Bio-Data

Name : Dr.R.Narmatha Banu

Designation/Department: Professor and Head of Department / EEE

Name of the Institute : Velammal College of Engineering and technology,

Viraganoor, Madurai-625009.

Date of Birth : 16.06.1978

Sex : Female

Marital status : Married

Address for communication:

Plot No.4, Main road, Al-Ameen Nagar, Surveyor Colony Near, Pudur,

Madurai- 625007.

Mobile No: 9842619855

Mail id: buvanriya@gmail.com, r.n.banu@vcet.ac.in

Qualification

Degree /Branch	University	Class & Marks /CGPA	Year of
			Passing
Ph.D, Power system	Anna University	First class	2010
M.E, Power System Engineering	Annamalai University	First class with distinction & 8.32 CGPA	2002
B.E, EEE	M.K.University	First class & 69	1999
HSc	Pallivasal Higher Secondary School, Mudukulathur.	84.75	1995
S.S.L.C	Pallivasal Higher Secondary School, Mudukulathur	87.2	1993

Experience Details:

Year of Experience: 20 Years 10 Months

From	То	Institution	Designation
07.12.2002	30.12.2005	Arulmigu Kalasalingam College of Engineering, Krishnankoil.	Lecturer
01.01.2006	30.06.2009	Kalasalingam University, Krishnankoil.	Senior Lecturer
01.07.2009	08.09.2010	Kalasalingam University, Krishnankoil.	Selection Grade Lecturer
09.09.2010	05.11.2012	Kalasalingam University, Krishnankoil.	Associate Professor
02.01.2013	Till Date	Velammal College of Engineering and Technology, Madurai.	Professor

Paper Published throughout the carrier:

• International Journal (27)

- 1. Narmatha Banu R, A.Om Prakash, 'Feature reduced stability analysis of islanded photovoltaic microgrid inverters', International Journal of Photoenergy, HINDAWI Publications, vol. 2022, Article ID: 7225179, pp. 1-15), Available from: <https://doi.org/10.1155/2022/7225179>, 2022.
- 2. Narmatha Banu R ,Divyasharon R.,. 'Design and Analysis of LSANN- IPOMPPT with Zeta Converter in PV Systems for Fluctuating Atmospheric Circumstances', Arab J Sci Engineering. https://doi.org/10.1007/s13369-022-07196- 4, 2022
- 3. .Narmatha Banu R, Kiruthiga B, Devaraj D, Detection and classification of power quality disturbances or events by adaptive NFS classifier", Soft Computing, Volume 24, Springer, 2020, pp 10351-10362.
- 4. Narmatha Banu R and Divyasharon R., and. 2022, 'Performance assessment of Boost, Cuk and Zeta converter with Neural Network MPPT in PV Systems for Varying Weather Patterns', International Journal of Engineering Research and Applications, vol.12, no.4, pp. 9-20.
- 5. R. Narmathabanu, D Devaraj, A. Robert Singh, "Genetic algorithm-based optimisation of load-balanced routing for AMI with wireless mesh networks", Applied Soft Computing 74, Elsevier, 2019, pp. 122-132.
- 6. R. Narmathabanu , D Devaraj , A. Robert Singh, "Geographic HWMP (Geo-HWMP) routing method for AMI network with lossless packet forwarding", IET Cyber-Physical Systems: Theory & Applications, IET Digital Library, 2018, pp1-11.
- R. Narmathabanu , D Devaraj , A. Robert Singh, "An Intelligent Algorithm for Joint Routing and Link Scheduling in AMI with a Wireless Mesh Network", Integrated Intelligent Computing, Communication and Security, Springer, (Book Chapter) 2019 , 311-321.

- 8. R. Narmathabanu, D. Devaraj, B.Kanaga Sakthivel, V. Agnes Idhayaselvi, Doubly Fed Induction Generator Based Wind Energy Conversion System Using Matrix Converter With Model Predictive Controller", International Journal of Pure And Applied Mathematics, Volume 118, No. 22, 2018, pp. 109-125,
- 9. R. Narmathabanu, D. Devaraj, B.Kanaga Sakthivel, V. Agnes Idhayaselvi, "A hybrid wind-solar energy system with ANFIS based MPPT controller", Journal of Intelligent & Fuzzy Systems, 2018, DOI:10.3233/JIFS-169697.
- 10. R.Narmatha Banu, B.Kiruthiga, "Mitigation of Harmonics in Distribution System using Shunt Active Power Filter by Fuzzy Logic Controller", IJSRD International Journal for Scientific Research & Development Vol. 6, Issue 02, 2018 | ISSN (online): 2321-0613.
- 11. R. Narmathabanu, V. Agnes IdhayaSelvi, D. Devaraj and M. Karuppasamypandiyan, "DEA- based optimal SVM for Online Dynamic ATC estimation incorporating Transmission Capacity Margins", International Transactions on Electrical Energy Systems, European Transactions on Electrical Power, Wiley, Volume 27, Issue 7, July 2017, pp.1-12.
- 12. R. Narmathabanu, V. Agnes idhayaselvi, D.Durairaj, Estimation of Dynamic Available Transfer Capability including Hopf Bifurcation Limit using step by step algorithm, International Journal of Power and Energy Conversion, Inderscience Publishers. Vol. 8, No. 2, 2017, pp.113-131.
- 13. R.Narmatha Banu, B.Kiruthiga, "Analysis of ZVS DC-DC Converter with Voltage Multiplier Circuit for High Voltage Gain", International Journal of Innovative and Emerging Research in Engineering, Volume 4, Issue 1, Jan 2017/ e-ISSN: 2394 3343, p-ISSN: 2394 5494.
- 14. R.Narmatha Banu, B.Kiruthiga, "Improved Selective Harmonics Elimination scheme with compensation for High-Power PWM Converters", International Journal of Computer & Mathematical Sciences IJCMS, Volume 5, Issue 6 June 2016/ ISSN 2347 8527.
- 15. R.Narmatha Banu, B.Kiruthiga, "An Automatic Smart Telemetering and Telebilling Control of Electrical Energy.", International Journal of Computer & Mathematical Sciences IJCMS, Volume 5, Issue 4 April 2016/ ISSN 2347 8527.
- 16. R. Narmathabanu, V. Agnes IdhayaSelvi, D. Devaraj and M. Karuppasamypandiyan, Differential Evolution Algorithm For Computation of ATC in Deregulated Power System, International Journal of Control Theory and Applications, Vol No.9, issue 15, International Science Press, 2016, pp. 453-461.
- 17. R.NarmathaBanu,B.Kiruthiga,R.Divya and M.Durgadevi, An Automatic Smart Telemetring and Telebilling Control of Electrical Energy,International Journal of Computer & Mathematical Sciences, IJCMS,Volume 5, Issue 4,April 2016,pp.71-77.

- 18. R. NarmathaBanu, M. Karuppasamypandiyan, and P.M. Manobalaa, Static ATC Estimation Using Fully Complex-Valued Radial Basis Function Neural Network, International Journal of Advances in Intelligent Systems and Computing, Vol. 325, Springer, 2015, 763-772.
- Dr.R.NarmathaBanu, B.Munishmurali, Real Time Security Assessment Using Back Propagation Neural Network, International Journal of Applied Engineering Research Vol 10, No.20, 2015, PP 17589- 17594
- 20. R.NarmathaBanu ,V.P.ThirumagalDivya, P.M.Manobalaa ,Optimal Allocation of FACTS Devices for Social Welfare Maximization in Deregulated Environment Using Particle Swarm Optimization , International Journal of Applied Engineering Research , Vol. 9 and No.24, 2014.PP. 8272 8279
- 21. Dr.R.NarmathaBanu, R.Prathiba, Dr. Balasing Moses, Dr.D.Devaraj, M.KaruppasamyPandi,MOGA With Fuzzy Decision Making For Atc Improvementusinggenerator Rescheduling, International Journal of Applied Engineering Research, Vol. 9 and No.24,2014., PP. 30219-30237,
- 22. *R. NarmathaBanu*and D.Devaraj, 'An Improved Genetic Algorithm Approach For Security Constrained Optimal Power Flow With Corrective Action', International Journal of Power and Energy Conversion (*IJPEC*), Inderscience Publishers, Vol.4, No.4, 2013, pp.355-368.
- 23. *R. NarmathaBanu* D.Devaraj, 'Multi-Objective GA for security Enhancement in Power system', International journal of Applied Soft Computing, Elsevier, Vol.12, Issue 9, September 2012, pp.2756–2764.
- 24. *R. NarmathaBanu* and D.Devaraj, 'A Novel Method for Optimal Allocation of FACTS Devices for Power System Security Enhancement Using Genetic Algorithm', Electrical India Magazine, 2012.
- 25. *R. NarmathaBanu* and D.Devaraj, 'Optimal Power Flow for Steady state security enhancement using Enhanced Genetic Algorithm with FACTS devices', *Asian Power Electronics Journal*, Vol. 4, No.3,pp.83-89. 2010.
- 26. R. NarmathaBanu and D.Devaraj, 'Multi-objective Evolutionary Algorithm for Security Enhancement', Journal of Electrical System, Vol. 5, Issue 4, pp. 1-16, 2009.
- 27. *R. NarmathaBanu* and D.Devaraj, 'Enhanced Genetic Algorithm Approach for Security Constrained Optimal Power Flow including FACTS Devices', International Journal of Electrical Power and Energy Systems Engineering, 2:1, pp. 33-38, 2009.

• International Conference (21):

- 1. Narmatha Banu R and Jeyanthi M, "literature review on energy management in microgrid", AIP Proceeding, Sep 2023
- 2. Narmatha Banu R, Mounika, S. and Kiruthiga, B. "Optimal Placement Identification of Multiple DG Types Using Optimization Technique", E3S Web of Conferences, 2023, 387, 01009

- 3. Narmatha Banu, R Kiruthiga, B., Birinda, S..Kamalanandhini, M. Om Prakash, A., "Implementation of RFID to protect the neonate in hospitals from abduction" E3S Web of Conferences, 2023, 387, 04010
- 4. Divyasharon R, Narmatha Banu R, Devaraj D 2019, 'Artificial neural network based MPPT with CUK converter topology for PV systems under varying climatic conditions, IEEE International Conference on Intelligent Techniques in Control, Optimization and Signal Processing (INCOS), 11-13 April 2019, Tamilnadu, India, pp. 1-6.
- 5. R Narmatha Banu, V Agnes Idhaya Selvi, D Devaraj, M Karuppasamy Pandiyan Differential evolution algorithm for computation of dynamic ATC in deregulated power system, IEEE International Conference on Intelligent Techniques in Control, Optimization and Signal Processing (INCOS),2018, IEEE Explorer. DOI: 10.1109/ITCOSP.2017.8303167.
- R.Narmatha Banu, B.Kiruthiga, "Vehicular Identification and Authentication By Licence", National conference on "Innovative Tecchnologies in Computer and Communication", 4th April 2018, Velammal College of Engineering and Technology, Madurai.
- 7. R.Narmatha Banu, B.Kiruthiga, "Implementation of Neutral Point Clamped based Hybrid Active Power Filter for Current Harmonic Suppression", AICTE sponsored InternationalConference-ICPES'17,21&22 December 2017, Velammal College of Engineering and Technology, Madurai.
- 8. R.Narmatha Banu, B.Kiruthiga, "Design and Implementation of Harmonic Suppression in VSI", International Conference ICPES '17, 21&22 April 2017, Velammal College of Engineering and Technology, Madurai.
- 9. R.Narmatha Banu, B.Kiruthiga, "Mitigation of Current Harmonics in Wind Turbine System at Distribution Level Using Shunt Active Filters", IEEE 2017 International Conference INCOS'17, 23&24 March 2017, Kalasalingam University, Krishnan koil.
- 10. R. Narmatha Banu, B. Kiruthiga, D. Devaraj, Mitigation of current harmonics in wind turbine system at distribution level using shunt active filters", IEEE International Conference on Intelligent Techniques in Control, Optimization and Signal Processing (INCOS),2018, IEEE Explorer. DOI: 10.1109/ITCOSP.2017.8303161
- 11. **R. Narmathabanu,** V. Agnes IdhayaSelvi, D. Devaraj and M. Karuppasamypandiyan, "Differential Evolution Algorithm for Computation of Dynamic ATC in Deregulated Power System", International Conference On Intelligent Techniques in Control, Optimization and Signal Processing, PublisherIEEE 2017, pp.584-593.
- 12. R.Narmatha Banu, B.Kiruthiga, "Design and Development of Reduced switch Single Phase Multilevel Inverter Fed from Isolated photovoltaic system", National Conference NCPRES'16,1-2 April 2016, Kalasalingam University, Krishnan oil.
- 13. R.Narmatha Banu, B.Kiruthiga, "Implementation of standalone system using SEIG for Off-shore WECS", National Conference NCPRES'16,29-30 January 2016, Velammal College of Engineering and Technology, Madurai.

- 14. R Nivedha, R NarmathaBanu, A Om Prakash, "Enhancement of grid power transmission limits using photovoltaic solar farm as STATCOM (PV-STATCOM)", International Conference on Computing Technologies and Intelligent Data Engineering (ICCTIDE), PublisherIEEE, 2016.
- 15. NarmathaBanu R, "Artificial Neural Network Approach for On-Line ATC Estimation in Deregulated Power System", IEEE international Conference" EPSCICON '14, Publisher IEEE, 2014.
- 16. *NarmathaBanu R*, Multi Objective Genetic Algorithm for Congestion Management in Deregulated Power System, IEEE International Conference on Computational Intelligence and Computing Research(ICCIC), PublisherIEEE, 2013.
- 17. *NarmathaBanu R*, Available Transfer Capability Calculation Using Repeated Power Flow Method, International Conference on Power and Energy Systems, ICPES '13,2013, Velammal College of Engineering and Technology, Madurai pp. no: 355-368
- 18. *NarmathaBanu R*. and, K.Subadeeban, "Location of TCSCs and SVCs for voltage Security Enhancement", International Conference on Artificial Intelligence and Soft computing (ICAISC 2011), IIMT, Bhubaneswar, pp. 226-231.
- 19. *NarmathaBanu R*. and D.Devaraj, 'Solution of Multi- objective optimal power flow using Non-dominated sorting Genetic Algorithm (NSGA)', International Conference on Electrical Energy systems and Power Electronics in Emerging Economies, SRM university, Chennai, 2009, pp. 904-908.
- 20. *NarmathaBanu R*. and D.Devaraj, 'Genetic Algorithm Approach for Optimal Power Flow with FACTS devices', Intelligent Systems IS-08, 4th International IEEE conference, Bulgeria, 2008,pp. 11-16.
- 21. *NarmathaBanu R*. and D.Devaraj, 'Optimal Power Flow for Steady state security Enhancement using Genetic Algorithm with FACTS devices', IEEE Region 10 Colloquium and the Third International Conference on Industrial and Information Systems, Kharagpur, India, 2008, pp.1-7.

• National Conference (13):

- **1. R.Narmatha Banu**, B.Kiruthiga, "Automatic control of hybrid renewable energy system using Artificial Neural Network", National Conference, 31 March 2017, Kamaraj College of Engineering and Technology, Virudhunagar.
- **2. R.NarmathaBanu**, "Fast static available transfer capability determination using artificial neural network", National conference on CIEECON'13, organised by EEE Department, Sri Vidhya College of Engineering and Technology on 13.04.2013, pp.192-197.

- **3.** *R.NarmathaBanu*, K.Subadeeban, "Voltage Security Enhancement Using Facts Devices", Fifth National Conference on "Innovations in Electrical, Electronics and Control Systems 2011", Kumaraguru College of Technology, Coimbatore 49, pp 159-163.
- **4.** B.Selvabala, D.Devaraj and *R.Narmathabanu*, "Co-ordinated tuning of AVR gains and Power System Stabilizer using Genetic Algorithm", National Conference on Intelligent Techniques in Control, Optimization and Signal Processing, INCOS'10, Kalasalingam University, Krishnankoil, 5-6, April 2010, pp. 204-209.
- **5.** B.Selvabala, D.Devaraj and *R.Narmathabanu*, "Differential evolution algorithm for tuning of power system stabilizers in AVR system", Proceedings of the National conference on Power Systems Today-2010, AU College of Engineering, Visakhapatnam, June 29-30, 2010, pp. 238-247.
- **6.** *R.NarmathaBanu*, A.Lakshmisankar, R.Karthikeyan, "Improvement of system damping using FACTS devices", National conference on Communication, Computation, Control and Automation, Sri Ramakrishna Institute of Technology, April 25-26, 2008, Coimbatore, pp no. 223-235
- **7.** *R.NarmathaBanu*, M.Kandasamy, "Security Constrained generation scheduling fro GENCOs in the deregulated electricity Market using Evolutional programming", National conference on Communication, Computation, Control and Automation, Sri Ramakrishna Institute of Technology, April 25-26, 2008, Coimbatore, pp no 294-302
- **8.** *R.NarmathaBanu*, S.Rajeshbabu, "Load Management for Power System Emergency Control", Second National conference on HI Tech Trends in emerging computational technologies" SethuInstitutre of Technology, Kariapatti, May 8-9, 2008, pp no. 288-295.
- **9.** *R.NarmathaBanu* and D. Devaraj, 'Power system security enhancement using FACTS devices', National conference on Advanced Energy conversion technologies, AECT 2007, Manipal Institute of Technology, Manipal, 2007, pp. 1-7.
- **10.** *R.NarmathaBanu*, S.Subhash," An ANN approach to Economic Dispatch Problem", National Conference on Technological Development in Power Sector, Feb 23-24,2006, Adhiyaman College of Engg, Hosur
- **11.** *R.NarmathaBanu*, D.Devaraj, M.Susithra, "Power System Security Enhancement using FACTS devices "National Conference on Emerging Technologies in Electrical System, Department of EEE, Noorul Islam College of Engg, Kumarakoil, March 10-110,2006, pp No: 244-250
- **12.** *R.NarmathaBanu*, D.Devaraj, "Optimal Settings of Thyristor controlled Series Capacitor Model for Power Flow Networks", National Power Engineering Conference, NPEC-2005, Dec 16-17, Department of EEE, Thiagarajar College of Engg, Madurai, pp no.93-96

13. *R.NarmathaBanu*, D.Devaraj, R.Rajasajin, "Dynamic Security Constrained Multiarea unit commitment using PSO", National Conference on Power Electronics and Power System, St.Joseph College of Engg, Chennai, Jan 28-29, 2005.

• National Seminar (1):

1. *R.NarmathaBanu*, D.Devaraj, M.Susithra, "Power Security Enhancement Using TCSC device", National Seminar on Power Electronics Application in Power systems, FACTS-2005, ArulmiguKalasalingam College on Engg, Krishnan koil, pp 131-138.

Sponsored Research carried out:

				Principal
Project	Sponsoring	Period	Grant	Investigator /
Project	Organization	Period	Grant	Co – Investigator
				(Please mention)
Skill Development	MSME	2022-23	1.25 Lakhs	Principal
Program	WISWIE	2022-23	1.25 Lakiis	Investigator
Scheme -				
Training and				
Awareness				
Programme -				Dwinging
Promotion of	DIC	2022-23	0.35 Lakhs	Principal
Energy Audit and				Investigator
Conservation of				
Energy				
Entrepreneurshi				
Funded Research: Rs.68.5 Lakhs	Development			
RS.00.5 Lakiis	Institute of India,			
(Innovation and	Ahmedabad under	(2017, 21)	Rs 45.3 Lakhs	
Entrepreneurship Development	the aegis of	(2016-21),		
Centre (IEDC)	Department of			
	Science &			Co-Investigator
	Technology			
(EAC,EDP, TEDP,FDP)-,		(2019-2020),	Rs.2. 6 Lakhs	
		(2018-2019),	Rs.2.0 Lakhs	1
		(2017-2018),	Rs. 7.0 Lakhs	1
		(2016-17))	Rs. 9.6 Lakhs	1

Project Proposal:

- 1. Submitted proposal to MSME-Idea Hackathon Rs 7 Lakhs
- **2.** Techno commercial proposal for solar based green Energy management with IoT for smart cities (Under Preparation)

Research Guidance:

Name of the University as a Recognized Supervisor : Anna University

Kalasalingam University

No. of Research Scholars Registered : 4 (Anna University)

3 (Kalasalingam University)

No. of Research Scholars Completed :1(Anna University)

3 (Kalasalingam University)

Consultancy:

S.No	Details	Amount earned
1.	Energy Audit-Velammal Medical Hospital – Certified Energy Manager	Rs 1.25 Lakhs

Student Projects supervised: (Significant three projects)

Under Graduate	Post Graduate
K.Prainhari , IV year EEE, Best Project (EEE	
Association)- Second place, , Salt water lamp	
(2022-2023)	
K.Swetha - Won III Prize in project contest,	Published paper in Students Paper contest organized by
AMPHEROZ'22, EEE Department, AAA	IEEE Madras section -31.08.2019
college of Engg and Technology-29.04.22	Students : F.Glaiya Smila, M.Vishnu priya,
	R.Divyasaran (Ph.D Scholar)-Won III Prize
T.Bavitha, R.Kowshika- Published paper-	
"Identification of milk adulteration using	
electrical node identification method" in	
National Conference on Sustainable	
infrastructure with responsible consumption and	
production SIRCP 22, CIVIL Department, 24 th -	
25 th March 22	
J. Manivannan, G. Amal Raj, 'Smart Automatic	
Gas Booking & Safety Measurement System',	

International Journal of Advanced Research in
Electrical, Electronics and Instrumentation
Engineering, March 2021- Published paper

Distinctions / Awards received and Patents obtained:

- 1. **Received certificate of Energy Literacy (2020)** Learn to Design your Solar Home Systems from Energy Literacy Drive of the Energy Swaraj Foundation.
- 2. Young Faculty Award (2015) from Venus international research foundation.
- 3. Best paper award (2014) –International Conference on Artificial Intelligence and Evolutionary Algorithms in Engineering Systems, Noorul Islam Centre for Higher Education, Kumaracoil on the 22nd & 23rd of April 2014.
- **4.** Best paper award (**2013**) –International Conference on Electrical Energy systems and Power Electronics in Emerging Economies, 2013, SRM University.
- 5. Young Scientist Fellowship Award (2009) from TAMILNADU STATE COUNCIL FOR SCIENCE AND TECHNOLOGY

Publication Details:

Patent Published: 01

Book publications (give the	1.	Electric Circuit Analysis, Charulatha Publications,	ISBN-978-93-
title, publisher & year of publication)		93479-80-8, March 2022.	
	2.	Electrical Energy Generation Utilization and Conserv	vation- IV Year

- Electrical Energy Generation Utilization and Conservation- IV Year
 EEE As per Anna University Syllabus, Shanlax Publishers, May
 2022
- Book Chapter Integrated Intelligent Computing, Communication and Security (Studies in Computational Intelligence Book 771) 1st Edition, Springer, 2019,pp.311-321
- 4. Book Chapter- Advances in Intelligent Systems and Computing, Springer, Volume 325, 2015, pp 763-772.

Citations:188h-index:8

➤ i10-index:7

Seminars / Conferences Details:

Seminars / Conference organized (give the Conference Theme and the date)	National conference –NCPRES 2016-
	Organzing secretary - 29.01.2016 to
	30.01.2016
	➤ FDP – 16.12.2019, One Day FDP on
	Renewable Energy Systems
	Laboratory (Anna University 2017
	Regulation) - Hands on Training-EEE
	Department, Velammal College of
	Engineering and Technology
	,LABTECH ELECTRONICS
	PVT.LTD.
	Entrepreneurship Development
	program conducted: 12;
	Entrepreneurship Development
	program (Webinar) conducted : 11
Seminars / Conference attended (give the	International: 02
number)	National :06

Online Courses like COURSERA, MOOC, NPTEL, etc., qualified and Details:

- 1. Completed online course on **MATHWORKS Training service**, Machine Learning onramp, 10.03.2022
- 2. Completed online course on MATHWORKS Training service, MATLAB onramp,04.03.2021
- 3. Qualified as "Certified Energy Manager from Bureau of Energy Efficiency", March 2020.
- 4. Completed online course on MATHWORKS Training service, MATLAB onramp,08.04.2020
- 5. Completed **NPTEL** Online certification course on **Outcome based pedagogic principles for effective teaching**, Funded by the Ministry of HRD, Govt.of India (4 week course Jan-Feb 2017)

Membership of Professional Bodies:

Professional Body	Type of Membership	Position Held
IEEE	Member (90766784)	IEEE Professional Member
IE(I)	Life Time Member	M.I.E
	(M-147049-8)	
ISTE	Life Time Member	Member
	(LM-39305)	

Industry Institute Interaction:

MoU Signed:

- LABTECH, Chennai.
- Madurai District Tiny and Small-Scale Industries Association (MADITSSIA) Madurai.
- Madurai Productivity Council (MPC), MADURAI.

Guest lecture delivered in other Institutions:

- "Smart grid introduction and ANN in smart grid -13.12.2021", Five Days online FPP on "Innovations in electric Vehicles, Eenrgy storage and smart grid interaction", Sri Sairam Institute of Technology, Chennai, 13.12.2021-17.12.2021
- "Load Flow Analysis and Short circuit analysis using MATLAB", Faculty Development Programme on "Software Tools for simulation and Analysis of Power Systems", Kalasalingam University, 24-05.2018-26.05.2018.
- "Multi-objectve Genetic Algorithm", Workshop on Evolutionary Algorithm, IEEE Student Branch, Kalasalingam University, Krishnankoil, 05.08.2017
- Power system transients , IEEE sponsored seminar , Nandha College of Technology, Erode, 05.03.2016
- "Evolutionary Computational Algorithm, Five days FDP on "Computational intelligent techniques and their application" Kalasalingam University, 09.09.2014
- "Neural Network approach for Data Classification", Technical Symposium on "Digital Dreams", organized by Computer Science and Engineering Department at Kalasalingam University on 14.02.2014.
- "Neural Network Architectures" at Sethu Institute of Technology, on 25.03.2014.
- "MATLAB and its applications and its problems", IEEE sponsored National workshop at Nanda Engineering College, Thirupur 20.09.2014
- "Distributed Power generation and smart grid", AICTE sponsored seminar at Nanda Engineering College, Erode on 16.03.2013
- "Introduction to ANN and its applications "at Velammal College of Engineering and Technology,
- Madurai on 13.03.2013
- "Case study on Multi-objective GA for security enhancement in power system" organized by IEEE students branch at Kalasalingam University on 02.02.2013.

"Journal Reviewer:

- ➤ Applied Soft Computing –Elsevier
- ➤ International Transactions on Electrical Energy Systems
- Int. Journal of Green Energy, IET(Generation, Transmission and Distribution)
- > International journal of Institution of Engineers (I)

- ➤ Journal of Electrical and Electronics engineering research (JEER)
- ➤ International Research Journal of Engineering Science, Technology and Innovation

Acted as Chairperson

- Technical chair , IEEE International Conference on Intelligent Techniques in Control , optimization and Signal Processing (INCOS'17), 23.03.2017
- Session Chair, International conference on Emerging Trends in Science , Engineering and Technology, Nanda Engineering College, Erode on 05.03.2016
- Chief guest for the technical symposium "PSYTRANCE "15" at Teni Kammavar Sangam College of Technology, Theni on 13.03.15
- For the session of Evolutionary techniques, International conference ICIECC'14 at Velammal Engineering College and Technology, Madurai on 11.04.2014.
- For the session of applications of intelligent techniques, Fifth National conference on "Intelligent Techniques in Control, Optimization and signal Processing, INCOS'14, IEEE student branch, Kalasalingam University on 28.03.2014.
- Session Chair for power systems, National conference "RITE-13" at Sree Sowdambika College of Engineering, Aruppukkottai on 01.03.2013.
- Session Chair, "Intelligent techniques in control ,Optimization and Signal Processing , National conference INCOS 2013 at Kalasalingam University, Krishnankoil on 11.04.2013.

I hereby certify that all the particulars mentioned above are true to the best of my knowledge.

Dr.R. NARMATHA BANU