

BIO DATA

Personal Details

Name : **Dr. C. RAJASEKARAN**
Designation : Professor
Date of Joining : 24.04.2002
Nature of Association : Regular
Email : rajasekaran@ksrct.ac.in



Academic Profile

S.No	Qualification	Institution	Board / University	Full Time/Part Time	Percent age/ CGPA	Year of passing	Class Obtained
1.	Ph.D.	Anna University	Anna University	Part	NA	2015	NA
2.	M.E.	Shanmugha College of Engineering, Thanjavur	Bharathidasan University	Full	71	2001	I
3.	B.E.	K.S.Rangasamy College of Technology, Tiruchengode	Madras University	Full	68.7	2000	I
4.	XII	Govt.Hr.Sec. School, Jalakandapuram	State Board	Full	69.75	1996	I
5.	X	Govt.Hr.Sec. School, Jalakandapuram	State Board	Full	71.4	1994	I

Employment details with Experience

INSTITUTION	POSITION HELD	FROM	TO
K.S.Rangasamy College of Technology, Tiruchengode	Professor	01.09.2015	Onwards
K.S.Rangasamy College of Technology, Tiruchengode	Associate professor	25.04.2015	31.08.2015
K.S.Rangasamy College of Technology, Tiruchengode	Assistant professor	01.07.2007	24.04.2015
K.S.Rangasamy College of Technology, Tiruchengode	Lecturer	24.04.2002	30.06.2007

Awards Received

- Received 14th Shri P K Das Memorial Best Faculty Award on 15th December 2022 and Rs 5,000 cash prize, Coimbatore, India
- Received “Award of Excellence in research” from Novel Research Academy, Puducherry, India in the academic year 2020-2021
- Best paper award for presented paper on ‘, Microcontroller based reconfigurable IOT node’, in the 4th International conference on Frontiers of Signal Processing, 24-27 September, 2018, Poitiers, France
- Certification of Appreciation for mentoring projects submitted to Texas Instruments Innovation Challenge India Design Contest 2015 & 2018

Funds Received

1. Received a grant of Rs. 40,19,092 for the Research Project titled ‘Development of AI Model for Early Prediction of Radiation-Induced Lung toxicity in Breast Cancer’ from SERB CRG in December 2022 for a period of 3 years. **Ongoing (as Co Principal Investigator)**
2. Received a grant of Rs. 9,41,000 for the Research Project titled ‘Smart Monitoring of Turmeric Crop: A Cyber Physical System Architecture in the field of Precision Agriculture’ from AICTE RPS in April 2019 for a period of 3 years. **Completed (as Principal Investigator)**

3. Received a grant of Rs.26,30,000 for the Research Project titled ‘Development of Computational Tool for Early Detection of Cardiovascular Diseases through Analysis of Data from otherwise Healthy Individuals’ from DBT in January 2017 for a period of 3 years. **Completed as (Co-PI)**
4. Received Rs. 63,722 for the International Travel Support grant from UGC for presenting the paper in the International Conference on IEEE Region 10 Conference (TENCON), Malaysia, November 5-8, 2017.

PATENT APPLIED / GRANTED

S.No	Patent Title	Name of Applicant(s)	Patent No.	Agency/Country	Status
1	A System for Real-Time Monitoring and Management for Sustained Maintenance of Crop Health	K.S.Rangasamy College of Technology C.Rajasekaran K.B.Jayanthi K.Raguvaran	20224101370 8//TEMP/E1/ 15764/2022- CHE	Indian Patent Office	Published official journal of patent office Issue No:11/2022 dt.18/03/2022
2	Development of Computational Tool for Early Detection of Cardiovascular Diseases through Analysis of Data from Otherwise Healthy Individuals	K.B.Jayanthi C.Rajasekaran S. Sudha K. Raguvaran	20204101951 2A	Indian Patent Office	Published official journal of patent office Issue No:10/2021, dt.05/03/2021
3	Reconfigurable IoT Node Device	K.Raguvaran C.Rajasekaran K.B.Jayanthi N.V.Navin Sankar	20184102190 0 A	Indian Patent Office	Published official journal of patent office Issue No:24/2018, dt.15/06/2018

List of Publications

INTERNATIONAL JOURNALS	
1.	Rajasekaran C, Gokul L, Gowsalya D, Manimaran R 2022, “Lora based smart irrigation system”, International Journal of Health Sciences, 6(S5), 5996–6010. https://doi.org/10.53730/ijhs.v6nS5.10021

2.	Sudha S, Jayanthi K B, Rajasekaran C , Sunder T 2021, “Measurement of Intima-Media Thickness depending on Intima Media Complex Segmentation by Deep Neural Networks”, Journal of Medical Imaging and Health Informatics. pp.2546-2557, https://doi.org/10.1166/jmihi.2021.3841
3.	Sudha S, Jayanthi K B, Rajasekaran C , Nirmala Madian, Sunder T, 2018 ,‘Convolutional Neural Network for Segmentation and Measurement of Intima Media Thickness’, <u>J</u> ournal of Medical Systems 42: 154, https://doi.org/10.1007/s10916-018-1001-y
4.	Rajasekaran, C , Jeyabharath, R &Veena, P 2017,‘ FPGASoC Based Multichannel Data Acquisition System with Network Control Module ’, Circuits and Systems, Vol. No. 8, pp. 53-75.
5.	Rajasekaran, C ,Nirmala, M & Jayanthi ,K, B 2017, ‘Glucose Monitoring System Using Nanopellets’, IET Nanobiotechnology, Volume 11, Issue 1, pp. 91 – 95.
6.	Babu, P & Rajasekaran, C 2016, ‘Denoise based Algorithm for Active Noise Control Systems using Genetic Algorithm’,Asian Journal of Research in Social Sciences and Humanities Vol. 6, No. 7, pp. 1917-1929.
7.	Babu, P & Rajasekaran, C 2016, ‘Economically Precise Water Resource Management for Domestic Usage in India’, Circuits and Systems, Vol. No. 7, pp. 2821-2828.
8.	Rajasekaran, C , Jayanthi ,K, B, & Nirmala, M 2016 , ‘Non Invasive Glucose Monitoring System Using Nanosensors’, Sensors & Transducers, Vol. 198, Issue 3, March 2016, pp. 32-36.
9.	Jeyabharath, R, Rajasekaran, C & Veena, P 2014, ‘Enhanced Data Acquisition System Using Embedded Ethernet for Industrial Applications’, Research Journal of Applied Sciences, Engineering and Technology, vol. 8, issue 16, pp. 1814-1823.
10.	Rajasekaran, C , Jeyabharath, R & Veena, P 2014, ‘Design and Development of a FPGA based High Speed Data Acquisition System’, International Journal of Applied Engineering Research, vol.9, no.23, pp. 19977-19990.
11.	Rajasekaran, C , Jeyabharath, R & Veena, P 2014, ‘Hardware-Software Reconfigurable Techniques for Wireless Sensor Network’, Research Journal of Applied Sciences, Engineering and Technology, vol. 8, issue 17, pp.1855-1862.

12	Velmurugan,S , Rajasekaran,C 2014, ‘ A Reconfigurable On-Chip Multichannel Data Acquisition and Processing (DAQP) System with Online Monitoring Using Network Control Module ’, International Journal of Communication and Computer Technologies Vol.02 , No.01.
13	Priyadarshini,V , Rajasekaran, C & Jithinkumar, M ,V 2012 ‘A Novel VLSI Architecture with Reduced Hard multiple based on higher radix hybrid modified booth algorithm’, International Journal of Programmable Device Circuits and Systems, Vol. 4, No. 2 , January 2012, DOI 0974-9691.
National & International Conference	
1.	C. Rajasekaran , K. Raguvaran and K. B. Javanthi 2022, "Comparative Analysis of Deep Semantic Segmentation Architectures for Disease Identification in Turmeric Crops," TENCON 2022 - 2022 IEEE Region 10 Conference (TENCON), Hong Kong, Hong Kong,, pp. 1-5, doi: 10.1109/TENCON55691.2022.9977957.
2	S. Sudha, K. B. Jayanthi, C. Rajasekaran and A. Oomman 2022, "Analysis of Clinical Parameters for Onset of Cardiovascular Events through Machine Learning Algorithm," TENCON 2022 - 2022 IEEE Region 10 Conference (TENCON), Hong Kong, Hong Kong, pp. 1-7, doi: 10.1109/TENCON55691.2022.9977966.
3.	Charan M, Pooja S, Surekha P and Rajasekaran C , ‘Smart Livestock Monitoring System’, Proceedings of the 12th International Conference on Science and Innovative Engineering, June 2022
4	Rajasekaran C , Arul S, Devi S, Gowtham G and Jeyaram S 2020 , ‘ Turmeric Plant Diseases Detection and Classification using Artificial Intelligence ’, IEEE International Conference Communication and Signal Processing , July 28 – 30, 2020, pp- 1339-1343.
5	Sudha S, Jayanthi K B, Rajasekaran C and Ramani Kuchelar 2020, ‘Deep Learning Architectures for Medical Image Segmentation’, IEEE 33rd International Symposium on Computer Based Medical Systems (CBMS), 2020, pp-582-587.
6	Rajasekaran C , Jayanthi K B, Sudha S and Ramani Kuchelar 2019 , ‘Automated Diagnosis Of Cardiovascular Disease Through Measurement Of Intima Media Thickness Using Deep Neural Networks’, 41st Annual International Conference of the IEEE Engineering in Medicine and Biology Society, Berlin, German July 23rd - July 27th, 2019.

7.	Rajasekaran C, & Raguvaran, K 2018, ‘Microcontroller based reconfigurable IOT Node’, Proceedings of 4 th International conference on Frontiers of signal Processing (ICFSP 2018), September 24-27, 2018, Poitiers, France.
8.	Rajasekaran C, & Akshaya ,P 2018, ‘Smart digital hundi for identification of Indian coin and currency using Image processing’, IEEE Proceedings of the 2nd International conference on Electronics, Communication and Aerospace Technology (ICECA 2018), 29-31 March 2018.
9.	Madhumithra M, Mayuriya M, & Rajasekaran C 2018, ‘Sensor based Smart Helmet System with Vehicle Theft Protection’, IEEE Proceedings of the 2nd International conference on Electronics, Communication and Aerospace Technology (ICECA 2018), 29-31 March 2018.
10.	Rajasekaran C, Jayanthi K B, NirmalaMadian, Thyagarajah K 2017, ‘Analysis on Various Segmentation Techniques – IMT Measurement of Common Carotid Artery’, Proc. of the 2017 IEEE Region 10 Conference (TENCON), Malaysia, November 5-8, 2017.
11.	Swathi,P & Rajasekaran,C 2016, ‘ Improving the Lifetime with area maximization of Wireless Sensor Network using mobile sink based adaptive immune energy efficient clustering protocol , ‘ 2 nd International Conference on Advanced Technologies for Research and product development.
12.	Mohan Priya, A & Rajasekaran,C 2016, ‘ Big data Traffic Analysis of Cellular Network using Hadoop, ‘International Conference on Electrical, Electronics & Computer Engineering.
13.	Nithya, S & Rajasekaran, C 2016, ‘Parallel Processing for medical Image Enhancement based on sub Image Clipped Histogram Equalization, ‘2 nd International Conference on Advanced Technologies for Research and product development.
14.	Swathi,P , Rajasekaran, C & Sripriya , N 2016, ‘ Improving the Lifetime and stability period of Wireless sensor network by mobile sink based adaptive immune energy efficient clustering protocol , ‘ IEEE Sponsored 3 rd International Conference on Electronics and Communication Systems.
15.	Dhivya, T & Rajasekaran, C 2016, ‘Error reduction in fixed width booth multiplier using error compensation unit, ‘Internal Conference on Innovations in Information, Embedded and Communication Systems.

16	Abinayagi, E, Rajasekaran, C & Chitra, N 2016, 'Denoising of QR Barcodes, 'International Conference on Innovations in Information, Embedded and Communication Systems.
17	Subhashinee, A & Rajasekaran, C 2016, 'Carry Speculative Adder with Variable Latency for Low Power VLSI, 'IEEE International Conference on Wireless Communications, Signal Processing and networking.
18	Abinayagi, E, Rajasekaran, C & Chitra, N 2016, 'Denoising of QR Barcodes with Electronic Health Records in Big data, 'International Conference on Electrical, Electronics & Computer Engineering.
19	Nithya, S, Rajasekaran, C & Santhi, K, 2016, 'Image Enhancement via sub Image Clipped Histogram Equalization, 'IEEE Sponsored 3 rd International Conference on Electronics and Communication Systems.
20	NavinKarthi, P & Rajasekaran, C 2015, 'Energy Garnering Sensor Networks Hardware Vivaciously Reconfigurable by HW core Algorithm, 'International Conference on Innovations in Information Embedded and Communication Systems.
21	Revathi, P & Rajasekaran, C 2015, 'Energy Efficient wireless monitoring system for agrarian areas in Indian agricultural system using GPRS module,' International Conference on Communication and Signal Processing.
22	Rubini, M & Rajasekaran, C 2014, 'Design of High Performance System-on-Chips Using Field Programmable Gate Arrays (FPGA), 'International Conference on Communication and Signal Processing.
23	Kirubakaran, B & Rajasekaran, C 2014, 'Embedded HW-SW Reconfigurable techniques for Wireless sensor Network Applications,' International Conference on Computation of Power, Energy, Information and communication.
24	Jijo Thomas & Rajasekaran, C 2013, 'Real Time Data Acquisition system with self Adaptive sampling rate using GPU', International Conference on Pattern Recognition, Informatics and Mobile Engineering.
25	Velmurugan, S & Rajasekaran, C 2013, 'A reconfigurable on chip multichannel data acquisition and processing(DAQP)system for multichannel signal processing', International conference on Pattern Recognition, Informatics and Mobile Engineering, pp. 109-114.

26.	Murugeshwari G and Rajasekaran C 2012, 'Realization of Embedded automotive system based on dual core processor', International Conference on Emerging Trends in Computer and Communication Technology.
27.	Karthika M and Rajasekaran C 2012, 'Energy Minimization of Scratchpad Memory Using Optimal SPM Mapping and Memory Power - Down Scheduling', International Conference on Advances in Electrical and Electronics, Communication and Bio-Informatics.
28.	Vanitha K and Rajasekaran C 2010, 'Low power multiplier based zero shift and add architecture using ring counter', International Conference on Computational Systems and Communication Technology.
29.	Nagaraju N and Rajasekaran C , 'Industrial Development of the remote I/O data acquisition system based on embedded ARM platform', National Conference on System Design and Information, March 2011.
30.	Sakthivel B and Rajasekaran C , 'Efficient Communication between the advanced RISC processor and its reconfigurable logic using VLSI technology', National Conference on Telecommunication in Health Care Engineering, March 2011.
31.	Shanmugasundaram P and Rajasekaran C , 'A Low power open multimedia application platform for 3G wireless', National Conference on Emerging Trends in Communication and Information Technology', February 2010.
32.	Prabu R and Rajasekaran C , 'An interpolation processor implementation for soft decision reed Solomon decoding', 5 th National Conference on Application of Emerging Technologies, March 2008.
33.	Anitha R and Rajasekaran C , 'Feed forward hetero associative Technique for pattern recognition', National Conference on Emerging Trends in Networks and high performance Communication System', February 2006.

BOOK CHAPTER PUBLISHED

Jayanthi K.B, **Rajasekaran C** and Sudha S, 'Artificial Intelligence Applications for Preventive and Predictive Healthcare: Cardiovascular Disease Analysis', Research Methodology Volume -2, pp. 103-115, AkiNik Publications ISBN: 978-93-90420-52-0
 Book DOI: <https://doi.org/10.22271/ed.book.924>

List of Workshops / Seminar / STTP/FDPs Organized

Sl. No.	Title	Venue	Duration	Sponsoring Authority
1.	National seminar on 'Blockchain Technology: Application domain and Research Challenges'	K.S.Rangasamy College of Technology, Tiruchengode	21.06.2019 - 22.06.2019	CSIR
2.	FDP on "Engineering Challenges for Smart & Digital India: Internet of Things (IoT) and Applications"	K.S.Rangasamy College of Technology, Tiruchengode	20.11.2017-01.12.2017	AICTE
3.	Symposium on "Internet of Things: Unlocking New Solutions in Healthcare"	K.S.Rangasamy College of Technology, Tiruchengode	13.10.2017-14.10.2017	ICMR
4.	Seminar on "Deep Learning: Smart Tool for Big Data Challenge in Healthcare"	K.S.Rangasamy College of Technology, Tiruchengode	22.07.2017 -23.07.2017	ICMR
5.	Workshop on "Translational Engineering in Medicine: A Bridge to Improve the Quality of Healthcare"	K.S.Rangasamy College of Technology, Tiruchengode	15.04.2016-16.04.2016	DBT
6.	National Conference on 'Embedded Computing and Communication Systems'	K.S.Rangasamy College of Technology, Tiruchengode	04.04.2014-05.04.2014	IEEE Madras Section
7.	National Conference on 'Emerging Trends in Communication and Information Technology'	K.S.Rangasamy College of Technology, Tiruchengode	19.04.2013	CSIR
8.	SDP on "Image Processing and its Application: A Decision Support System for Healthcare"	K.S.Rangasamy College of Technology, Tiruchengode	30.04.2012-11.05.2012	AICTE
9.	National Conference on 'Emerging Trends in Communication and Information Technology'	K.S.Rangasamy College of Technology, Tiruchengode	02.03.2012-03.03.2012	CSIR

10.	SDP on “Pattern Recognition for Medicine: A Knowledge Engineering Approach”	K.S.Rangasamy College of Technology, Tiruchengode	20.06.2011- 01.07.2011	AICTE
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List of Workshops / Seminar / STTB/FDPs Attended

Sl. No.	Title	Venue	Duration
1.	FDP on "AI & Deep Learning Approaches for Image Processing and its Application"	Institution of Electronics and Telecommunication Engineers (IETE) and Enthu Technology solutions Pvt., Ltd.,	19.06.2023 - 24.06.2023
2.	Workshop on Artificial Intelligence in Medical Diagnostics	JIPMER, Puducherry	25.11.2022 - 26.11.2022
3.	The Tech-Biz Intelligence	IEEE Region 10 Conference, Hong Kong	01.11.2022- 04.11.2022
4.	FDP on Emerging Smart Technologies	Larsen & Toubro (L&T), Chennai	28.09.2022 - 29.09.2022
5.	Offline Elementary FDP on "IDEA LAB FDP	College of Engineering, Pune	22.09.2021- 27.09.2021
6.	AICTE-Workshop on Examination Reforms	AICTE and KLE Technological University, Hubballi	28.06.2021- 30.06.2021
7.	Global Technology Forum 2020 – International Conference	ICT Academy, Tamil Nadu	14.10.2020- 18.10.2020
8.	Online ATAL Faculty Development Program on Internet of Things	Jawaharlal Nehru University ,New Delhi	31.05.2020- 04.06.2020
9.	Online webinar on Outcome Based Education Road-Map to E-Learning & Accreditation	Informatics Publishing Ltd. Bangalore	29.05.2020
10.	International Conference on High Performance Big Data and Intelligent Systems	Chinese Academy of Sciences Shenzhen, China	23.05.2020
11.	Industry International Speaker Webinar Series-1	IEEE Bangalore	04.05.2020- 08.05.2020
12.	ATAL FDP on Artificial Intelligence	Madras Institute of Technology Campus, Anna University	11-11-2019- 15-11-2019
13.	Workshop on Interpretable and transparent deep learning	IEEE Engineering in Medicine and Biology Society, Berlin, German	23.07.2019
14.	Workshop on Data Analytics using R	Amrita Vishwa Vidyapeetham, Ettimadai	06.06.2019- 08.06.2019

15.	Workshop on Deep Learning	Institute of Management Technology, Hyderabad	07.01.2019-08.01.2019
16.	Conference	India Electronics WEEK, Bangalore	09.02.2018
17.	Student Branch officers meet	IEEE Madras Section	05.02.2017
18.	MathWorks India Technical Meet	MathWorks, Bangalore	20.08.2016
19.	Technical Communication for Scientists and Engineers	IIT Bombay	30.10.2015-06.12.2015
20.	Business Analytics 1 st conference 2015	Indian Statistical Institute, Chennai	28.02.2015-01.03.2015
21.	Pedagogy for Effective use of ICT in Engineering Education	IIT Bombay	05.01.2015 & 19.01.2015
22.	Hands –on with ARM: Programming Embedded systems	CDAC, Hyderabad	12.12.2011-23.12.2011
23.	Sensor interface & Integration in R & D Work	PSG College of Technology, Coimbatore	26.09.2011-28.09.2011
24.	NI Lab VIEW Core 1 & Core 2	National Instruments, Bangalore	04.07.2011-08.07.2011
25.	Development of Embedded system using C for ARM with Extensive hands on Experience	Anna University ,Chennai	07.01.2010-08.01.2010
26.	Leveraging Technology for Effective Teaching in the Classroom & Beyond	IIIT-Bangalore	01.03.2010-25.06.2010
27.	Engineering Pedagogy	S.D.M.institute of Technology, Ujire	29.07.2010-31.07.2010
28.	Design Trends in Deep – submicron CMOS VLSI	Anna University, Chennai	28.03.2008-29.03.2008
29.	Digital signal processing an Embedded systems	VNRVJIET @CDAC, Hyderabad	18.08.2008-20.08.2008
30.	Orientation Programme	Anna University, Coimbatore	07.06.2008-08.06.2008
31.	Communicative English	Col's CALIBRE	06.10.2008-27.10.2008
32.	Advanced wireless and optical Networks	Bannari Amman Institute of Technology	15.12.2007
33.	Lab view Advanced including training DAQ vision and mission	PSG college of Technology ,Coimbatore	14.05.2007-18.05.2007

34.	Training the trainer	Infosys Technology, Chennai	08.12.2006-09.12.2006
35.	VLSI Signal Processing	Muthayammal Engineering college, Rasipuram	20.11.2006-01.12.2006
36.	Electromagnetic waves and waveguides	College of Engineering Guindy, Chennai	05.12.2005-17.12.2005
37.	Embedded System	Institute of Road and Transport Technology, Erode	15.11.2004-28.11.2004
38.	Advanced EDA tools (ORCAD)	Government College of Technology, Coimbatore	18.02.2004
39.	Embedded Architecture	Kongu Engineering College, Erode	24.11.2003-29.11.2003

Details of Membership In Professional Societies

S. No.	Name of Professional Body	Grade of Membership	Membership No.
1.	IEEE	Senior Member	92134320
2.	IETE	Life Member	M217722
3.	ISTE	Life Member	LM42838

Dr.C.Rajasekaran