Name of Faculty Dr. Vinodh Kumar Minchula Designation Associate Professor Nature of Job/Appointment Contract Date of Joining 16-02-2021 F-mail vinodhkumarm\_ece@cbit.ac.in **Education Qualifications** Name of the Degree Class Doctor of Philosophy (ECE) Awarded Ph.D. (Full Time- UGC NRF) Andhra University M.Tech (Communication Engineering) Distinction PG (University 3<sup>rd</sup> Rank) VIT University B.E (ECE) UG First Anna University Diploma in Japanese Language Other Distinction (Foreign Language) Work Experience 9 Years Teaching Research 2yr 9m (UGC JRF & SRF) Industry Others Area of Specialization Wireless Communications and Signal processing Academic Identity Vidwan-ID: 179272 Scopus Id: 57201457305 Researcher Id: N-6946-2017 Orcid Id: 0000-0002-9042-6413 i. Fellow Member of IETE (F-502564), INDIA ii. Member of IEEE (M- 93979993), USA iii. Life Member of Sakura Science Club (SSP ID: 17104180), Japan Science & Technology, Japan iv. Permanent Member of Institution of Engineers, INDIA **Professional Memberships** v. Member of IEEE Communication Society, USA vi. Member of IEEE Information Theory Society, USA vii. Member of IEEE Signal Processing Society, USA viii. Member of IAENG(International Association of Engineers) i. Industrial academic SPOC for TCS Tech. Business Unit in conducting TCS industrial telecom projects to TCS selects from four major departments (ECE, CSE, EEE, IT) for the year 2014-15 & 2015-16 at MVGR College of Engg.(A). Responsibilities held at Institution Level College of Engg.(A) iii. Nominated as Vice President for Toyama Sakura Club of Andhra University, Andhra Pradesh, INDIA. Responsibilities held at Department Level

ii. Central level Training & Placement Coordinator for 8.5 years at MVGR

University Jointly formed by Toyama prefecture, Japan & Andhra

i. Member, Course Expert Group

i. Received "International Fellowship in Japan"-Asia youth exchange program in science under Sakura Science program sponsored by Japan Science and Technology, Japan in year 2017-18.

- ii. Received "UGC-National Research Fellowship" for 5 years under UGC-NFOBC, Govt. of INDIA in the year 2016-17.
- iii. Received "Medal of Honor" for PhD in 5G Communications from Andhra University presented by correspondent MANSAS, principal MVGR college of Engineering (A) in 2019.
- iv. Received "University rank 3<sup>rd</sup>" for Academic Excellence in M.Tech with a GPA of 9.04 from VIT University Vellore in year 2009.
- v. Received "Merit Scholarship" in M.Tech 1st year for GPA of 9.19 VIT University Vellore in year 2008.

Cellular Communication, Satellite Communication, Optical Communication, Digital Data Communications, Radar Systems, Analog Communications, Communications, Digital Computer networks, Telecommunication switching systems and networks, Professional Ethics and Human values, Analog Communication Lab, Digital Communication lab, Communication and Signal processing lab Microwave and Optical

Awards Received

Research Guidance

Courses Handled at Under Graduate / Post Graduate Level.

No. of Papers Published

Projects Carried out Patents Technology Transfer

Invited Speaker

No. of Books/Chapter Published with details

Details of Short-Term Training Programs/Faculty Development Programs/Seminars/Workshops. Other Trainings (Attended and/or Organized).

communication lab.

National Journals – -- International Journals – 10

National Conference – 02 International Conference – 06

---

- A Technical session for 40 Indian Navy personnel under AU-Defense R&D program to Naval HQ Wireless Equipment unit, Visakhapatnam in 2019
- A Lecture on "Laser properties & limitation with longitudinal and transverse modes experimental demonstration" on 02-04-2019 organized by MRPG college, Vizianagaram.
- iii. Reviewer & Technical Program Committee (Associate Editor) of International Journal of Electrical and Computer Engineering (Scopus Journal)-2021
- iv. Reviewer of Elsvier ICT express, PIER.Journal, IEI: Series B journal

----

- One Week National Level Online STTP IV on "AI-MIMO Millimeter (mm) Wave And Massive MIMO Applications For 5G Wireless Networks Using AI", 26<sup>th</sup> Apr-1<sup>st</sup> May 2021 organized by GRIET, Hyderabad.
- One Week National Level Online STTP III on "Trends and Challenges in Design and Implementation of Reconfigurable Antennas for Increased Spectrum Access in Cognitive Radio Communication", 14-19th Sep 2020 organized by VR SIDDHARTHA ENGINEERING COLLEGE, Vijayawada, AP
- One Week AICTE Training And Learning (ATAL) Academy Online FDP on "Design thinking", 7-11<sup>th</sup> Sep 2020 organized by College of Engineering Trivandrum.
- Two-week Online Faculty Development Programme on "Demystifying 5G RF ASICs", 24<sup>th</sup> Aug to 4<sup>th</sup> Sep 2020 organized by Electronics and ICT Academies, Indian Institute of Technology Guwahati.
- AICTE Sponsored One Week Online Short Term Training Program(STTP-II) On "Electromagnetics, Microwave, RF & Antenna Design Using Ansys HFSS", 24-29<sup>th</sup> Aug 2020 organized by Shri Vishnu Engineering college for women, Bhimavaram.
- One week AICTE-MHRD sponsored online STTP phase II on "Design of Miniature Antenna for 5G and IoT Applications", 10-15<sup>th</sup> Aug 2020 organized by MVGRCE, Vizianagaram.
- AICTE Sponsored One Week Online Short Term Training Program(STTP-I) On Trends and Challenges in Design and Implementation of Reconfigurable Antennas for Increased Spectrum Access in Cognitive Radio Communication", 20-25<sup>th</sup> Jul 2020 organized by VR SIDDHARTHA ENGINEERING COLLEGE, VIJAYAWADA, AP.
- 8. Five day online STC on "Antenna Design Techniques and software Simulations using HFSS", 13-17<sup>th</sup> Jul 2020 organized by ECE NITTTR, Chandigarh.
- One month Online Industrial Internship on RF & Antenna Design Using ANSYS HFSS, 22<sup>nd</sup> Jun–14<sup>th</sup> Jul 2020 organized by Entuple technologies in association with ANSYS, IEEE Bangalore section, MTTS.
- Five day online AICTE-MHRD sponsored online STTP Phase I on "Design and Simulation of Miniature Antenna for IOT Applications", 29<sup>th</sup> Jun- 4<sup>th</sup> Jul 2020 organized by MVGRCE, Vizianagaram.
- 11. Three day online FDP on RF Design/VNA & Its Applications, 16-18<sup>th</sup> Jun 2020 organized by Entuple & Anritsu
- 12. Web of Science Journal Citation Reports South Asia Training & Certification Program 2020, 5<sup>th</sup>,12<sup>th</sup> ,25<sup>th</sup> & 27<sup>th</sup> May 2020 organized by Web of Science- Clarivate Analytics company
- 13. Five day online FDP on Design Thinking, 01-05<sup>th</sup> Jun 2020 organized by MITS School of Business, Madanapalle.
- 14. One week AICTE-MHRD sponsored online FDP on Evaluation & Setting of Question Papers 25-29<sup>th</sup> May 2020 organized by NITTTR, Chandigarh.
- 15. Five day online FDP on Technological Interventions Using Wireless communication, 18-22<sup>th</sup> May 2020 organized by NITTTR, Chandigarh.
- 16. One week online FDP on "OUTCOME BASED EDUCATION: A STEP

- TOWARDS EXCELLENCE" under Margdarshan Scheme of AICTE, New Delhi during 11-15<sup>th</sup> May 2020 organized by Government College of Engineering, Karad.
- 17. One week National FDP training on Latex, 27<sup>th</sup> Apr to 2<sup>nd</sup> May 2020 organized by Spoken tutorials Project IIT Bombay, Sanjay Ghodawat University.
- One week short course on Massive MIMO Cooperative Communication and Cognitive Radio for 5G, 6-11<sup>th</sup> Jan 2020 organized by Department of Electrical Engineering, IIT Kanpur in association with ECE department Andhra University.
- 19. Participated in IEEE workshop on Channel Coding in 5G, 24<sup>th</sup> & 25<sup>th</sup> Aug 2019 organized by IEEE Hyderabad section at MVGRCE.
- 20. One week Electronics and ICT Acadamy FDP on ARTIFICIAL NEURAL NETWORKS AND DEEP LEARING, 3-8<sup>th</sup> Jun 2019 organized by E&ICT Academy, NIT Warangal at MVGRCE.
- 21. Short course on MU-MIMO, Massive MIMO and OFDM Technologies for 5G Networks, 27-30<sup>th</sup> Mar 2019 organized by Department of Electrical Engineering, IIT Kanpur.

## Details of Journal Publications/ Conferences

Vinodh Kumar Minchula, G. SasibhushanaRao, "SVD-based IWFA for next generation wireless MIMO

- 1. communication", Elsevier Information & Communication Technology (ICT) Express, ISSN 2405-9595, Vol. 4, Issue 3, pp. 171-174, 2018. (SCIE, KOREA CITATION INDEX, DOAJ&UGC Approved)
  - Vinodh Kumar Minchula, G. Sasibhushana Rao, "Multi-Antenna system Performance under ICSIT and ICSIR
- 2. channel conditions", Springer Advances in Intelligent Systems and Computing, ISSN: 2194-5357, Vol. 695, pp. 505-511, 2018.
  - Vinodh Kumar Minchula, G.SasibhushanaRao, "Investigation of Optimal Cyclic Prefix length for 4G fading
- 3. channel", Springer Advances in Intelligent Systems and Computing, ISSN: 2194-5357, Vol. 695, pp. 429-435, 2018.
  - Vinodh Kumar Minchula, G. Sasibhushana Rao, "SAC channel effects on MIMO wireless system Capacity",
- 4. Springer Microelectronics, Electromagnetics and Telecommunications, ISSN: 1876-1100, Vol. 521, pp 759-765, 2018.
  - Vinodh Kumar Minchula, G. Sasibhushana Rao, "Carrier Frequency Offset impact on LTE-OFDM systems",
- Springer Microelectronics, Electromagnetics and Telecommunications, ISSN: 1876-1100, Vol. 521, pp 401-408, 2018.
  - Minchula Vinodh Kumar, Yalaganda Merlin, "High-Performance of Domino Logic Circuit for Wide Fan-In Gates
- Using Mentor Graphics Tools" Published in IOSR Journal of VLSI and Signal Processing, Volume 5, Issue 6, e-ISSN: 2319 – 4200, p-ISSN No.: 2319 – 4197, Nov-Dec 2015
  - M.Vinodh Kumar, Md.Rameez, "Pipelined processor with reduced hardware overhead" Published in International
- 7. Journal of Electronics & Communication Technology (IJECT), Volume 5, Issue 4, ISSN (Online): 2230–7109, ISSN (Print): 2230–9543, Dec 2014
  - M. Vinod Kumar, Giddi Srinivasarao, "Leakage power reduction in cmos circuits using leakage controlled pmos
- 8. technique in nano scale" Published in International Journal of Electronics & Communication Technology (IJECT), Volume 4, Issue 3, ISSN (Online): 2230–7109, ISSN (Print): 2230–9543, 2013
  - M. Vinodh Kumar, K. Pruthvi Raj, Md. Amina Tabassum, "Design and fabrication of Meander line Antennas for
- WLAN and Dual Band Applications" Published in International Journal of Electronics Communication and Computer Engineering (IJECCE), Volume 4, Issue 3, ISSN (Online): 2249–071X, ISSN (Print): 2278–4209, 2013
   M.Vinodh kumar, Ch.Suryanarayana, "An Implementation of Open Core Protocol for the On-Chip Bus" Published
- 10. in International Journal of Computer Science and Information Technologies(IJCSIT), Vol. 3 (3), 2012,4275 4278 May-June 2012

## **International Conference Publications**

- Vinodh Kumar Minchula, G. SasibhushanaRao, "Novel Schemes for minimizing PAPR in LTE-OFDM System",
- 1. IEEE International Conference on Recent Innovations in Electrical, Electronics & Communication Engineering, School of Electrical Engineering, KIIT- Bhubaneswar, July 27th& 28th 2018.
- 2. Vinodh Kumar Minchula, G. SasibhushanaRao, "Multi Antenna correlation effects on Closed form MIMO system

capacity", International Conference on Recent Trends in Engineering, Science and Technology, Visakhapatnam, Feb 20th & 21st 2018.

- Vinodh Kumar Minchula, G. SasibhushanaRao, "Performance Analysis of LTE Systems in T-F Dispersive Channels", pp. 296-302, International Conference on Recent Trends in Engineering, Science and Technology (ICRTEST-2016), ElsevierMaterials Today: Proceedings, Hyderabad, 25th-27th October 2016.
  - Vinodh Kumar Minchula, G. SasibhushanaRao, "Improved Clipping and Filtering based PAPR Reduction
- 4. Techniques in LTE", pp. 290-295, International Conference on Recent Trends in Engineering, Science and Technology (ICRTEST-2016), Elsevier Materials Today: Proceedings, Hyderabad, 25th-27th October 2016 Minchula Vinodh Kumar, M Satyanarana, "Design of Coplanar Wave Fed Flared Monopole Antenna for Wireless
- 5. Applications "8th International Conference on Microwaves, Antenna, Propogation & Remote Sensing (ICMARS 2012) 11-15th December 2012, Jodhpur INDIA
  - PNRL ChandraSekhar, P SuryaPrasad, M Vinodh Kumar, D Hari Hara Santosh "Image Retrieval with Rotation
- 6. Invariance" published in IEEE 2011 3rd International Conference on Electronics Computer Technologies (ICECT 2011), April 8-10 2011 Kanyakumari, India.

## **National Conference Publications**

Minchula Vinodh Kumar, "BER Analysis and Peak to Average Power Ratio of OFDM Using QPSK and 16-QAM

- Digital Modulation Techniques" Published in National Conference on Advances in Communication, Navigation and Computer Networks (ACNCN-2012) AU College Of Engineering, March 17-18 2012
   Vinodh Kumar Minchula, "Implementation of Twin Precision Technique for Multiplication" Published in AICTE &
- 2. DRDO Sponsored 3-Day National Conference on Signal Processing and Embedded Systems Applications (SPESA-2011), July 8-10th 2011 Hyderabad, India.