


FACULTY PROFILE

Name of Teaching Staff / RMK ID	Dr. P. UMAESWARI / T1093				
Designation	Associate Professor				
Department	Computer Science and Business Systems				
Date of Joining the Institution	08.08.2022				
Qualifications	MCA	M.Phil (CS)	ME(CSE)	Ph.D(CSE)	
Total Experience	Overall : 18.3 Years			in RMK : 3 Year	
Papers Published in Journal	Overall : 16 SCI & Scopus – 23 Others - 10			After Joining RMK : 21	
List of Papers Published	SCI & Scopus – 23 1. “Statistical computing and analysis of apple peel biocarbon and beta vulgaris cellulosic fiber vinyl-based EMI shielding composite” Biomass Conversion and Biorefinery, ISSN: 2190-6815, 2190-6823, Mar 2024. 2. “Simulating the rate of prediction error in rainfall big data forecasting” AIP Conference Proceedings, ISSN: 1551-7616, 2025. 3. “IoT-Enabled energy conservation in residential Buildings: Machine learning models for analyzing annual solar power consumption” International Solar Energy Society, Published by Elsevier Ltd, ISSN: 0038-092X, 2024. 4. “Enhancing K-Clustering based Privacy Preserving for E-Healthcare IoT Systems” International Journal of Intelligent Systems and Applications in Engineering, ISSN: 2147 -6799, Feb 2024. 5. “Digital Twin-Driven Intrusion Detection for IoT and Cyber-Physical System” IEEE Xplore, ISBN: 979-8-3503-6067-7, pp.1-8, 2024. 6. “Method for preserving privacy in wearable IoT devices by extending security using fog computing” IEEE Xplore, ISBN: 979-8-3503-7379-0, pp.1-6, 2024.				

	<p>7. "Internet of Things (IoT) for Remote Earthquake and Fire Detection Monitoring: Linking Safety" IEEE Xplore, ISBN: 979-8-3503-8428-4, pp.1-5, 2024.</p> <p>8. "A Review on Biofuel Production from Fish Waste Oil" Journal of Environmental Nanotechnology, ISSN: 2319-5541, pp. 294-297, 2024.</p> <p>9. "Machine Learning-Enabled Healthcare Decision Support System: An Advanced Disease Prediction with Patient-Doctor Collaboration" IEEE Xplore, ISBN: 979-8-3503-6534-4, pp.1-6, 2024.</p> <p>10. "Control of Autonomous Underwater Vehicles (Artificial Intelligence for Autonomous Vehicles: The Future of Driverless Technology)" Wiley, ISBN: 978-1-119-84763-2, Feb 2024.</p> <p>11. "Leveraging Deep Autoencoders for Security in Big Data Framework: An Unsupervised Cloud Computing Approach" IEEE Xplore, Mar 2024.</p> <p>12. "Development of Innovative Algorithm for Sound Detection Based on FFT and Goertzel Algorithms" IEEE Xplore, Mar 2024.</p> <p>13. "An Improved Ant Lion Optimization Algorithm Based Convolutional Neural Network for Big data Classification" IEEE Xplore, Jan 2024.</p> <p>14. "Multimodal Sentimental Classification using Long-Short Term Memory" IEEE Xplore, Feb 2024.</p> <p>15. "Waterwheel Plant Algorithm Optimization Based Resource Allocation in the Cloud Computing" IEEE Xplore, Feb 2024.</p> <p>16. "Big Data based Deep Learning for Predicting the Conditions of Patients from Medical IoT Data in Healthcare" Grenze International Journal of Engineering & Technology (GIJET), Jun 2023.</p> <p>17. "Development of Programmed Autonomous Electric Heavy Vehicle: An Application of IoT" Proceedings of the 2023 2nd International Conference on Electronics and Renewable Systems, ICEARS 2023, pp. 506–510, 2023.</p> <p>18. Effective Security Algorithms for Big Data Clouds, Lecture Notes in Networks and Systems, 522, pp. 539–548, 2023.</p> <p>19. Enhanced performance in detecting phishing website based</p>
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	<p>on proficient component based machine learning, AIP Conference Proceedings 2393, 020021, https://doi.org/10.1063/5.0074299, 2022.</p> <p>20. Local train ticketing system using web services, AIP Conference Proceedings 2393, 020022, https://doi.org/10.1063/5.0074301, 2022.</p> <p>21. Classification and prediction of cancer using data mining, AIP Conference Proceedings, 2393, 020024, 2022.</p> <p>22. Machine Learning Based Predicting the Assisted Living Care Needs, Proceedings of 5th International Conference on Contemporary Computing and Informatics, IC3I 2022, pp. 2141–2146, 2022.</p> <p>23. Security and privacy issues in cloud computing, International Journal of Applied Engineering Research, 9(24), pp. 27879–27893, 2014.</p> <p>Others – 10</p> <ol style="list-style-type: none"> 1. “Maximizing Solar PV Performance with Deep Learning Optimization and Advanced Power Regulation” Journal of Information Systems Engineering and Management, ISSN: 2468-4376, 2025. 2. “Innovative E-commerce Builder Platform for Democratizing Online Store Creation” Journal of Civil and Environmental Engineering, ISSN: 2096-6717, 2025. 2. A Deep Learning Cyber Security Algorithm For P2P File Sharing In Internet Community, Journal of Pharmaceutical Negative Results, Vol. 13, Issue. 10, 2022. 3. A Deep Learning Based Smart Agriculture Technique For An IOT Environment, Journal of Pharmaceutical Negative Results, Vol. 13, Issue. 10, 2022. 4. Strategic management accounting practices between developed and emerging economies using Machine Learning, Journal of Pharmaceutical Negative Results, Vol. 13, Issue.9, 2022. 5. Multilevel Security System for Big Data Cloud Using SDBS Algorithm, International Journal of TEST Engineering & Management, ISSN: 0193-4120, Vol. 83, pp. 13363-13370, 2020.
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	<p>6. Fabrication of Automatic Over Speed Control System in Educational Institution Zone Area, Tierärztliche Praxis, ISSN: 0303-6286, Vol.39, Issue 10, 2019.</p> <p>7. Three Level Security System for Multiple Users in Cloud Computing” International Journal of Control Theory and Applications, ISSN: 0974-5572, Vol.10, No.12, pp.183-193, 2017.</p> <p>8. Cryptographic Security System for Institutional Data Cloud, International Journal of Control Theory and Applications, ISSN: 0974-5572, Vol.10, No. 16, pp.407-415, 2017.</p> <p>9. Achieving Secure Data Access in Cloud Computing, Middle East Journal of Scientific Research (Sensing, Signal Processing and Security), ISSN: 1990-9233, Vol.23, pp. 263- 269, 2015.</p> <p>10. Effective Authentication using OTP (One Time Password) and SHA (Secure Hash Algorithm) in Big-Data and Clouds, International Journal of Printing, Packaging & Allied Sciences, ISSN: 2320-4387, Vol.4, No.1, pp. 547-559, 2016.</p>	
Papers Presented in Conferences (Scopus / WoS indexed only)	Overall : 23	After Joining RMK : 21
Ph.Ds / Projects Guided	Ph.Ds Guided : NIL	Student Projects Guided : UG – 15 Batches PG – 50 Batches
Books Published :	Count : 5	
	<p>1. Computer Networks in Alpha International Publication (AIP), ISBN No. 978-93-95978-54-5, 2022.</p> <p>2. Network Security in VR1 Publications, ISBN No. 978-93- 91332-23-5, 2022</p> <p>3. Office Automation in VR1 Publications, ISBN No. 978-93- 91332-15-0, 2021.</p> <p>4. Web Technology in Charulatha Publications, ISBN No.978- 93-90614-34-9, 2021.</p> <p>5. Visual Basic and Relational Database Management System in Charulatha Publications, ISBN No.978-93-89970-27-2, 2020.</p>	

Patents	Published Count : 2	Granted Count : NIL
	List : 1. Automated Traffic Signal Management with Emergency Vehicle Detection and Density-Based Control. Application Number: 202441080057 published on 25.10.2024. 2. Analytical Insights and Empirical Results Using Mobile Sensor Data for Exploiting Feature Selection in Human Activity Recognition. Application Number: 202341068016 published on 20.10.2023. 3. Advances in Internet of Things (IoT) Network Security through Automated Device Identification. Application Number: 202241059311 published on 28.10.2022. 4. An investigation into how artificial intelligence techniques are being used in the financial and marketing sector. Application Number: 202241061016 published on 18.11.2022	
Professional Memberships	Count : 5	
	List : 1. IEEE Membership Membership number: 100685698 2. Life Member of Indian Academic Researchers Association, Membership number: 822/2022. 3. Life Member of Knowledge Research Academy, Membership number: 1884, since May, 2022. 4. Member of International Association of Academic Plus Corporate, Membership number: FRT JQC-CE00302. 5. Life Member of Indian Society for Technical Education, Membership number: LM 136317.	

<p>Consultancy Projects Completed</p>	<p>Count :1</p> <p>Title of the project : Automating Data Backup and Recovery Systems</p> <p>Name of the Client Organization with address: B S K AUTOMATION Robotics & Automation Services, No. 2A, 2nd Street, Elango Nagar, Padi, Chennai – 600050.</p> <p>Duration : 01.08.2024 - 18.01.25</p> <p>Amount: 1,02,000</p> <p>Count :2</p> <p>Title of the project : Automation of Data Backup and Recovery Processes</p> <p>Name of the Client Organization with address: B S K AUTOMATION Robotics & Automation Services, No. 2A, 2nd Street, Elango Nagar, Padi, Chennai – 600050.</p> <p>Duration : 12.07.2023 - 17.12.2023</p> <p>Amount: 51,000</p> <p>Count :3</p> <p>Title of the project : Website Development and Website Maintenance.</p> <p>Name of the Client Organization with address: Sri Chakaravarthe Industries, Ambattur- 600053.</p> <p>Duration : 12.09.2022 - 16.02.2023</p> <p>Amount: 51,000</p>
<p>Awards Received</p>	<p>Count :5</p> <p>List :</p> <ol style="list-style-type: none"> 1. Best Faculty Award from The Institution of Engineers (India), Hosur Local Center on 4th Apr 2025. 2. Research Excellence Award from SIDVI Foundation, Registered as Micro Enterprises with MSME, Government of India, Viskhapatnam, Andhra Pradesh on 1st Sep 2024 3. Inspiring Research Associate Award from Madras Journal Series Pvt Ltd (Registered enterprise under the Ministry of MSME, Government of India) Reg. No: UDYAM-TN-24-0019042, Chennai-602024 on Sunday 5th Sep 2023. 4. Best Faculty Award from Indian Academic Researchers Association, MSME Udyam Reg. No. UDYAM-TN-27- 0040698, Government of India at Mahalashmi Women's College of Arts

	<p>and Science, Avadi, Chennai-600 071 on Sunday 13th Augt 2023.</p> <p>5. Best Faculty Award from International School of Technology and Sciences on 5th Sep 2022.</p>
Research grants Received	NIL
Orchid Link / ID	ID : 0000-0003-2870-6403
Google Scholar Link / ID	ID : leQM4jQAAAAJ
Vidwan Link / ID	ID : 300460
Research Gate Link / ID	ID : GYV-4075-2022
Scopus Link / ID	ID : 57723112500