


FACULTY PROFILE FORMAT (Format 3)

Staff Name	:	Dr.NIRUBAN. R
Photo	:	
Faculty ID	:	3123339/ TEC54
Designation	:	ASSOCIATE PROFESSOR
E-mail:	:	nirubanr@stjosephs.ac.in
Vidwan-ID	:	433735
Orcid ID	:	0000-0001-9048-9695
Scopus author ID	:	56157748100
Web of Science ID	:	AAH-7599-2020
Google Scholar ID	:	Uz3pJHEAAAAJ&hl
Qualification	:	M.E.,Ph.D
Teaching Experience	:	17 years
Area of Specialization	:	Image Processing
Subjects Handled	:	Electromagnetic Fields Electron Devices and Circuits Digital Signal Processing Digital Electronics Sensors and Tran
Books Published	:	Nil
Journals Published	:	<ol style="list-style-type: none"> 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) 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).

	<ol style="list-style-type: none"> 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
--	--

		<p>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).</p> <p>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).</p> <p>10. P, Josephin Shermila, Anu Disney D, Reeda Lenus C, and Niruban R.(2025) "Efficiency and Reliability: Optimization of Energy Management in Electric Vehicles Apply Monarch Butterfly Algorithm and Fuzzy Logic Control". <i>Eksploracja i Niezawodność – Maintenance and Reliability</i>. eISSN: 2956-3860, ISSN: 1507-2711, doi:10.17531/ein/200691, Vol 27, Issue 3, Feb. (SCI and Scopus Indexed).</p>
Conference /Workshop Attended	:	<p>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).</p> <p>2. R. Deepa, T. Sree Sharmila, R. Niruban (2025), "An Efficient Deep Learning Based Seq2Seq Model for Abstractive Text Summarization", Artificial Intelligence and Speech Technology Conference Proceedings, AIST 2023, Springer Nature Book series: Communications in Computer and Information Science (CCIS, volume 2267), DOI: https://doi.org/10.1007/978-3-031-75164-6_1 , Print ISBN: 978-3-031-75163-9, Online ISBN: 978-3-031-75164-6. pp. 3–19, Published 24 November 2024.(Scopus Indexed)</p>

	<ol style="list-style-type: none"> 3. M. Shreekanth, S. T. Kumar and R. Niruban (2025), "Enhancing SAR Automatic Target Recognition with Advanced Target Generative Adversarial Network," 2024 First International Conference on Software, Systems and Information Technology (SSITCON),Tumkur, India, 2024, pp. 1-6, doi: 10.1109/SSITCON62437.2024.10796276. (Scopus Indexed) 4. Participated in the AICTE Training and Learning (ATAL) Faculty Development Training Program on Exploring Advanced Data Science Tools Techniques and Trends from 09/12/2024 to 14/12/2024 (One Week) at ANAND INSTITUTE OF HIGHER TECHNOLOGY. 5. Participated in the AICTE Training and Learning (ATAL) Hybrid Faculty Development Training Program on Advanced Materials, Rare-Earth and Critical Minerals from 05/08/2024 to 10/08/2024 (One Week) at Prince Shri Venkateshwara Padmavathy Engineering College. 6. Participated in the Faculty Development Programme on Advanced Informative and Emerging Trends in Teaching and Research Conducted by Institute of marketing and management, Delhi & Research foundation of India from 24/08/2024 to 30/08/2024 (One Week). 7. 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. 8. Participated in the AICTE Training and Learning (ATAL) Faculty Development Training Program on Exploring Advanced Data Science Tools Techniques and Trends from 09/12/2024 to 14/12/2024 (One Week) at ANAND INSTITUTE OF HIGHER TECHNOLOGY. 9. Participated in the AICTE Training and Learning (ATAL) Hybrid Faculty Development Training Program on Advanced Materials, Rare-Earth and Critical Minerals from 05/08/2024 to 10/08/2024 (One Week) at Prince Shri Venkateshwara Padmavathy Engineering College. 10. Participated in the Faculty Development Programme on Advanced Informative and Emerging Trends in
--	--

	<p>Teaching and Research Conducted by Institute of marketing and management, Delhi & Research foundation of India from 24/08/2024 to 30/08/2024 (One Week).</p> <p>11. 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.</p> <p>12. 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.</p> <p>13. 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.</p> <p>14. 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.</p> <p>15. 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.</p> <p>16. 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.</p> <p>17. Participated in the virtual Faculty Development Program on Research Capabilities in FOG and EDGE</p>
--	--

		<p>Computing conducted by Sri Sai Ram Institute of Technology, Chennai during 14/2/2022 to 18/2/2022.</p> <p>18. 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.</p> <p>19. 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.</p> <p>20. 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.</p> <p>21. Participated in the workshop on Digital Image Processing and Applications at IIITDM on 4th June to 9th June 2018 at Chennai.</p>																
Patent Details	:	<table><tr><td>Title of the Invention :</td><td>Smart watch for construction workers in rural areas.</td></tr><tr><td>Journal :</td><td>The Patent Office Journal No. 29/2022</td></tr><tr><td>Application No :</td><td>202241040565 A</td></tr><tr><td>Date of filing :</td><td>15/07/2022</td></tr><tr><td>Publication Date :</td><td>22/07/2022</td></tr><tr><td>Title of the Invention :</td><td>Design and implementation of smart black box system using IOT</td></tr><tr><td>Journal :</td><td>The Patent Office Journal No. 07/2023</td></tr><tr><td>Application No. :</td><td>202341008768 A</td></tr></table>	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
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
		Title of the Invention :	Encrypted Federated Learning Framework for Collaborative Model Training with Privacy Guarantees
		Journal :	The Patent Office Journal No. 38/2024 Dated 20/09/2024
		Applicatio n No. :	202441069131 A
		Date of filing :	12/09/2024
		Publicatio n Date :	20/09/2024
Funded Project Details		Nil	