


Name of the Teaching Staff	K Gerard Joe Nigel			
Designation	Asst. Professor			
Department / School	Robotics Engineering/ Engineering & Technology			
Date of Joining the Institution	31/07/2006			
Qualification with Class / Grade	UG	PG	(Ph.D.)	
	B.E – Electronics & Instrumentation	M.E – Electronics & Control	Optimization of Renewable Energy	
Other Qualifications	-			
Area of Specialization	Optimization Techniques, Smart & IoT Devices			
Research Interests	Sensor Design, Industrial Automation, Automotive Systems			
Subjects Teaching	Under Graduate		Post Graduate	
	<ul style="list-style-type: none"> ● Logic and Distributed Control System ● Instrumentation & Control Systems ● Sensors & Transducers ● Signal Conditioning Circuits ● Aircraft Instrumentation ● C++ & Data Structures ● Electronics ● Networks and Protocol Instrumentation & Control Systems ● Virtual Instrumentation ● PLC 		<ul style="list-style-type: none"> ● Embedded Automotive System ● Instrumentation ● Advanced Process Control ● Industrial Automation ● Intelligent Controllers ● Industrial Data communication networks and protocols ● Embedded Linux ● Embedded System for Robotics 	

Total Experience in Years	Teaching	Industry		Research
	15	1.5		9
Papers Published	National			International 17
Papers Presented in Conference	National	3		International 24
Conferences / Symposiums / Seminars / Workshops Participated	National	20		International 3
FDP / STTP / MDP / Summer / Winter School attended	6			
M.Phil. / Ph.D. Guide ship	Field			University
Ph.D. Projects Guided	Ph.D .s		Project at Master's Level	30
Professional Memberships	IEEE Biomedical SI Certified Cyber Crime Intervention Officer			
Consultancy Activities				
Awards & Honours				

Grants Fetched	1. Development of Low Cost USB Powered DAC – Karunya University, Rs. 10,000 2. Wet Diaper Alert System – Lancet Center of Excellence – Rs. 60,000/- 3. Automated OLR testing using LabVIEW - Karunya University, Rs. 10,000/- 4. CRYOCURE- An Antidote for Sports Injuries and Muscles Spasms – ICMR – Rs 3,80,750 5. Hospital Robot (Sofi) - Harvard Medical School – Rs. 25,000/-							
Interaction with Professional Institutions	IEEE ISAC BMESI							
Educational Details	<table border="1" data-bbox="347 667 1161 1012"> <thead> <tr> <th data-bbox="347 667 504 786">Degree</th> <th data-bbox="504 667 1161 786">Specialization</th> </tr> </thead> <tbody> <tr> <td data-bbox="347 786 504 898">M.E</td> <td data-bbox="504 786 1161 898">Electronics & Control</td> </tr> <tr> <td data-bbox="347 898 504 1012">B.E</td> <td data-bbox="504 898 1161 1012">Electronics and Instrumentation Engineering</td> </tr> </tbody> </table>		Degree	Specialization	M.E	Electronics & Control	B.E	Electronics and Instrumentation Engineering
Degree	Specialization							
M.E	Electronics & Control							
B.E	Electronics and Instrumentation Engineering							
Experience	16.5 Years							
Contact Details	gerardnigel@karunya.edu							

**Papers
Published**

1. "A fuzzy controller for maximum power point tracking in photovoltaic cell for sensor applications" , Sensor Letters, Volume 13, Issue 12, December 2015.
2. "Low Cost Hand Vein Authentication System on Embedded Linux Platform", International Journal of Innovative Technology and Exploring Engineering (IJITEE), ISSN: 2278-3075, Volume-2, Issue-4, March 2013.
3. "Certain Approaches of Real Time Object Tracking in Video Sequences on Embedded Linux Platform", International Journal of Innovative Technology and Exploring Engineering (IJITEE), ISSN: 2278-3075, Volume-2, Issue-4, March 2013
4. "Web based Remote Accessing of Medical Devices with ARM Cortex-M3", International Journal of Recent Technology and Engineering(IJRTE), Volume-12, Issue-3, July2013National Journals
5. "Hand Gesture Recognition for the Application of Sign Language Interpretation' in the International Journal of Engineering Research and Technology, Vol.03, Issue 03, March 2014
6. 'Comparative Study of Photovoltaic System Employing PI, PID and Sliding Mode Controller' in the International Journal of Engineering Research and Technology, Vol.03, Issue 03, March 2014
7. "U-Tube Manometer calibration using Neural network", International Journal of advanced research in electronics and communication Vol 1, No2 August 2012.
8. 'Embedded Monitoring Based Rehabilitation System' in International Journal of Advanced Research in Computer Science and Software Engineering Vol. 3, Issue 3, March 2013.
9. "Review on Biomedical Instrumentation / Biomedical Engineering and its Various Applications", in International Journal of Advanced Research in Electrical, Electronics and Instrumentation Engineering, ISSN ONLINE(2278-8875) PRINT (2320-3765)

--	--

Papers presented in conferences	INTERNATIONAL CONFERENCES (nos)
	1 Intelligent Step Size-Perturbation Frequency MPPT Controller for Photovoltaic Solar System' was presented in the IEEE Sponsored 1 st International Conference on Innovation, Embedded and Communication systems (ICIIECS'14) on March 2015
	2 'Remote Weather Monitoring using ARM 7', was presented in the International Conference on Innovations in Intelligent Instrumentation, Optimization and Signal Processing (2013) on March 2013.
	3 'Optimization Technique For Low Power Solar Energy Harvesting System' was presented in the IEEE Sponsored 1 st International Conference on Innovation, Embedded and Communication systems (ICIIECS'14) on March 2015
	4 'Robot Navigation by Nearness Diagram (ND) Method',4th International conference on Intelligent systems and control (ISCO-2010) held at Karpagam University Coimbatore during 4-5 February,2010.
	5 'Maximum Power Point Tracking of Photovoltaic System',2 nd International Conference on Intelligent Science and technology (IIST 2010) Held at Sun College of Engineering and Technology, Nagercoil during 18 -19 March 2010
	6 ' Real time Implementation of System Identification Algorithm using LabVIEW', 4 th International conference on Intelligent systems and control (ISCO-2010) held at Karpagam University Coimbatore during 4-5 February,2010
	7 'Kalman Filter based Maximum Power Point Tracking for Photovoltaic Cell' International Conference on Emerging Technological Trends in Advanced Engineering Research (ICETT-2012), Basелиos Mathews II College of Engineering, kollam, Kerala, from 20/02/2012 to 21/02/2012
	8 'Vibration Analysis of an Induction Motor using LabVIEW', International Conference on Computing Techniques, Embedded systems and Drives (ICCED'12), PPG Institute of Technology, Coimbatore (ICCED'12),from 07/03/2012 to 09/03/2012
	9 'Auto ranging of Capacitance Meter ON FPGA', International Conference on Emerging Technological Trends in Advanced Engineering Research (ICETT-2012), Basелиos Mathews II College of Engineering, kollam, Kerala, from 20/02/2012 to 21/02/2012.
	10 'An Embedded Web server for remote monitoring of breathing rate measurement kit' , International Conference on Emerging Technological Trends in Advanced Engineering Research (ICETT-2012), Basелиos Mathews II College of Engineering, kollam, Kerala, from 20/02/2012 to 21/02/2012
	11 'Pipelined 256 point FFT processor in FPGA' , International Conference on Emerging Technological Trends in Advanced Engineering Research (ICETT-2012), Basелиos Mathews II College of Engineering, kollam, Kerala, from 20/02/2012 to 21/02/2012
12 'Wireless Monitoring of Solar Power based on ARM 7 and GPRS' , International Conference on Emerging Technological Trends in Advanced	

- Engineering Research (ICETT-2012), Baselios Mathews II College of Engineering, kollam, Kerala, from 20/02/2012 to 21/02/2012
- 13 'Real Time Energy Monitoring System Based on Embedded Webserver in ARM 7', International Conference on Computing Techniques, Embedded systems and Drives (ICCED'12), PPG Institute of Technology, Coimbatore, from 07/03/2012 to 09/03/2012
 - 14 Comparative Study of Photovoltaic System Employing PI, PID and adaptive fuzzy Gain Secluding PID Control' in the IEEE International Conference on Innovation in Information Embedded and Communication Systems, 19,20 March 2015
 - 15 Implementation of cloud server for real time data storage using Raspberry Pi' was presented in the 2015 Online International Conference on Green Engineering and Technologies (IC-GET) on Nov 2015
 - 16 'Smart phone based robotic arm control using raspberry pi, android and Wi-Fi' was presented in the IEEE Sponsored International Conference on Innovation, Embedded and Communication systems (ICIIECS'15) on March 2015
 - 17 'Automatic human tracking theatrical spotlight' was presented in the IEEE Sponsored International Conference on Innovation, Embedded and Communication systems (ICIIECS'15) on March 2015
 - 18 "Linear and rotational air gesture detection using optical sensors setup in automotive infotainment system" was presented in the IEEE Sponsored International Conference on Communication and Signal Processing, ICCSP 2016 7754335, pp. 1164-1169

NATIONAL CONFERENCES (nos)

- 1 'A Novel Approach for Maximum Power Point Tracking in Photovoltaic System', in the National Conference on Trends in Electronics, Instrumentation, Embedded System and Automation held at KITS, Coimbatore on 26th March 2011.
- 2 'Implementation Of Dynamic Navigation Algorithm For Collision Avoidances Using Arm Cortex-M3', in the National Conference on Trends in Electronics, Instrumentation, Embedded System and Automation held at KITS, Coimbatore on 26th March 2011.

<p>Patents</p>	<p>A LOW-COST PORTABLE CRYOTHERAPY INSTRUMENT FOR TREATING SPORTS INJURIES Application No.202041021146 A Date of filing of Application :19/05/2020 Publication Date : 29/05/2020</p>
<p>Books /Book Chapters</p>	<p>Intelligent Facility Management System for Self Sustainable Homes in Smart Cities: An Integrated Approach “Urban Computing 2021”</p>
<p>Research Group Members</p>	<p>Smart and Intelligent Building Mission</p> <p>Dr. N Anand Dr. Grace Mary Kanaga</p> <p>Innovation Ambassador – Attended the training Under MoE, India.</p>