


Profile

Name of the Faculty	Dr.C.Subba Rao					
Designation	Prof.& HoD					
Department	Electronics & Communication Engineering					
Date of Birth	08-06-1965					
DOJ the Institution	16-06-2003					
Employee ID	ECE030070					
Address for communication	D.No. 45-1-17 Gunadala-Post Vijayawada-520004		Permanent Address		D.No. 45-1-17 Gunadala-Post Vijayawada-520004	
Email-ID: hodece@pvpsiddhartha.ac.in						
AICTE Unique ID	1-454503325				APAAR:46769792	
Education Qualifications	UG	PG	Ph.D	Others		
	B.E. (ECE)	M.E (EI)	Ph.D (Antenna Beam Shaping)			
Work experience	Teaching	Research		Industry	Others	
	21 Yrs; 10 Months					
Area of Specialization	Antenna Beam Shaping					
Courses taught at Under Graduate/ Post Graduate Level: (full course title only)	1. Network Analysis 2. Electromagnetic Fields and Waves 3. Transmission Lines & Wave Guides 4. Antennas and Propagation 2. Microwave networks 5. Computational Electromagnetics; 6. EMI/EMC 7. Optical Communications 8. Satellite Communications 9. Electronic Devices and Circuits					
Professional Memberships			FIE (F-1294780); FIETE (F-211884); ISTE (LM40987);ISSE (LM03633)			
Research Publications	National Journals	International Journals	National Conferences	International Conferences	Patents	Books / Book chapters
	1	21	2	12	Granted: 3	2
Ph.D Guidance	Guiding : 04					

Research Projects Completed					
S. No.	Title of the Project	Funding agency	Sanctioned amount and Year of Sanction	Duration of the project	Present status
1	Development of microwave sterilization unit for the sterilization of polyethylene bottles	UGC	₹ 4,35,000/- October 2016	2Yrs	Completed 2018
2	Design and Analysis of Antennas for RF and Wireless Communications	SAGTE	₹ 3,50,000/-	2Yrs	Ongoing
3	Industrial Funding – Corporate Social Responsibility Scheme (CSR)	M/s Efftronics Systems Pvt. Ltd.	₹12,00,000/-	3 Yrs	Ongoing
4	Weather Monitoring Unit (WMU) System Established	M/s Efftronics Systems Pvt. Ltd.	₹ 2,45,000/-	1-Year	Completed
Details of FDPs or Seminars conducted with external funding					
1	₹ 5,65,000/- AICTE Sponsored- Two Week Faculty Development on Recent Advances in Microwave Engineering and its Applications (28-10-2013 to 09-11-2013)				
2	₹ 20,000/- Institution of Engineers India (IEI) Sponsored - Conducted Two Day National Convention on(Recent Advances in Microwaves Antennas and Communications 1-2 nd July 2016)				
3	₹32,000/- Institution of Engineers India (IEI) Sponsored –Two –Day Seminar on 5G-The New Radio; 14-15 th October -2022				
4	₹ 20,000/- Institution of Engineers India (IEI)- Conducted One- Day Seminar on Technology Advances for Smart Systems Development on 16-11-2024				
	Resource Person				
1	A three day training program for ECE students of Engineering colleges on Design of Antennas for 5G applications using HFSS during 1 st – 3 rd February' 2021.				
2	Dr. C. Subba Rao acted as a resource person for National webinar on Recent Trends in Applications of Electronics in Communication Technology organized by Mannar Thirumalai Naiker College, Madurai on 19 th July' 2021				

4	Dr.C.Subba Rao delivered a guest lecture on IoT & Antennas at Grupo Antolin, Medha Towers, Gannavaram on 03 rd February, 2021.
5	A Training program on Electronics for Mechanical Engineers – An Automotive Interiors Perspective, Phase-I by our faculty to Group Autolin people on 4 th , 5 th , 8 th , 11&12 th September, 2021.
6	C.Subba Rao Training program on Electronics for Mechanical Engineers – An Automotive Interiors Perspective, Phase-II by our faculty to Group Autolin people during 20 th - 26 th November, 2021.
7	Thre-Day training on Design of Antennas for 5G Applications Using HFSS for B.Tech. students from 3 rd -5 th March, 2022. Resource Person
8	Delivered keynote address on RF Antenna design for Targeted Applications – workshop organized by Andhra Loyola Institute of Engg. & Technology, Vijayawada on 22 nd September, 2022.
9	Dr. Dr.C.Subba Rao has served as Session Chair for a technical session on Intelligent Data Analytics and Computing in IEEE International Conference on Contemporary Computing and Communications (InC4) organised by the Department of Computer Science and Engineering, CHRIST (Deemed to be University), Kengeri Campus, Bangalore -560 074; during 21 st -22 nd April, 2023.
	Reviewer
1	Dr.C.Subba Rao reviewed Applied Computational Electromagnetics (ACES) Journal. SCIE Journal – Jan21-June21
2	C.Subba Rao has served as a Reviewer at the Fourth International Conference on Communication, Circuits, and Systems held at Kalinga Institute of Industrial Technology (Deemed to be University), Bhubaneswar, India during 26 -28 th May, 2023.
3	C.Subba Rao served as Reviewer for first IEEE International Conference on Data Science and Network Security (ICDSNS - 2023) organized by Kalpataeu Institute of Technology, Tiptur, during 28– 29 th July 2023.
	Advisory Board Members
1	Dr. C. Subba Rao appointed as an Advisory Committee Member for ECE Dept., Andhra Loyola Institute of Engineering & Technology, Vijayawada
2	Dr.C.Subba Rao appointed as Technical Advisor for Chennupati Polymers, Autonagar, Vijayawada on 17.02.2021.

1. C.Subba Rao, B.Swathi Lakshmi, K.Phani Rama Krishna "Design and Analysis of Compact Wideband Elliptical Patch Antenna", Learning and Analytics in Intelligent Systems 4(**Springer**), Advances in Decision Sciences, Image Processing, Security and Computer Vision, ISBN 978-3-030-24317-3, PP. 29-35, https://doi.org/10.1007/978-3-030-24318-0_4; 26-07-2019
2. C.Subba Rao, M.Srinivasa Rao, L.Madhavi Devi, "Design and Analysis of Wideband Decagon Microstrip Antenna" Intelligent Data Communication Technologies and Internet of Things, Lecture Notes on Data Engineering and Communications Technologies(Springer), Vol.38, pp. 69–76, 2020, ISBN 978-3-030-34079-7, https://doi.org/10.1007/978-3-030-34080-3_8 ; 11-11-2019

International Journals-24

1. C.Subba Rao & A.Sudhakar "High Gain Ultra Wide band Biconical Antenna Array," Association for the Advancement of Modeling & Simulation Techniques in Enterprises (AMSE)-France, Vol.83, No.1, Issue:1, pp 68-78, Feb.2010.-**Scopus**
2. C.Subba Rao & A.Sudhakar "Biconical Linear Array Analysis for Non-Uniform Amplitude Excitation Methods," ARPN Journal of Engineering and Applied Sciences, Vol.6, No.4, pp.91-97, April, 2011.-**Scopus**
3. C.Subba Rao & A.Sudhakar, "Biconical ring antenna array for wide band applications," International Journal of Engineering Science and Technology, Vol.4, Issue 2, pp.758-763, Feb.2012.
4. L.M.B. Prasad and C.Subba Rao,"An Improved Quasi-Orthogonal Space-Time Block Codes for Diversity Reception in Wireless Communication," International Journal of Engineering Research and Applications, Vol.2, Issue3, June 2012, pp2005-2008.
5. V.L.Bhavani Maddirala and C.Subba Rao, "Analysis of Smart Antenna Beamformer Characteristics using CMA and DMI," International Journal of Scientific and Engineering Research, Vol.3, Issue 7, July-2012, pp.1018-1020
6. C.Subba Rao & A.Sudhakar, "Biconical dipole (5x5) square planar array for higher gain and low side lobe levels, Association for the Advancement of Modeling & Simulation Techniques in Enterprises (AMSE), France,vol.86,No.2, pp.16-30. 2013 (**scopus**)
7. B.V. Lakshmi and C.Subba Rao, " A Water Marking Algorithm Based on HT-DWT-TGF for Security Applications," International Journal of Advanced research in Computer Engineering and Technology, Vol.2, Issue 12, Dec.2013,pp.3115-3121.
8. C.Subba Rao and A.Sudhakar, "Analysis of Edge Terminated Wideband Biconical Antenna" Applied Computational Electromagnetics Society Journal, vol.30,No.7, pp. 804-809, July 2015-**Scopus**

9. C.Subba Rao and A.Sudhakar "Design of line source antennas for the generation of shaped beams without side lobes and Ripples" International Journal of Electronics, Electrical and Computational System (IJECS), vol.5 Issue 8, pp.1-5, August 2016.
- 10.C.Subba Rao and A.Sudhakar, "Broadband Circular Patch Antenna", International Journal of Engineering Technology, Management and Applied Sciences (IJETMAS), Vol.5, Issue:6, June-2017, pp.956-960.
- 11.C.Subba Rao and A.Sudhakar, "Analysis of Wide Band Unequal Cone Angle Biconical Antenna", Current Journal of Applied Science and Technology (CJAST), vol.22, Issue: 2, pp.1-8, July 2017, DOI: 10.9734/CJAST/2017/34742.
- 12.C.Subba Rao, "Design of Resonance Frequency Variable Dipole Antenna", Journal of Emerging Technologies and Innovative Research (JETIR)", Volume:5, Issue:8, August 2018; ISSN:2349-5162; PP.872-874.
- 13.N.Sujana and C.Subba Rao, "Design and Analysis of E-shaped Microstrip Patch Antenna for Wideband Applications",International Journal of Research in Electronics and Computer Engineering, Vol.7 Issue:1,March 2019, pp.347-351.
- 14.C.Subba Rao,"Design and Analysis of Wide Band Elliptic Patch Antenna", Journal of Advanced Research in Dynamical & Control Systems, Vol. 12, Issue-02, May-2020,pp.2432-2439 (**Scopus**)
- 15.Dr.C.Subba Rao, Mrs.L.Madhavi Devi, published a paper entitled Broad Band Proximity Joined feedline Microstrip Blemish Antenna for 5G solicitations: Novel Slant - Journal of Xian University of Architecture and Technology; ISSN: 1006-7930; Vol:13; Issue:1 ; Pg No: 632-643; Jan'2021.
- 16.C.Subba Rao, L.Madhavi Devi, B.Swati Lakshmi "Design and Analysis of Collinear Biconical Antenna Array" International Journal of Engineering Trends and Technology (IJETT), Vol. 69, Issue-3, March (2021):147-153.**Scopus**
- 17.L.Madhavi Devi, **C.Subba Rao**, Swati Lakshmi B, "Spider Spike Compact Fractal Antenna for GPS, ISM and Medical Band Applications" Turkish Journal of Physiotherapy and Rehabilitation, Vol.32, Issue:2,pp.602-605, 20 March 2021(**ESCI & Scopus**); ISSN:2651-4451
- 18.Swati Lakshmi B, **C.Subba Rao**,L.Madhavi Devi, "Ceramic Material Based Circular Spike Shaped CPW Fed Antenna for Healthcare Multiband Applications", Turkish Journal of Physiotherapy and Rehabilitation, Vol.32, Issue:2,pp.597-601, 20 March 2021(**ESCI & Scopus**); ISSN:2651-4451
- 19.Chalasani Subba Rao, Thotta S. Geetha, Chellaiah Chellaswamy, and Srinivasan Arul, "Optimized convolutional neural network-based multigas detection using fiber optic sensor", Optical Engineering Journal, Vol.60, No.12, ISSN: 0091-3286, December 2021, pp.1-21 (**SCI**)

20. L. Madhavi Devi, C. Subba Rao and B. Swati Lakshmi, Multiple Slot Fractal Structured Antenna for Wi-Fi and Radio Altimeter for uncertain Applications, International Journal of Communication Networks Information Security (IJCNIS), Vol.14, Issue: Sept.2, 2022; ISSN:2073627X (Scopus)
21. C. Chellaswamy, C. Subba Rao, T. S. Geetha, Performance study of crowd flow in academic buildings of an institution, CCF Transactions on Pervasive Computing and Interaction, Vol.5, Issue:2, June 2023, <https://doi.org/10.1007/s42486-023-00134-9>. (Scopus & ESCI)
22. T. S. Geetha, C. Subba Rao, C. Chellasamy, "Crowd movement monitoring in academic buildings: a reinforcement learning approach", Multimedia Tools and Applications, April 2024, (SCIE)
23. T. S. Geetha, C. Subba Rao, C. Chellasamy and K. Umamaheswari Enhancing remote target classification in hyperspectral imaging using graph attention neural network, Journal of Earth System Science, Vol.133, No. 89, May 2024. pp. (SCIE)
24. C. Subba Rao, C. Chellaswamy, T. S. Geetha & S. Arul, "Deep Learning Based Decision Support Framework for Dead Reckoning in Emergency Vehicle Preemption", International Journal of Intelligent Transportation Systems Research", Vol. 22, pp.117-135, (2024), 09 January 2024

National Journals-1

1. C. Subba Rao & A. Sudhakar "Generation of Sector Beam with Biconical Linear Antenna Array," ANU Journal of Engineering and Technology, Vol.2 No.2, pp. 1-4, December, 2011.

International conferences-15

1. C. Subba Rao, J. Ravindranadh and A. Sudhakar, "Design of Amplitude Distribution Function for Desired Stair Step Patterns," An International Conference on Advances in Optoelectronics, Information and Communication Technologies 2009, (ICOICT 2009) **26-27, Feb.2009, Trivandrum.**
2. C. Subba Rao & A. Sudhakar, "Design and Modeling of Biconical Dipole for Broad Band Applications," International Conference on Advances in Computing, Control, and Telecommunication Technologies (ACT-2009); **Trivandrum**; Published in *IEEE – Computer society & IEEE-xplore* DOI: 10.1109/ACT.2009.69. pp. 248-251, 28-29, Dec -2009.
3. C. Subba Rao & A. Sudhakar, "Analysis of Linear Biconical Antenna Array," 2010 IEEE International Conference on Communication, Control and Computing Technologies (ICCCCT'10); **Kanyakumari, Tamil Nadu**, IEEE– Computer society & *IEEE-xplore*, DOI: 10.1109 / ICCCT.2010.5670787, pp.12-16, 7-9th Oct., 2010.

4. A.Sudhakar, C.Subba Rao and A.V.Yashwanth, "Design of Linear Biconical Antenna Array for the Generation of Trapezoidal Pattern," 34th Progress in Electromagnetics Research (PIERS), **Stockholm, Sweden, August, 2013.**
5. C.Subba Rao and A.Sudhakar, "An Octagonal Monopole Antenna for Ultra-Wide Band Applications" 13th International Conference on Electromagnetic Interference and Compatibility (INCEMIC-2015), pp.551-554 **22-23 July, 2015, Visakhapatnam.**
6. A.Nageena, Ch.Monika, G.S.Kumar and C.Subba Rao, "Design of Wideband Octagonal Monopole Antenna", International Conference on Research Advances in Electrical Electronics and Communications -ICRAEEEC-2016, St. Ann's College of Engineering & Technology, Chirala, 19th March 2016.
7. C.Subba Rao and A.Sudhakar, "Broadband Circular Patch Antenna" 4th International Conference on Research Trends in Engineering, Applied Science and Management (ICRTESM-2017) at (IETE,Hyderabad), 24th June 2017, pp.585-589.
8. C.Subba Rao and B.N.Balarami Reddy, Design and Analysis of a Wideband Elliptic Cone Antenna", International Conference on New Trends in Engineering & Technology (ICNTET); 7-8th September-2018 GRT Institute of Engineering and Technology, Chennai; ISBN: CFP18P34-PRT/978-1-5386-5629-7; **IEEE Conference Proceedings**
9. C.Subba Rao, B.Swathi Lakshmi, K.Phani Rama Krishna "Design and Analysis of Compact Wideband Elliptical Patch Antenna", International Conference on Emerging Trends in Engineering (ICETE), 22-23rd March 2019, University College of Engineering, Osmania University, Hyderabad, **Springer**
- 10.C.Subba Rao, M.Srinivasa Rao, L.Madhavi Devi, "Design and Analysis of Wideband Decagon Microstrip Antenna", 2nd International Conference on Intelligent Data Communication Technologies and Internet of Things (ICICI-2019), 12-13 September- 2019, JCT College of Engineering and Technology Coimbatore, **Springer**
- 11.C.Subba Rao, L.Madhavi Devi and B.Swati Lakshmi, "Numerical Analysis of flat Dipole antenna for UWB Applications", Proceedings of the Third International Conference on Intelligent Communication Technologies and Virtual Mobile Networks (ICICV 2021), 4-6 February 2021, <https://doi.org/10.1109/ICICV50876.2021.9388609>, Francis Xavier Engineering College, Tirunelveli. IEEE Xplore.
- 12.C.Subba Rao, L.Madhavi Devi and B.Swati Lakshmi, "Design and Analysis of Loop antenna for Wideband Applications", Proceedings of the 4th International Conference on Smart Systems and Inventive Technology (ICSSIT 2022), 20-22 January 2022, <https://doi.org/10.1109/ICSSIT53264.2022.9716361>, Francis Xavier Engineering College, Tirunelveli. IEEE Xplore.

13. Mrs.L.Madhavi Devi, Dr.C.Subba Rao, Mrs.B.Swati Lakshmi presented a paper entitled Analysis of Proximity Coupled Micro Strip Feed Linear Antenna Array for 5G Applications - 4th International conference on smart systems & innovative technology, Francis Xavier Engineering, Tirunelveli, India, January, 2022.
14. C.SubbaRao, Mrs.B.Swati Lakshmi, Mrs.L.Madhavi Devi presented a paper entitled A Compact Multi Band Antenna for Military and Modern Communication Application - 4th International conference on smart systems & innovative technology, Francis Xavier Engineering, Tirunelveli, India, January, 2022.
15. Mrs.B.Swati Lakshmi, Dr.C. Subbarao, Mrs.L.Madhavi Devi presented a paper entitled Micro Controller Based Digital Emergency Caution Order System - 8th international conference on Communication and Electronic Systems organized by PPG Institute of Technology, Coimbatore, India during 1st – 3rd June, 2023.

National conferences-2

1. C.Subba Rao, J.Ravindranadh & A.Sudhakar, "Design of Line Source Antennas for the Generation of Ramp Patterns," **National** Conference on – Information Communication and Electrical Technologies – ICET' 09. Velammal College of Engg. & Technologies – Madurai, 27-28, Feb-2009.
2. B.N.Balarami Reddy, C.Subba Rao, P.Sowmya and K.Bhramaramba "Design of Low Profile Spiral antenna with Electromagnetic Band Gap Structure" Proceedings of National Convention on Recent Advances in Microwaves, Antennas and Communications" 1-2nd July 2016, Organized by PVPSIT and The Institution of Engineers India, pp.33-37.

Patents Granted

S.No.	Title of the Patent	Application No. & Names	Date of Filing	Date of Grant
1	A Wideband Curtain Antenna Using Biconical Element	354747-001; PVPSIT C. Subba Rao L. Madhavi Devi B. Swathi Lakshmi	11-12-2021	02-02-2022
2	Wideband Metal Ring Terminated Biconical Antenna	127341 PVPSIT C. Subba Rao L. Madhavi Devi B. Swathi Lakshmi T.Sushma P.Phani Prasanthi	28/08/2022	25/01/2023

3.	Automatic Wireless Parking Identification and Warning System	202041055527A C.Subba Rao L.Madhavi Devi B.Swati Lakshmi Md.Habibullah B.V.Subbayamma	21-12-2020	01-01-2021
4	Smart Window for Energy Saving	359278-001 Dr.C.Subba Rao, Mrs.B.Swathi Lakshmi, Mrs.L.Madavi Devi	24-02-2022	06-05-2022
5	Smart Lid of a Mixer	359277-001 C.Subba Rao, Mrs.B.Swathi Lakshmi, Mrs.L.Madavi Devi	24-02-2022	15-02-2023

Patents Published

Number of Research Papers during Ph.D and after Ph.D

S. No	Status of Journal	During Ph.D Programme	After Ph.D Programme
1	International Journals	07	17
2	National Journals	01	---
3	Book Chapters		02
3	International Conferences	04	11
4	National Conferences	01	01
6	Patents Granted	--	05

Signature
(Dr.C.Subba Rao)