



**JERUSALEM COLLEGE OF ENGINEERING**  
**DEPARTMENT OF ELECTRONICS AND COMMUNICATION**  
**ENGINEERING**

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**R&D ACTIVITIES (2011-2012)**

**1. Doctorates in the department & recognized as research guides:**

- **Dr.S.Prakash (Recognized Supervisor)**

**2. Faculty Pursuing Ph.D:**

**No. of Faculty Pursuing Ph.D: 04**

<b>S.No</b>	<b>Name of the faculty</b>	<b>University</b>	<b>Year of Registration</b>
1.	Mr.P.Sankar	Anna University	2006
2	Ms.S.Bhavani Sankari	Anna university	2009
3	Ms.C.T.Kavitha	Anna university	2009
4	Ms.M.Kanmani	Anna university	2010

**3. Ongoing Research Projects : 1**

<b>S.No</b>	<b>Name of the Investigator</b>	<b>Title</b>	<b>Duration</b>	<b>Funding Agency</b>	<b>Fund Received</b>
1	Mr.S.Manickavasagam	Moving Display	2 years	Lakshmiammal R&D Funding Agency	Rs.20,000

**4. Paper/journal Publications by the Faculty (2011-2012)**

International Journals : 1 (Nos.)  
National Journals : 1 (Nos.)  
International Conferences : 2 (Nos.)  
National Conferences : 18 (Nos.)

**International Journal:**

1. Sankar .P and Chellamuthu.C (2011), 'Study on the effect of Video traffic on Responsible flows using Queue Management Algorithm', Asian Journal of Information Technology' Vol.10, issue-2, pp 42-46.

**National Journal:**

1. Sankar .P, Aravindan .R and Chellamuthu.C,( 2011 ), 'Video Streaming in wired and wireless Networks', Journal of High Performance Communication Systems and Networking-Vol-3, No 1, pp 103-109.

**International Conference:**

1. Sankar .P, Lakshmi. V, Aishwarya.K and Chellamuthu .C ,(2011), 'Study on the Performance of Adhoc Routing Protocols on Vehicles', IEEE Explore Digital Library, pp 656-661.
2. Kavitha.C.T, Chellamuthu.C and Rajesh .R.(2011), 'Medical Image Fusion using Integer Wavelet Transform and Pulse Coupled Neural Networks' in ICCIC'11 at Cape Institute of Technology, on 17-18 Dec, Kanyakumari, pp. 834-838.

**National Conference:**

1. Prof. Ravi.N and Balaji.K, (2012 ),'Telephone Switch using Memristor' National Conference on Signals, Computing & Communication, 7 Mar, at Rajiv Gandhi College of Engineering, pp 155-158.
2. Prakash.S, Radhakrishnan P and Ganesh R.R,(2011), 'Effect of Molybednum as gate metal in a-Si. H TFT's for imaging and dispaly applications', National multiconference on innovative computing technology '11, pp. 95-98.
3. Prakash. S (2011), 'Advanced cryptography using coupled congruitial pseudorandom generators', National Multi conference in innovative computing technology, pp. 296-299.
4. Dr.Shobha Rekh and Selvanarayanan. G ( 2012), 'Car Monitoring, Alerting And Tracking using Gsm and Gps', National Conference on Signals, Computing & Communication at Rajiv Gandhi College of Engineering, on 07<sup>th</sup> march pp.119-122.
5. Dr.Shobha Rekh and Uma Nageswari. P, (2012), 'Incubator Monitoring using Telemedicine', National Conference on Signals, Computing & Communication, on 7<sup>th</sup> March at Rajiv Gandhi College Of Engineering, pp.139-141.

6. Dr.Shobha Rekh and Selvi. P (2012), 'Discrete Wavelet Transform–Based Satellite Image', National Conference on Signals, Computing & Communication at Rajiv Gandhi College of Engineering, on 07<sup>th</sup> Mar, pp. 43-45.
7. Bhavani Sankari.S and Veni. R (2012), 'Segmentation of Ultra Sound Liver Images by Region Growing Method' , Indian Conference on Advancement in Technology for Sustainable Development, DMI College of Engineering, on 24 Feb, pp.106-110.
8. Kanmani. M and Jesline Mary. M (2012), "Performance Analysis of MIMO-OFDM System' , Indian Conference on Advancement in Technology for Sustainable Development on 24<sup>th</sup> Feb, DMI College of Engineering, IC-ATSD, pp. 172-176.
9. Bharathy.G.T and Aarthy Ranjana.P.R.S (2012), 'Working of a Turbo Coder' National Conference on Signals, Computing & Communication, at Rajiv Gandhi College of Engineering, on 7<sup>th</sup> mar, pp.193-195.
10. Sivasankari. G and Ramya.G (2012), 'PGA based Image edge detection using Sobel Algorithm', National Conference on Signals, Computing & Communication, at Rajiv Gandhi College of Engineering, Chennai, on 07 Mar, pp.136-138.
11. Tamil Selvi.T and Karthika.M,(2012),'OFDM Transceiver for Wireless Communication', Indian Conference on Advancement In Technology for Sustainable Development, at DMI College of Engineering, IC-ATSD, 2012, on 24 Feb, pp.59-62.
12. Kanmani. M and Indira.P, (2012), 'Performance Analysis Of MIMO Zero Padding Block Transmission Systems', Gliders in National Electrical and Electronics International Conference, GNEESIC'12 at St.Xavier's Catholic College of Engineering, on16 Mar, pp.327-329.
13. Jesu Mejula. J and Rethi. R (2012), 'ARM Processor Embedded Web Server', Gliders in National Electrical and Electronics International Conference, GNEESIC'12, at St.Xavier's Catholic College of Engineering, on 6 Mar 2012 pp. 330-332.
14. Swapna. C.S and Karthik. D (2012), 'Low-Power and Area-Efficiency Carry Select Adder using Binary to Excess-1 Converter', National Conference on Signals, Computing & Communication, at Rajiv Gandhi College of Engineering, on 07 Mar, pp. 91-95.
15. Pandiammal. K and Berlin Paul. D (2012), 'Implementation of Optimized LUT On FPGA', National Conference on Signals, Computing & Communication, at Rajiv Gandhi College of Engineering, 07 Mar pp. 83-86.

16. A.Akilandeswar and D.Daniel Devaraj (2012), ' Image Retrieval Based On Genetic Algorithm", National Conference on Signals, Computing & Communication, at Rajiv Gandhi College of Engineering, on 07 Mar, pp. 1-7.
17. Akilandeswari. A and Guruvendhan. G (2012), 'A Novel Steganography Scheme using Genetic Algorithm ', National Conference on Signals, Computing & Communication, at Rajiv Gandhi College of Engineering, on 07 Mar, pp. 9-11.
18. Padmavathy.B, Meenakshi Sundra Narayanan.V, Vignesh. S, and Dhasarathan (2012), 'Removal of High Density Salt and Pepper Noise using Modified Decision Based Unsymmetric Trimmed Median Filter', NCVESCOM, on 21-22 Mar, pp. 78-80.

#### 5. Text books Published by the Faculty (2011-2012)

S.No.	Author Name	Title of the Book	Publisher	Year
1	Dr.S.PoornaChandra	Electric Circuits and electronic Devices	SciTech	2011

#### 6. Research Proposals sent by the Faculty

S. No	Name of the Investigator	Title	Duration	Funding Agency	Fund Proposd
1.	Prof. N. Ravi	Advanced Automated Testing of Electronic Components and PCBs	3Years	TIFAC/DST	Rs.1074.1 Lakhs
2.	Dr. S. Prakash	Fibre optic glass sensor	2 years	Lakshmiammal R&D Project fund/DST	Rs.6.45 lakhs
3.	Prof S.Manickavasagam	Moving Display	1 .5 years	Lakshmiammal R&D Project fund	Rs.75,000
4.	Ms.S.Bhavani sankari	Advanced DSP laboratory	2 years	MODROBS	Rs.7,49,000
5.	Ms.C.T.Kavitha	Advanced VLSI laboratory	2 years	MODROBS	Rs.7,96,000

**7. Research Workshops / Community oriented Seminars / FDPs Organized / Participated:**

**Workshops organized :**

1. Workshop on **Hands on Training on Matlab** for the Post Graduate students of JCE was conducted on 1-2 Dec 2011.
2. Workshop on **Research Methodologies** was conducted in JCE on 12 - 13 Jan 2012.
3. Workshop on **Introduction and Applications of Nano Technology and Memristor** was conducted in JCE on 22 - 23 Jan 2012.
4. Workshop on **Machine Vision in Image Processing** was conducted in JCE on 1-2 March 2012.
5. Workshop on **Recent Trends in Wireless Communication** was conducted in JCE on 21 March 2012.

**Workshops attended:**

1. T.Tamilselvi, J.Jesu Mejula attended a two-day workshop on “MSP-430” at Anna University, Chennai, June 2011.
2. S.Krithiga, attended a workshop on “Implementation of Image Processing algorithm on FPGA” at Karunya University, Coimbatore, on 16-17 Sep.2011.
3. S.Bhavani Sankari, C.T.kavitha, attended a two-day workshop on “Mathematical Transforms Explore & innovate” at VIT, Chennai, on 16-17 Sep.2011.
4. P.Sankar, S.Bhavani Sankari, C.T.Kavitha, M.Kanmani, K.Pandiammal, C.S.Swapna, A.Akilandeswari, B.Padmavathy attended a one-day workshop on “Research Methodologies” on 12<sup>th</sup> Jan.2012 at Jerusalem College of Engineering, Chennai.
5. Ms.S.Krithiga, Ms.J.Jesu Mejula, Ms.K.K.Kavithini, Ms.B.Padmavathy, attended two-day workshop on “Machine Vision in Image Processing” on 1-2 March.2012.
6. Ms.J.JesuMejula, Ms.Emlin Elsa Abraham, Ms.K.K.Kavithini, Ms.M.Lalitha Ms.R.Regga attended a one-day workshop on “Recent trends in Wireless Communication” on 21<sup>st</sup> March.2012.
7. C.S,Swapna, K .Pandiammal attended a one-day workshop on “ Analog VLSI Design”, SRM University on 13 Feb 2012.

## 8. Awards / Rewards:

Name of the Faculty	Name of the Award	Organization	Year/Sem
Ms.C.T.Kavitha	Best Teacher Award	Jerusalem College of Engineering	June 2010-May 2011
<b>Best Academic Performer Award</b>			
Ms.C.T.Kavitha	VL9261 – ASIC		II / III (PG)
	EC2351–Measurements and Instrumentation		III/ VI (UG)
Prof.N.Ravi	EC2044– Telecommunication And switching		IV/VII(UG)
Mr.P.Sankar	EC 2402 – Optical Communication	IV/VII (UG)	

## 9. Guest talk / lecture delivered in FDP / Workshop / Conference.

1. Prof. N. Ravi delivered a lecture on **Introduction and Application to Memristor** in the workshop 'Introduction and Applications of Nano Technology and Memristor' conducted in JCE on 22 - 23 Jan 2012.
2. Dr. S. Poornachandra delivered a lecture on **Introduction to Simulink** in the workshop 'Hands on Training on MATLAB' conducted in JCE on 1-2 Dec 2011.
3. Dr. S. Poornachandra delivered a lecture on **Thesis Writing** in the workshop 'Research Methodologies' conducted in JCE on 12 - 13 Jan 2012.
4. Prof Manickavasagam delivered a lecture on **Introduction to Machine Vision** in the workshop 'Machine Vision in Image Processing' conducted in JCE on 1-2 March 2012.
5. Prof Manickavasagam delivered a lecture on **Security Attacks in Wireless Communication** in the workshop 'Recent Trends in Wireless Communication' conducted in JCE on 21 March 2012.
6. Prof Manickavasagam delivered a guest lecture on 'Communication Systems' in SSN college of Engineering for BME students on 29 March 2012.
7. C.T.Kavitha delivered a lecture on **Introduction to MATLAB for Image Processing** in the workshop on 'Hands on Training on MATLAB' conducted in JCE on 1-2 Dec 2011.

8. K.Pandiammal delivered a lecture on **Introduction to MATLAB for Signal Processing** in the workshop on 'Hands on Training on MATLAB' conducted in JCE on 1-2 Dec 2011.

**10. List of proposal to have MOU with industries:**

S.No	Name of the concern	Period
1	MEL System and services Ltd, Perungudi Chennai.	2009-2012

**11. Any other achievements:**

**1. TI INDIA ANALOG DESIGN CONTESTS 2011**

Name of Student	Faculty Supervisor	Title of Paper
Team:1 Vivekananth.V Suresh Kumar.R Pavithra.N Vidhya.V	Dr.S.Poornachandra Principal, JCE Id: pcomed8@ gmail.com Mob: 9444302902	Implementation of Denoising of Biological Signal using Wavelet based Hyper Shrinkage Function
Team:2 Venkatesh.V Surendar.S Vinoth.R	Ms.T.Tamilselvi Asst.Prof. Gr.III email id: tamilselvi78@gmail.com Mob: 9444300038	Implementation of SMS based Watt-Hour Meter
Team: 3 Sriram.V.S. Paul Bright.N Vignesh Raja.D	Ms.K.Pandiammal, Lecurer Id: pandiammalk@gmail.com Mob: 9962203671	Implementation of Low cost Oscilloscope using MSB430

**2. Students innovative projects:**

S.No.	Name of Student	Project Title	Supervisor's Name
1.	BalaVignesh.B Ganesh.J Kishore Kumar.M	Energy Harvesting using MSP 430	Ms.A.Akilandeswari
2.	Uma Nageswari.P	Incubator Monitoring using Telemedicine	Prof.S. Manickavasagam

