



R&D ACTIVITIES (2011 – 2012)

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

Dr. Preethi Jeyakumar (Recognized Supervisor)

2. Faculty Pursuing Ph.D:

No. of Faculty Pursuing Ph.D: 2

S. No	Name of the Faculty	University	Year of Registration
1	M.Kalaivani	Anna University Chennai	2002
2	R.Bhuvanawari	Anna University Trichirapalli	2008

3. Ongoing Research Projects:

S. No	Name of the Investigator	Title	Duration	Funding Agency	Fund Received
1	M.Kalaivani	Neuro Feedback training for elderly persons for the treatment of Alzheimer / Parkinson / Dementia”	3 Yrs	Rs.26 Lakhs	SANCTIONED (DST)
2	Dr. Preethi Jeyakumar	Evaluation of Larvicidal effect of Indian medicinal plants.	1 Yr	Rs.20,000	Lakshmiammal Educational Trust

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

International Journals : 2

National Journals : 1

International Conferences : 1

National Conferences : 4

International Journals:

1. Sylvia J.A, Jennifer Swittens, Komalavalli.R, Lavanya Devi.C.R and Manikandan (2011), “Alarm clock using sleep analysis”, International Journal Biomedical Engineering and Technology, Vol. 7, No. 2, pp 148 – 164.
2. Kalaivani M. , Sylvia J.A, Cynthia David, Greeshma.H, Jhayachandar.C and Kaushik Prakash.M (2011), “Automatic recognition of exudative maculopathy using neural networks”, International Journal Biomedical Engineering and Technology, Vol.7, No.1. pp. 46 – 56.

National Journals:

1. Kalaivani Manickam, Rekha Thiagarajan, and Sofia Bobby. J (2011), “Hurst Exponent and P300 Based BACI for stroke rehabilitation” in National Conference on Recent advances in Communication, Electrical and Electronics and information technology (RACEIT-2011)” at Prathyusha Institute of Technology and Management on 28th February 2011 ,IETE journal pp.222 – 225

International Conferences:

1. Bhuvanawari.R and Dr.K.Jegatheesan (2011) , “Biochemical study of ocimum sanctum against carbontetrachloride” International conference on Life science and technology (ICLST) Mumbai *IPCBE vol.3 (2011) © (2011) IACSIT Press, Singapore* pp. 87 - 90.

National Conferences:



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1. Bhuvanewari. R, Ramya. S and Pavithra.S (2012),“Magnetic Nano Particle in Cancer Treatment” in the National level Techno Carnival BIZOIC’12, organized by the Department of Biomedical Engineering, SMK Fomra Institute of Technology, Kelambakkam on 23rd February 2012 pp. 14.
2. Mythily.V, Sai Divya, and Vaishnavi.N (2012), “HRV characterization in diabetic patient using LabVIEW”, in the National level Techno Carnival BIZOIC’12, organized by the Department of Biomedical Engineering, SMK Fomra Institute of Technology, Kelambakkam on 23rd February 2012 pp.10.
3. Mythily.V, Saranya, and Shamila Racheal (2012), “Stress Analyzer ”, in the National level Techno Carnival BIZOIC’12, organized by the Department of Biomedical Engineering, SMK Fomra Institute of Technology, Kelambakkam on 23rd February 2012 pp. 12
4. Preethi Jeyakumar, Mythily.V, Renu Jacob, and Soundariya (2012), “Capacitive Biosensor in enzyme kinetics – an alternative to colorimeter”, in the National level Techno Carnival BIZOIC’12, organized by the Department of Biomedical Engineering, SMK Fomra Institute of Technology, Kelambakkam on 23rd February 2012 pp.20.

5. Research Proposals sent by the Faculty

S. NO	Name of the Investigator	Title	Duration	Funding Agency	Fund Proposed
1	Dr.Preethi Jeyakumar	“Low cost mushroom cultivation using industrial waste”	2 years	TNSCST	1,53,800
		Evaluation of various glucose biosensors”	1 Year	DBT	1.50
		Cancer Awareness and early detection	1 Year	DBT	1.00
2	M.Kalaivani & J.Sofia Bobby	Rehabilitation for stroke patients using BCI with increased efficiency by combining P300 and DFA Analysis”	3 Years	RPS Scheme of AICTE	8.59
3	R.Gomalavalli	Evaluating Thyroidism by using biosensors	1 Year	DBT	1.00

6. Research Workshops /community oriented Seminars/FDPs Organized/Participated

Research Workshops Organized

Department has organized a one day workshop on “**Advances in Medical Diagnostic Imaging Modalities**” on **10th February 2012**. The Chief Guest was Dr. K. Thayalan, Prof. & Head, Consultant medical Physicist, Dr. Kamakshi Memorial Hospital, Chennai.

Workshops Participated:

- Kalavani.M and SylviaJ.A attended a five days workshop on “MRI” from 20th June 2011 to 24th June 2011 at IIT Mumbai organized by Carimo Cell.
- Nandhini.P and Sofia Bobby.J attended a workshop on “LABVIEW” at Abdhur Rehman University 13th & 14th December 2011



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- Purnima.S and Jeyalakshmi.M.S attended a three days workshop on “Cognitive Neuroscience and Brain Computer interface Applications and Hands on Training on Biostatics” organized by The Centre for Biomedical Informatics and Signal Processing, SSN College of Engineering during 5th January 2012 to 7th January 2012.

- Dr. Preethi Jayakumar and Gomalavalli.R attended one day workshop on “Research Methodologies” organized by Department of Electronics and Communication Engineering, Jerusalem College of Engineering on 6th January 2012.
- P.Nandhini and K.Yamuna Devi attended a two days workshop on “Introduction and Applications of Nanotechnology and Memristor” organized by Department of Electronics and Communication Engineering, Jerusalem College of Engineering during 23rd and 24th January 2012.

Seminar:

- Mythily.V and Dr. Preethi Jeyakumar attended AICTE sponsored national level seminar on Rehabilitation Engineering” July 7 – 8 2011 organized by Department of Biomedical Engineering, Rajalakshmi Engineering College.
- Dr. Preethi Jeyakumar and III Year BME Students were attended a one-day seminar on “Intellectual Property Rights, Patents & Copyrights,” organized by the Department of Biomedical Engineering in SSN Engineering College, Kalavakkam held on 22nd February 2012.

Community oriented Seminars

- Bhuvaneshwari.R was invited to give a Seminar on “Environment and HYgeine “ to the school children at Manivakkam organized by the NSS unit of Jerusalem College of Engineering on 12th April 2012

7. Awards /rewards:

Best Teacher award:

Name of the Faculty	Name of the Award	Organization	Year/Sem
M.S. Jeyalakshmi Assistant Professor Grade – I	Best Teacher Award	Jerusalem College of Engg	June 2010-May 2011

Best Project Award

Name of the Faculty & Students	Name of the Project	Organization	Academic year
UG	Voice controlled - solar energized wheel chair	Jerusalem College of Engg	June -May 2011
Ms. S. Purnima, Assistant Professor Grade – I			
Sriranjani.S Ranjani.R Shalem Abishek Samuel David Rakesh.R			



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FACULTY APPRECIATION AWARD

S. No	Name of the Faculty	Name of the Subject	Year / Sem / Batch
1	M.Kalaivani	Diagnostic and Therapeutic Equipment – I	III / VI (2008 – 2012)
		Diagnostic and Therapeutic Equipment – II	IV / VII (2007 – 2011)
2	S.Purnima	AI and Pattern Recognition	IV / VII (2007 – 2011)
		Assist Devices	IV / VIII (2007 – 2011)
3	J.Jemina Asnoth Sylvania	Neural Networks and Applications	IV / VII (2007 – 2011)
		Medical Imaging Techniques	IV / VIII (2007 – 2011)
4	M.S. Jeyalakshmi	Computer in Medicine	IV / VII (2007 – 2011)
		Hospital Management	IV / VIII (2007 – 2011)
5	Dr. Preethi Jeyakumar	Pathology and Microbiology	II / IV (2009 – 2013)
6	R. Gomalavalli	Analog and Digital ICs	II / IV / 2009 – 2013
		Diagnostic and Therapeutic Equipment – I	III / V (2008 – 2012)
		Medical Informatics	IV / VII / 2007 – 2011
7	V. Mythily	Biomaterials and Artificial Organs	III / V (2008 – 2012)
8	K.S. Lekshmi Sudha	Biomedical Instrumentation	II / IV (2009 -2013)

8. Guest Talk/lecture delivered in FDP /workshop/conference

1. Kalaivani.M, Senior Assistant Professor, delivered a special Lecture on MRI at Bharath University in September 2011
2. Kalaivani.M, Senior Assistant Professor Delivered a special Lecture on MRI at EEE Department at Jerusalem College of Engineering in Sep 2011
3. Kalaivani.M, Senior Assistant Professor, Special Lecture on “ Neuro Feedback and Cross modality Analysis” at SSN College of Engineering on 6th January 2012



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9. List of Proposal to have MOU with Industries:

We proposed to have MOU with

1. Phoenix Medical Systems
2. Appaswamy Hospital, and
3. Sri Ramachandra Medical College and Research Centre

10. Any other achievements

1. Kalavani.M and SylviaJ.A attended a five days workshop on “MRI” from 20th June 2011 to 24th June 2011 at IIT Mumbai organized by Carimo Cell and Ms M Kalaivani was adjudged as the best participant and graded as Excellent .
2. The students of BME Vandhana Narayanan and B.Ragini attended an international conference title “Detection of cortical activation using statistical parameteric mapping through functional magnetic resonance imaging” on biomedical engineering (ICOBE’2012) Penang, Malaysia on 27th – 28th February 2012.

12. Students Innovative Projects:

NAME OF THE STUDENTS	Name of the Project Guide	Title
Chithra.A	M. Kalaivani	Attack diagnosis using ABI with the AID of LABVIEW
Balaji.P		
Mohamed Luqman.A		
Abraham Lincoln. M		
Sriranjani.S	S. Purnima	Voice controlled - solar energized wheel chair
Ranjani.R		
Shalem Abishek Samuel David		
Rakesh.R		
Usha.R	P. Nandhini	MEMS based tele-Robot Movement
Sai Divya.R		
Shree Hari.S		
Aishwarya.B	S. Purnima	Portable ECG
Vijayalakshmi.S		
Sherlyn Preetha.A		
Pramodh.H		