


## FACULTY PROFILE

1	Name of Faculty	Jiji K. S.			
2	Designation	Assistant Professor			
3	Department	Electrical & Electronics Engineering			
4	Contact No.	9446897218			
5	Email	jiji@gectcr.ac.in			
	DOJ	09/06/1999			
6	Academic Qualifications				
	Degree	Year	Branch/Area of Specialization	Institution	
	B Tech	1990	Electrical & Electronics	TKM College of Engg., Kollam	
	M Tech	2004	Computer & Information Science	Cochin University of Science & Technology, Kochi	
	Ph D	2015	Electrical Machines	Cochin University of Science & Technology, Kochi	
7	Professional Experience				
	Period Served	Name of institution		Designation	
	1991 - 1999	Kerala Electrical & Allied Engg.Co. Ltd., Kasaragod		Engineer	
	1999 - 2013	Rajiv Gandhi Institute of Technology, Kottayam		Assistant Professor	
	2013 – till date	Govt. Engineering College, Thrissur		Assistant Professor	
8	Publications (List is attached)				
	Journal	Nos. 2			
	International Conference	Nos. 8			
	National Conference	Nos. 5			
9	No. of STTPs attended from 2012 till date	(List is attached)			
10	Membership in professional Bodies	ISTE Life member			
11	No. of M.Tech. projects guiding/guided from 2012 till date	Guided	Guiding		
		2	1		
	No. of PhD Scholars guiding	NIL			

12	Field of interest	Computational electro-magnetics
13	Additional Responsibilities	<ul style="list-style-type: none"> <li>• Executive Committee Member - Industry Institute Interaction Cell</li> <li>• Dept purchase committee member</li> <li>• Dept. Coordinator - Accreditation</li> </ul>

## PUBLICATIONS DETAILS

### (IN CHRONOLOGICAL ORDER)

#### ■ Refereed Journal (International)

1. **Jiji K S, N H Jayadas, CA Babu** "FEM based Virtual Prototyping and Design of Third Harmonic Excitation System for Low Voltage Salient Pole Synchronous Generators", IEEE Transactions on Industry Applications, May/June 2014, Vol 50(3), pp 1829 – 1834
2. **Jiji K S, Swetha S Pai, Prasanna Kumar B** "An optimal flyback converter based power supply for smart meters", International Journal on Innovative Research in Science, Engineering and Technology (IJIRSET), April 2016, Vol 5, pp. 100 - 108

#### ■ Refereed Conferences (International)

1. **Jiji K S, Thottan Christina Paulson** "Design and analysis of an IGBT Gate Driving Circuit to control turn on losses with a fault protection scheme", International Conference on Recent Innovations in Technology (ICRIT - 2011) at RIT, Kottayam, Feb. 2011, pp. 260 - 265
2. **Jiji K S, R Liju Mathew** "A three level Neutral point Clamped Inverter with Buck Boost capability for renewable energy sources", IET Chennai & Dr.MGR University second international conference on Sustainable Energy & Intelligent System (SEISCON 2011), July 2011, pp. 201 – 206
3. **Jiji K S, N H Jayadas, CA Babu** "An Improved Excitation System for Low Voltage Salient Pole Synchronous Utilizing Third Harmonic Power", The EE Centenary Conference , IISc, Bangalore, Dec 2011, pp. 27 – 32
4. **Jiji K S, Sonima M P** "Operation of Induction Motor in field weakening region using stator current Commands Operation", 13th International Conference on Technological Trends (ICTT), July 2012, pp. 216 – 222
5. **Jiji K. S., Sreekumar T** "Modeling, Simulation and Analysis of Sensorless Indirect Vector Control of Induction Motors using Model Reference Adaptive System( MRAS)", International Conference on Electrical and Electronics Engineering, July 2012, pp. 219 – 225
6. **Jiji K S, N H Jayadas, CA Babu** "Prediction of Performance characteristics of Salient pole Synchronous Generators by Finite Element Method", International Conference on Emerging Trends in Manufacturing technology at ToCh Institute of Science & Technology, Arakkunnam, September 2012

7. **Jiji K S, N H Jayadas, CA Babu** "FEM based design of Third harmonic Excitation System for Low Voltage Salient Synchronous Generators", International conference on Electrical Machines and Systems(ICEMS 2012) at Sapporo, JAPAN, October 2012

8. **Jiji K. S., Sreekumar T** "Comparison of Proportional - Integral (P-I) and Integral - Proportional (I-P) controllers for speed control in Vector controlled induction motor drive", 2nd International Conference on Power, Control and Embedded Systems, December 2012

■ **Refereed Conferences (National)**

1. **Jiji K S, THANUJA MARY ABRAHAM** "Boost control of single phase uninterrupted power supply using Z - source Inverter", 9th National Conference on Technological Trends (NCTT 08), November 2008, pp. 140 - 144

2. **Jiji K S, THANUJA MARY ABRAHAM** "Voltage Sag Compensation of Single phase UPS based on Z - source Inverter", National Conference on Recent Innovations in Technology (NCRIT - 2009) at RIT, Kottayam, March 2009, pp. 71 – 74

3. **Jiji K S, DEEPTHI JOSEPH** "Synchronous Detection method for shunt active filters using Ramp Comparator", 10th National Conference on Technological Trends (NCTT 09), November 2009, pp. 167 – 172

4. **Jiji K S, DEEPTHI JOSEPH** "Synchronous Detection method for shunt active filters using space vector based hysteresis controller", National Conference on Recent Innovations in Technology (NCRIT 2010) at RIT, Kottayam, March 2010, pp. 99 – 103

5. **Jiji K S, THOTTAN CHRISTINA PAULSON** "Design, Analysis and Optimization of a gate driving circuit to control turn on losses in modular converters with a fault protection scheme", The second national conference on energy conservation and management (ECM - 2010), August 2010, pp. 15.1 – 15.8

**LIST OF STTP'S ATTENDED**

**2012-13**

Sl No	Name of Course	Period	No. of days	Name of institution
1	Virtual Instrumentation using LabVIEW	29.10.2010 to 04.11.2010	6 days	Rajiv Gandhi Institute of Technology, Kottayam

**2013-14**

Sl No	Name of Course	Period	No. of days	Name of institution
1	Mathematical modeling and analysis	10.06,2013 to 14.06.2013	5 days	Govt. Engineering College, Thrissur
2	IPM & SPM Training	25.07,2013 to 26.07.2013	2 days	Ansys, Bengaluru
3	Applications of Power Electronics	11.10,2013 to 15.10.2013	5 days	Govt. Engineering College, Thrissur
4	Smart Power Electronic Controllers using PLDs	19.11,2013 to 23.11.2013	5 days	Rajiv Gandhi Institute of Technology, Kottayam
5	FEA for Electromagnetics	19.12,2013 to 20.12.2013	2 days	Ansys, Bengaluru

**2015-16**

Sl No	Name of Course	Period	No. of days	Name of institution
1	Effective approaches for Applied Elctromagnetics using ANSYS MAXWELL	15.06.2015 to 19.06.2015	5 days	Entuple Technologies Pvt. Ltd., Bangalore

**LIST OF STTP'S COORDINATED**

Sl No	Name of Course	Period	No. of days	Name of institution
1	Real Time Systems	09.02.2004 to 21.02.2004	13 days	Rajiv Gandhi Institute of Technology, Kottayam
2	Applied Mathematics for Engineers	29.10.2010 to 04.11.2010	6 days	Rajiv Gandhi Institute of

3	AutoCAD for Electrical Engineers	11.03.2013 to 15.03.2013	5 days	Technology, Kottayam Rajiv Gandhi Institute of Technology, Kottayam
4	Magnetic Simulator, Simplorer & PExprt	13.08.2013 to 14.08.2013	2 days	Govt. Engineering College, Thrissur
5	Wind emulator	03.02.2016 to 05.02.2016	3 days	Govt. Engineering College, Thrissur

## LIST OF STUDENT PROJECTS/STUDENT RESEARCH PROJECTS GUIDED

### 2013-14

Sl No	Name of Project/research work	Period	Brief Description	Name of Student
1	FEM assisted sensorless control of BLDC motor	2013 - 14	The rotor position sensing is done by predicting the flux pattern in the air gap of the machine	Mr. Goutham krishna

### 2015-16

Sl No	Name of Project/research work	Period	Brief Description	Name of Student
1	Smartening of energy meters with an optimal flyback integrated power scheme and remote access	2015 - 2016	Flyback converter based power supply scheme is developed with minimum standby power consumption	Ms. Swetha S Pai

**INTERACTION WITH OUTSIDE WORLD/INVITED  
TALKS/PARTICIPATION IN CONFERENCES etc.**

**2014-15**

Sl No	Nature of the Interaction	Date	Brief Description	Institute
1	Technical expert in the Specification vetting committee of Centre for Materials for Electronics Technology (CMET), Thrissur	19.09.2014	External expert for vetting of specification for software for electromagnetic field analysis	Centre for Materials for Electronics Technology (CMET), Thrissur

**2015-16**

Sl No	Nature of the Interaction	Date	Brief Description	Institute
1	Expert talk	08.12.2015	Talk on "Finite Element Analysis" at FDP on "Mathematical Techniques in Engineering Research"	Rajiv Gandhi Institute of Technology
2	Expert talk	19.02.2016	Talk on "Electrical Machine Design"	College of Engineering, Perumon
3	Expert talk	26.02.2016	Talk on "Special Electrical Machines and Drives"	Jyothi Engineering College, Thrissur
4	Expert talk	24.11.16	Talk on "Emerging Trends in Special Electrical Machines"	Sree Buddha College of Engineering, Alappuzha, Kerala