

## **FACULTY PROFILE**

### **Personal Details**

Name : **NITHYA J.**  
Designation : Professor  
Date of Joining : 01.07.1999  
Nature of Association : Regular  
Email : nithyaj@ksrct.ac.in



### **Academic Qualifications:**

S.No	Qualification	Institution	Board / University	Percentage / CGPA	Year of passing	Class Obtained
1.	Ph.D Information & Communication	K.S.Rangasamy College of Technology, Tiruchengode	Anna University , Chennai	-	October 2015	Completed
2.	M.E Applied Electronics	K.S.Rangasamy College of Technology, Tiruchengode	Anna University , Chennai	83	June 2007	FWD
3.	B.E. Electronics & Communication	Government College of Technology, Coimbatore	Bharathiar University, Coimbatore	79.46	May 1999	FWD

**Title of the thesis:** FETAL ABDOMINAL CONTOUR EXTRACTION AND MEASUREMENT FOR IMPLEMENTATION OF COMPUTER AIDED GROWTH MONITORING SYSTEM

### **Awards Received**

1. NPTEL ELITE GOLD PERFORMER – Introduction to Internet of Things , Accreditation and Outcome based learning, Effective Engineering Teaching in Practice
2. NPTEL ELITE TOP PERFORMER -Switching Circuits and Logic Design
3. NPTEL ELITE SILVER PERFORMER – Developing Soft Skills and Personality, Foundation of cloud IoT Edge ML, Design Thinking A Primer
4. NPTEL ELITE PERFORMER - Machine Learning
5. BEST MENTOR – QEEE AWARD
6. Mentor for 2 finalist teams in Toycathon 2021
7. Completed course on Universal Human Values
8. Mentor for MSME 3.0 Women Hackathon Fund Sanctioned for Rs 7.7 Lakhs

### **List of Publications**

INTERNATIONAL JOURNALS	
1.	<b>Nithya, J.</b> , and Radha, K., 'Image similarity assessment based on feature based sparse representation', International journal of Engineering research & Technology, Vol.2, Issue 4, 2013.
2.	<b>Nithya, J.</b> , and AnuVaishali, S., 'Image Segmentation using modified spatial fuzzy C-Means', International Global journal of Research Analysis, Vol. 2, Issue 11, November 2013.
3.	<b>Nithya, J</b> & Madheswaran, M, 'Tracing of Fetal abdominal circumference using Bio-inspired Computation', International Journal of Applied Engineering Research, vol.9, no.22, pp. 16595-16603, 2014.
4.	Kalaivani, P., <b>Nithya, J.</b> , 'Security in medical images using enhanced visual secret sharing scheme' International journal of scientific engineering and technology research 3, no. 9, 1642-1645 , 2014
5.	Deepika, C., & <b>Nithya.J</b> "Nature Inspired Metaheuristic Algorithms for Multilevel Thresholding Image Segmentation-A Survey." World Academy of Science, Engineering and Technology, International Journal of

	Mathematical, Computational, Physical, Electrical and Computer Engineering 8, no. 10, 1356-1361,2014
6.	<b>Nithya, J</b> & Madheswaran, M, 'Fetal ultrasound image denoising using Curvelet Transform', ICTACT Journal on Image and Video processing, vol.5, no.03, pp. 951-955, 2015.
7.	<b>Nithya, J.</b> , &Mugilya, M., 'Integrated Bee Colony and Tabu Search Optimization for Feature Selection and Classification of Breast Cancer in Digital Mammogram Images', Middle-East Journal of Scientific Research 24 (Techniques and Algorithms in Emerging Technologies): 207-214, 2016.
8.	<b>Nithya J.</b> , V.Narmadha ,G.Narmadha, R.Shivani Priyadharsini,S.Vinothini, " Dominant firefly approach to enhance latency period in mobile learning and cloud computing environment", International Journal of Advanced Science and Engineering Research, Volume: 06, Issue: 01, pp:155 -162, May 2021
9.	Ramya J., Kalaivani P., <b>Nithya J.</b> ," An advanced and shared Cryptographic Technique for security enrichment in Ad hoc networks and mobile application", Turkish Journal of Qualitative Inquiry, Volume: 12, Issue: 03, pp: 1271-1283, 2021
10.	<b>Nithya J</b> , Vignesh S. R , Devadarsan A , Venkatesh S , "AI Based Contactless Attendance Monitoring and Management System", International Journal of Health Sciences, vol. 6, no.S3, Special Issue III - 8365 ,2022
11.	<b>Nithya Jayakumar</b> , Ramya Jayakumar, Kalaivani P., Mahizha N.S, Fog Enabled Machine Learning for Real-Time Health Monitoring in Industry 4.0 Healthcare Systems, MAHSA International Journal of Engineering and Technology, Vol.1,No.1, 2024. E-ISSN:2811-3888
<b>NATIONAL &amp; INTERNATIONAL CONFERENCE</b>	
1.	<b>Nithya, J.</b> , " Extraction of common carotid artery intima media complex based on snakes " In 2nd National Conference on Innovations in computing techniques, Mahendra Engineering College,2007
2.	<b>Nithya, J.</b> , & M. Madheswaran. "Detection of intrauterine growth retardation using fetal abdominal circumference." In 2009 International Conference on Computer Technology and Development, vol. 2, pp. 371-375. IEEE, 2009.
3.	<b>Nithya, J.</b> , " Medical image contour extraction using Ant colony optimization with active contour model " In Doctoral student conference on Information and Communication Technology, Muthayammal Engineering College,2011
4.	<b>Nithya, J.</b> , " Boundary detection in medical images using edge following algorithm based on vector image model and edge map " In International Conference on Emerging trends in computer and communication technologies, Maria College of Engineering,2012
5.	<b>Nithya, J.</b> , " Extracting fetal parameter using GVF snake model based on Ant Colony Optimization " In International Conference on Advances in Communication and Technology, Muthayammal Engineering College, Rasipuram ,2012
6.	<b>Nithya, J.</b> , " Intrauterine growth restriction prediction by extracting Fetal Abdominal Circumference using GVF snake model based on Ant colony optimization " International Conference on Interdisciplinary Research and Development, Bangkok, Thailand, 2012
7.	<b>Nithya, J.</b> , " Enhanced Security for Medical Images using Biocrypt Systems " International Conference on Innovative Engineering skills, Aishwarya College of Engineering and Technology, 2014
8.	<b>Nithya, J.</b> , " Medical image security using cryptography and biometrics " National Conference on Recent Innovations in Intelligent Computing Techniques(NCRIICT'14) CSI Student Chapter, K.S.Rangasamy College of Technology,2014
9.	<b>Nithya, J.</b> , " Automatic Region Segmentation Using Watershed Algorithm and Neural Networks " National Conference on Recent Innovations in Intelligent Computing Techniques(NCRIICT'14) CSI Student Chapter, K.S.Rangasamy College of Technology,2014
10.	<b>Nithya, J.</b> , " Multilevel Thresholding for Image segmentation using Enhanced cuckoo search Algorithm " IEEE 2nd International Conference on Knowledge collaboration in engineering (ICKCE – 2015) Kathir college of Engineering, 2015
11.	<b>Nithya, J.</b> , " Integrated BEE Colony and Tabu Search Optimization for feature selection and classification of Breast Cancer in Digital Mammogram Images " 3rd International Conference on Frontiers of Computational Intelligence –ICFCI'16 ,K S Rangasamy college of Technology, 2016
12.	<b>Nithya, J.</b> , " Content based image retrieval using colour string coding & string comparison " National Conference on Social Mobile Analytics & Cloud – NACSMAC'16,Knowledge Institute of Technology, 2016
13.	<b>Nithya, J.</b> , " Navigation and Monitoring System for Visually impaired persons using Smart Glass Integrator with Machine Learning " 5th National Conference on Advancement in Electrical Power,Signal Processing and Communication System ESCON'18, Selvam College of Technology,2018

14.	<b>Nithya, J.,</b> " Automatic Classification of teeth using Deep CNN " 11th National Conference on Trends in Engineering Applications NCTEA'19, Velalar College of Engineering and Technology,2019
15.	<b>Nithya, J.,</b> " Web Application for blood donation management system using Angular JS " 11th National Conference on Trends in Engineering Applications NCTEA'19, Velalar College of Engineering and Technology,2019
16.	<b>Nithya, J.,</b> " Dental Image Analysis for endodontic therapy using deep learning " 8th National Web Conference on Computational Intelligence , Security and Systems NAC – CISS '20, Sona College of Technology, 2020
17.	<b>Nithya, J.,</b> " Dominant firefly approach to enhance latency period in mobile learning and cloud computing environment " 10th International Conference on Advanced Science and Engineering Research ASER 21, Al – Ameen Engineering College, 2021
18.	<b>Nithya, J.,</b> " Detection of Tampered and GAN generated images using Deep Neural Network " Virtual Conference on Smart Computing and Advanced communication SCAC 21, PSNA College of Engineering and Technology,2021
19.	<b>Nithya, J.,</b> " Automatic Attendance Monitoring System using IoT " International Conference on Recent Innovations in Robotics, Construction and Mechanical Sciences ICRICMS 2022, K.S.Rangasamy College of Technology,2022
20.	<b>Nithya Jayakumar;</b> A. K. Maheshwaran; P. Saurav Arvind; G. Vijayaragavan, "On-Demand Job-Based Recruitment For Organisations Using Artificial Intelligence," 2023 International Conference on Networking and Communications (ICNWC), Chennai, India, 2023, pp. 1-6, doi: 10.1109/ICNWC57852.2023.10127551.
21.	<b>Nithya Jayakumar,</b> R. Nithish kumar, A. Ruthrakumar and K. Saikavya, "Biometric Muzzle Pattern Recognition for Cattle Identification using Deep Learning," 2023 International Conference on Inventive Computation Technologies (ICICT), Lalitpur, Nepal, 2023, pp. 34-40, doi: 10.1109/ICICT57646.2023.10134082.
22.	<b>Nithya J;</b> Sriram R; Suraj S; Surendran S, "Pin Conservation System Using Illusion Methodology," 2023 2nd International Conference on Vision Towards Emerging Trends in Communication and Networking Technologies (ViTECoN), Vellore, India, 2023, pp. 1-6, doi: 10.1109/ViTECoN58111.2023.10157903.
23.	<b>Nithya Jayakumar;</b> Parvez Ahamed J; Rubin Nivas N T; Santhosh Kumar J V, "Cutting-Edge Integrated Project Management Solution for Academic Consortia," 2024 2nd International Conference on Artificial Intelligence and Machine Learning Applications Theme: Healthcare and Internet of Things (AIMLA), Namakkal, India, 2024, pp. 1-6, doi: 10.1109/AIMLA59606.2024.10531589.
24.	<b>Nithya Jayakumar;</b> Harihara Prasath B; Gokulnath G; Jayarekha C T, "Extreme Learning Machine Enhanced Remote Sensing Image Classification System," 2024 2nd International Conference on Artificial Intelligence and Machine Learning Applications Theme: Healthcare and Internet of Things (AIMLA), Namakkal, India, 2024, pp. 1-5, doi: 10.1109/AIMLA59606.2024.10531446.
25.	<b>Nithya Jayakumar;</b> G Soundappan; S Sumanthan; R Tamilarasan, "Health Data Tracking For Effective Health Care Monitoring System Using Fog Computing," 2024 2nd International Conference on Artificial Intelligence and Machine Learning Applications Theme: Healthcare and Internet of Things (AIMLA), Namakkal, India, 2024, pp. 1-5, doi: 10.1109/AIMLA59606.2024.10531309.
26.	<b>Nithya Jayakumar;</b> Reshma N, "Modeling Mental Health: Advances in Predictive Science towards Proactive Health Care," 2024 IEEE International Conference for Women in Innovation, Technology & Entrepreneurship (ICWITE), Bangalore, India, 2024, pp. 202-206, doi: 10.1109/ICWITE59797.2024.10503111.
27.	<b>Nithya Jayakumar,</b> Ramya Jayakumar, Kalaivani P., Mahizha N.S., "Fog enabled Machine learning for real-time health monitoring in Industry 4.0 healthcare systems", 4th MAHSA International Technology and Engineering Conference 2024, MAHSA University, Malaysia.
28.	<b>Nithya Jayakumar,</b> Kalaivani P., "Improvising early detection of diabetes through Deep Learning on Retinal Fundus Images ", 3rd International Conference on Electronics and Renewable Systems on February 2025, St. Mother Theresa Engineering College, Tuticorin.
29.	<b>Nithya Jayakumar,</b> "Optimized intrusion detection in edge computing using random forest and nature inspired algorithms ", International Conference on Next Generation Communication & Information Processing, January 2025, Manipal University, Jaipur.
30.	J.Risman, M.Kesavan, S.Karuppusamy, <b>Nithya Jayakumar,</b> Ramya Jayakumar " Revolutionizing Alumni Platforms using Scalable AI and Advanced hybrid recommendation algorithms for personalized engagement" , IEEE 4th International Conference on Sentiment Analysis and Deep Learning (ICSADL) , Bhimdatta, Nepal, 2025, pp. 682-687, doi: 10.1109/ICSADL65848.2025.10933204..

31.	Adhithya Sivakumar, Karthick Mohan, Gunasekar Elango, <b>Nithya Jayakumar</b> ,“ Secured challan filling automation using OCR technology and machine learning “, IEEE 6th International Conference on Mobile computing and Sustainable Informatics (ICMCSI), Goathugaun, Nepal , 2025, pp. 1380-1385, doi: 10.1109/ICMCSI64620.2025.10883489
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#### **PATENTS APPLIED/ PUBLISHED/GRANTED**

<b>S.No</b>	<b>Patent Registration Application No</b>	<b>Patent Title</b>	<b>Patent Application Date</b>	<b>Status of Patent</b>
1.	202141008044	An Artificial Intelligence based method for smart energy optimization for massive Internet of Things	25/02/2021	Published
2.	202141011050A	A fault tolerance solution for large scale wireless sensor networks inthe context of a precision agriculture application	16/03/2021	Published
3.	202141015545A	Improvements to the clonalg algorithm and their comparisons on the diagnosis of breast cancer	01/04/2021	Published
4.	202441093940A	System and method for cattle identification using biometric muzzle pattern recognition through deep learning	13/12/2024	Published
5.	202441093969 A	IoT based wheelchair using piezoelectric and solar energy	06/12/2024	Published
6.	202441093987 A	Smart patient monitoring and management system:Integrated IoT and RFID for enhanced healthcare solutions	13/12/2024	Published

#### **INVOLVEMENT IN DEPARTMENTAL / INSTITUTIONAL ADMINISTRATION**

- Involving as a Program Coordinator - Responsible to conduct PAC, DAB meetings to monitor the progress of the department activities, Responsible to submit the Monthly Progress Report of the department. Program Coordinator – Monitor and follow up the academic activities in the department
- Project Coordinator – Coordinate the projects and student publications
- NAAC Criteria 2 Coordinator, NBA Criteria 1 Coordinator, Faculty Editor for Department Magazine TECHGURU
- Involving as a member of Malpractice enquiry committee – Performs enquiry for the malpractice done during end semester exams. Appropriate action will be taken by the committee based on the nature of the malpractice.
- Coordinator for MATHWORKS at college level – Conducting events associated with MATHWORKS
- Involving as a Member of Academic Council , Involving as an Academic Auditor , Member of Women Empowerment Cell, Chairperson for Class Committee Meeting

**Details of Membership In Professional Societies:** ISTE - Life Member LM42841

**Dr.J.Nithya**