Name of the Teaching Staff	Dr.X.Anitha Mary	
Designation	Associate Professor	
Department / School	Department of Robotics Engineering	
Date of Joining the Institution	15.06.2009	

Qualification with Class / Grade	U G	PG	Ph.D.
	B.E.EIE	M.E.VLSI Design	Instrumentation Engineering

Other Qualifications	
Area of Specialization	Electronics and Instrumentation
Research Interests	Embedded System, control and Instrumentation, Artificial Intelligence

Subjects Teaching	Under Graduate	Post Graduate
	- Microprocesssors and microcontrollers - Digital Electronics - Bio signal conditioning circuits - Soft computing - Digital Electronics and Microprocessors - Microcontrollers for Robotics - Real Time Embedded Systems	- Mobile Robotics - Artificial Intelligence - Advanced Embedded Signal Processing - Embedded system and software design - Programmable Devices for industrial automation - Advanced Embedded Processors - Advanced course in Embedded C - Optimization techniques for Embedded System - Python programming and Interfacing Techniques - Embedded automotive system - Real time operating system

Total Experience in Years	Teaching		Industry		Research	
	15 years 6months		Nil		7	
Papers Published	National		3		International	25
Papers Presented in Conference	National		1		International	13
Conferences / Symposiums / Seminars / Workshops Participated	National		10		International	2
FDP / STTP / MDP / Summer / Winter School attended	5					
M.Phil. / Ph.D. Guide ship	Field			University		
	Instrumentation Engineering			Karunya Institute of Technology and Sciences		
Ph.D. Projects Guided	Ph.D .s		6 (undergoing)	Project at Master"s Level	15	

Professional Memberships	• Reviewer for International Journal of Engineering Research and Sports Research. • Reviewer for International Journal of vehicle information and communication systems • Member in International Association of Engineers • Member in International Association of Computer Science and Information Technology.

Consultancy Activities	S.No.	Title of the consultancy	Organization for which consultancy given
	1.	Hands on training on Embedded System under Consultancy and training programme	KPR Institute of Engineering and technology, Coimbatore
	2.	Embedded system design	GCT Coimbatore
	3.	Hands on training on Embedded System under Consultancy and training programme	GCT Coimbatore
	4	PCB design	Alagappa chettiar Government College of Engineering and

			Technology
	5	Embedded design	SNS College of Technology
	6	Embedded design	SNS College of Technology
Awards & Honours		• **Outstanding Women Achiever** award by Venus International Foundation (under the aegis of Venus International Foundation, Established Trust in India" 2016. • **Innovative professional Award by** SOCIETY OF PROFESSIONAL ENGINEER (India), SPE 2016 Professional Awards & Honors, 12th August 2016**.** • **Best Researcher Award** by Voice of Indian Concern for the Environment (VOICE), Pondicherrt Institure of Agricultural Sciences (PIAS), Murray State University, USA during International conference on Environmental, Agricultureao, Chemical and Biological Sciences on 24th and 25th Jan 2020 held at Puducherry, India.	

	S.No.	Title	PI/Co-PI	Funding Agency	Amount	status
Grants Fetched	1	Design And Development Of Health Monitoring System For Pregnant Women In Rural Areas	Co-PI	Corporate Social Responsibility ministry of social justice and empowerment, government of india	1,00,000	On-going
	2	Development of Electronic Speed Controller for Actuator with a Feedback Mechanism	PI	DRDO	10,00,000	On-going
	2	Design and Developmen of post operative bedside and remote physiological continuous monitoring system	PI	Boston Child Hospital, Havard University	1,25,000	completed
	3	Design and Development of blood glucose measurement system	PI	Harvard University	1,00,000	Completed
	4	Zero Hour UAV	PI	Harvard University	25,000	On-going
	5.	Remote Monitoring of Effectiveness of ground water recharging in well	PI	Karunya Short Term project grant	Rs.20,000	completed
	6	Continous Bed side monitoring system	PI	Karunya Short Term project grant	Rs.30,000	completed
Interaction with Professional Institutions	Anna University, Coimbatore- DC member					

	S.No.	Degree	University	Year of completion	Grade
Educational Details	1	B.E (Electronics and Instrumentation Engineering)	BharathiarUniveristy	2001	First Class with Distinction
	2	M.E (VLSI Design)	Anna University	2009	First Class with Distinction
	3	Ph.D (Electronics and	Karunya University	2015	First Class

		Instrumentation Engineering)				

				5			

	S.No	Position Held	Name of the Institute	From	To	Pay scale
Experience	1.	Lecturer	Karunya Institute of Technology	19.11.2001	9.06.2004	8000-375-13500
	2.	Lecturer	TamilNadu College of Engineering	19.07.2006	19.06.2007	8000-275-13500
	1.	Lecturer	Karunya University	15.06.2009	5.11.2009	15600-39100
	2.	Assistant Professor	Karunya University	16.06.2009	Till date	15600-39100
Contact Details	Dr.X.Anitha Mary Associate Professor Department of Robotics Engineering Karunya Institute of Technology and Sciences Karunya Nagar Coimbatore -641114					

	• Karunharan, K.A., Mary, X.A. Automatic detection of malarial parasites from blood cells using soft computing techniques, International Journal of Pharmaceutical Research, 2020, 12(4), pp. 1073–1079
• Ashisha, G.R., Anitha Mary, X., Rose, L. Design challenges for embedded based wireless postoperative bedside monitoring system, Journal of Interdisciplinary Mathematic, 2020, 23(1), pp. 285–292
• Anitha Mary, Lina Rose, Rajasekaran, "Real time and wireless groundwater level recharging and monitoring system in borewell", Inidan Journal of Environmental protection, vol 39, issue 5 2019
• Anitha Mary, Lina Rose, Rajaskeran, "Development of Water Level Monitoring System with Capacitive Sensor", **International Journal of Innovative Technology and Exploring Engineering (IJITEE), ISSN: 2278-3075, Volume-8 Issue-7 May, 2019**
• Mary X.A., Rose L., Jegan R. (2019) Case Studies of Smart Algorithm for Industrial Process Control. In: Mishra M., Mishra B., Patel Y., Misra R. (eds) Smart Techniques for a Smarter Planet. Studies in Fuzziness and Soft Computing, vol 374. Springer, Cham
• Power Plant Optimization For Energy Efficiency Enhancement, International Journal of Mechanical Engineering and Technology (IJMET) Volume 9, Issue 9, Sep 2018, pp. 700-707
• **X. Anitha Mary ,** , Lina Rose , K. Rajasekaran Continuous and remote monitoring of ground water level measurement in a well, International Journal of Water , 12 (4) , DOI: 10.1504/IJW.2018.095397, 2018 356-369
• Mary, X.A., Jegan, R., Rose, L., Raj, P.A.C., Design and development of vehicle monitoring system through black box in a car, International Journal of Mechanical Engineering and Technology, 8(10), pp. 493-501, 2017
Papers Published	• **Dr. X. Anitha Mary**, Dr. Benjamin Lazarus and P. Thomas Wilson "Embedded Based Automatic Teaching of Textile COPS Sorting Machine", International Convention on Dissemination of Innovative Research in Science, Engineering, Technology & Management Applications , 11th-12th March 2017, Kuala Lumpur, Malaysia. Journal of Engineering Technological Research Half Yearly Vol: 8 March 2017 ISSN: 2229-9262

• **Dr. X. Anitha Mary "**Embedded Based Collision Avoidance System"**,** International Convention on Dissemination of Innovative Research in Science, Engineering, Technology & Management Applications , 11th-12th March 2017, Kuala Lumpur, Malaysia. Journal of Engineering Technological Research Half Yearly Vol: 8 March 2017 ISSN: 2229-9262

• Mrs. Lina Rose and **Dr. X. Anitha Mary**, "Wireless water level measurement using arduino" in Pak. J. Biotechnol. Vol. 13 (special issue on Innovations in information Embedded and Communication Systems) Pp. 270- 273 (2016) **(Scopus Indexed)**

• Ms. Monica and **Dr. X. Anitha Mary, "**Development in Real Time Embedded Data Monitoring System and performance study to characterise the solar panel", in Pak. J. Biotechnol. Vol. 13 (special issue on Innovations in information Embedded and Communication Systems) Pp. 265- 269 , 2016 **(Scopus Indexed)**

• Rajasekaran, Smily Jeya jyothi, Shobha Rekh, **Anitha Mary** "Non-Invasive Hemoglobin Measurement: A Great Blessing to the Rural Community" md current journal september 2015.

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Modern reduction techniques for a complex Non-linear system", International Journal of Engineering and Technology, Vol 5, issue 6, Jan 2014. 4804-4814

- **Anitha Mary. X** and L. Sivakumar, "Modelling and control of MIMO Gasifier system during coal quality variations", International Journal of Modelling, Identification and Control,Vol 22 No.4, 2014 131–139

- **Anitha Mary.X** and L.Sivakumar "Design of PID Filter Controller with Genetic Algorithm for MIMO System in Modern Power Generation", Modern Applied Sciences vol 8 issue 5 2014, SNIP 0.423.

- Anjana and **Anitha Mary.X** "Noise Cancellation using Adaptive filters in FPGA", Research Journal of Recent sciences, Vol 3 pp 4-8, 2014, SNIP 1.33.

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- Shobhitha Ann Job, R Jegan, **Anitha Mary X** "Real time control of robotic arm using electromyogram signals", IJARCSSE, Vol 3 No 3, 2013.

- Jinu Prabhakar, **Anitha Mary X**, FPGA Based Lane Deviation System Using System Generator, International Journal of Advanced Research in computer science and Software Engineering; Vol:3 Issue: 2 , 2013

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- Hima Bindhu. S, **Anitha Mary X**, Jegan R, "U-Tube Manometer calibration using ANFIS" International Journal of Computer Applications, Vol 49, No20 July 2012

- **Anitha Mary.X** L.Sivakumar , " A Reduced Order Transfer Function Models for Alstom Gasifier using Genetic Algorithm " International Journal of Computer Applications (0975 – 8887) , 46(5), (2012), 1-6

- **Anitha Mary**.X, R.Jegan, Anantha Christu Raj and Gerard Joe Nigel "U-Tube Manometer calibration using Neural network", International Journal of advanced research in electronics and communication Vol 1, No2 August 2012.

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- **Anitha Mary.X** , Dojin Domnic, K. Rajasekaran, Analysis of Resource utilization for a floating point complex multiplication in FPGA, Journal of VLSI design tools and technology, STM jounals 2010.

Papers presented in conferences	*George, A., Mary, X.A. A Survey on Automatic Musical Chord Sequence Generation*, Lecture Notes in Electrical Engineering, 2021, 690, pp. 9–20 - Reena rosilin raj, R.jegan **Dr.X.Anitha Mary** " Detection of unhealthy region and classification of plant leaf disease" IEEE international conference on advanced computing and communication systems on 6th and 7th 2017, Sri Eshwar College of Engineering. - Melwin Johnson, R.jegan, **Dr.X.Anitha Mary** "Performance Measures on Blood Pressure and Heart Rate Measurement from PPG Signal for Biomedical Applications", Proceedings of IEEE International Conference on Innovations in Electrical, Electronics, Instrumentation and Media Technology ICIEEIMT 17, Karunya University, Coimbatore. - K.S.Pavithra, **X Anitha Mary**, K. Rajasekaran, R.Jegan "Low Cost Non-Invasive Medical Device For Measuring Hemoglobin" Proceedings of IEEE International Conference on Innovations in Electrical, Electronics, Instrumentation and Media Technology ICIEEIMT 17, Karunya University, Coimbatore. - Anu Godly , **X. Anitha Mary**, .K.Rajasekaran, R.Jegan "Hum Detecting Equipment for Contactors" Proceedings of IEEE International Conference on Innovations in Electrical, Electronics, Instrumentation and Media Technology ICIEEIMT 17, Karunya University, Coimbatore. - Priya Lakshmi.S, **Anitha Mary.X,** " Fault diagnosis of linear parameter varying systems" , IEEE International Conference on Innovations in Information, Embedded and Communication Systems (ICIIECS), 2015 International ",19-20 March 2015, page 1-6, ISBN:1978-1-4799-6817-6 L. Sivakumar and **Anitha Mary.X** , "A low order transfer function model for MIMO ALSTOM gasifier", IEEE international conference on process modelling, control and automation, Coimbatore Institute of Technology, Coimbatore, India, July 2011, 1-6. - Jisha Elizabeth Raju, **Anitha Mary.X** and Thilagavathi "VLSI implementation of 1553 Bus controller chip" International conference on thermal energy and environment, 24th- 26th arch 2011. - Philip James and **Anitha Mary X** "FPGA implementation of detection and tracking system for surveillance camera" International conference on thermal energy and environment, 24th- 26th March 2011. - Dojin Dominic and **Anitha Mary X**, "Image processing to create a speed sensor using FPGA" International conference on thermal energy and environment, 24th-

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- Renjith, **Anitha Mary.X** and B. Thilagavathi, "Embedded Java webserver on an FPGA using java optimized processor, 4th international conference on intelligent systems and control, Feb 4-5 2010.

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Patents	A Test Set Up Device for AC Contactor to Automate Hum Detection and Method Thereof", invented by Dr.K.Rajasekaran, Dr.X.Anitha Mary, Mr. J. Devaprakash. Application No.201941021667 A Date of filing of Application :31/05/2019 Publication Date : 07/06/2019
Books /Book Chapters	- Detection of Threshold Fall Angle of Elderly Patients for Protective Suit Purposes Thomas, B., Mahisha, A., Mary, X.A., ...Raja, C., George, S.T. Lecture Notes on Data Engineering and Communications Technologies, 2021, 55, pp. 449–460 - Advances in Intelligent Based Internet of Medical Things (IoMT) for COVID-19: Olfactory Disorders, Evelyn Brindha, V., Anitha Mary, X. Studies in Computational Intelligence, 2021, 923, pp. 363–371 - Advances in photoplethysmogram and electrocardiogram signal analysis for wearable applications, Ashisha, G.R., Anitha Mary, X. Advances in Intelligent Systems and Computingt, 2021, 1167, pp. 527–534 - Ashisha G.R., Anitha Mary X., Rajasekaran K., Jegan R. (2019) IoT-Based Continuous Bedside Monitoring Systems. In: Peter J., Alavi A., Javadi B. (eds) Advances in Big Data and Cloud Computing. Advances in Intelligent Systems and Computing, vol 750. Springer, Singapore K. Rajasekaran, **Dr. X.Anitha Mary**, R. Jegan, "Smart technologies for Non- invasive Biomedical Sensors to measure physiological parameters, Biomedical Engineering: Concepts, Methodologies, Tools, and Applications, 13 July 2017, Pages 749-778 - Sivakumar. L. and X. **Anitha Mary** (2012), "Lower Order Modeling and Control of Alstom Fluidized Bed Gasifier", Gasification for Practical Applications, Yongseung Yun (Ed.), ISBN: 978-953-51-0818-4, InTech, DOI: 0.5772/48674. (SNIP 0.04). http://www.intechopen.com/books/gasification-for-practical-applications/lower-order-modeling-and-control-of-alstom-fluidized-bed-gasifier. **Dr. X. Anitha Mary** and Mrs. Lina Rose, " Smart Instruments for water treatment and their challenges" in edited book on **"Customer sactisfaction towards service quality of Electrical Equipments- A Managerial Approach"** with ISBN No. 978-93-85640-66-7, 2016 K. Rajasekaran, **Dr. X.Anitha Mary**, R. Jegan, "Smart technologies for Non- invasive Biomedical Sensors to measure physiological parameters" Handbook of Research on Healthcare Administration and Management, IGI GLOBAL PUBLICATION 2016. **Dr.X.Anitha Mary** Case studies of smart algorithm for industrial process control(Book Chapter), Studies in Fuzziness and Soft Computing, Volume 374, 2019, Pages 281-304, Springer Verlag - Jebisha J., Anitha Mary X., Rajasekaran K. (2019) IoT-Based Vibration Measurement System for Industrial Contactors. In: Peter J., Alavi A., Javadi B. (eds) Advances in Big Data and Cloud Computing. Advances in Intelligent Systems and Computing, vol 750. Springer, Singapore
	Embedded system

Research Group Members	