerometer sensor                   | 22.06.2018 |
| M. Kanthababu,<br>K. R. Sunil Kumar<br>A. Sarath Kumar                           | 201841022038 | IOT enabled tool wear condition monitoring system for cnc turning comprising sound sensor                         | 22.06.2018 |
| M. Kanthababu,<br>K. R. Sunil Kumar  | 201841022044 | IOT enabled tool wear condition monitoring system for CNC tuning comprising multiple sensors                      | 22.06.2018 |
| N. Gobi<br>B. Devi   | 201841025473 | Method to synthesis tio2 nanoparticles and lycopene - tio2 nanoparticles complex                                  | 13.07.2018 |
| R. Ramakrishnan<br>Noel Jacob Kaleekkal<br>T. Sivakumar<br>D. Mohan              | 201841027725 | Mixed Matrix Polymeric Membrane Catalytic Reactor for Carbohydrate Valorization and Separation and Method thereof | 27.07.2018 |

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|--|--------------|--|------------|
| Shubra Singh,<br>Suchita,<br>Vavilapalli Durga<br>Sankar             | 201841028665 | Method for developing Ca <sub>2</sub> Fe <sub>2</sub> O <sub>5</sub><br>Nanoparticles for Enhanced Photocatalysis<br>under direct Sunlight | 03.08.2018 |
| Shubra Singh,<br>Vavilapalli Durga<br>Sankar                         | 201841028670 | Method for synthesis of sillenite Bi <sub>2</sub> FeO <sub>7</sub><br>single crystals  | 03.08.2018 |
| A. Rajadurai,<br>Suresh Patil  | 201841028671 | Chlorine-Doped Tin Monoxide the D Type<br>transparent conducting particles and<br>manufacturing process thereof                            | 03.08.2018 |
| N.Gobi<br>S.Arun Karthick  | 201841029428 | Multifunctional nanocomposite nanofibrous<br>filter for aerosol filtration, chemical and<br>biological protection                          | 17.08.2018 |
| A. Saravanakumar<br>Madhankumar,<br>&<br>K.Saravanakumar,<br>Souhith | 201841031722 | Ground Testing Apparatus for Solar Sails   | 31.08.2018 |
| S. Chitrakala  | 201841031721 | Automatic scene understanding assistive<br>system with refreshable tactile device<br>including voice for visually impaired people          | 31.08.2018 |
| N. Vasudevan<br>G. Sunantha  | 201841015253 | Method for detecting PFOA and PFOS in<br>water samples using Genetically Engineering<br>Bacterial Biosensor                                | 07.09.2018 |

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|---|--------------|--|------------|
| S. Thanigaiarasu,<br>&<br>K. Rajaguru Nathan                          | 201841033139 | Aerodynamically Designed Variable Trailing Edge Serrations for Vertical Axis Wind Turbine Blades | 14.09.2018 |
| S. Thanigaiarasu,<br>K. Rajaguru Nathan                               | 201841033159 | Aerodynamically shaped feathered winglets for vertical axis wind turbine                         | 14.09.2018 |
| S. Thanigaiarasu,<br>S. A. Dawn Pradeeb                               | 201841033156 | Effect of nozzle rotation on mixing characteristics of subsonic jets                             | 14.09.2018 |
| S. Thanigaiarasu<br>S. Venkataramanan                                 | 201841033145 | Vortex Generators in Increasing the mixing characteristics of high speed jets                    | 14.09.2018 |
| K. Kamalanand,<br>A. Paramasivam,<br>C. Emmanuel<br>P. Mannar Jawahar | 201841033641 | An apparatus for generation of gastric electric waveforms in normal and abnormal conditions      | 14.09.2018 |
| N. Gobi<br>R. Senthil   | 201841033152 | Blended Suture for Surgical Application and a preparation process thereof                        | 14.09.2018 |
| J Jancirani.<br>A. Sangeet Sahaya<br>Jeyangel<br>G. Anandraj          | 201841039705 | Conduit side skirt for underbody drag reduction  | 26.10.2018 |

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|---------------------------------|--------------|---|------------|
| D. Arivuoli<br>Preethi Ramadoss | 201841044636 | Biodegradable sanitary napkin for personal and environmental hygiene and method thereof | 07.12.2018 |
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### 3.4.3.1

(ii) Number of Patent Awarded during the last Five Years

| <b>Name of the Patenter</b>   | <b>Patent Number</b> | <b>Title of the patent</b>  | <b>Year of Award of patent</b> |
|---|----------------------|---|--------------------------------|
| Dr. S. Subramanian,<br>Dr.A. Peer Mohamed,<br>Paramasivam<br>Dhanapal,                          | 264217               | New method of production of compact yarn  | 19.12.2014                     |
| The Director General,<br>Defence Research &<br>Development<br>Organization (DRDO),<br>New Delhi | 259631               | Flow straightener-throttle for fan testing rig  | 28.03.2014                     |
| KBC Research<br>Foundation Pvt. Ltd.,<br>Anna University,<br>Chennai                            | US-12/645,709        | Sub channel formation in OFDMA systems  | 04.03.2014                     |
| KBC Research<br>Foundation Pvt. Ltd,<br>Anna University,<br>Chennai                             | US 12/716,803        | Methods and systems for detecting a preamble of a data packet in wireless communication systems | 22.04.2014                     |

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|---|----------------|---|------------|
| Services,<br>Anna University,<br>Chennai                  | US 13/194,706  | System and method for classification of moving object during video surveillance                                     | 14.07.2015 |
| Tata Consultancy Services,<br>Anna University,<br>Chennai | CN201110184660 | A system and method for classification of moving object during video surveillance                                   | 03.06.2015 |
| Anna University,<br>Chennai                               | 264561         | Point fluted bottom rollers for roller drafting system of yarn spinning and preparatory machines                    | 09.01.2015 |
| Registrar, Anna University, Chennai,                      | 276270         | Method of bacterial lipid modification of hu-ifn-? for enhanced sensitivity of detection in ELISA                   | 14.10.2016 |
| Registrar, Anna University, Chennai,                      | 275504         | Chimeric peptide vaccines for lymphatic filariasis  | 09.09.2016 |
| Registrar, Anna University, Chennai,                      | 278637         | Immunogenic composition for lymphatic filarial vaccine  | 30.12.2016 |
| Registrar, Anna University, Chennai,                      | 276679         | A bacterial lipid modification of a filarial protein to enhance the immune-prophylactic efficacy in animal & humans | 04.11.2016 |
| Dr.N.Vasudevan,<br>R. Kanimozhi,                          | 275037         | A process for the treatment of distillery waste water using aerobic sequencing batch reactor                        | 26.08.2016 |

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|---|-------------|--|------------|
| Dr.N.Vasudevan,<br>R. Kanimozhi,                                  | 273394      | A synthetic carrier for biofilm attachment for wastewater treatment  | 03.06.2016 |
| Registrar, Anna<br>University, Chennai                            | 282117      | A process to characterize biochemical reactions using sensor instrumentation based on capacitance and conductance change | 07.04.2017 |
| Dr.N. Vasudevan,<br>Veenagayathri,                                | 282627      | A method for biodegradation of chlorophenols by a halotolerant bacterial consortium under saline conditions              | 21.04.2017 |
| Tata Consultancy<br>Services<br>&<br>Anna University,<br>Chennai  | EP11169344A | A system and method for classification of moving object during video surveillance  | 18.10.2017 |
| Registrar, Anna<br>University, Chennai,                           | 291589      | A method to detect bacterial growth and antibacterial resistance based on fluorescence quenching                         | 19.01.2018 |
| Mark Crocker,<br>Rodney Andrews,<br>A. Pandurangan,<br>Dali Qian, | US12942396  | Method for production of germanium nanowires encapsulated within multi-walled carbon nanotubes                           | 24.04.2018 |
| Dr.N. Vasudevan,<br>V. R. Manoj,                                  | 295017      | A method for the treatment and recirculation of aquaculture wastewater   | 06.04.2018 |



































