| **FACULTY PROFILE FORMAT (Format 3)** | | |
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| **Subjects Handled** | : | Electromagnetic Fields  Electron Devices and Circuits  Digital Signal Processing  Digital Electronics  Sensors and Tran |
| **Books Published** | : | Nil |
| **Journals Published** | : | 1. **Niruban,** **R.,** Sree Renga Raja, T. and Sree Sharmila, T (2014), “Novel Color Filter Array Demosaicing in Frequency Domain with Spatial Refinement”, Journal of Computer Science, Science Publications, DOI 10.3844/jcssp.2014.1591.1599, Vol. 10,  Issue 8, pp. 1591-1599, ISSN: 1549-3636. **(Scopus Indexed)** 2. **Niruban**, **R.,** Sree Renga Raja, T and Deepa, R  (2015),   “Similarity and Variance Of Color Difference Based Demosaicing”,  TELKOMNIKA Indonesian Journal of Electrical Engineering, Indonesian Journal of Electrical Engineering and Computer Science, DOI:10.11591/telkomnika.v13i2.7048, Vol.13, No. 02, pp. 238-246,ISSN:2502-4752 February **(Scopus Indexed).** 3. **Dr.R. Niruban**, R. Deepa, G.D. Vignesh, (2020), ”A Novel Iterative Demosaicing Algorithm Using Fuzzy Based Dual Tree Wavelet Transform”, Journal of Critical Reviews, Vol 7, Issue 9, pp.141-145, May, ISSN: 2394-5125.**(Scopus Indexed).** 4. **Dr.R. Niruban et.al,** (2021), ” Avoiding static and dynamic obstacles and various other challenges in path planning process of robot navigation”, NVEO – Natural Volatiles & Essential Oils, ISSN: 2148-9637, Vol 8, Issue 5, pp.1488-1500, Nov. **(WOS Indexed)** 5. **Dr.R. Niruban et.al,** (2022), ” Material Recognition Using Cnn”, International Journal of Early Childhood Special Education (INT-JECSE), ISSN: 1308-5581, DOI: 10.9756/INTJECSE/V14I5.45 , Vol 14, Issue 5, pp.449-459, Nov. **(WOS Indexed)** 6. **Dr.R. Niruban,** Deepa.R (2022), ” Optimized convolutional neural network based comprehensive early diagnosis method for multiple eye disease recognition”, Journal of Electronic Imaging, ISSN: 1017-9909, DOI: 10.1117/1.jei.31.4.043016, <http://dx.doi.org/10.1117/1.jei.31.4.043016>, Vol 31, Issue 4, pp.043016-1 to 043016-21, Jul. **(SCI  and Scopus Indexed)** 7. **Dr.R. Niruban,** Deepa.R (2023), ” Graph neural network-based remote target classification in hyperspectral imaging”, International Journal of Remote Sensing, Taylor & Francis Group,  Print ISSN: 0143-1161 Online ISSN: 1366-5901, DOI: 10.1080/01431161.2023.2237661, Vol 44, Issue 14, pp. 4465–4485, Jul. **(SCI  and Scopus Indexed).** 8. R. Deepa, T. Sree Sharmila, **R. Niruban,** (2023), ” Dynamic graph neural network-based computational paradigm for video summarization”, Multimedia Tools and Applications, Springer Nature, ISSN: 1380-7501, DOI: https://doi.org/10.1007/s11042-023-17412-4, Vol 83, Issue  , pp.51227–51250 , Nov. **(SCI and Scopus Indexed).** 9. **Dr.R. Niruban,** Deepa.R (2024), ” Enhancing hyperspectral image classification with   graph attention neural network”, Journal of Electronic Imaging, ISSN: 1017-9909, DOI: 10.1117/1.JEI.33.4.043052, https://doi.org/10.1117/1.JEI.33.4.043052, Vol 33, Issue 4, pp.043052-1 to 043052-25, Aug. **(SCI  and Scopus Indexed)**. |
| **Conference /Workshop Attended** | : | 1. **R. Niruban et.al.,** (2022),   “Analysis of Various Toxic Gas Levels Using 5G ML-IoT for Air Quality Monitoring and Forecasting”, IOT with Smart Systems, ICTIS 2022 Conference Proceedings, Springer Book Smart innovation, systems and technologies, ISSN 2190-3026, ISBN 978-981-19-3575-6,    , DOI: https://doi.org/10.1007/978-981-19-3575-6, Vol 02, pp.789-802, Oct. **(Scopus Indexed).** 2. Participated in the Faculty Development Programme Recognized by Association of Indian Universities (AIU) & AMET University on **ICT Integrated Evaluation in Outcome-Based Education** Conducted by Academic and Administrative Development Centre (AADC) & Department of Electrical and Electronics Engineering from 05/01/2024 to 12/01/2024 (One Week) at AMET University, Chennai. 3. Participated in the AICTE Recognized Faculty Development Programme on **Scilab Programming for Beginners** Conducted by Electronics and Communication Engineering Department from 24/07/2023 to 28/07/2023 (One Week) at NITTTR, Chandigarh. 4. Participated in the AICTE Recognized Faculty Development Programme on **MATLAB - Artificial Intelligence and Optimisation Techniques** Conducted by Electrical Engineering Department from 21/11/2022 to 25/11/2022 (One Week) at St. Josephs College of Engineering, OMR, Chennai. 5. Participated in the AICTE Training and Learning (ATAL) Hybrid Faculty Development Training Program on **Diverse Applications of Research Paradigms in AI** from 05/12/2022 to 16/12/2022 (Two Week) at St. Joseph’s College of Engineering, OMR, Chennai. 6. Participated in the AICTE Recognized Faculty Development Training Program on **MATLAB - Artificial Intelligence and Optimisation Techniques** conducted byElectrical Engineering Department from 21/11/2022 to 25/11/2022 (One Week) at St. Joseph’s College of Engineering, OMR, Chennai. 7. Participated in the Anna University online Faculty Development Training Program on **EC8093-Digital Image Processing** conducted by St.Joseph’s College of Engineering, Chennai during 7/6/2021 to 12/6/2021. 8. Participated in the virtual Faculty Development Program on **Research Capabilities in FOG and EDGE Computing** conducted by Sri Sai Ram Institute of Technology, Chennai during 14/2/2022 to 18/2/2022. 9. Participated in the online course on **Basic Principles of Remote Sensing Technology** conducted by Indian Institute of Remote Sensing (IIRS), ISRO Dehradun during 13/4/2020 to 25/4/2020. 10. Participated and completed AICTE Training and Learning (ATAL) Academy FDP on **Internet of Thing (IoT)** from 15th November to 19th November 2019 at IIITDM Kancheepuram. 11. Participated in the online AICTE recognized Faculty Development Program on **Neural Network and CNN** conducted by NITTR, Chandigarh during 11/5/2020 to 15/5/2020. 12. Participated in the workshop on **Digital Image Processing and Applications** at IIITDM on 4th June to 9th June 2018 at Chennai. |
| **Patent Details** | : | | **Title of the Invention :** | **Smart watch for construction workers in rural areas.** | | --- | --- | | Journal                         : | The Patent Office Journal No. 29/2022 | | Application No.           : | 202241040565 A | | Date of filing                : | 15/07/2022 | | Publication Date          : | 22/07/2022 | | **Title of the Invention :** | **Design and implementation of smart black box system using IOT** | | Journal                         : | The Patent Office Journal No. 07/2023 | | Application No.           : | 202341008768 A | | Date of filing               : | 10/02/2023 | | Publication Date          : | 17/02/2023 | | **Title of the Invention :** | **Ai Chatbots In Healthcare Automating Information Gathering For Improved Decision Making** | | Journal                         : | The Patent Office Journal No. 35/2023 Dated 01/09/2023 | | Application No.           : | 202341053268 A | | Date of filing               : | 08/08/2023 | | Publication Date          : | 01/09/2023 | | **Title of the Invention :** | **TRANSFORMER ARCHITECTURE-BASED NATURAL LANGUAGE PROCESSING FOR CONTEXTUAL REAL-TIME**  **LANGUAGE TRANSLATION** | | Journal                         : | The Patent Office Journal No. 26/2024 Dated 28/06/2024 | | Application No.           : | 202441048099 A | | Date of filing               : | 22/06/2024 | | Publication Date          : | 28/06/2024 | | **Title of the Invention :** | **MULTI-MODAL ENERGY HARVESTING DEVICE UTILIZING AMBIENT VIBRATIONS, THERMAL GRADIENTS, AND RADIO FREQUENCY SIGNALS** | | Journal                         : | The Patent Office Journal No. 34/2024 Dated 23/08/2024 | | Application No.           : | 202441061911 A | | Date of filing               : | 14/08/2024 | | Publication Date          : | 23/08/2024 | |
| **Funded Project Details** |  | Nil |