**3.4.2 Number of Patents awarded during the last five years**

**Total Granted patents = 65**

**Supporting documents**

|  |  |  |  |
| --- | --- | --- | --- |
| **Name of the Teacher** | **Patent Number** | **Title of the patent** | **Link for Supporting Document** |
| Dr Vivekananda Mandal | 290354 | A microwave assisted process for extraction of total phenolic antioxidant from plant material | <https://www.ggu.ac.in/Admin/Files/DepartmentDocument/06222022050442_patent_290354_kol_highlighted.pdf> |
| Dr. Sandeep Dharmadhikari | 103422 | Design of Blender Blade | <https://www.ggu.ac.in/Admin/Files/DepartmentDocument/06222022045924_Criterian-3.4.3.-Patent.pdf> |
| Kundan Meshram | 2021102807 | A Device and Method To Improve The Efficiency Of Construction Sites Using IoT Enabled Digital Twins | <https://ggu.ac.in/Admin/Files/DepartmentDocument/06292022033427_NAAC%203.4.3_2020-21_%201%20Patent%20cerificate.pdf> |
| Dr. Alok Singh Kushwaha | 2021100780 | Smart Bathroom system and method | <https://ggu.ac.in/Admin/Files/DepartmentDocument/04092023125138_Innovation_Patent_Certificate_07-04-2021.pdf> |
| Dr. Alok Singh Kushwaha | 2021101385 | Delicate Vibratory Instrument For Neonates Oral Motor Simulation | <https://ggu.ac.in/Admin/Files/DepartmentDocument/04092023125430_patent_2021101385.pdf> |
| Dr. Alok Singh Kushwaha | 2020104385 | A system and a method for automated irrigation using internet of things | <https://ggu.ac.in/Admin/Files/DepartmentDocument/04092023010847_patent_4385.pdf> |
| Dr. Rohit Raja | 2020102636 | SBDA Secured Bra for women safety | <https://ggu.ac.in/Admin/Files/DepartmentDocument/04092023010302_patent_2020102636.pdf> |
| Dr. Alok Singh Kushwaha | 2021100059 | Self-cleaning and Germ killing revolving public toilet for covid 19 | <https://ggu.ac.in/Admin/Files/DepartmentDocument/04092023011257_Patent_0059.pdf> |
| Dr. Alok Singh Kushwaha | 2021102958 | A system and method for preventing corona virus transmission | <https://ggu.ac.in/Admin/Files/DepartmentDocument/04092023012717_Patent_2958.pdf> |
| Dr. Alok Singh Kushwaha | 2020104116 | Holonomic drive conveyor system and its method using IOT | <https://ggu.ac.in/Admin/Files/DepartmentDocument/04092023013325_patent_4116.pdf> |
| Akhilesh Kumar Shrivas& Prof S. C. Shrivastava | 2021100439 | HOME AUTOMATION BASED ON USER DETECTION USING INTERNET OF THINGS | <https://ggu.ac.in/Admin/Files/DepartmentDocument/07042022024859_Patent_Akhilesh_shrivas_3.4.3%20%2004.07.22.pdf> |
| Amit Kumar Chandanan& Vikas Kumar Pandey | 2021101077 | SMART SHUTTER ASSEMBLY SYSTEM | <https://ggu.ac.in/Admin/Files/DepartmentDocument/07042022025005_Patent_Amit_Kumar_Chandanan_3.4.3%20%2004.07.22.pdf> |
|  Deepak Rathore | 2021101073 | Adaptive clustering Based Energy Efficient System for Intelligent Routing in Wireless Sensor Networks | <https://ggu.ac.in/Admin/Files/DepartmentDocument/06222022040024_Patent_Deepak_1.pdf> |
| Dr Rohit Raja, Prof.S. C. Shrivastava | 2021100285 | Novel 3D printed sonic prosthetic leg | <https://www.ggu.ac.in/Admin/Files/DepartmentDocument/09122022122817_patents%2020-21.pdf> |
| Dr Santosh soni | 2021100341 | Health Related Crisis Ready Plan through Wireless Sensor Network and the Cloud Computing at Populated Spots | <https://www.ggu.ac.in/Admin/Files/DepartmentDocument/09122022122817_patents%2020-21.pdf> |
| Dr Rohit Raja | 350637 | An Apparatus and method for remotely monitoring an aquatic animal and classification thereof | <https://www.ggu.ac.in/Admin/Files/DepartmentDocument/09122022122817_patents%2020-21.pdf> |
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| Dr Rohit Raja | 2020103853 | Dynamic Digital Twin System and A Method of Operating Thereof | <https://www.ggu.ac.in/Admin/Files/DepartmentDocument/09122022122817_patents%2020-21.pdf> |
| Dr Rohit Raja, Amit Kumar Dewangan | 2021102314 | An Internet of Things Based Smart Parking System and Its Method Thereof | <https://www.ggu.ac.in/Admin/Files/DepartmentDocument/09122022122817_patents%2020-21.pdf> |
| Dr Rohit Raja | 2021106885 | An Emotion Detection System and Method Using Pattern Recognition | <https://www.ggu.ac.in/Admin/Files/DepartmentDocument/09122022122817_patents%2020-21.pdf> |
| Dr Rohit Raja | 20 2021 103 650.(German Patent) | Traffic surveillance system | <https://www.ggu.ac.in/Admin/Files/DepartmentDocument/09122022122817_patents%2020-21.pdf> |
| Prof S. C. Shrivastava | 2021102315 | Method and apparatus for air filteration for exhaust silencer of vehicle. | <https://ggu.ac.in/Admin/Files/DepartmentDocument/06252022023735_Innovation_Patent_Certificate_23-06-2021.pdf> |
| Prof T.V. Arjunan, Mr.PradeepPatanwar, Mr.Manish Bhaskar, Dr.Pankaj Kumar Gupta, Mr.PrashantJangde | 2021100087 | Longitudinal fins evacuated tube solar air heater | <https://www.ggu.ac.in/Admin/Files/DepartmentDocument/09102022092134_2021100087%20Innovation_Patent_LONGITUDINAL%20FINS%20EVACUATED%20TUBE%20SOLAR%20AIR%20HEATER.pdf> |
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| Dheeraj Ahirwar, Sandeep Gupta,  DeenanathJhade, Bharti Ahirwar, Ritesh Jain and Mohit | 2021103481 | Contraceptive composition | [https://www.ggu.ac.in/Admin/Files/DepartmentDocument/06222022045035\_BA-2021103481-Innovation%20Patent%20%20Certificate%20(1).pdf](https://www.ggu.ac.in/Admin/Files/DepartmentDocument/06222022045035_BA-2021103481-Innovation%20Patent%20%20Certificate%20%281%29.pdf) |
| Dheeraj Ahirwar, Raju NivruttiPatil,  DeenanathJhade, Bharti Ahirwar, Anish Chandy and Mohit | 2021103573 | Formulation derived from phytoconstituents for treatment of diabetes | [https://www.ggu.ac.in/Admin/Files/DepartmentDocument/06222022045257\_BA-2021103573-Innovation%20Patent%20%20Certificate%20(1).pdf](https://www.ggu.ac.in/Admin/Files/DepartmentDocument/06222022045257_BA-2021103573-Innovation%20Patent%20%20Certificate%20%281%29.pdf) |
| V Mandal, KBS Chauhan, R Mehta, R Tandey, K Sen | 373262 | A solvent free microwave assisted extraction of volatile oil from Mentha spicata leaves | <https://www.ggu.ac.in/Admin/Files/DepartmentDocument/06222022051548_patent_kavi.pdf> |
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| Dr R. P. Patel | 2021102801 | Velocity estimation from cycle pedaling by using extended kalmanfilter algorithm | [https://ggu.ac.in/Admin/Files/DepartmentDocument/06282022051903\_Innovation\_Patent\_Certificate%20(1).pdf](https://ggu.ac.in/Admin/Files/DepartmentDocument/06282022051903_Innovation_Patent_Certificate%20%281%29.pdf) |
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| Sushma Jasiwal | 2021101744 | THE WASTE SEGREGATION METHOD USING MACHINE LEARNING TECHNIQUE | <https://www.ggu.ac.in/Admin/Files/DepartmentDocument/09122022104620_3.4.3_australian_patent_SJ_2020-21_organized.pdf> |
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| Sushma Jasiwal | 2021101174 | SOLAR PV POWER INTEGRATED SMART GRID BASED ENERGY MANAGEMENT SYSTEM | <https://www.ggu.ac.in/Admin/Files/DepartmentDocument/09122022104620_3.4.3_australian_patent_SJ_2020-21_organized.pdf> |
| Sushma Jasiwal | 2021101172 | DESIGN AND IMPLEMENTATION OF CONVOLUTION NEURAL NETWORK ON EDGE COMPUTING SMART PHONE FOR HUMAN ACTIVITY RECOGNITION | <https://www.ggu.ac.in/Admin/Files/DepartmentDocument/09122022104620_3.4.3_australian_patent_SJ_2020-21_organized.pdf> |
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| Mr. Satish Negi, Mr. AmitBaghel | 2021104281 | A smart wearable device for early detection and identification of COVID-19 cases | <https://ggu.ac.in/Admin/Files/DepartmentDocument/08182022062712_Amit%20Baghel.pdf> |
|  Deepak Rathore | 2021103085 | A Method for Reliable and Energy Efficient Data Transfer Routing Protocol in Wireless Body Area Networks | <https://ggu.ac.in/Admin/Files/DepartmentDocument/06222022040127_Patent_Deepak_2.pdf> |
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| Dr Rohit Raja, Dr S. C. Shrivastava | 20 2021 103 650 | Traffic surveillance system | <http://ggu.ac.in/Admin/Files/DepartmentDocument/08302022104823_patents%20certificate%2021-22.pdf> |
| Preeti Patel, Harish Rajak | German Patent No: DE202022100777 | A System for Synthesizing Novel Analogues of Nitrofurantoin Based Hydroxamic Acids as Anticancer Agents | <https://ggu.ac.in/Admin/Files/DepartmentDocument/08122022035848_German%20Patent_G11338DE%20certificate.pdf> |
| Thareja Suresh, Akhlesh Kumar Jain | 382675 | Novel 5-[4-(2-Biphenyl-4-Yl-2-Oxo-Ethoxy Benzylidene]-Thiazolidine-2,4-Diones, their Synthesis and Uses thereof | <https://ggu.ac.in/Admin/Files/DepartmentDocument/06222022050223_Granted%20Certificate%20-%20382675%20-%20AKJ.pdf> |
| Sushma Jaiswal  | 2021105525 | MOBILE USER TRAJECTORY PREDICTION SYSTEM WITH EXTREME MACHINE LEARNING ALGORITHM | <https://www.ggu.ac.in/Admin/Files/DepartmentDocument/09022022113653_Australian_innovation_patent_SJ_organized.pdf> |
| Sushma Jaiswal  | 2021104045 | FAILURE NODES DETECTION AND RECOVERY SYSTEM IN CLOUD COMPUTING TO IMPROVE Resources Reliability  | <https://www.ggu.ac.in/Admin/Files/DepartmentDocument/09022022113653_Australian_innovation_patent_SJ_organized.pdf> |
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| Sushma Jaiswal  | 2021102935 | AN AUTOMATIC OPTIMIZED FEATURES SELECTION SYSTEM IN RETINOPATHY DETECTION USING ACTIVE EXTREME LEARNING MACHINE | <https://www.ggu.ac.in/Admin/Files/DepartmentDocument/09022022113653_Australian_innovation_patent_SJ_organized.pdf> |
| Sandeep Kumar, Rohit Raja, Shilpa Rani, Hemalata Dalmia, etal | 418358 | mechanisms to prevent road accidents in low light intensity enviornment using drone system | <https://ggu.ac.in/Admin/Files/DepartmentDocument/01182023101440_rohit%20raja%20patent_2023.pdf> |
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