

Sri Ramakrishna Institute of Technology

(An Autonomous Institution) (Accredited by NAAC with "A" Grade) Pachapalayam, Perur Chettipalayam, Coimbatore – 641 010 www.srit.org :: Phone – 0422-2605577



Faculty Profile

Full name with Qualification, Designation and Department:

Dr. Paulraj Murugesa Pandiyan,..,B.E., M.E., Ph.D.,

Principal,

Computer Science and Engineering



Date of birth	:	05.05.1961	Gender	:	Male
Nationality	:	Indian	Marital status	:	Married
Address for correspondence	:	5 Pappa Thottam MGR Nagar, Ceylon Colony, Podanur, Coimbatore – 641023.	Permanent address	:	5 Pappa Thottam MGR Nagar, Ceylon Colony,Podanur, Coimbatore – 641023.
Mobile no	:	7373488599	e-mail (official)	:	principal@srit.org
Landline	:	+91 422 2605577	e-mail (personal)	:	paulraj_pandian@yahoo.com
Date of joining	:	20.01.2016	Post of joining	:	Principal
No of promotions since D.O.J	:	-	Present post	:	Principal
Present pay scale	:	37,400-67,000 +AGP 10,000+ SPA 3000	Gross pay	:	Rs 1,60,508
Employer ID	:	TE001	Bank account No. (Salary credited)	:	500101010501861
P.F. No	:	TN/CBE/56764/72 0	Group Insurance No	•	AG00059675000104

PAN Number	:	AIKPP5520G	Aadhar Number	:	598982400558
AICTE ID	:	1-2913895386	AICTE Institution ID	••	1-7841521

Educational Qualification

Degree	Specialization	Year of	Name of the	Name of the	Class
Degree	Specialization	Passing	College	University	Obtained
	Electrical and	May-1983	Government	Madras	First
UG	Electronics		College of	University	Class
	Engineering		Technology	India.	
	Computer	Feb-1991	Government	Bharathiar	First
PG	Science and		College of	University,	Class
10	Engineering		Technology	India.	
	Computer	August-2001	Bharathiar	Bharathiar	Highly
Ph.D	Science and		University,	University,	Comm
	Engineering		India.	India.	ended
Others					

Registration for Ph.D. with area of interest: Neuro Fuzzy Systems

Year of Ph. D. Registration:

Year of Ph. D. Completed: 2001

Thesis Title: Certain Investigations on the Stability and Stabilization of a Class of Neural and

Fuzzy Systems Computer Science

Supervisor Recognition Number: 2740082

Ph.D. Scholar Details

S.No.	Name of the scholar	Registration details	College	Status
1	Ms. R. Priyadharshini	19244697272	Sona College of Technology	Thesis Submitted
2	Ramkumar E	17143691164	Sri Ramakrishna Institute of Technology	Confirmation completed
3	Marimuthu M	17144691495		Confirmation completed

4	Kirthika K M	17244691275	Sri Ramakrishna Institute of Technology	Confirmation completed
5	Saranya K	17244691276	Sri Ramakrishna Institute of Technology	Confirmation completed
6	Brindha M	17244691532	Chennai Institute of Technology	Confirmation completed
7	Savitha S J	17244697589	Sri Ramakrishna Institute of Technology	Confirmation completed
8	Meenachi V R	17254697391	Sri Ramakrishna Institute of Technology	Confirmation completed
9	Revathi S	18244691480	Sri Ramakrishna Institute of Technology	Confirmation completed

Academic Experience

Name of the College	Designation Joinir		Relieving	Experience		
	0	Date		Years	Months	Days
Sri Ramakrishna						
Institute of Technology,	Principal	Jan 2016	Till Date	8	-	-
Coimbatore-10						
School of Mechatronic						
Engineering, Universiti	Professor	Jun 2013	Dec 2015	2	6	-
Malaysia Perlis, Kangar,	r totessor	Juli 2015	Dec 2015	~		
Perlis, Malaysia						
School of Mechatronic						
Engineering, Universiti	Associate	Dec 2005	May 2013	7	5	-
Malaysia Perlis, Kangar,	Professor	Dec 2005	Way 2015	/		
Perlis, Malaysia						
Computer Science						
Program, School of	Lecturer	Sop 2002	Sop 2005	3	_	-
Engineering and	Lecturer	Sep 2002	Sep 2005	3		
Information Technology,						

Universiti Malaysia Sabah, Kota Kinabalu, MalaysiaImage: Computer Science and Engineering, GCT Campus, Anna University, Coimbatore, IndiaAssistant ProfessorJul 2002Aug 20021Electrical and Electronics Engineering, Government College of Technology, Coimbatore, IndiaSelection Grade LecturerApr 1998Jun 200242Electrical and Electronics Engineering, Government College of Technology, Coimbatore, IndiaSenior Grade LecturerApr 1998Jun 200242Electrical and Electronics Engineering, Government College of Technology, Coimbatore, IndiaSenior Grade LecturerMar 1996Mar 19982Electrical and Electronics Engineering, Government College of Technology, Coimbatore, IndiaTechnical Assistant to DirectorJun 1992Feb 199638Electrical and Electronics Engineering, Government of Tamil Nadu, Madras, IndiaLecturerSep 1983Apr 199286-Electrical and Electronics Engineering, Government College of Technology, Coimbatore, IndiaInstructorMay 1983Aug 1983338-							
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				TOTAL	42	5	

Industrial Experience

Name of the	Designatio	Nature	Joining	Relievi	Relievi	Relievi	I	Experience	
Organization	n	of Work	Date	ng Date	Years	Months	Days		
NIL									
				Total					

Courses Handled

Academic	Semester	Course	Course Name	Type of	Pass
Year		Code		Course (T / L)	Percentage
2022-2023	Ι	20ITG01	Programming For	Theory	77%
			Problem Solving Using C		
2022-2023	II	20ECG01	Electric Circuits	Theory	89%

Projects Guided

Academic Year	Semester	Project Title	UG / PG

Publications

Publications	SCI / Scopus / Web of Sciences	Others
Journal	52	
Conferences	298	

Journal Publications (IEEE format):

- Paulraj M P, Sazali Yaacob, M Hariharan, "Diagnosis of Voice Disorders using Mel-Scaled WPT and Functional Link Neural Network", International Journal of Biomedical Soft Computing and Human Sciences, BioMedical Fuzzy Association, Japan, Vol. 14, no 2, April 2009, Impact Factor 0.8.
- Paulraj M P, Hema C R, R Nagarajan, Sazali Yaacob, Abdul Hamid Adom, "Classification of EEG Mental Tasks using PSO Neural Network for Brain Machine Interfaces", International Journal of Advancement of Modeling and Simulation Techniques In Enterprises (AMSE), France, 2008.
- 3. Paulraj M P, Sazali Yaacob, S N Sivanandam, M Hariharan, "Improved Back propagation Neural Network for the Diagnosis of Pathological Voices", International Association for Modeling and Simulation Technique in Enterprise (AMSE Journal), France, 2008.
- 4. Paulraj M P, Abdul Hamid Bin Adom, Hema C R and Divakar Purushothaman, "Analysis of Visual Colour Perception using EEG Spectral Features", Karpagam Journal of Computer Science, India, Vol 6. no.2, pp. 74-81, 2012.
- 5. Paulraj M P, Sazali Bin Yaacob and Allan Melvin Andrew, "Stationary and Non-Stationary Vehicle Cabin Noise Level Identification using Spectral Composite Features and Neural Networks", Karpagam Journal of Computer Science, India, Vol 6. no.2, pp. 82-92, 2012.

- 6. Paulraj M P, Abdul Hamid Adom, Hema C R, Sathishkumar Sundararaj, "Acoustic signature recognition of moving vehicle using Elman neural network", Karpagam Journal of Computer Science, Coimbatore, India , Vol 6. no.4, pp. 183-189, 2012.
- Paulraj M P, Sazali Yaacob, Mohd Shuhanaz Zanar Azala N and Rajkumar Palaniappan, "A Phoneme Based Sign Language Recognition System using Neural Network", International Journal of Digital Content Technology and applications - vol. 3, issue 3, pp 51- 57, October 2012 ISSN: 2180-1347.
- Paulraj M P, Hema C.R, Sazali Yaacob, Mohd Shuhanaz Zanar Azalan and Rajkumar Palaniappan, "Gesture Recognition System using 2D-Invariant Moment Feature and Elman Neural Network", Int. J. of Artificial Intelligence and Soft Computing (IJAISC). Inder Science - Paper accepted for publication- 2013.
- Paulraj M P, Hema C.R, Sazali Yaacob, Mohd Shuhanaz Zanar Azalan and Rajkumar Palaniappan, "Gesture Recognition System using 2D-Invariant Moment Feature and Elman Neural Network", Int. J. of Artificial Intelligence and Soft Computing (IJAISC). (Inder Science) - Accepted for publication 2013.
- Paulraj M P, Allan Melvin Andrew, "Classification of Interior Noise Comfort Level of Proton Model Cars using Feedforward Neural Network", Int. J. of Artificial Intelligence and Soft Computing (IJAISC). (Inder Science) - Accepted for publication 2013.
- 11. Paulraj M P, Abdul Hamid Adom, Sazali Bin Yaacob, Hema C R, Erdy Sulino Mohd Muslim Tan, Sathees Kumar Nataraj, "EEG Based Communication System for NMD Patients in Generalized & Customized Modes", International Journal of Electrical & Electronics Systems Research, IJEESR, Vol. 6 June 2013, Malaysia, Accepted for Publication.
- 12. Paulraj M P, Kamalraj Subramaniam, Sazali bin Yaccob, Abdul Hamid bin Adom, Hema C R," Detection of conductive and sensorineural hearing loss using auditory evoked brainstem evoked response", Journal of Next Generation Information Technology, Korea, (Accepted for Publication)
- 13. 13. Paulraj M P, Kamalraj Subramaniam, Sazali Bin Yaccob, Abdul Hamid Bin Adom, Hema C R, "Auditory Evoked Potential Response and Hearing Loss: A Review", The Open Biomedical Engineering Journal 02/2015; 9(1):17-24. (Published)
- 14. Paulraj M P and Jackie The, "Mel-Frequency Band Structure Based Features For Motor Imagery Task Classification", Journal Technology, University Technology Malaysia (Accepted for Publication)`
- 15. Paulraj M P, Kamalraj Subramaniam and Hema C R, "Classification of Hearing Perception Level Using Auditory Evoked Potentials", University Technology Malaysia (Accepted for Publication)

- Hema C R, Paulraj M P, R Nagarajan, Sazali Yaacob, Abdul Hamid Adom, "Application of Particle Swarm Optimization for EEG Signal Classification", International Journal of Biomedical Soft Computing and Human Sciences, Vol.13, No.1, pp.87-92, ISSN1345-1529, Japan, March 2008, Impact Factor 0.8
- 17. Hema C R, Paulraj M P, R Nagarajan, Sazali Yaacob, Abdul Hamid Adom, "EEG Motor Imagery Classification of Hand Movements for a Brain Machine Interface", International Journal of Biomedical Soft Computing and Human Sciences, Vol 14, No.2., Japan, April 2009, Impact Factor 0.8.
- Hema C R, Paulraj M P, Sazali Yaacob, Abdul Hamid Adom, R Nagarajan, "Brain Machine Interfaces: A Comparison between Fuzzy and Neural Classifiers", International Journal of Innovative Computing, Information and Control, Vol.5, No.6, ISSN 1349 4198, Taiwan, June 2009. Impact Factor 1.537.
- S N Sivanandam, Paulraj M P, "A Neural Network Approach for Defects Identification in Fabrics", Journal of the Institute of Engineers, India, (Textile Engg.), Vol.81, pp.10–11, August 2000.
- 20. S N Sivanandam, Paulraj M P, A Ramesh, "An Improved Pattern Classification using Back propagation Neural Network", Journal of the Institute of Engineers, India, (Textile Engg.), Vol.81, pp.21–22, August 2000.
- 21. S N Sivanandam, Paulraj M P, "An Approach for Image Classification using Backpropagation Scheme", IETE Journal of Research, Vol.46, No.5, pp.315-317, India, October 2000.
- 22. R Nagarajan, Sazali Yaacob, Paulraj M P, M Karthigayan, Mohamed Rizon, "Feature Extraction Methods for IC Chip Marking Inspection A Comparison", Iraqi Journal of Electrical and Electronic Engineering, Vol.2, No.1, pp.7-18, Iraq, 2006.
- 23. R Nagarajan, Sazali Yaacob, Paulraj M P, M Karthigayan, Shamsudin Hj Amin, Marzuki Khalid, "A Real Time Marking Inspection Scheme for Semiconductor Industries", International Journal of Manufacturing Technology, Springer Journal, UK, 2006. Impact Factor 1.071
- 24. Hema C R, Paulraj M P, R Nagarajan, Sazali Yaacob, "Segmentation and Location Computation of Bin Objects", International Journal of Advanced Robotic Systems, Vol.4, No.1, pp.57-62, ISSN 1729-8806, 2007. Impact factor 0.326
- 25. Hema C R, Paulraj M P, R Nagarajan, Sazali Yaacob, "Bin Object Recognition using Image Matrix Decomposition and Neural Networks", Iraqi Journal for Electrical and Electronic Engineering, Vol.3, No.1, pp.60-64, ISSN 1814-5892, Iraq, 2007.
- 26. Hema C R, Paulraj M P, R Nagarajan, Sazali Yaacob, Abdul Hamid, "Brain Machine Interface: Analysis of Segmented EEG Signal Classification Using Short-Time PCA and

Recurrent Neural Networks", International Journal of Electrical and Electronic Engineering, Vol.4, No.1, pp.77-85, ISSN 1814-5892, Iraq, 2008.

- 27. Hema C R, Paulraj M P, Sazali Yaacob, Abdul Hamid Adom, Nagarajan R, "Motor Imagery Signal Classification for a Four State Brain Machine Interface", International Journal of Biomedical Sciences (IJBS), Vol.3, No.1, pp.76-81, ISSN: 2070-3848, France, December 2008.
- 28. R Nagarajan, Paulraj M P, Sazali Yaacob, Zaridah Mat Zain, Rosfariedzah Rusli, "An Adaptive-Predictive Fuzzy Logic controller for the attitude control of a micro-satellite", International Association for Modeling and Simulation Technique in Enterprise(AMSE Journal), France, 2008.
- 29. Sazali Yaacob, Paulraj M P, S A Mohd Yusof, "Improved Classification of Malaysian Spoken Vowels using Formant Differences", Proceedings of Journal of ICT, Vol.7, 2008.
- Hema C R, Paulraj M P, Sazali bin Yaacob, Abdul Hamid bin Adom and R. Nagarajan, "An Analysis of the Effect of EEG Frequency Bands on the Classification of Motor Imagery Signal"s, IJBSCHS(2010-16-01-14) Biomedical Soft Computing and Human Sciences, Vol.16,No.1,pp.121-126, (Accepted on 2009.12.26)
- 31. Hema C R, Paulraj M P, Sazali bin Yaacob, Abdul Hamid bin Adom and R. Nagarajan, "Comparison of Static and Dynamic Neural Network Classifiers for Brain-Machine Interfaces", International Journal of Electrical and Electronic Systems Research, Vol.3, pp. 1-7June 2010.
- 32. Muthukumaran S, Thyagarajah K and Paulraj M P, "Short Term Load Forecasting using Functional Link Network", European Journal of Scientific Research 51 (3), pp. 315-320, 2011.
- 33. Hariharan M, Paulraj M P and Sazali bin Yaacob, "Detection of Vocal Fold Paralysis and Oedema using Time-domain Features and Probabilistic Neural Network", International Journal of Biomedical Engineering and Technology Vol. 6 no. 1, pp. 46-57, 2011.
- 34. M. Ridhwan Tamjis , M Naufal Mansor, Paulraj M P, Sazali bin Yaacob, A Nazri Abdullah and Raymond B W Heng, "Performance Comparison of the Artificial Neural Network and the K-Nearest Neighbor Classifiers in Classroom Speech Intelligibility Prediction Application", International Journal of Research and Reviews in Artificial Intelligence, Science Academy Publisher, United Kingdom, Vol. 1, no. 1, March 2011.
- 35. Yusnita M A, Paulraj M P, Sazali Bin Yaacob, Shahriman and Satheesh Kumar "Fuzzy Logic Inference System for Voiced-unvoiced-Silence Classification of Malaysia English Isolated Words based on Time-Domain Features, Journal of Computer Science, India, Vol 6. no.2, pp. 93-202, 2012.
- 36. Hema C R, Vivian Tang Sui Lot, Paulraj M P, "Design and Development of a Gripper System for an Indoor Service Robot", Journal of Computer Science, Coimbatore, India , Vol 6. no.4, pp. 196-203, 2012.

- Hema C R, Paulraj M P, "Four State Brain Interface Design using Funtional Link Networks", International Journal of Electrical and Electronics System Research, vol 5, June 2012, ISSN 1985-5389.
- N. Abdul Rahim , Paulraj M P, A.H. Adom, "Adaptive Boosting with SVM Classifier for Moving Vehicle Classification", Journal of Procedia Engineering, Volume 53 (2013), Pages 411–419 (ISSN: 1877-7058).
- 39. N. Abdul Rahim , Paulraj M P, A.H. Adom, "Heterogeneous Multi-Classifiers for Moving Vehicle Noise Classification using Bootstrap Method", International Journal of Engineering and Advanced Technology[™] (IJEAT), Volume-2, Issue-4, April 2013 (ISSN: 2249-8958) (Impact Factor 1.0)
- 40. M. A. Yusnita, M. P. Paulraj, Y. Sazali, A. B. Shahriman, and M. Nor Fadzilah, "Statistical Band Selection for Descriptors of MBSE and MFCC-based Features for Accent Classification of Malaysian English," International Journal of Electrical and Electronic Systems Research (IJEESR), vol. 6, 2013. (Paper Accepted for publication)
- 41. Saidatul Ardeenawatie, Paulraj M P, Sazali Yaacob, Statistics over Features: Mental Stress Recognition, International Journal of Scientific and Engineering Research. Accepted for Publication. 2013.
- 42. Saidatul Ardeenawatie, Paulraj M P, Sazali Yaacob, Mental Stress Level Classification using Eigeon vector Features and Principal Component Analysis, International Journal of Scientific and Engineering Research. Accepted for Publication. 2013.
- 43. M. A. Yusnita, Paulraj M P, Y. Sazali, Y. Rihana, and A. B. Shahriman, "Analysis of Accentsensitive Words in Multi-resolution Mel-frequency Cepstral Coefficients for Classification of Accents in Malaysian English " International Journal of Automotive and Mechanical Engineering, 2013.
- 44. 29. Yusnita M A, Paulraj M P, Sazali Yaacob, Shahriman, Yusuf R and Nordin, Shahilah, "On the use of Spectral Feature Fusions for Enhanced Performance of Malaysian English Accents Classification", Regional Conference on Sciences, Technology and Social Sciences, November 23-25, 2014.
- 45. 30. Yusnita M A, Paulraj M P, Sazali Yaacob, Shahriman, Yusuf R and Nordin, Shahilah, "Robustness Analysis of Feature Extractors for Ethnic Identification of Malaysian English Accent Database", Regional Conference on Sciences, Technology and Social Sciences, November 23-25, 2014.
- 46. 31.Hema C R, Ram Kumar S, Paulraj M P, "Classification of Eye Movements Using Electrooculography and Neural Networks". Int. Journal of Human Computer Interface, Volume (5): Issue (4): 2014, pp 51-63.
- 47. 32. N Farhana, M S Abdul Majid, Paulraj M P and Helmi E A, "Vibration response behaviour of glass fibre/epoxy laminates at various volume fractions", Applied Mechanics and Materials, vol 695 (2015), pp 721-724, Trans Tech Publication, Switzerland. (Published)

- 48. 33. Norasmadi Abdul Rahim, M.P. Paulraj, Abdul Hamid Adom, Shazmin Aniza Abdul Shukor1, Maz Jamilah Masnan, "Homogeneous Multi-classifier Ssystem for Moving Vehicles Noise Classification based on Multilayer Perceptron", Journal of Intelligent and Fuzzy Systems, IOS Press, ISSN 1064-1246, (Print), 1875-8967, http://iospress.metapress.com/content/v671024763389026/ (Published)
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Project Title	Funding Agency	Amount Rs.	Duration
Design and Implementation of Office Automated			
Security System for Offices and Workplace	UMS STG	17,000	2003-2004
Design and Development of Active Noise			
Cancellation System using Neuro-Fuzzy			
Controllers	IRPA, Science Fund	80,000	2003-2005
Data Mining in Medical Applications	UMS STG	19,000	2003-2004
Sonic Perception for Blind People through Stereo			
Image to Stereo Sound Transformation	IRPA	216,000	2002-2005
Patient Lifting Robot for Nurse Assistance	IRPA	220,000	2003-2006
Development of a Telemedicine System for			
remote Areas in Sabah: Smart Tele Emergency			
Unit	IRPA	445,000	2003-2005
Fundamental Analysis of Voice and Hand			
Gestures for Developing an Effective Human	FRGS	12 500	2007 2009
Robot Interface to Control and Interact with	ГК С Э	13,500	2007-2008

Sponsored Research

Mobile Robots			
Study and Development of a Simple Cost-			
Effective Vision System to Avoid Child Fatalities			
for Reversing Vehicles	FRGS	34,000	2007-2008
Detecting Structural Steel Damage using Non-			
Destructive Vibration Testing	SCIENCE FUND	179,100	2007-2009
Fundamental Study on the Development of			
Tactile Sensory Aid for Hearing Impaired	FRGS	110,000	2007-2010
Fundamental Study on the Development of an			
Intelligent Hearing ability Level Assessment			
using Somoto-Sensory Stimuli	FRGS	76,000	2011-2013
A Fundamental Analysis on Brain EEG Signals	UNIMAP Short Term		
related to Motor Tasks	Grant	20,000	2006-2007
A Fundamental Analysis on			
Electroencephalogram as a Brain Machine			
Interface to Rehabilitate Patients with			
Neurodegenerative Disease	FRGS	13,500	2007-2008
A Correlation of Visual Emotion and Brain			
Electrical Impulse Wave for Human Emotion			
Study	FRGS	60,000	2007-2008
Development of a 3 Degree of Freedom Lower			
Arm Intelligent Prosthesis for Rehabilitation of			
Amputees	FRGS	13,500	2007-2008
Brain Signature based Biometric Authentication			
System	FRGS	39,000	2007-2008
Study Of Feature Extraction Techniques for the			
Conversion of Manually Coded Malay Gesture			
Into Voice	FRGS	50,000	2007-2009
Acoustic Analysis and Classification of			
Pathological Voices	FRGS	60,000	2007-2009
Applications of Acoustic in Control of Automatic			
Pouring of Molten into Spin Casting Molding			
Machine	FRGS	40,000	2007-2009
An Investigative Study of a Thought Controlled			
Robot Assistive for the Physically Challenged	FRGS	151,000	2007-2010
Study of Feature Extraction Algorithms for	FRGS	60,000	2007-2010

Different Types of Malaysian English Pronunciation			
Study of English Language Pronunciation Quality Assessment System for Primary School	FRGS	24,000	2010-2012
Study of Composition and Structural Properties of Materials by Vibration Technique	FRGS	44,000	2010-2012
Study and Development of an Intelligent CMOS Aperture Control System for the Equilateral Satellite Orientation	FRGS	43,200	2010-2012
Fundamental Study and Development of Vehicle Noise Comfort Level Indicator using Artificial			
Neural Network	FRGS	40,000	2010-2012
Fundamental Studies and Development of an Intelligent Intravenous Therapy Monitoring System	FRGS	44,000	2010-2012
Prototyping an Intelligent Robot Chair for Neuromuscular Disorder Patients	PRGS	98,000	2013-2015
Memristor Based Silicone Brain-Enabling Instantaneous Artificial Neural Network Performing Pattern Recognition	PRGS	120,000	2013-2015
Design and Implementation of Office Automated Security System for Offices and Workplace	UMS STG	17,000	2003-2004
Design and Development of Active Noise Cancellation System using Neuro-Fuzzy Controllers	IRPA, Science Fund	80,000	2003-2005
Data Mining in Medical Applications	UMS STG	19,000	2003-2004
Sonic Perception for Blind People through Stereo Image to Stereo Sound Transformation	IRPA	216,000	2002-2005
Patient Lifting Robot for Nurse Assistance	IRPA	220,000	2003-2006
Development of a Telemedicine System for remote Areas in Sabah: Smart Tele Emergency Unit	IRPA	445,000	2003-2005

- 1. M/s. Astronautic Technology (M) Sdn. Bhd., Kuala Lumpur. Malaysia.
- 2. Fault Diagnosing System for Induction Motors, M/s. Associate Engineers, Madras, India.
- 3. Identification of Winding Defects in a Single Phase Induction Motor for M/s. Best Engineers, Coimbatore, India.
- Software Development for the Attitude Control of Cubic Satellite, Astronautic Technology (M) Sdn Bhd. Malaysia.
- 5. Reverberation Time Measurement in the Multi-Purpose Hall, FELDA RIMBA Mas, Padang Besar. Perlis, Malaysia.
- 6. Developed Software Package for the Analysis and Design of Auto Gears for M/s. Shanthi Gears, Coimbatore, India.
- 7. Developed Software Package for Load Forecasting using Neural Networks for M/s. Tamil Nadu Electricity Board, Madras, India.
- 8. Developed Hardware and Software Package for Component Identification for M/s. Associate Engineers, Madras, India.
- 9. Developed Hardware and Software for Identification of Winding Defects in a Single Phase Induction Motor for M/s. Best Engineers, Coimbatore, India.
- 10. Developed Hardware and Software for Gesture Recognition for Robotic Applications.
- 11. Developed Hardware and Software for the Speed Control of DC Motors using Neuro-Fuzzy Implementation for M/s. Associate Engineer, Madras, India.
- 12. Developed Hardware and Software for the Identification of Adulterant in Commercial Petrol.
- 13. Developed Hardware and Software for the Missing Components in a Printed Circuit Board using Neural Networks for M/s. Texas Instruments, Malaysia.
- 14. Developed fuzzy logic based controller for Innosat Project, Astronautic Technology Sdn Bhd, Kuala Lumpur.

Conference:

11.1 Keynote and Plenary Talks Delivered

- 7. "Current Research Trends in Signal Processing", International Conference on Global Software Development, PSG College of Technology, Coimbatore, India, December 2007.
- "Signal Processing Techniques and Artificial Neural Networks for Selected Open Problems", Second International Conference on Resource Utilization and Intelligent Systems, INCRUIS 2008, Kongu Engineering College, January 3 -5, 2008.
- 8. "Intelligent System for Real Time Applications", 2nd International Conference on Intelligent Systems and Control, Karpagam Engineering College, Coimbatore, India, February 2008.
- "Acoustic Barriers towards Learning and Speech Intelligibity Prediction in University Classrooms", International Conference on Computational Intelligence, National Engineering College, December 13 – 17, 2008.

- 10. "Neural Networks for Pattern Recognition", International Conference on Signal Processing, Government College of Engineering, Salem, India, December 2008.
- "Higher Education in UniMAP", Hindustan College of Engineering, Coimbatore, India, December 22, 2009.
- 12. "You and Your Research", Akshaya College of Engineering, Coimbatore, India, December 24, 2009.
- 13. "Real Time Intelligent Systems", Karpagam College of Engineering, Coimbatore, India, January 4, 2010.
- 14. "Writing Technical papers", Thesis Writing Workshop, UniMAP, February 17, 2010.
- 15. "Recent Research at UniMAP", Akshaya College of Engineering, Coimbatore, India, September 14, 2010.
- 16. "Artificial Neural Network Applications", Karpagam Institute of Technology, Coimbatore, India, September 16, 2010.
- 17. "Recent Trends in BMI", Karunya University, March 2011.
- "Intelligent System for Real-Time Applications", Government College of Technology, Coimbatore, March 2011.
- 19. "Teaching Pedagogy-A workshop on Effective Teaching", Akshaya College of Engineering, Coimbatore, June 2011.
- 20. Invited Lecture- "Writing Technical Papers", Sri Ramakrishna Institute of Technology, Coimbatore, June 2011.
- 21. "Applications of Artificial Neural Networks", Karpagam Institute of Technology, Coimbatore, August 2011.
- 22. "Intelligent BMI Systems", Post Graduate Conference, Karpagam University, Coimbatore, December 2011.
- 23. "Neural Network Programming" Workshop conducted for AICoS Research Group, UniMAP on 11th Feb 2012
- 24. "Thesis Writing Guidelines", Centre of Graduate studies, UniMAP, Malaysia, 23 Feb 2012.
- 25. "Recent Progress towards Brain Machine Interfaces". Keynote address at Info Institute of Engineering, Coimbatore on 2 March 2012.
- 26. "MLP and its Applications", Workshop conducted at Karpagam University, Coimbatore on 3 March 2012
- 27. "BMI Research at UniMAP", Invited Talk at EASA College of Engineering, Coimbatore on 5th March 2012.

- 28. "Neural Networks and its Applications", Workshop conducted at PA College of Engineering and Technology, Coimbatore on 6th March 2012.
- 29. "Intelligent Brain Machine Interface" Keynote at PPG Institute of Technology, Coimbatore on 7th March 2012.
- 30. "Intelligent Signal Processing Techniques", Keynote at Karpagam College of Engineering, Coimbatore , 7th International Conference on Intelligent Systems and Control (ISCO 2013) on 5th January 2013.
- 31. "Recent Trends in BMI" Keynote at SASURIE College of Engineering and Technology, Vijayamangalam, First International Conference on Innovations in Communication, Information and Computing (ICICIC' 13) on 9th January 2013.
- 32. How to do a Research? Seminar at PSNA College of Engineering, Dindugul on 23rd February 2013.
- 33. Crash course on Electromagnetic field at Karpagam University, Coimbatore on 30th and 31st May 2013.
- 34. Neural Network Applications in Control Engineering, Short course conducted at PA college of Engineering and Technology, Pollachi on 9th August 2013.
- 35. International Advisory Committee Member, International Conference on Electrical Instrumentation and Communication Engineering Recent Trends and Recent Issues, Sri Krishna College of Technology, 2-3 January 2015.
- 36. Delivered a keynote on "Recent Trends in Human Perception Analysis for Advancement in BMI", International Conference on Electrical Instrumentation and Communication Engineering Recent Trends and Recent Issues, Sri Krishna College of Technology, 2-3 January 2015.
- 37. Delivered an inaugural address at 2nd Conference on Advanced Commuting and Communication Systems-2015, Sri Easwar College of Engineering, Coimbatore, 5 January 2015.
- Conducted a special lecture on "Thesis Writing Guideline by Chapters" Organized by Thesis Writing Workshop Tentative Programme, Universiti Malaysia Perlis Centre For Graduate Studies on 19/1/2015, Monday, DK1, UniMAP Main Campus Pauh Putra.
- 39. Jury for the EXSPO REKACIPTA 2014, Dewan Ilmu, UniMAP, 5th Feb 2015.
- 40. International Advisory Committee Member, International Conference on Electrical, Electronics and Computer Engineering-ICEECE 2015, Rathinam College of Engineering, Coimbatore, 11-12 March 2015.
- International Advisory Committee Member, 2nd Int. Conference on Innovations in Information, Embedded and Communication Systems, Karapagam College of Engineering, Coimbatore, 19-20 March 2015.
- 42. Keynote delivered at, International Post Graduate Research Conference ENGGPOS-2015, Karpagam University, Coimbatore, 12th March 2015.
- 43. Session Chair at International Post Graduate Research Conference ENGGPOS-2015, Karpagam University, Coimbatore, 13th March 2015.

- 44. Invited Special Lecture on Intelligent Real time Systems to Electrical Engineering at CSI College of Engineering, Ketty, Ooty on 14th March 2015.
- 45. Invited Special Lecture on Artificial Intelligence and Applications at SSM Institute of Technology, Dindugal, 16th March 2015.
- 46. Invited Lecture on Intelligent Real time Systems to Computer Science and Engineering Association at Hindustan College of Engineering, Coimbatore on 18th March 2015.
- 47. Invited Special Lecture on Intelligent real time applications at SNS College of Engineering and Technology, Coimbarore 18th March 2015.
- 48. Invited Lecture on Neural Network and Applications to Electrical Engineering at Maharaja Institute of Technology, Arasur, Coimbatore on 19th March 2015.
- 49. Delivered a Keynote at International Conference on "Global Health Sciences For A Better Quality Of Life" at Christian University of Thailand, Bangkok on 20th August 2015.
- **50.** Invited Lecture on Neural Networks at Karpagam University, Coimbatore on 3rd September 2015.

11.2 Organization of International Conferences

- 1. Chair-International Conference on Man-Machine Systems 2009, Penang, Malaysia, October 2009.
- Co-chair Publications-International Conference on Man-Machine Systems 2006, Langkawi, Malaysia, 2006.
- 3. Co-chair Publications-International Conference on Artificial Intelligence in Engineering and Information Technology 2004, Kota Kinabalu, Sabah, Malaysia, 2004.
- 4. Organizing Secretary for The First National Conference on Electrical and Instrumentation Systems -March 2002 held at GCT Campus, Anna University, and Coimbatore, India.
- 5. Chair-International Conference on Man-Machine Systems 2012, Penang, Malaysia, February 2012.

12. Involvement with International Journals / Conferences Proceedings

12.1 Editor - Proceedings

1. Editor of the Proceedings of the First National Conference on Electrical and Instrumentation Systems, Government College of Technology, Anna University, Coimbatore, India, March 2002.

2. Associate Editor of the Proceedings of the Second International Conference on Artificial Intelligence in Engineering and Technology, Universiti Malaysia Sabah, Sabah, Malaysia, August 2004.

12.2 Reviewer - Journals

- 1. EURASIP European Journal of Advances in Signal Processing, Europe.
- 2. WASET World Academy of Science, Engineering and Technology, Open Access Journal.
- 3. InderScience International Journal of Computer Science and Engineering, India.
- 4. InderScience International Journal of Automation and Control, India.
- 5. International Journal of Biomedical Soft Computing and Human Sciences, Japan.
- 6. JCS Karpagam Journal of Computer Science, India.
- 7. Journal of Engineering Research and Education, UniMAP, Malaysia.
- 8. UMS Journal of Borneo Science.

12.3 Reviewer – Conferences

- 1. First National Conference on Modern Trends in Electrical and Instrumentation Systems, (NCIES) March 2002.
- International Conference on Emerging Technologies in Intelligent System and Control, Coimbatore, 2005.
- 3. International Conference on Man Machine Systems (ICOMMS), Langkawi, Malaysia September 2006.
- 4. First International Conference on Resource Utilization and Intelligent Systems (INCRUIS), 2007.
- 5. Conference on Noise, Vibration and Comfort (NVC), Kuala Lumpur, Malaysia 2007.
- 6. International Conference on Applications and Design in Mechanical Engineering (ICADME), Perlis, Malaysia 2007.
- 7. Second International Conference on Intelligent Systems and Control (ISCO), Coimbatore, February 2008.
- 8. International Conference on Digital Factory (ICDF), Coimbatore, June 2008.

- 9. Second International Conference on Resource Utilization and Intelligent Systems (INCRUIS), January 2008.
- 10. Malaysian Technical Universities Conference on Engineering and Technology (MUCET), Kangar, Perlis, Malaysia, March 2008.
- 11. 4th International Colloquium on Signal Processing and its Applications (CSPA), Kuala Lumpur, Malaysia 2008.
- 12. International Conference on Electronic Design (ICED), Penang, Malaysia, December 2008.
- 13. 5th International Colloquium on Signal Processing and its Applications (CSPA), Kuala Lumpur, Malaysia, March 2009.
- 14. International Conference on Man Machine Systems (ICOMMS), Penang, Malaysia, October 2009.
- 15. International Conference on Man Machine Systems (ICOMMS), Penang, Malaysia, February 2012.
- 16. International Conference on Man Machine Systems (ICOMMS), Penang, Malaysia, February 2014.

13. Professional Memberships:

13.1 International Professional Bodies

- 1. Board of External Examiner, Anna University, Chennai, Tamilnadu, India.
- 2. Board of External Examiner, Bharathiar University, Coimbatore, Tamilnadu, India.
- 3. Board of External Examiner, National Institute of Technology, Trichy, Tamilnadu, India.
- 4. Board of External Examiner, Mother Teresa Women's University, Kodaikanal, Tamilnadu, India.
- 5. Board of External Examiner, Sathyabama University, Chennai, Tamilnadu, India.
- 6. Advisory Committee Member, Hindustan College of Engineering and Technology, Coimbatore, India.
- 7. Member of Systems Society of India, since August 1997.
- 8. Member of Institute of Engineers, India since October 1998.
- 9. Member of Indian Society for Technical Education since June 1985.
- 10. Member of Computer Society of India since December 2011.

13.2 Universiti Committees

1. School Post Graduate Committee Member, School of Mechatronics Engineering, Universiti Malaysia Perlis, Kangar, Perlis, Malaysia.

- 2. Student Faculty Advisor, Universiti Malaysia Perlis, Kangar, Perlis, Malaysia.
- **3.** Student Faculty Advisor, Government College of Technology, Coimbatore, India.

EE Division Head, School of Mechatronic Engineering, Universiti Malaysia Perlis, Kangar, Perlis, Malaysia.

FDP

Workshops:

- 1. Short Term Course on Microsoft Products
- 2. Workshop on MATLAB
- 3. Short Term Course on Neural Networks and Applications
- 4. Short Term Course on Fuzzy Systems and Applications
- 5. Workshop on Genetic Algorithm
- 6. Crash Course on C Programming
- 7. Crash Course on Object Oriented Programming in C++
- 8. Crash Course on Visual Basic
- 9. Short Term Course on Oracle [Anna University]
- 10. Course on Advanced Control Systems

Awards and Recognitions Secured :

Professional Awards

- 1. Excellent Service Award, University Malaysia Sabah, 2003.
- 2. Dean's List for Excellent Service Award, University Malaysia Sabah, 2004.
- "An Intelligent System for Engine Fault Detection", Anugerah Seri Gemilang UniMAP 2007.
- 4. "Child Care System: Avoid Accident to Children Behind Reversing Cars", Anugerah Seri Gemilang UniMAP 2007.
- "An Intelligent Vehicle Fault Diagnosing System", Anugerah Seri Gemilang UniMAP 2007.
- 6. "Intelligent Sensor for Reversing Vehicles", Anugerah Seri Gemilang UniMAP 2007.
- 7. "An Expert System for Motorbike Engine Fault Diagnosis", Anugerah Seri Gemilang UniMAP 2008.

- 8. "An Intelligent Real Time System for Converting Sign Language into Voice", Anugerah Seri Gemilang UniMAP 2008.
- 9. "An Intelligent Sensor for Reversing Vehicles", Anugerah Seri Gemilang UniMAP 2008.
- "An Intelligent Diagnosing System for Voice Disorder", Anugerah Seri Gemilang UniMAP 2008.
- 11. "An Intelligent Embedded System for Motorbike Fault Diagnosis", Anugerah Seri Gemilang UniMAP 2008.
- 12. "Intelligent Brain Interface for a Robot Chair", Anugerah Kecemerlangan Pernyelidikan UniMAP 2009.
- 13. "Intelligent Diagnosing System for Voice Disorders", Anugerah Kecemerlangan Pernyelidikan UniMAP 2009.
- 14. "Brain Controlled Rehabilitative Wheel Chair for People with Special Needs", Anugerah Seri Gemilang UniMAP 2009.
- 15. "Anugerah Pendidik Cemerlang", University Malaysia Perlis 2009.
- 16. "Intelligent Sign Language to Voice Communication System for Hearing Impaired", Anugerah Seri Gemilang UniMAP 2010.
- 17. "An Intelligent Biomodal Rehabilitative for the Voice and Movement Impaired using Brain Signals", Anugerah Seri Gemilang UniMAP 2010.
- "An Intelligent Non Destructive Damage Detection System", Anugerah Seri Gemilang UniMAP 2010.
- 19. "Voiceless Voice: An Intelligent Communication System for Physically Retarded Communities", Anugerah Seri Gemilang UniMAP 2010.
- 20. "Intelligent Hand Gesture Movement Controlled Robot", Anugerah Seri Gemilang UniMAP 2010.
- 21. "Mobile Robot Controls using Brain Signal", Anugerah Seri Gemilang UniMAP 2010.
- 22. Best Paper Award, Hema C R, Paulraj M P, Sazali Yaacob, Abdul Hamid, R Nagarajan, "Particle Swarm Neural Network Based Classification Of EEG Mental Tasks", 4th International Colloquium on Signal Processing and its Applications (CSPA), 7–9 Mar 2008, pp 347 -350, Kuala Lumpur, Malaysia. 2008.
- 23. Intelligent Sign Language to Voice Communication System for Hearing Impaired, Anugerah Seri Gemilang UniMAP 2011.

- 24. An Intelligent Communication System for Neuromuscular Disorder Patients, Anugerah Seri Gemilang UniMAP 2011.
- 25. An Intelligent Communication System for Neuromuscular Disorder Patients, Anugerah Seri Gemilang UniMAP 2011.
- 26. Gold Medal, "A Bin Picking Assistive Device (BPAD) for Industrial Robots", UniMAP Ekspo 2006.
- 27. Silver Medal, "Noise Engine Based Vehicle Fault Diagnosing System", UniMAP Ekspo 2006.
- 28. Silver Medal, "Child Care System: Avoid Accident to Children Behind Reversing Cars", UniMAP Exspo 2006.
- 29. Gold Medal, "An Intelligent Vehicle Fault Diagnosing System", ITEX 2007.
- 30. Gold Medal, "Intelligent Sensor for Reversing Vehicles", Pecipta 2007.Bronze Medal, "An Intelligent Embedded System for Motorbike Fault Diagnosis", Rekacipta 2007.
- 31. Bronze Medal, "Child Care System: Avoid Accident to Children Behind Reversing Cars", ITEX 2007.
- 32. Bronze Medal, "An Intelligent System for Engine Fault Detection", Pecipta 2007.
- 33. Bronze Medal, "An Intelligent Real Time System for Converting Sign Language into Voice", Rekacipta 2007.
- 34. Bronze Medal, "An Intelligent System for Speech Intelligibility Measurement", Rekacipta 2007.
- 35. Bronze Medal, "Intelligent Household Waste Paper and Plastic Sorting System", Rekacipta 2007.
- 36. Bronze Medal, "Intelligent Diagnosing System for Voice Disorders", Rekacipta 2007.
- 37. Gold Medal, "Intelligent Sensor for Reversing Vehicles", Brussels Eureka 2008.
- 38. Gold Medal, "Intelligent Diagnosis System for Voice Disorders", ITEX 2008.
- Gold Medal, "Thought Controlled Rehabilitative Wheels for People with Special Needs", Rekacipta 2008.
- 40. Silver Medal, "An Intelligent Engine Fault Diagnosing System", Brussels Eureka 2008.
- 41. Silver Medal, "An Intelligent Embedded System for Motorbike Fault Diagnosis", MTE 2008.

- 42. Bronze Medal, "An Intelligent Real Time System for Converting Sign Language into Voice", MTE 2008.
- 43. Silver Medal, "An Intelligent System for Voice Disorders", Geneva 2009.
- 44. Silver Medal, "Brain Controlled Rehabilitative Wheelchair for People with Special Needs", ITEX 2009.
- 45. Gold Medal, "Intelligent Brain Interface for a Robot Chair", Pecipta 2009.
- 46. Gold Medal, "An Intelligent Gesture to Voice Communication System for the Hearing Impaired", Rekacipta 2009.
- 47. Gold Medal, "Voiceless Voice: An Intelligent Communication System for Physically Retarded Communities", Rekacipta 2009.
- 48. Gold Medal, "An Intelligent Non Destructive Damage Detection System", Rekacipta 2009.
- 49. Gold Medal, "A Biometric Authentication System using Brain Signature", Rekacipta 2009.
- 50. Gold Medal, "Bimodal Rehabilitation for the Voice and Movement Impaired using Brain Signals", Rekacipta 2009.
- 51. Bronze Medal, "An Intelligent Biomodal Rehabilitative for the Voice and Movement Impaired using Brain Signals", MTE 2010.
- 52. Bronze Medal, "An Intelligent Non Destructive Damage Detection System", MTE 2010.
- 53. Silver Medal, "Voiceless Voice: An Intelligent Communication System for Physically Retarded Communities", MTE 2010.
- 54. Bronze Medal, "Intelligent Hand Gesture Movement Controlled Robot", ENVEX 2010.
- 55. Bronze Medal, "Mobile Robot Controls using Brain Signal", ENVEX 2010.
- 56. Gold Medal, "Intelligent Sign Language to Voice Communication System for Hearing Impaired", ITEX 2010.
- 57. Most Innovative Design, Gold Medal, "Motor Bike Fault Diagnosing System using Neural Networks", USM-MOTOROLO Design Competition 2007.
- 58. Silver Medal, "Intelligent Sign Language to Voice Communication System for Hearing Impaired", Geneva 2011.
- 59. Silver Medal, "An Intelligent Communication System for Neuromuscular Disorder Patients", Rekacipta 2011.

- 60. Bronze Medal, "An Intelligent Communication System for Neuromuscular Disorder Patients", PECIPTA 2011.
- 61. Gold Medal, "An Intelligent Thought Controlled Communication System for Differentially Enabled Communities", Rekacipta 2012.
- 62. Silver Medal, "An Intelligent Thought Controlled Communication System for Differentially Enabled Communities", PECIPTA 2013.
- 63. Gold Medal, "An Intelligent Robot Chair with Communication Aid for Neuromuscular disorder patients (IRCC)", Rekacipta 2014, 5th Feb 2015.
- Silver Medal, "An Intelligent Hearing Ability Level Assessment System, Rekacipta 2014, 5th Feb 2015.
- 65. Gold Medal, "An Intelligent Robot Chair with Communication Aid for Neuromuscular disorder patients (IRCC)", ITEX 2015.
- 66. Silver Medal, "Silver Medal for the product "An Intelligent Non-Destructive Glass Fibre/Matrix Volume Fraction Determination System", Rekacipta 2014, 5th Feb 2015.
- 67. Dr.Paulraj, Dr.K.Sheela Sobana Rani, Ms. K.M.Kirthika, Mr R.Immanual and Ms.V.R.Meenachi won Double Gold award for invention titled "An Automatic Temperature Controlling System for Optimal Sericulture and Mobile Mulberry Hiring Centre"exhibited at International Engineering Invention and Innovation Exhibition (I- ENVEX) 2018 conducted by University of Malaysia Perlis on 13.04.2018 - 15.04.2018 at Malaysia.
- 68. Dr.Paulraj, Dr.K.Sheela Sobana Rani, Ms. K.M.Kirthika, Mr R.Immanual and Ms.V.R.Meenachi won Special awardfor invention titled "An Automatic Temperature Controlling System for Optimal Sericulture and Mobile Mulberry Hiring Centre" exhibited at International Engineering Invention and Innovation Exhibition (I-ENVEX) 2018 given by Nortan University conducted by University of Malaysia Perlis on 13.04.2018 - 15.04.2018 at Malaysia.
- 69. Dr.Paulraj, Dr.K.Sheela Sobana Rani, Ms. K.M.Kirthika, Mr R.Immanual and Ms.V.R.Meenachi won Gold Awardfor Invention entitled, "An Automatic Temperature Controlling System for Optimal Sericulture and Mobile Mulberry Hiring System" exhibited at World Invention Creativity Olympic (WICO) 2018 on 4.08.18 at Seoul, Korea.
- 70. Mr.R.Immanual, Dr.K.Sheela Sobana Rani, Ms.K.M.Kirthika, Ms.J.Sathya, Ms.R.Sathishkumar won Silver Award for the invention titled "Creation of voice over ppt using Python exhibited at World Invention Creativity Olympic (WICO) 2018 given by Norton University on 08.07.21 10.07.21 at Seoul, Korea.
- 71. Dr.Paulraj, Dr.K.Sheela Sobana Rani, Ms. K.M.Kirthika, Mr R.Immanual and Ms.V.R.Meenachi won Double Gold award for invention titled "An Automatic Temperature Controlling System for Optimal Sericulture and Mobile Mulberry Hiring Centre" exhibited at Page 53 of 55

International Engineering Invention and Innovation Exhibition (I- ENVEX) 2018 conducted by University of Malaysia Perlis on 13.04.2018 - 15.04.2018 at Malaysia.

- 72. Dr.Paulraj, Dr.K.Sheela Sobana Rani, Ms. K.M.Kirthika, Mr R.Immanual and Ms.V.R.Meenachi won Special award for invention titled "An Automatic Temperature Controlling System for Optimal Sericulture and Mobile Mulberry Hiring Centre" exhibited at International Engineering Invention and Innovation Exhibition (I- ENVEX) 2018 given by Nortan University conducted by University of Malaysia Perlis on 13.04.2018 15.04.2018 at Malaysia.
- 73. Dr.Paulraj, Dr.K.Sheela Sobana Rani, Ms. K.M.Kirthika, Mr R.Immanual and Ms.V.R.Meenachi won Gold Award for Invention entitled, "An Automatic Temperature Controlling System for Optimal Sericulture and Mobile Mulberry Hiring System" exhibited at World Invention Creativity Olympic (WICO) 2018 on 02.08.18 4.08.18 at Seoul, Korea.
- 74. Dr.Paulraj, Dr.K.Sheela Sobana Rani, Ms. K.M.Kirthika, Mr R.Immanual and Ms.V.R.Meenachi won Special Award for Invention entitled, "An Automatic Temperature Controlling System for Optimal Sericulture and Mobile Mulberry Hiring System" exhibited at World Invention Creativity Olympic (WICO) 2018 given by Norton University on 02.08.18 -4.08.18 at Seoul, Korea.
- 75. Dr.C.R.Hema, Ms. K.M.Kirthika, Mr R.Immanual,Mr.Ravinder Kumar N,Mr.Monish S, Mr Rakhul.R won Silver Award and Special Award for invention entitled, "Automatic Fishing boat"exhibited at i2create 2019,Kualalumpur Malaysia.
- 76. Dr.C.R.Hema,Ms. K.M.Kirthika,Ms Meenachi VR, Mr R.Immanual,Mr Silamarasan,Mr.Kirubakaran.S won Gold Award and Excellent Award for invention entitled, "Mehndi(inai)Applier Machine"exhibited at i2create 2019,Kualalumpur Malaysia.
- 77. Dr.Paulraj, Dr.K.Sheela Sobana Rani, Ms. K.M.Kirthika, Mr R.Immanual,Mr Hariharan A,Mr Deepak Antony .JV, won Silver Award and WIPPA Special Award for invention entitled, "Paper bag Machine" exhibited at i2create 2019, Kualalumpur Malaysia.
- 78. Won Silver Award for the invention titled "Creation of voice over ppt using Python"; exhibited at World Invention Creativity Olympic (WICO) 2018 given by Norton University on 08.07.21 10.07.21 at Seoul, Korea.
- **79.** Won Gold Award for the invention titled Smart Home System to monitor online classes of young children for working parents exhibited at I2create 2021 held on 16.09.2021.

Self-appraisal

Major Strengths

- 1. Visionary Leadership
- 2. Effective Communication Skills
- 3. Problem-Solving and Decision-Making

Signature