

CURRICULM VITAE

Dr.Ch Manohar Kumar,
S/O CH.SIVA RAMA KRISHNA,
D/NO: 1-64/8
TARAKARAMA NAGAR,
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CAREER OBJECTIVE:

To work with a professional managed organization where I can take challenges in order to widen my career horizons and contribute my best for the progress of organization.

ACADEMIC QUALIFICATION:

Course	Year of passing	University/College	Division	Percentage
Ph.D(Metamaterial Antennas)	April 5 th 2022	CAREER POINT UNIVERSITY,Rajasthan,Kota.Estd.Under UGC ACT, 1956	-	-
M.Tech(R&M)	2011-2013	Andhra University	First	(8.90cgp)
B.Tech(E.C.E)	2004-2008	St.Ann's College of Engineering & Technology.	First	67.82%
INTERMEDIATE (M.P.C)	2002-2004	Vignana Bharathi Junior College.	First	89.5%
SSC	2001-2002	Sri Vasavi Convent.	First	87.3%

TEACHING EXPERIENCE: (14 Years 8 Months)

1. I worked as Assistant Professor in **ANITS** Engineering College (vizag) from August-2008 to NOV -2011. (3 years 3 months)
2. I Worked as Assistant professor in **DIET**, Anakapalli from 3.1.2012 to 31.12.2013. (2 Years)

3. Presently working as Assistant professor in **GVP College for Degree and PG Courses (A)**, Rushikonda from **January 7th 2014 to till date(9 Years 3 Months)**.

Subjects handled:

Electronic Devices and Circuits, Linear Integrated Circuits, Control Systems, Antenna and Wave Propagations, EMWTL, Digital Signal Processing, Digital Communication, microprocessor, data communications, EMI, cellular Mobile Communication, Microwave Engineering, IoT, Python Programming etc.

Industrial Training:

Trained on **Design and Verification (System Verilog and UVM)** at “**Semi Design**” approved by **Ministry of MSME, Govt. Of India** from April 2022 to September 2022.

Research Summary:

S.No	SCI	SCOUPS	Web Of Science	UGC	ICI/Other Journals	Springer/IEEE Conferences(Scoups)	Other Conferences	Book Chapters(Indexed by Scoups)	Patents
Number of Publications	3	7	1	3	7	5	3	3	5

Total Publications: 32

Books Published: 01

Editorial membership: Appointed as member of Editorial Board in “**International Journal of Innovative Research in Computer Science & Technology**” Indian Citation index peer reviewed Journal (ISSN: 2347-5552).

Achievements:

I was appreciated by Prof.V.S.R.K Prasad, Principal, ANITS, during the Academic year **2010-2011 (Best Student Feedback)**.

I was appreciated as **Good Researcher** for the Academic Year **2019-20** from management of **GVP College for Degree and PG Courses (A)**.

I was appreciated as **Best Academician and Researcher** for the Academic Year **2021-22** from management of **GVP College for Degree and PG Courses (A)**.

Professional Body memberships:

- **Life Member** of “Indian Society for Technical Education (ISTE)” from year 2010 with M.NO: LM **71520**.
- Member of International Association of Engineers (IAENG) with M.NO: **233071**

Other Activities: I Started a You Tube Channel; through this media I explained design of different type of Antennas using HFSS Tool so that will be beneficial to the students who want career growth in Antenna field.

Research Project applied:

- Submitted a project [CRG/2023/001617](#) proposal in 14th March 2023 under CORE RESEARCH GRANT scheme through SERB titled “**Design and Fabrication of Metamaterials MIMO Antennas for 5 G and Sub 6 GHz Applications**”. The project has been accepted for review.

Conference Papers:

1. Published a paper with title “**COMPARISON OF EDGE DETECTION BY USING ANT COLONY OPTIMIZATION AND MORPHOLOGICAL OPERATION**” in “**IEEE CONFERENCE ICHCI 13**” in SAVEETHA UNIVERSITY (CHENNAI).
2. Published a paper with title “**Efficient Transmission of Encrypted images with OFDM system**” with paper code **ICPCSI-0871** during 21st and 22nd sep-2017 at Saveetha engineering College, Tamilnadu.(IEEE)
3. Published a paper with title “**Design and Analysis of MTM and MTM array using HFSS**” in NC3-2020(**ISBN 979-8653077081**) during 28th and 29th July 2020 at Bapatla Engineering College, Bapatla.
4. Published a paper with title “**Effect of Metamaterial on Patch Antenna Performance**” in ICSCSP-2020(**Springer**) during 21st and 22nd August-2020 at Malla Reddy College of Engineering & Technology, Telangana.
5. Published a paper with title “**Multi band Metamaterial inspired L type Slot Patch Antenna**” in **ICSTCEE2020 (ISSN: 978-1-7281-7214-9)** during 9-10th October 2020 at REVA University, Bengaluru, India. (IEEE, SCOPUS Indexed).
6. Presented a paper in “**2nd National Conference on Communication Systems (NCOCS-2020)**” with title “**Study of Patch Antenna Performance by Varying Structure and positions of Metamaterials in its Ground Plane**” November 21,

2020, at the National Institute of Technology (NIT) Puducherry, Karaikal, Puducherry-609609, India.

7. Published a paper with title **“Design of wideband patch Antenna using metamaterial and Dielectric resonator Structures”** in ICSCSP-2021(Springer) during 18th and 19nd June-2021 at Malla Reddy College of Engineering & Technology, Telangana (WEB of Science).
8. Published a paper with title **“DESIGN AND PERFORMANCE OF π -SHAPE SLOTTED MICROSTRIP PATCH ANTENNA ARRAYS”** in BHARAT-22 International Conference on Breakthrough in Heuristics and Reciprocity of Advanced Technologies April 7th -8th at GITAM (Visakhapatnam), IEEE, pp. 83-88, doi: 10.1109/BHARAT53139.2022.00027. (IEEE, SCOPUS Indexed)

Papers Published:

1. Published a paper on IJERT journal on Topic **“Estimation of I/Q imbalance in MIMO OFDM System”** in IJERT, Volume 2, Issue 10 (October-2013)
2. Published a paper with title **“Multifunctional Reconfigurable Antenna”** in International Journal of Electronics, Electrical and Computational System (IJEECS) with ISSN 2348-117X Volume 6, Issue 5 May 2017.
3. Published a paper with title **“Design and Analysis of UWB MIMO antenna using Fractals in HFSS”** in IRJET with P-ISSN number: 2395-0072 (4th April 2018).
4. Published a paper with title **“Circular Slotted Multiband Antenna For X-band and Ka-Band Applications”** in UGC approved journal - International Journal of Research and Analytical Reviews (IJRAR) with ISSN number 2348-1269, Volume 6, Issue 1 (March 2019).
5. Published a paper with title **“Effect of Metamaterial on a Triangle Shaped Multi-Band Patch Antenna”** in UGC approved journal JETIR (Journal of Emerging Technologies and Innovative Research) with ISSN number 2349-5162, Volume 6, Issue 3 (March 2019)
6. Published a paper with title **“A Compact UWB Fractal Antenna For Wireless Communication Applications”** in UGC approved journal International Journal of Research and Analytical Reviews (IJRAR) with ISSN number 2348-1269, Volume 6, Issue 2 (May 2019).
7. Published a paper with title **“A Rhombus Shaped Metamaterial Inspired Antenna in the Ground Plane for X Band Applications”** in International Journal of Resent

technology and Engineering (**SCOPUS Indexed**) with ISSN number 2277-3878, Volume 8, Issue 1 (May 2019).

8. Published a paper with title “ A Compact Ultra-Wide Band Rhombus Shaped Fractal Antenna With Metamaterial In the Ground Plane” in **International Journal of Engineering and Advanced Technology (IJEAT) (SCOPUS Indexed)** with ISSN number 2249-8958, Volume 8, Issue 6 (August 2019).
9. Published a paper with title “Development Of Flexible Organic Wireless Rf Devices Utilizing Doppler Radar Fabric Antenna” in **International Journal of Aquatic Science (Web of Science)** with ISSN number 2008-8019, Volume 12, Issue 2 (July 2021).
10. Published a paper with title “Metamaterial Loaded Miniaturized Antenna for Microwave X and Lower Ku Band Applications” in **INTERNATIONAL JOURNAL OF MICROWAVE AND OPTICAL TECHNOLOGY (SCOPUS Indexed)** with ISSN number 1553-0396, Volume 16, Issue 6 (November 2021).
11. Published a paper with title “A Novel Compact Fractal UWB Antenna with Dual Band Notched Characteristics” in **Analog Integrated Circuits & Signal Processing (ALOG) (SCI&SCOPUS Indexed & SCIE)** with <https://doi.org/10.1007/s10470-021-01958-0> on 15-11-2021.
12. Published a paper with title “Performance of patch antenna through varying structure and positions” in **Indian Journal of Radio & Space Physics (SCOPUS Indexed)** with ISSN number 0975-105x(Vol 50,June 2020, pp 95-99).
13. Published a paper with title “2:1 Multiplexer Design Using Lector, LCnmos, LCpmos Power Reduction Techniques with 45nm, 90nm, 180nm CMOS Technology” in **International Journal of Innovative Research in Computer Science & Technology (IJIRCST) (ICI Indexed)** with ISSN: 2347-5552, Volume-9, Issue-3, May 2022.
14. Published a paper with title “Design of Multiband Antenna Using Fractal and DGS Techniques” in **International Journal of Innovative Research in Engineering & Management (IJIREM) (ICI Indexed)** with ISSN: 2350-0557, Volume-9, Issue-3, June 2022.
15. Published a paper with title “A Novel Foot Shaped EEP-UWB Antenna with Quadruple Band Notch Characteristics Verified by Characteristic Mode Analysis” in

International Journal of Communication Systems (SCI & Scopus) 2022;e5284. doi:10.1002/dac.5284, 28 June 2022,Online ISSN:1099-1131.

16. Published a paper with title “Design of Tri Band and Dual Band Antenna Using Meta Cell” in International Journal of Innovative Research in Computer Science & Technology (IJIRCST) (**ICI Indexed**) with ISSN ISSN: 2347-5552, Volume-10, Issue-6, Nov 2022.
17. Published a paper with title “Verification of UART and I2C Protocols using System Verilog” in International Journal of Innovative Research in Computer Science & Technology (IJIRCST) (**ICI Indexed**) with ISSN ISSN: 2347-5552. Volume 11, Issue 2/3, 2023
18. Published a paper with title “SELF-SECURE FIRMWARE MODEL FOR BLOCKCHAIN-ENABLED IOT ENVIRONMENT TO EMBEDDED SYSTEM” in **EuropeanChemicalBulletin** with(ISSN2063-5346),doi:10.31838/ecb/2023.12.s3.075

Book Chapters:

1. Manohar Kumar C., Kumar M.N.V.S.S. **Effect of Metamaterial on Patch Antenna Performance.** In: Reddy V.S., Prasad V.K., Wang J., Reddy K.T.V. (eds) Soft Computing and Signal Processing. *Advances in Intelligent Systems and Computing*, Book Series, vol 1340. Springer, Singapore. https://doi.org/10.1007/978-981-16-1249-7_56(Indexed by SCOPUS)
2. **Manohar Kumar ch**, *Design of T Shape Miniaturized Metamaterial Antenna for Lower Region of C band* In **Planar Antenna: Design, Fabrication, Testing, and Application:2021**,Books,Electrical Engineering, Electrical Engineering Developments, Engineering & Technology, Nova, Science and Technology, Technology and Engineering, **ISBN: 978-1-68507-042-7.(Indexed by SCOPUS)**
3. **Manohar Kumar ch**, (2022) **Design of Wideband Metamaterial and Dielectric Resonator-Inspired Patch Antenna.** In: Reddy V.S., Prasad V.K., Wang J., Reddy K. (eds) Soft Computing and Signal Processing. ICSCSP 2021. **Advances in Intelligent Systems and Computing**,vol1413.Springer,Singapore. https://doi.org/10.1007/978-981-16-7088-6_51

Books Published:

1. Published a **BOOK** with Title “**Design of metamaterial based patch antennas for wireless communication**”, **Dr.Manohar Kumar ch.**, In Scholar’s Press with ISBN: 978-620-5-52071-0. Published on **06-01-2023**.

Patents:(5)

1. **Patent Title:** Multi-dimensional radio resource allocation scheme to cater the fluctuations of the network situations due to 5G real time dynamic traffic
Application Number: 2021104413
Date of Filing: 2021-07-21
Country: Australia
2. **Patent Title:** A split rings supported by inner hexagonal ring patch antenna useful for wireless applications
Application Number: 202141043646
Date of Filing: 2021-09-27
Country: India
3. **Patent Title:** Artificial Intelligence and Machine Learning to Secure IoT in Industrial Environment.
Application Number: 202241070205
Date of Filing: 05-12-2022
Country: India
4. **Patent Title:** IoT Based Smart Systems using ML and AI Vulnerabilities and Intelligent Solutions
Application Number: 202241072732
Date of Filing: 15-12-2022
Country: India
5. **Patent Title:** IOT-based photovoltaic solar power generation with maximum power point tracking”
Application Number: 202341026559
Date of Filing: 10-04-2023
Country: India

Workshops Attended:

1. Attended A Two-day national level seminar on **“DSP APPLICATIONS in MODERN COMMUNICATIONS”** on 30th & 31st MARCH 2007
2. Attended **“NATIONAL WORKSHOP ON BIO-INFORMATICS & GENOMIC SIGNAL PROCESSING”** on 18th & 19th august 2012.
2. Attended **“INTERNATIONAL WORK SHOP on BUSINESS INTELLIGENCE & TEST-DRIVEN DEVELOPMENT** on 5th December 2012
3. Attended math works seminar on **“MATLAB & SIMULINK** for Engineering Education “on 7th Feb 2013.
4. Attended Workshop on **“Emerging Trends in Teaching Methodology of Engineering Education”** organized by ANITS, Vizag on 1st March 2014.
5. Attended workshop on **“Energy Harvesting in Sensor Wireless Networks”** organized by GITAM UNIVERSITY on 4th April 2014.
6. Attended a Three-day Staff Development Programme on **“ELECTROMAGNETIC AND RF FUNDAMENTALS”** during 22nd – 24th January 2016.
7. Attended a FDP on **“Micro Wave Engineering and Circuits”** organized by E& ICT ,**NIT Warangal** from 13-23 Sep 2016
8. Attended three days National Workshop on **“Advanced Antenna Design”** Organized by Dept. of ECE, Andhra University (A) from 19th-21st OCTOBER 2016.
9. Attended Three day National Workshop on **“Advanced signal Speech and Image Processing”** Sponsored by SERB(DST) organized by GVP COE(A) from 1st -3rd Dec 2016
10. Attended a QIP short term course on **“Design of Micro Wave Antennas for Wireless Communication Applications”** organized by **IIT Kharagpur** during August 21-26, 2017.
11. Attended a short term course on **“Efficient and low-loss antenna Configurations”** organized by **IIT Kharagpur** during 21st May to 2nd June, 2018.
12. Participated in a three-day workshop on **Custom Analog and Digital IC Design using Mentor EDA Tools** at **GVP College of engineering for women** from 27th to 29th September 2018.
13. Attended a Two–day workshop on **“Intellectual property rights patents inventions: Procedure, practice and protection”** organized by **GVP college for Degree and PG Courses (A)** during 13th March to 14th march 2019.
14. Attended a Two–day **“National Level Workshop on NIRF INDIA RANKINGS – 2022 For Higher Educational Institutions”** organized by **Institute for Academic**

Excellence in collaboration with Collegiate Education & Technical Education Department, Govt. of Telangana, during 5th & 6th January, 2022.

Covid lock down Period:

Faculty Development Programs:

1. Attended a one Week online FDP on “**Advanced Antenna Design Using HFSS**” organized by **Santhiram Engineering College**” during 12-05-2020 to 17-5-2020.
2. Attended a Three day online FDP on “**Recent Trends in Research Methodology**” organized by **BHIMAVARAM INSTITUTE OF ENGINEERING & TECHNOLOGY**” during 19-21 May 2020.
3. Attended a five days online FDP on “**Recent trendy Antenna Design Using EM Solver**” organized by THE INSTITUTION OF ENGINEERS (INDIA) during 26-05-2020 to 30-5-2020.
4. Attended a Two Weeks online FDP on “**Internet of Things (IOT)**” organized by APSSDC during 18-05-2020 to 30-5-2020.
5. Attended a five days online FDP on “**Antenna and Microwave Engineering**” organized by SAVEETHA ENGINEERING COLLEGE (A) during 22-06-2020 to 26-6-2020.
6. Attended a one Week online STTP on “**Design and Simulation of Miniature Antenna for IOT Applications**” organized by MVGR College of Engineering (A), Vizianagaram during 29-06-2020 to 4-7-2020.
7. Attended a two Week online FDP on “**Demystifying 5G RF ASICs** ”organized by E & ICT Academy & IIT Guwahati during 24th August to 4th September,2020.
8. Attended a AICTE Training And Learning (ATAL) Academy **Online** FDP on “**Control Systems & Sensors Technology**” from 2020-11-2 to 2020-11-6 at Gayatri Vidya Parishad College for Degree and PG courses (A).
9. Attended a workshop on “**FLEXIBLE AND WEARABLE ANTENNAS & APPLICATIONS**” organized by Rajasthan Technical University, KOTA during 9.2.2021 to 13.2.2021.
10. Attended a FDP on “**Teaching-Pedagogical Intelligence**” organized by Malla Reddy Engineering College “Hyderabad during 15.3.2021 to 27.3.21.
11. Attended a Online FDP in Association with AICTE on **New & Emerging Technology Using Simulation Tools by technology partner Ansys Software Pvt.Ltd** during 28.6.2021-2.7.2021.

12. Attended a Online STTP on “**ICT Tools for Teaching and Learning 2 (ICT077)**” organized by NITTTR, Kolkata during 28/06/2021 to 02/07/2021.
13. Attended a FDP on “**Recent Advances in Antennas for Wireless Communications**” organized by Bapatla Engineering College, Andhra Pradesh, during 27.7.2021 to 31.7.21.
14. Attended a **AICTE Training And Learning (ATAL) Academy Online** FDP on “**Devices for Modern Wireless Communication System**” from **2021-09-20 to 2021-09-24** at School of Studies in Engineering and Technology, Guru Ghasidas Vishwavidyalaya, Bilaspur.
15. Attended a FDP on “**Metamaterial Applications and Evolutionary Techniques**” organized by **NIT Warangal** during 22nd April to 27th April 2019.
16. Certified **Elite** in the Twelve week **FDP** Course “**Antennas**” during January-April 2019 online NPTEL courses
17. Certified **Elite** in the Twelve week **FDP** Course “**Microwave Theory and Techniques**” during July-Oct 2019 online NPTEL courses.
18. Attended a FDP on “**Metamaterial Antenna Design and Deep learning Techniques for Modern Wireless Communication**” organized by **NIT Tiruchirappalli** during 17th Feb 2020 to 21st Feb 2020.
19. Attended a FDP on “**RISC-V VLSI Implementation Flow: RTL2GDS**” organized by **Electronics and ICT Academies held from 27 March - 10 April, 2021 under the “Scheme of financial assistance for setting up of Electronics and ICT Academies” of the Ministry of Electronics and Information Technology (MeitY), Government of India.**
20. Attended a Five–days “**e-Workshop on on LaTeX**” organized by the **Department of Mathematics, School of Science, GITAM, Bengaluru, India, held from 5th to 9th July2021.**
21. Attended a Two Week FDP on “**IoT & Applications (Smart Systems)**” organized by **Electronics and ICT Academies held from 14-25th Feb , 2022** under the Scheme of financial assistance for setting up of Electronics and ICT Academies” of the Ministry of Electronics and Information Technology (MeitY), Government of India.

Online WEBINAR:

1. Attended a Webinar Series on “**Satellite and Automation**” organized by GSSSIETW IEEE STUDENT BRANCH IN ASSOCIATION WITH IEEE BANGALORE SECTION during 11th to 13th May 2020.
2. Attended a Webinar on “**IOT USING ARDUINO**” organized by ST.FRNCIS COLLEGE FOR WOMEN on 13th, May 2020.
3. Attended a Webinar on “**Study of Antenna design and Analysis of Simulated results**” organized by National College of Engineering on 21st, May 2020.

4. Attended a Webinar on “**IEEE REFERENCE MANAGEMENT TOOL FOR RESEARCH ARTICLES AND THESIS WRITING**” organized by IEEE Bangalore Section on 20th, May 2020.
5. Attended a Webinar on “**Waveguide Modes and Antennas**” organized by BENNETT UNIVERSITY on 26th, May 2020.
6. Attended an Online Training Program on “**METAMATERIAL CONCEPTS AND APPLICATIONS**” organized by ENTUPLE TECHNOLOGIES on 25th to 28th May 2020.
7. Attended a Webinar on “**VLSI DESIGN AND VERIFICATION**” organized by GAYATRI VIDYA PARISHAD COLLEGE OF ENGINEERING FOR WOMEN on 3rd June, 2020.

PERSONAL PROFILE:

Name	: Dr.Ch. Manohar Kumar.
Father’s Name	: Siva Ramakrishna Chebrolu.
Date of Birth	: 23-08-1987.
Gender	: Male.
Marital Status	: Married.
Nationality	: Indian.
Languages Known	: Telugu, English.
Hobbies	: Playing Cricket, Listening Music.
Permanent Address	: Ch. Manohar Kumar, S/O Siva Ramakrishna Chebrolu, Amaravari Street, Chirala-523155, Prakasam Dist, A.P.

ORCID ID:<https://orcid.org/0000-0003-1135-4974>

DECLARATION:

I here by declare that the information furnished by me is true to the best of my knowledge and belief.

Place: Visakhapatnam

Date: 13.04.2023

(Dr.Ch Manohar Kumar)