

Name : **Dr. E. Jebamalar Leavline**  
 Designation : **Assistant Professor**  
 Department : **Electronics and Communication Engineering**  
 E-mail ID : **jebilee@gmail.com**  
 Contact Address : Dr. E. Jebamalar Leavline  
 Assistant Professor,  
 Department of ECE,  
 University College of Engineering,  
 BIT Campus,  
 Tiruchirappalli – 620 024,  
 Tamil Nadu, India.



### **RESEARCH INTEREST:**

- Signal, Image, and Video Processing
- VLSI
- Computer Networks and Communication Systems
- Soft Computing
- Machine Learning & Data Mining
- Big Data Analytics & Cloud Computing
- Teaching Learning Process, Pedagogy in Engineering Education
- Education Management

### **EDUCATIONAL QUALIFICATIONS**

<b>DEGREE</b>	<b>BRANCH/FACULTY</b>	<b>UNIVERSITY</b>	<b>YEAR</b>	<b>CLASS</b>
Ph.D	Information & Communication Engineering	Anna University, Chennai, India	2015	Highly Commended
M.E	Applied Electronics	Anna University, Chennai, India	2008	First class
M.B.A	Education Management	Alagappa University, Karaikudi, India	2008	First class
B.E	Electronics and Communication Engineering	Anna University, Chennai, India	2005	First class with Distinction

## **PROFESSIONAL EXPERIENCE:**

- Assistant Professor (August 2009 – Till Date): University College of Engineering, Bharathidasan Institute of Technology Campus, Anna University, Tiruchirappalli – 24, India.
- Teaching & Research Associate (February to August- 2009): Anna University of Technology, Tiruchirappalli – 24, India.
- Lecturer (June 2008 - January 2009): Dr.G.U.Pope College of Engineering, India.
- Lecturer (June 2005 - July 2006): Dr.G.U.Pope College of Engineering, India.

## **RESEARCH & PROJECT GUIDANCE:**

- Ph.D – 7 (Ongoing)
- Under Graduate Level (Bachelor of Engineering) – 34 (Completed)
- Post Graduate Level (Master of Engineering) – 20 (Completed)

## **REVIEWER FOR JOURNALS**

- Acting as reviewer for reputed journals published by IEEE, Elsevier, Springer, SPIE, OSA etc.

## **AWARDS AND HONOURS:**

- Received **Best Paper Award** for the paper entitled “Image Denoising using Fast Multiscale Filter Banks for Contourlet Transform”, presented in National Conference on Signals, Systems and Communication (May 2008), organized by Department of Electronics and Communication, College of Engineering , Guindy, Anna University, Chennai – 25.
- Received **Best Paper Award** for the paper entitled “Effects of False Positive in Cancer Diagnosis Using Mammogram”, in TEQIP-II Sponsored International Conference on Emerging Trends in Electrical, Electronics and Communication Systems (ICEECS'16), organized by Dept. of ECE & EEE, Anna University, BIT Campus, Tiruchirappalli – 24

## **PROFESSIONAL MEMBERSHIP:**

- ISTE (Indian Society for Technical Education)
- IAENG (International Association of Engineers)
- IETE (Institution of Electronics and Telecommunication Engineers)
- ISRD (International Society for Research and Development)

## SELECTED PUBLICATIONS IN JOURNALS AND CONFERENCES:

### INTERNATIONAL JOURNALS:

1. **E.Jebamalar Leavline**, Shanmugam Sutha, “Analysis and Modeling of Statistical Properties of FMDFB Subband Coefficients”, Journal of Modern Applied Statistical Methods, 2016, Vol. 14, Issue 2, ISSN: 1538 – 9472.
2. D. Asir Antony Gnana Singh and **E, Jebamalar Leavline**, "Model-Based Outlier Detection System with Statistical Preprocessing," Journal of Modern Applied Statistical Methods, 2016, Vol. 14: Iss. 2, Article 35. ISSN: 1538 – 9472.
3. D.Asir Antony Gnana Singh ,S.Appavu alias Balamurugan, **E.Jebamalar Leavline**, “An Unsupervised Feature Selection Algorithm with Feature Ranking for Maximizing Performance of the Classifiers ”,International Journal of Automation and Computing , vol. 12, no. 5, pp 511-517, 2015, ISSN: 1476-8186 (print version) ISSN: 1751-8520 (electronic version)
4. **E. Jebamalar Leavline**, Shunmugam Sutha, and Danasingh Asir Antony Gnana Singh. "FMDFB based speckle mitigation in gallstone ultrasound images." Journal of Optical Society America A, Vol. 31, No. 2 / February 2014, pp.283-292.ISSN:1084-7529 (print) ISSN:1520-8532 (online)
5. **E. Jebamalar Leavline**, Shanmugam Sutha, “Denoising Natural Images Using Fast Multiscale Directional Filter Banks”, International Journal of Tomography & Simulation, Vol. 28, No.1, pp. 105 – 116, 2015, ISSN 2319-3336
6. **E. Jebamalar Leavline**, D. Asir Antony Gnana Singh, S. Prasannanayagi and R. Kiruthika, “A Compendium of Nano Materials and their Applications in Smart Nano Textiles”, Research Journal of Nanoscience and Nanotechnology Volume 5, Number 2 (2015), pp. 44-59., pISSN: 1996-5044
7. **E.Jebamalar Leavline**, Shanmugam Sutha and Danasingh Asir Antony Gnana Singh, “On the Suitability of Multiscale Image Representation Schemes as Applied to Noise Removal”, International Journal of Innovative Computing, Information and Control (IJICIC), Volume 10, Number 3, June 2014, pp.1135 – 1148, ISSN 1349-4198
8. **E.Jebamalar Leavline**, Shanmugam Sutha, “Design of FIR Filters for Fast Multiscale Directional Filter Banks”, International Journal of u- and e-Service, Science and Technology Vol.7, No.5, pp. 221-234, 2014, ISSN: 2005-4246
9. **E.Jebamalar Leavline**, D.Asir Antony Gnana Singh, “On Teaching Digital Image Processing with MATLAB”, American Journal of Signal Processing 2014, 4(1): 7-15, p-ISSN: 2165-9354, e-ISSN: 2165-9362
10. S. Sutha, **E. Jebamalar Leavline** and D. Asir Antony Gnana Singh, 2013. IHNS: A Pragmatic Investigation on Identifying Highly Noisy Subband in FMDFB for Fixing

Threshold to Deteriorate Noise in Images. Information Technology Journal, 12: 1289-1298.  
eISSN: 1812-5646, pISSN: 1812-5638

11. **E.Jebamalar Leavline**, D.Asir Antony Gnana Singh, “Enhanced Modified Decision Based Unsymmetric Trimmed Median Filter for Salt and Pepper Noise Removal”, International Journal of Imaging and Robotics (ISSN 2231–525X), Vol 11, issue 3, 2013, pp.46-56.
12. D.Asir Antony Gnana Singh, **E.Jebamalar Leavline**, “Competency-Based Calisthenics of Learning Outcomes for Engineering Education”, International Journal of Education and Learning Vol. 2, No. 1, March, 2013, ISSN: 2234-8034
13. Sutha, S., **E. Jebamalar Leavline**, and D. Asir Antony Gnana Singh. "A Comprehensive Study on Wavelet Based Shrinkage Methods for Denoising Natural Images." WSEAS Transactions on Signal Processing, Issue 4, Volume 9, October 2013, Print ISSN: 1790-5052, E-ISSN: 2224-3488
14. **E.Jebamalar Leavline**, D.Asir Antony Gnana Singh, “Salt and Pepper Noise Detection and Removal in Gray Scale Images: An Experimental Analysis”, International Journal of Signal Processing, Image Processing and Pattern Recognition, Vol.6, No.5 (2013), pp.343-352, ISSN: 2005-4254"

#### **INTERNATIONAL CONFERENCES:**

1. **Leavline, E.J.**, Sutha.S., “*Gaussian noise removal in gray scale images using fast Multiscale Directional Filter Banks*”, IEEE International Conference on Recent Trends in Information Technology (ICRTIT), 2011, pp. 884 – 889.
2. D.Asir Antony Gnana Singh, **E.Jebamalar Leavline**, “IATARPA: Implementation of Anonymity Threat Avoidance Routing Protocol Architecture for MANET”, In proceedings of IEEE International Conference on Advanced Computing (Dec 2011), pp. 321- 326. URL: <http://ieeexplore.ieee.org/xpl/articleDetails.jsp?arnumber=6165196>
3. D.Asir Antony Gnana Singh ,S.Appavu alias Balamurugan, **E.Jebamalar Leavline** “Towards Higher Accuracy in Supervised Learning and Dimensionality Reduction by Attribute Subset Selection - A Pragmatic Analysis”, In Proceedings of IEEE International Conference on Advanced Communication Control and Computing Technologies (ICACCCT - 2012), Aug 2012, pp. 125-130.
4. D.Asir Antony Gnana Singh ,S.Appavu alias Balamurugan, **E.Jebamalar Leavline**, “An Empirical Study on Dimensionality Reduction and Improvement of Classification Accuracy Using Feature Subset Selection and Ranking”, IEEE International Conference on Emerging Trends in Science Engineering and Technology (INCOSSET December 2012), pp. 102-108.
5. **E. Jebamalar Leavline**, S. Megala, D.Asir Antony Gnana Singh, “CORDIC iterations based architecture for low power and high quality DCT”, IEEE International Conference on Recent Trends in Information Technology (ICRTIT), 2014, pp. 1 – 5.

6. **E. Jebamalar Leavline**, K.Padmaja, "Effects of False Positive in Cancer Diagnosis Using Mammogram", TEQIP-II Sponsored International Conference on Emerging Trends in Electrical, Electronics and Communication Systems (ICEEECS'16), organized by Dept. of ECE & EEE, Anna University, BIT Campus, Tiruchirappalli – 24, Vol.2, pp. 20-25.
7. **E. Jebamalar Leavline**, G.Revathi, "Study on Wavelet Based Threshold Methods for Preprocessing of Speech Signals", TEQIP-II Sponsored International Conference on Emerging Trends in Electrical, Electronics and Communication Systems (ICEEECS'16), organized by Dept. of ECE & EEE, Anna University, BIT Campus, Tiruchirappalli – 24, Vol.2, pp. 26-29.
8. **E. Jebamalar Leavline**, B. Jeyapradha, "An Experimental Study on Image Dehazing Methods", TEQIP-II Sponsored International Conference on Emerging Trends in Electrical, Electronics and Communication Systems (ICEEECS'16), organized by Dept. of ECE & EEE, Anna University, BIT Campus, Tiruchirappalli – 24, Vol.2, pp.117-122.
9. **E. Jebamalar Leavline**, M. Azhagu Subha, "A Survey on Non-Cooperative Sensing Techniques in Cognitive Radio Networks", TEQIP-II Sponsored International Conference on Emerging Trends in Electrical, Electronics and Communication Systems (ICEEECS'16), organized by Dept. of ECE & EEE, Anna University, BIT Campus, Tiruchirappalli – 24, pp. 82-86.

#### **NATIONAL CONFERENCES:**

1. **E.Jebamalar Leavline**, M.Manikandan, "*Fast Multiscale Filter Banks for Contourlet Transform*", In proceedings of National Conference on Emerging Trends in Information and Communication Engineering (March `08) organized by Department of Electronics and Communication Engineering, PET Engineering College, Vallioor- 627117, pp. 88-94.
2. **E.Jebamalar Leavline**, M.Manikandan, "*Image Denoising using Fast Multiscale Filter Banks for Contourlet Transform*", In proceedings of 4<sup>th</sup> National Conference on Signals, Systems and Communication (May 2008), organized by Department of Electronics and Communication, College of Engineering , Guindy, Anna University, Chennai – 25, pp. 71
3. Hemalatha Karnan, **E.Jebamalar Leavline**, D.Asir Antony Gnana Singh, "*Denoising Techniques For Medical Images - A Comparative Analysis*", In proceedings of Second National Conference on Recent Trends in Communication, Computation and Security (March 2012), pp. 313-316.
4. A.Suhasini, **E.Jebamalar Leavline**, D.Asir Antony Gnana Singh, "*On Image Denoising Techniques for Natural Images*", In proceedings of Second National Conference on Recent Trends in Communication, Computation and Security (March 2012), pp. 267-271
5. S.A.Radha, **E.Jebamalar Leavline**, D.Asir Antony Gnana Singh, "*Wavelet Thresholding Technique for Mixed Poisson Gaussian Noise Removal*", In proceedings of Second National Conference on Recent Trends in Communication, Computation and Security (March 2012), pp. 425-429

6. **E.Jebamalar Leavline**, D.Asir Antony Gnana Singh, “*On Methods of Denoising Applied to Florescence Confocal Microscopy Images*”, In proceedings of Second National Conference on Recent Trends in Communication, Computation and Security (March 2012), pp. 272-274.
7. **E.Jebamalar Leavline**, D.Asir Antony Gnana Singh, G.Justin Brierly, “*An Experimental Study on Image Quality Assessment Methods and Metrics*”, In Proceedings of National Conference on Image Processing and VLSI, (March 2012), Velammal Engineering College, Chennai, pp. 264-267.
8. **Jebamalar Leavline E**, Saravanan K, Senthil Murugan M, Stephen S, “*Appraisal of Hardware Trojans and their Detection Techniques*”, National Conference on Computer Science and Informatics (April 2012), Anna University of Technology Madurai , pp. 1-5.
9. **E.Jebamalar Leavline**, S.Sutha, D.Asir Antony Gnana Singh, “*An Analysis of Computational Complexity of Multiscale Image Representation Schemes*”, National Conference on Emerging Trends in Electrical and Electronics Engineering, University College of Engineering Panruti, 13<sup>th</sup> March 2013.
10. **E. Jebamalar Leavline**, M.S.Roshan Begum, P.Saranya, A.Shamiha Banu, J.K.Sree Aswani, “*A Study on Electrocardiogram Signal Classification Techniques*”, TEQIP – II Sponsored National Conference on Nascent Technologies in Signal Processing and Communications, Organized by Dept. of ECE, Anna University, BIT Campus, Tiruchirappalli – 24, pp. 63 – 67.
11. **E. Jebamalar Leavline**, N.Rogini, S.Lavanya, “*An Overview of Hardware Implementation of Artificial Neural Networks*”, TEQIP – II Sponsored National Conference on Nascent Technologies in Signal Processing and Communications, Organized by Dept. of ECE, Anna University, BIT Campus, Tiruchirappalli – 24, pp. 12 – 15.
12. **E. Jebamalar Leavline**, K.Manju, R.Pattupriya, A.Kareema Begum, “*Cognitive Radio Networks and Spectrum Sensing Techniques: A Survey*”, TEQIP – II Sponsored National Conference on Nascent Technologies in Signal Processing and Communications, Organized by Dept. of ECE, Anna University, BIT Campus, Tiruchirappalli – 24, pp. 88 – 93.
13. **E. Jebamalar Leavline**, P.Kiruthiga, S.Praveena, “*Study on Artificial Neural Networks and their Applications*”, TEQIP – II Sponsored National Conference on Nascent Technologies in Signal Processing and Communications, Organized by Dept. of ECE, Anna University, BIT Campus, Tiruchirappalli – 24, pp. 44 – 48.
14. **E. Jebamalar Leavline**, K.Padmaja, K.Arul Vaishnavi, S.Indusha, T.Kayalvizhi, “*A Study on Medical Image Classification Algorithms*”, TEQIP – II Sponsored National Conference on Nascent Technologies in Signal Processing and Communications, Organized by Dept. of ECE, Anna University, BIT Campus, Tiruchirappalli – 24, pp. 113 – 116.

## **COURSES TAUGHT:**

- Digital Signal Processing
- VLSI Design
- Electromagnetic Fields
- Satellite Communication
- Embedded and Real Time Systems
- Digital Electronics
- Linear Integrated Circuits
- Digital Communication
- Electromagnetic Waves and Wave Guides
- Electric Circuits and Electron Devices
- Optical Communication
- Antennas and Wave Propagation
- Transmission Lines and Networks
- Adhoc and Sensor Networks
- Speech Processing

## **RESOURCE PERSON / EXPERT MEMBER FOR SEMINAR/ WORKSHOP/ CONFERENCE:**

1. Delivered lecture on “**Overview of Digital Signal Processing: Trends and Applications**” on 27.06.2009 at Department of ECE, Sandy Polytechnic College, Tuticorin, Tamilnadu, India.
2. Served as Resource person and delivered lecture on “**Wavelet Theory and Applications**” in two day national level workshop on “MATLAB Simulink & Applications” on 31.01.2013 and 01.02.2013 organized by Department of ECE, Anna University, BIT Campus, Tiruchirappalli – 620 024.
3. Served as an Expert Member for National Conference on Emerging Trends in Electrical and Electronics Engineering, on 13<sup>th</sup> March 2013 organized by Dept. of EEE, University College of Engineering, Panruti– 607 106.
4. Served as Expert Member for 2<sup>nd</sup> National Level Technical Symposium ESTORMZ2K13 on 04<sup>th</sup> Sept 2013 at Dept. of EEE University College of Engineering, Panruti, Panruti – 607 106.
5. Served as Resource person and delivered lecture on “**Multiscale Signal Processing**” on 15.12.13 in TEQIP – II Sponsored one week FDP on “Nascent Technologies in Signal Processing” during 11.12.13 to 17.12.13.organized by Department of ECE, Anna University, BIT Campus, Tiruchirappalli – 620 024.

6. Served as Resource person and delivered lecture on “**Digital Signal Processing & Applications**” on 24.02.2014 in UGC Sponsored Refresher course on “Applied Physics” organized by Academic Staff College, Bharathidasan University, Tiruchirappalli – 620 024.
7. Served as Resource person and delivered lecture on “**Presentation on Framing Learning Objectives & Effective Question Paper Setting**” on 11.11.2014 at Department of ECE, Anna University, BIT Campus, Tiruchirappalli – 620 024.
8. Served as Resource person and delivered lecture on “**Hands on Training on Artificial Neural Network Design using MATLAB**” on 11.09.2015 in one day workshop on “Artificial Neural Network using MATLAB” organized by Department of EEE, University College of Engineering, Dindigul – 624 622.
9. Served as Resource person and delivered lecture on “**A Practical Approach on Wavelets in Engineering Applications**” on 29.09.2015 in Tamilnadu State Council for Science and Technology sponsored State Level Workshop on “Wavelet Theory and its Engineering Applications” organized by Department of EEE, University College of Engineering, Dindigul – 624 622.
10. Served as Chief Guest and delivered key note address on “**Internet of Things Trends, Challenges and Opportunities**” on 31.03.2016 in Fifth National Conference on Ingenious Communication Technologies (NCICT'16) at K. Ramakrishnan College of Engineering, Tiruchirappalli.
11. Served as Resource person and delivered lecture on “**Fourier Series Analysis & Spectrum of Continuous Time signals**” on 13.06.2016 in Anna University Chennai Approved Faculty Development Training Programme on EC 6303 – SIGNALS AND SYSTEMS (08<sup>th</sup> - 14<sup>th</sup> June 2016 at K. Ramakrishnan College of Technology, Tiruchirappalli.
12. Served as Resource person and delivered lecture on “**Wavelets: A Tool for ICE Research**” on 24.06.2016 in TEQIP – II Sponsored Faculty Development Programme on “Heuristic Approach for Information and Communication Engineering Research Problems” organized by Department of Electronics and Communication Engineering, Bharathidasan Institute of Technology, Anna University, Tiruchirappalli – 620 024.
13. Served as Resource person and delivered lecture on “**Smart Way to Reference and Citation Management for Technical Writing**” on 25.06.2016 in TEQIP – II Sponsored Faculty Development Programme on “Heuristic Approach for Information and Communication Engineering Research Problems” organized by Department of Electronics and Communication Engineering, Bharathidasan Institute of Technology, Anna University, Tiruchirappalli – 620 024.



14. Served as Jury for paper presentation in one day National Level Technical Symposium "ELECTROCALIFA 2K16" on 08.09.2016 organized by Dept. of ECE, University College of Engineering, Ariyalur.
15. Served as Chief Guest and delivered technical talk on "**Emerging Trends in Electronics Engineering**" on 09.09.2016 in National level Symposium at Dept. of ECE, K. Ramakrishnan College of Technology, Tiruchirappalli.
16. Served as Jury for paper presentation in one day National Level Technical Symposium "MILANTRONIKZ-2K17" on 23.02.2017 organized by Dept. of ECE, MIET Engineering College, Trichy.
17. Served as Resource person and delivered guest lecture on "**Medical Electronics**" on 15.03.2017 at Dept. of ECE, K. Ramakrishnan College of Technology, Tiruchirappalli.

### **PROGRAMS ORGANIZED:**

1. Two days national level project exhibition "**PEACE**" on 17.09.10 & 18.09.10
2. Steering Committee member in National Conference on "**Signal and Image Processing and Communications**" 17<sup>th</sup> & 18<sup>th</sup> March 2011
3. Two days national level project exhibition "**PEACE**" on 30<sup>th</sup> August 2011
4. One day self development program "**Reaching the Heights**" 30<sup>th</sup> September 2011
5. Two Day National Level Workshop on "**MATLAB – Simulink & Applications**", on 31.01.2013 & 01.02.2013
6. TEQIP –II Sponsored one week FDP on "**Nascent Technologies in Signal Processing**" during 11.12.13 to 17.12.13.
7. TEQIP –II Sponsored two weeks FDP on "**Heuristic Approach for Information and Communication Engineering Research Problems**" during 15.06.2016 to 28.06.2016.

### **SEMINARS/WORKSHOPS ATTENDED:**

1. Two days National Workshop on "**Latest Trends in Video Processing**" on 7<sup>th</sup> & 8<sup>th</sup> March 2008, Organized by Dept. of EEE, New Horizon College of Engineering, Marathahalli, Bangalore, Karnataka.
2. Two days National Workshop on "**Networking Simulator Tools**" on 17<sup>th</sup> & 18<sup>th</sup> July 2010, Organized by Dept. of ECE, Anna University of Technology, Tiruchirappalli, Tiruchirappalli-24.
3. Two days National Level Seminar on "**Speech Processing and its Applications**" on 23<sup>rd</sup> & 24<sup>th</sup> July 2010, Organized by Dept. of ECE, Anna University of Technology, Tiruchirappalli, Tiruchirappalli-24.

4. National Workshop on “**Emerging Trends on High end FPGAs**” during 10<sup>th</sup> - 12<sup>th</sup> December 2010, Organized by Dept. of ECE, Anna University of Technology, Tiruchirappalli, Tiruchirappalli-24.
5. One day National Level Workshop on “**Discrete Event Simulation for Protocol Design in Wireless Networks**” on 22<sup>nd</sup> December 2010, Organized by Dept. of ECE, Anna University of Technology, Tiruchirappalli, Tiruchirappalli-24.
6. One day Workshop on “**Teaching Methodologies**” on 8<sup>th</sup> January 2011, Organized by Dept. of English, Anna University of Technology, Tiruchirappalli, Tiruchirappalli-24.
7. Two days National Level Seminar on “**Design Issues and Research Challenges of OFDM in Wireless Networks**” on 4<sup>th</sup> & 5<sup>th</sup> February 2011, Organized by Dept. of ECE, Anna University of Technology, Tiruchirappalli, Tiruchirappalli-24.
8. One day Seminar on “**Research Methodology**” on 27<sup>th</sup> August 2011, Organized by Centre for Research, Anna University of Technology, Tiruchirappalli, Tiruchirappalli-24.
9. MoES Sponsored Seminar on “**Wavelets for Earth Fractals Computation – Research Focuss**” from 5<sup>th</sup> – 7<sup>th</sup> January 2012, organized by Dept. of EIE, Kongu Engineering College, Perundurai, Erode.
10. One day workshop on “**Renesas 16-bit RL78 Microcontrollers**”, on 30<sup>th</sup> May 2012, Organized by Dept. of ECE, Anna University of Technology, Tiruchirappalli, Tiruchirappalli-24.
11. National Workshop on “**MATLAB Programming and Applications**” on 20<sup>th</sup> & 21<sup>st</sup> July 2012, organized by Dept. of EIE, Kongu Engineering College, Perundurai, Erode.
12. National workshop on “**Image and Pattern Recognition**” on 13<sup>th</sup> October 2012 organized by Department of CSE, University College of Engineering, BIT Campus, Tiruchirappalli.
13. National workshop on “**Soft Computing Techniques: A Data Mining Perspective**” on 20<sup>th</sup> October 2012 organized by Department of CSE, University College of Engineering, BIT Campus, Tiruchirappalli.
14. UGC sponsored “**Orientation Course**” at Academic staff college, Pondicherry University from 19.12-12 – 15-01-13.
15. National workshop on “**Networking Technologies**” on 16<sup>th</sup> Feb 2013 organized by Department of CSE, University College of Engineering, BIT Campus, Tiruchirappalli.
16. National workshop on “**Data mining in Network Security: Challenges and Opportunities- A Research Perspective**” on 23<sup>rd</sup> Feb 2013 organized by Department of CSE, University College of Engineering, BIT Campus, Tiruchirappalli.

17. UGC Sponsored two days workshop on “**Research Methodology, Techniques of Writing Research Articles for SCI Journals and Ph.D. Thesis Preparation**” on 8th & 9th March 2013, organized by Department of EEE, College of Engineering Guindy, Anna University, Chennai.
18. National workshop on “**Strategic Teaching Quality Management for Technical Teachers**” on 16<sup>th</sup> March 2013 organized by Department of ECE, Anna University, BIT Campus, Tiruchirappalli.
19. TEQIP –II Sponsored Faculty Development Program on “**Signals and Systems**” at Chennai during 15.07.2013 to 19.07.2013.
20. TEQIP –II Sponsored Two days workshop on “**Enterprise Computing**” 19<sup>th</sup> & 20<sup>th</sup> Oct 2013 organized by Department of CSE, University College of Engineering, BIT Campus, Tiruchirappalli
21. Two days workshop on “**Hands on Approach to Proficient Document Writing Using LaTeX**” on 12<sup>th</sup> & 13<sup>th</sup> November 2013 at Department of CSE, Anna University-Regional Centre, Tirunelveli.
22. Anna University CFD approved FDP on “**Transmission Lines and Waveguides**” during 16<sup>th</sup> - 22<sup>nd</sup> May 2014, at Jayaram College of Engineering and Technology, Thuraiyur, Trichy
23. One day National Level Workshop on “**Data Warehousing and Business Intelligence: An Industrial Perspective**”, on 18.10.2014 organized by Department of CSE, University College of Engineering, BIT Campus, Tiruchirappalli.
24. TEQIP –II Sponsored Faculty Development Program on “**Hands on Cloud and Big Data Analytics**” at Department of CSE, University College of Engineering, BIT Campus, Tiruchirappalli, during 12.05.2015 to 25.05.2015.
25. TEQIP – II Sponsored Faculty Development Program on “**Digital Communication**” at Department of ECE, University College of Engineering, BIT Campus, Tiruchirappalli, during 19.06.2015 to 25.06.2015.
26. TEQIP – II Sponsored Faculty Development Program on “**Top Tech Trends – Driving the Future of Information Technology**” at Department of CSE, University College of Engineering, BIT Campus, Tiruchirappalli, during 30.06.2016 to 13.07.2016.