

SETHU INSTITUTE OF TECHNOLOGY

(An Autonomous Institution Accredited with 'A++' Grade by NAAC)
Pulloor, Kariapatti –Taluk. Virudhunagar Dist-626115.



DM: 198								
Department of Artificial Intelligence and Data Science								
Name	Dr Rathnamala S							
Date of Birth	06/04/1985							
Unique ID	1-425458627							
Educational Qualifications	B.Tech,M.Tech,Ph.D					(0,0)		
Designation	Associate Professor							
Email ID	rathnamala@sethu.ac.in							
Alternate Email ID	ssrathnamala@gmail.com							
	Industry	Teachi	ng	Others	Total			
Experience		17 Y 7	M					
Date of Joining the Institution	03.12.2007							
Area of Specialization	Artificial Intelligence, Image Processing							
	Operating Systems, Software Testing, Computer Networks, Object Oriented Programming, Object Oriented Analysis and Design, Digital Image Processing, Cyber Forensics, Computer Programming, OOPs using Python, Malware Analytics							
Research Focus	Image Processing, Machine Learning, Deep Learning and Data Analytics							
Research guidance (Number of Scholars)	-							
	Operating Systems, Artificial Intelligence, Machine Learning							
No. of papers published	National Journals		International Journa		al Journal	ls Conferences		
,	1			14	4	6		
PG Specialization	Computer and Information Technology							
Ph.D. Specialization	Information and Communication Engineering							
Projects Carried out	55							
Patents (Filed & Granted)	04							
Technology Transfer	03							
with details (Name of the book, Publisher with ISBN, year of publication, etc.)	me of the pitth ISBN, 2-[Security and Privacy in cloud –Technical Publications-ISBN 9789355854308 July 2023] 3-[Human Resources Management–Technical Publications-ISBN 9789355856579 August 2024] 4-[Scripting Languages-Technical Publications-ISBN 9789391567330 Nov 2021]							
	5-[Operating Systems –Shanlax publications –ISBN 978-93-86537-85-0 2019] 6-["Introduction to Network Simulator Using Riverbed", in Newsman Publications, ISBN No 978-81-930476-1-3, January 2018]							

Page:1 of 4

Academic Credentials

Level	Degree	Specialization	University	Year of Completion
UG	B.Tech	IT	Anna University	2005
PG	M.Tech	CIT	M.S University	2011
Ph.D.	ICE	ICE	Anna University	2022

Details of Journal Publication:

- 1. Rathnamala, S., Jenicka, S. Automated bleeding detection in wireless capsule endoscopy images based on color feature extraction from Gaussian mixture model superpixels. Med Biol Eng Comput 59, 969–987 (2021).
- 2. Grace Shalini T., Rathnamala S. A RYU-SDN Controller-Based VM Migration Scheme Using SD-EAW Ranking Methods for Identifying Active Jobs in the 5G Cloud Framework International Journal of Cloud Applications and Computing (IJCAC)13(1)18 2023
- 3. Rathnamala, D. S., Parameswari, IoT based Smart Farming System. Journal of IoT in Social, Mobile, Analytics, and Cloud, 5(2) 119-1272023
- 4. Dr.C.Parameswari, Dr.S.Rathnamala A Smart Storage System and Non-Invasive Technique for Spoilage Detection Journal of IoT in Social, Mobile, Analytics, and Cloud, 5(2) 128-136 2023
- 5. Rathnamala, S., Jenicka, S. Performance evaluation of GMM super-pixel model-based technique with various bleeding detection techniques in WCE images International Journal of Advance Research, Ideas and Innovations in Technology 341-347
- 6. Rathnamala, S., Jenicka, S A Survey on Bleeding detection for Wireless Capsule Endoscopy Second International Conference on Recent Advances in Engineering and Technology -ICRAET 2019
- 7. M Prabhananthakumar, R Rajaguru, S Rathnamala "A Survey on Cognitive Engine"- Journal Academic, Industrial & Research, 2012
- 8. Dr Parameswari C Dr.S.Rathnamala Dr S.Siva Ranjani "Utilizing Mobile Application Technologies for Enhanced Sustainable Waste Management in Urban India" paper presented in the IRO Journals pp. 251-263 on 14-08- 2024.
- 9. Dr.S.Rathnamala "GI Bleeding Detection in WCE Images Using E-ORB and ME-DEEP CAPSNET" paper presented in the International Journal of Environmental Sciences pp. 147-160 on 02-06- 2025.
- 10. Dr.S.Rathnamala Mrs T.Vijayashanthi "EnviRoBot: An Innovative AIDriven Waste Management System Using Unmanned Ground Vehicles (UGVs)" paper presented in the International Research Journal of Engineering and Technology (IRJET) pp. 46 49 on 01-09- 2024.
- 11. Dr Parameswari C Dr Rajalakshmi G Dr.S.Rathnamala,."A Comprehensive Analysis of Preprocessing Techniques for Thermal Breast Image Processing" paper presented in the Journal of Ubiquitous Computing and Communication Technologies pp. 110 132 on 30-06-2025.
- 12. A Shvetha, S Rathnamala, MV Meenumathi Visual Secret Sharing Scheme Using Encrypting Multiple Images ",PiCES 2021
- 13. S. Rathnamala Mahaswetha S., Shanmuga Pradeepan R., Veeralakshmi M." Taskpro AI: Redefining Small Business Content Creation Through Advanced AI Innovation Journal of Software Engineering tools and technology trends, 2024.
- 14. S. Rathnamala" Designing and Developing PHISHR: A Machine Learning-Based System for Phishing Attack Domain Detection Journal of Cryptography and Network Security, Design and Codes, 2024

15. Aaron Sam A. S., Shanmuga Pradeepan R., Sobana R. S., S. Rathnamala," Detectiverse: Advancing Supply Chain Efficiency with AI-Enhanced Screw Counting Journal of Image Processing & Pattern Recognition, 2024...

Details of Conference attended:

- 1. Dr.S.Rathnamala, "Enhanced Hybrid Deep Learning Approach for Botnet Attacks Detection in IoT Environment" in The 7th International Conference on Signal Processing & Information Security on 12-11-2024.
- 2. Dr.S.Rathnamala., "Design and Development of A Novel CNN-BiLSTM Hybrid Deep Learning Model for Cyber Attacks Detection in an IoHT Environment" in the 2025 IEEE International Conference on Interdisciplinary Approaches in Technology and Management for Social Innovation (IATMSI) on 06-03-2025
- **3.** "ENERGY CONSUMPTION AND TREND PREDICTION USING MACHINE LEARNING" in the AICTE Sponsored International e-Conference on Machine Learning and Cyber Security in Industry 4.0 (MLCSI-21), from 20-10-2021 to 21-10-2021.
- **4.** Rathnamala S ATTAINMENT OF COURSE OUTCOME AND PROGRAM OUTCOME IN OUTCOME BASED EDUCATION (OBE)
- 5. S.RATHNAMALA INTRA-VENOUS DRIP LEVEL INDICATOR USING RASPBERRY PI MICROCONTROLLER National Conference on NSCET march 2018
- **6.** Dr Rathnamala S A SURVEY ON HARVESTING ELECTRICAL ENERGY FROM MECHANICAL PRESSURE USING PIEZOELECTRIC GENERATOR AICTE sponsored "International Conference on Recent Advances in Fog and Edge Computing" organized by Department of Information Technology ,Sri Krishna College of Engineering and Technology , Coimbatore during 25 & 26 April 2022.

Details of Book Chapter and Books Published:

T.Graceshailini, S.Rathnamala, M.Prabhananthakumar" A Review of Innovation to Human Augmentation in Brain-Machine Interface – Potential, Limitation, and Incorporation of AI" Brain-Computer Interface: Using Deep Learning Applications 101-125-2023

Rathnamala S Grace Shalini Girahalakshmi Pooncholai ,"Universal Human Values-Technical Publications-ISBN 978-93-5585-730-9-Mar2025"

Rathnamala S Grace Shalini Security and Privacy in cloud –Technical Publications-ISBN 9789355854308 July 2023

Rathnamala S Grace Shalini Human Resources Management-Technical Publications-ISBN 9789355856579 August 2024

Rathnamala S Grace Shalini Scripting Languages-Technical Publications-ISBN 9789391567330 Nov 2021]

Susan Shiny G Rathnamala S Prabhananthakumar M Operating Systems –Shanlax publications –ISBN 978-93-86537-85-0 2019]

Rathnamala S Roja Ramani D pabitha muthu P"Introduction to Network Simulator Using Riverbed", in Newsman Publications, ISBN No 978-81-930476-1-3, January 2018]

Rathnamala S Roja Ramani D Siva Ranjani S "Operating Systems" in Shanlax Publications, ISBN No 978-93-86537-85-0 ,2017

Details of Patents Filed and Granted:

Rathnamala S ,Design Augmented Intelligence Based Skin Cancer Classification And Prediction Framework Analysis, -202441015224 A

Dr. Rathnamala S Quantum-AI-Powered Holographic and Biosensor- Based System for Non-Invasive Early Disease Detection,-202541023260 A

Rathnamala S Automated Waste Sorting And Recycling System Using Robotics And Machine Learning-202541024163 A

Rathnamala S DEVELOPMENT OF A HEARTBEAT AND TEMPERATURE MEASURING SYSTEM FOR REMOTE HEALTH NURSING DURING PANDEMIC (COVID-19) -202041028557A

Expert Lecture Delivered:

- Creating websites for your business
- Understanding of Machine Learning and Artificial Intelligence with Latest Technologies
- Online Assessment Tools
- Understanding of Machine Learning Deep Learning &AI with recent technologies
- Leveraging Machine Learning Techniques for Sustainable and Reliable Performance in Electric Mobility System
- Outcome based education and accreditation

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