




Faculty Profile

Name	: Dr.G.Gandhimathi			
Date of Birth	: 14.06.1969			
Highest Qualification	: Ph.D			
Date of Joining	: 12.08.2022			
Designation	: Asso.Prof			
Date of promotion (Present Designation) :				
Area of Interest	: Digital Speech Processing			
Mobile No	: 9790035798	Email ID	: gandhimathi.g@trp.srmtrichy.edu.in	
Experience	: Teaching :	24+	Industry :	-
			Research :	14+
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Association with Professional Bodies

Name (Professional Body)	The Indian Society for Technical Education (ISTE)	Broadcast Society of India
Type of Membership and No.:	(Life member) LM 27657	(Life member) LM 2041

Research

Ph. D Guidance					
Supervisor / Guide ship No. :	-	University :	-	No. of Scholars :	-
Publication*					
International Journals	: 33	National Journals	-		
International Conference	: 10	National Conference	:	16	
Project Grants (Research projects guided or undertaken/ Sponsored Projects)					
Received (Amount)	:	Applied (Amount)	:		
DST (2 projects)	9+9 lakhs	DBT		20 lakhs	
MSDE	2.4 akhs	TNSCST		5 lakhs	
Reach Foundation (2 projects)	(0.35+0.35) lakhs				
TNSCST - 2 projects	0.1+0.075 lakhs				
Patent					
Published	:	5	Granted	:	4

Books

Published	3
:	

FDPs / STTPs / Workshops / Seminars etc.,

FDP		STTP		Workshop		Seminar		Others	
Attended:	25+	Attended:	25+	Attended	30+	Attended:	20+	Attended:	12+
Organized:	10+	Organized:	10+	Organized	17+	Organized:	10+	Organized:	05+

Online courses (NPTEL, MOOC etc.)	01
<ul style="list-style-type: none"> • Basics of Software Defined Radio 	

List of Publications :*SCI journals :**

1. B. Venkatesh, **G. Gandhimathi** et al. April 2024, “Effect of submicron pore sized waste coffee emesis biochar on glass–epoxy composite thermal interface material’, Biomass Conversion and Bio- refinery, Springer Publications, <https://doi.org/10.1007/s13399-024-05558-6>,
2. J. Sumathi ,, P. Aravind, , **G. Gandhimathi** , Jan 2024 , “Smart solutions for dissolved oxygen control in semi-batch fermenters: A Machine Learning approach “ , Desalination and Water Treatment, ELSEVIER Publications, Volume 317, January 2024, 100004, <https://doi.org/10.1016/j.dwt.2024.100004>
3. **G. Gandhimathi** , July 2023, “Synthesis of microcrystalline cellulose from abaca non fluorescent flower pistil and its twill weaved fiber-polyester composites: Viscoelastic, fatigue, and mechanical properties” , Polymer Composites , Wiley publications, Vol.44 issue.7, PP.3386-3394 <https://doi.org/10.1002/pc.27363>
4. Mohanavel, V., **Gandhimathi, G.**, Bhardwaj, D. et al. Jan 2024 , “Deep Learning-Guided Femtosecond Laser Processing in Optical Materials and Devices for Nano fabrication advancements”, Optical and Quantum Electronics, ISSN : 0306-8919, Vol.56, Article 210,pp.1-16, <https://doi.org/10.1007/s11082-023-05932-0>

Technical Papers Published in Refereed Journals

5. Ms. K. Aiswarya Mr.A.Sriram, Mr.E.Raja, **Dr. G.Gandhimathi**, Nov 2023 , “An Innovative Scheme For Smart School Bus Tracking System Using Machine Learning And IOT Techniques” International Conference-AIP Conference Proceedings, [doi:10.1063/5.0179249](https://doi.org/10.1063/5.0179249)
6. Dr.B.Ramasubramanian, **G.Gandhimathi**,E.Raja, Sriram Anbalagan, Mrs.K.Priyadharshini, Dec 2023 “A Novel Deep Learning Based Approach For Object Detection Using Mask R-Cnn In Moving Images” International Conference-AIP Conference Proceedings, doi.org/10.1063/5.0181736

7. **Gandhimathi,G.,**Narmadha,C.,and Lakshmi,C August 2010,," Simulation of Narrow Band Speech Signal using BPN Networks " , International Journal of Computer Applications (0975- 8887) Volume 5- No.9. pp 38-42
8. **Gandhimathi,G.,** Jayakumar. S., and Narmadha,C., August 2010 ,," Speech coding and phoneme classification using MATLAB and Neural Networks " ,PMU Journal of Computer Science and Engineering ISSN:0976-4240, vol.1, No.2. pp 17-23
9. **Gandhimathi.G.,** Jayakumar. S., 2011 " Estimation on Power Spectral Density of Narrow band speech signal using MATLAB " , Proceeding of ICOAA , vol 1 , No.2. PP 124-138
10. **Gandhimathi.G.,** Jayakumar.S., 2012, "Efficient Method of Pitch Estimation for Speech Signal Using MATLAB" Special Issue of IJCCT, ISSN (ONLINE) : 2231–0371, ISSN (PRINT) : 0975–7449, Volume- 3, Issue-1, NCRTCST. **Best Paper Award**
11. **Gandhimathi.G.,** Jayakumar.S., 2013, "An Analysis on Stegnography based ABWE system using LPC based Souse filter Model" IJECCE, vol.4 Issue :6 ISSN2249-071X pp.29-33
12. **Gandhimathi.G.,** Jayakumar,S., 2014, "Speech enhancement Using Artificial Bandwidth Extension Algorithm in Multicast conferencing through Cloud services", Information Technology Journal , ISSN 1812- 5638 /DOI:10.3923/itj.2014, vol.13 , issue 12 pp. 1953.1960 (Scopus , H-Index-17)
13. **Gandhimathi.G.,** Jayakumar.S., 2014, "An Analysis on Source Filter Model based ABWE system", Journal of Theoretical and Applied Information Technology , ISSN 1817-3195 vol.61 , no.2 pp. 395-403 (Scopus , H-Index-7)
14. **Gandhimathi.G.,** Hemalatha.A., Babu.S.P.K.,March-2015, "Evaluation of Levinson-Durbin Recursion Method for Source-Filter Model based Artificial Bandwidth Extension Systems", International Journal of Scientific & Engineering Research, ISSN 2229-5518, Vol.6, Issue.3, pp.232-238 (Index-ing by Thomson Reuters - 3.2).
15. Gandhimathi.G.,Hemalatha.A., Babu.S.P.K. April-2015, "Evaluation of different Auto Regressive modeling methods for Source-Filter Model based Artificial Bandwidth Extension systems " International Journal of Applied Engineering Research (IJAER)., ISSN 0973, 4562,Vol.3, Issue4, PP.13975-13988.(Scopus , H-Index-3)
16. **Gandhimathi.G.,** N.Thinakaran , July 2016, "Encrypting the artificial bandwidth extension algorithm for multicast conferencing in cloud environment", IEEE Xplore: Cloud system and Big data Engineering. DOI: 10.1109/CONFLUENCE. 2016.7508108
17. B.Vinoth , L.S.Usharani **Gandhimathi. G. ,** February 2016, Improving the Speed of the data Transmission using Collaborative Contact Based Watch- dog to Detect Inactive Selfish Nodes, International Journal of Advanced Research in Electronics and Communication Engineering (IJARECE) Volume 5, Issue 2, ISSN: 2278 – 909X

18. R.Vennila, **Gandhimathi.G.**, March, 2017, Security Requirements in Vehicular Ad-Hoc Networks, International Journal of Modern Electronics and Communication ,Engineering (IJMECE) ISSN: 2321-2152 Volume No. - 5, Issue No. 2. PP 125-131
19. ChandraPraba.P , **Gandhimathi.G.**, May 2017, Detection of gastrointestinal stromal cancer cells using homomorphic filter and region splitting, merging segmentation techniques, International Journal for Technical Research and Engineering (IJTRE). ISSN 2347-4718, Vol.4, Issue 9, (Indexing by Scopus).
20. Nigila .S. **Gandhimathi.G.**, Oct 2017, Survey on robust security using code level approach for iris recognition international journal for science and advance research in technology, International Journal for Science and Advance Research in Technology, ISSN [ONLINE] : 2395-1052, Volume 3, Issue 10 .
21. Nigila .S. **Gandhimathi.G.**, March 2018, Robust security using code level approach for iris recognition international journal for science and advance research in technology, International Journal of Trend in Scientific Research and Development , ISSN: 2456-6470 Volume 3, Issue 10
22. **Gandhimathi.G** .Anushree. M,Amutharasi. R, Gowshika.R,Agniya.A April 2018 “RFID based an Efficient, novel and secured Coastal Border Alert Management System using Raspberry pi-3 with OTP” International Journal of Advanced Scientific Research & Development, e-ISSN: 2395-6089, p-ISSN: 2394-8906, Vol. 05, Spl. Issue.3 pp.
23. **Gandhimathi.G** .Anushree. M,Amutharasi. R, Gowshika.R,Agniya.A April 2018 “Simulation of secured Maritime Border Alert System using GPRS and RFID” International Journal for Science and Advance Research in Technology , e-ISSN: 2395-1052, vol issue,3 PP. 149-153
24. Divya.R., Kirthana Barathy.J.P., **Gandhimathi.G.**, Kannan.G, May 2018, “Design and analysis of two port Matching Networks by Single Stub Transmission Lines using RF toolbox” , International Journal for Science and Advance Research in Technology, ISSN [ONLINE] : 2395-1052, Volume 4, Issue 5 .PP.1423-1429
25. Kirthana Barathy.J.P., Divya.R., **Gandhimathi.G.**, Kannan.G, May 2018,, “design and analysis of two port matching networks by low noise amplifier using RF toolbox”, International Journal for Science and Advance Research in Technology, ISSN [ONLINE] : 2395-1052, Volume 4, Issue 5 PP. 132-138
26. Rubas M., Kannan G and **Gandhimathi G.**, (2018), ‘Cluster Based Resource Allocation for CoMP MU-MIMO 5G Network’, International Journal of Trend in Scientific Research and Development, volume 2 Issue 4, pp no.1037-1043.
27. Arul Sugana C. and Arokia Magdaline S. and **G.Gandhimathi (2018)**, “Implementation of Virtual Reality in XD Based Environment”, International Journal of Innovative Research in Technology, Volume 5, Issue 1 in June 2018. pp. 216-223

28. P.Chindhia J.Jayaseelan and **G.Gandhimathi** , 2018, paper titled “Smart Engine Based Border Alert and Security System for Fishermen”, in International Research Journal of Engineering and Technology (IRJET Journal), Volume 5, Issue 4, Apr, 2018. PP. 3092-3095.
29. S. Suruthi, G.Jayanthi, **G.Gandhimathi**, May 2018 , Detection of Brain Tumor Using FFBP Neural Networks, IJIRT | Volume 5 Issue 1 | ISSN: 2349-6002,PP.949-953.
30. S. Suruthi, G.Jayanthi, **G.Gandhimathi**, June 2018 Classification of Brain Tumor Using Recurrent Neural Networks, IJIRT | Volume 5 Issue 1 | ISSN: 2349-6002,PP.139-144.
31. Hemalatha .A , Usharani .P , **Gandhimathi .G** , Kirthana Barathy .J .P , June 2018, Design and Analysis of Broadband Matching Networks for a Low Noise Amplifier, International Journal of Science and Research (IJSR) ISSN (Online): 2319-7064 Index Copernicus Value (2016): 79.57 | Impact Factor (2017): 7.296, Vol 7 Issue 7, PP 1423 -1428
32. Usharani.P ,Hemalatha. A ,**Gandhimathi.G** , Divya.R, July 2018, Design and analysis of Broadband Matching Networks for Antenna using RF toolbox, International Journal for Research & Development In Technology, Volume-10,Issue-1(July-18) ISSN (O) :- 2349- 3585, PP: 189-193.

i. Publications in Refereed Journals

33. **G.Gandhimathi** & C.Narmadha. M.Gabriel, Dec 2010 , “Importing (e-Learning) Primary Education Through Community Radio for Rural People”, International Journal of Action Research and Engineering to Eradicate Poverty, Vol.1. Issue No.3, Dec ,2010 ISSN 2229-5259.
34. Ujjwala.Tirkey, Sridharan.R, **Gandhimathi.G**, March 2016, “The impact of Radio Mathematics for Women Empowerment in Periyar Community Radio”, ISSN 2348-3156(Print) International Journal of Social Science and Humanities Research ISSN 2348-3164 (online) Vol. 4, Issue 1, pp: (312-318)

ii. Publications in International Conferences

1. **G.Gandhimathi** C.Narmadha , Jan 7th to 9th 2011, “Women’s Empowerment and Good Governance : Periyar FM Community Radio Perspectives”, World Atheist Conference , PMU.
2. **G.Gandhimathi**, Dr.Gabriel , July 27th to 30th 2011, “Imparting e- culture through Community radio and Empowering communities on Green Technologies in India” International Conference on Emerging Green Technology (ICEGT) ISBN:978-81-920465-4-9
3. **G.Gandhimathi** ,M.Gabriel , Anand Jerard Sebastine, .S.Arunachalam , July 27th to 30th 2011, “Sustainable development through Community radio and Empowering communities on Green Technologies in India” International Conference on Emerging Green Technology (ICEGT) ISBN:978-81-920465-4-9.

4. **G.Gandhimathi** ,M.Gabriel , Anand Jerard Sebastine, .S.Arunachalam , July 27th to 30th 2011, “Economic and livelihood potential of Bamboo and envisaging the Green Environment in Periyar Pura Villages” International Conference on Emerging Green Technology (ICEGT) ISBN:978-81-920465-4-9
5. **G.Gandhimathi** ,M.Gabriel , .S.Arunachalam , 4Th and 5th April 13, “Intervention of Periyar Community Radio 90.4MHz on enhancing mental health among Children in Periyar PURA villages , International conference on Combating Abuse on Women and Children (ICCAWC)- Sponsored by Regional Association for Women Studies (RAWS)
6. **G.Gandhimathi** ,M.Gabriel , .N.Tamilselvi , 4Th and 5th April 13, “Intrusion of Periyar Community Radio for the prevention of GBV in Periyar PURA villages” , International conference on Combating Abuse on Women and Children (ICCAWC) -Sponsored by Regional Association for Women Studies (RAWS)

iii. Publications in National Conferences

1. V.R.Prabakaran, **G.Gandhimathi** , 1st & 2nd March 2007, ‘Really simple syndication readerfacilitated by AJAX & JAVA RPC’ National conference on Distributed and Soft computing, MEC, Nammakal
2. M.Gabriel , **G.Gandhimathi**, August 4th to 5th 2011, ‘Empowerment of women through community radios’, national conference on ‘A Strategic Invention for Improving the Marginalized – A Social work perspective’, at AVM Pooni Pushpam College, Thanjavur .
3. **G.Gandhimathi**, M.Gabriel, S.Arunachalam, C.Narmadha,N.Tamilselvi, Oct 1st & 2nd 2011, The role of Periyar Community Radio to create a scientific Temper (or) ‘Vigyana poorvama arivai valarpathil periyar samuthaya vanoliyen panku’, First National conference on Scientific Tamil , PMU.
4. **G.Gandhimathi**, M. Saravanan, N,Prabhakaran, Sep 3rd to 5th 2011, ‘Role of youth volunteers for Sustainable development A case study - Periyar PURA villages’, National conference on ‘youth and MDGs’ at RGNIYD, Sriperumpathur, Chennai.
5. S.Arunachalam , M.Gabriel , Sep 3rd to 5th 2011, ‘Opportunities and supports for youth development in Periyar PURA Villages’, National conference on ‘youth and MDGs’ at RGNIYD, Sriperumpathur, Chennai.
6. **G.Gandhimathi** , N.Tamilselvi, N.Manikandan, 5th Dec 2011 " Transitioning of University Academic Functions to Social Networks and Cloud backed technology " ISTE state level convention on “Recent Trends in Technical Education” at Mahendra Engineering College “ Nammakkal, **Best Paper Award**
7. **G.Gandhimathi** , S.Arunachalam , M.Gabriel , March 25, 2012, ‘Role of Community Radio to impart the HIV/AIDS Education , National level conference on Emerging trends on HIV / AIDS education “ at Bharathidasan University , Trichy.

8. **G.Gandhimathi** , S.Arunachalam , M.Gabriel, 21.09.12, ‘Human capital and civic engagement - Periyar FM Community Radio (90.4MHz) perspective’“National conference on Social Work “AVM Sri Pondi Pushpam College , Thanjavur.
9. **G.Gandhimathi** , S.Arunachalam , M.Gabriel, Oct 28th & 29th 2012, ‘Youth leadership and civic engagement - Periyar FM Community Radio (90.4MHz) perspective’ “National conference on “ Youth and Volunteerism “ at RGNIYD, Sriperumpathur, Chennai.
10. S.Arunachalam, **G.Gandhimathi** , M.Gabriel, Oct 28th & 29th 2012, ‘The impact of volunteerism on the achievement of MDGs -Case study in Periyar PURA village through Periyar Community Radio 90.4MHz’ “National conference on “ Youth and Volunteerism “ at RGNIYD, Sriperumpathur, Chennai.
11. **G.Gandhimathi** , S.Arunachalam, M.Gabriel, Oct 6th & 7th 2012, ‘Promoting the youth community through Community Radio for the sustainable societal development’, “National youth festival -12” at Mahendra Engineering College, Nammakal.
12. **G.Gandhimathi** , S.Arunachalam , Anand Jerard Sebastine , Dec 20th & 21st 2012, “Emerging scenario in teaching and cyber learning process using cloud computing’ ISTE convention at Anurag Group of Institutions , Hyderabad, **Best Paper Award**
13. **G.Gandhimathi** C.Narmadha, N.Tamilselvi, 28th Feb 2013, Nano Technology based PCR studio (or) Periyar Samuthaya Vanoli Nilaiyathil nano thozhil nutpatthin thakkam – Oru SIRRAPPU PARVAI, 2nd National conference on Scientific Tamil -Nano technology, PMU.
14. **G.Gandhimathi** , N.Tamilselvi, March 9th 2013, ‘Imparting telemedicine through Periyar community Radio for Sustainable Health care’, National conference on Research on drugs for sustainable health Care, PMU.
15. Anushree. M,Amutharasi. R, Gowshika. R,Agniya.A, **Gandhimathi.G** 21st March.2018 “RFID based an Efficient, novel and secured Coastal Border Alert Management System using Arduino with OTP” National Conference on Innovations on Embedded System and Networks (**NCIEN’18**), Sponsored by **IEEE Madras Section**, Kings College of Engineering, NAAC Accredited, Thanjavur.
16. Anushree. M,Amutharasi. R, Gowshika.R,Agniya.A **Gandhimathi.G**, 21st March.2018 “Simulation of Coastal Border Alert System using Arduino and RFID, National Conference on High Performance Computing (**NCHPC’18**) , Kings College of Engineering, NAAC Accredited, Thanjavur.

iv. Patent

1. **Gandhimathi.G**, “Printer Based on Internet of Things, No: 374622-001, published and Granted on 24.01.2023.
2. **Gandhimathi.G**, “Pill Dispenser”, No:371237-001,published and Granted on 28.12.2022
3. **Gandhimathi.G** “Analysis of Biotransformation of goat dung into organic fertilizer”No.202341045196 A, published and Granted on 01.09.23.
4. **Gandhimathi.G** , Development of prototype model for machine learning & genomics in precision medicine using IOT & raspberry pi, No: 202341006060, CBR no:4338. published 31.01.23
5. **Gandhimathi.G** , Optimized Machine Learning Method For Enhanced Medical Diagnostics With Focus On Lung Cancer Detection, Application No.202421015190 A Publication and granted on : 22/03/2024

v. Book

1. **Gandhimathi.G** , "Cloud Computing and its Advancement ", January 2023, ISBNNUMBER 978-81-956780-8-2- doi.org/10.5281/zenodo.7573538
2. **Gandhimathi.G** , " "BLOCKCHAIN: Future and Industrial Applications", March 2023 , ISBN no: 978-81-956780-7-5 : doi.org/10.5281/zenodo.7534242
3. **Gandhimathi.G** , " Cyber Security fundamentals ", October 2022, ISBN: **978-81-956780- 4-4**,