# KAKUMANU NAGA RAJU

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| Name of the Faculty: | Kakumanu Naga Raju |  |
| Designation: | Assistant Professor | |
| Department: | Electronics and Communication Engineering | |
| Date of Birth: | 09/11/1990 | |
| AICTE – ID: | | |

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| **Education** | • B.Tech in Electronics and Communication Engineering from Jawaharlal Nehru Technological University, Kakinada in 2012<br>• M.Tech in Communication Engineering and Signal Processing from Acharya Nagarjuna University in 2014<br>• PhD in Information and Communication Engineering from Anna University (Thesis submitted) | | |
| **Experience** | Teaching: 6.5 Years | Industry: ____Years | **Total: 9.5 Years** |
| | Research: 3 Years | Others: ____Years | |
| **Research Specialization** | Design and Performance analysis of Metamaterials incorporated microstrip antennas for 5G wireless applications. | | |
| **Courses taught** | **1. Antennas and Wave Propagation**<br>**2. Data structures**<br>**3. Object Oriented Programming**<br>**4. Machine Learning** | | |

**Research contributions**

**International/national peer reviewed journals**

| S. No. | Title of paper | Journal | Year | Volume | pages | Indexing SCI/WoS/ SCOPUS, Google scholar) |
|---|---|---|---|---|---|---|
| 1 | Sub-6GHz and Circularly Polarized mm-wave DNG-CMM Tri-patch MIMO Radiator for 5G Applications | International Journal of Electronics | 2024 | Accepted | | SCI |
| 2 | A Survey on 5G Spectrum and Design of Microstrip Antennas for 5G Wireless Networks | Tuijin Jishu / Journal of Propulsion | 2024 | 45 | 4875 – 4883 | SCOPUS |

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|---|---|---|---|---|---|---|
| | | Technology | | | | |
| 3 | Linear Phased Metamaterial Incorporated Patch Antenna Array at 28 GHz for 5G Base Stations | C. R. Acad. Bulg. Sci | 2024 | 77 | 246–255 | SCI |
| 4. | Linear Phased Metamaterial incorporated Patch antenna array at sub-6 GHz for 5G Base Stations | International Journal of Electronics | 2023 | | | SCI |
| 5. | Design and performance analysis of miniaturized dual-band micro-strip antenna loaded with double negative meta-materials | Microsyst Technol | 2023 | 29 | | SCI |
| 6. | A Rectangle Novel Multiband Patch Antenna For Satellite Applications | journal of emerging technology and innovative research | 2020 | 7 | | Google scholar |
| 7. | Mushroom Structure Micro strip Antenna Array for Ku band Applications | journal of emerging technology and innovative research | 2020 | 7 | | Google scholar |
| 8. | Investigations on Radiation Characteristics of Rectangular Microstrip Patch Antenna | IJAEM Journal | 2016 | 5 | | Google scholar |
| 9. | Computational studies on Rectangular micro strip patch antenna | International journal of Electronics and communications and computer Engineering | 2014 | 5 | | Google scholar |
| 10. | Halloween Structured Microstrip MIMO Radiator at 5G sub-6GHz and mm-wave Frequencies | International Conference on the Paradigm Shifts in Communication, Embedded Systems, Machine Learning and Signal Processing (PCEMS- 2023) (IEEE) | 2023 | | 1-8 | Scopus |
| 11. | On the Notch band | International | 2018 | | | Google |

| | | | | | | |
|---|---|---|---|---|---|---|
| | Characteristics of CPW Fed Elliptical Slot Antenna | Conference SCI-2018 on SMART COMPUTING AND INFORMATICS(SCI-2018) | | | | scholar |

**Books published**

| S. No. | Title of the book | Publisher | year |
|---|---|---|---|
| 1 | | | |

**Book chapters Published**

| S.No. | Title of the Chapter | Book title | Publisher | year |
|---|---|---|---|---|
| 1 | Design and Performance analysis of UWB Microstrip Antennas for 5G and Beyond Wireless Applications | Radio Frequency and Microwave Design for Next-Generation wireless Applications | CRC Press, Taylor & Francis Group | Accepted |

**Details of Patents (Filed & Granted**)

| S. No. | Applications number | Title of the patent | Date of filing/publishing | Published/granted |
|---|---|---|---|---|
| 1 | 202441010834 A | A Novel 28/38 GHz Compact MIMO Antenna For 5G MM-Wave Cellular Applications | 08/03/2024 | Published |
| 2. | 202441010865 A | A 4-Port Ultra-Compact 5G MIMO Antenna for MM-Wave N257 And N261 Band Applications | 08/03/2024 | Published |
| 3. | 202341050227 A | Design of ultra Compact Dual-band 26/38 GHz monopole Antenna for 5G mm-Wave applications | 01/09/2023 | Published |

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|---|---|---|---|---|
| 4. | 374846-001 /D/CA /BG | Design and Performance Analysis of Compact Ultra Wide Band Microstrip Antennas for 5G Wireless Applications | Filed | Filed |

**Details of Conferences/FDPs/STTPs/webinars/Workshops Organized**

| S.No. | Name of the event | Role | Dates |
|---|---|---|---|
| 1 | | | |

**Details of Conferences/FDPs/STTPs/webinars/Workshops Participated**

| S.No. | Name of the event | Organized by | Dates |
|---|---|---|---|
| 1 | Future Communications Technologies: 5G & Beyond | Department of Electronics Engineering, NIT Uttarakhand | January 29-February 03, 2024 |

**Awards/recognitions/achievements**

| S.No. | Name of the Award | Awarding body/Society/Organization | Year |
|---|---|---|---|
| 1 | Department Best Teacher Award | Bapatla Education Society | 2020 |

**Details of project proposals submitted/sanctioned/completed**

| S.No. | Title of the Project | Funding body | Submitted/ Sanctioned/ Completed | Amount | Year/ duration |
|---|---|---|---|---|---|
| | | | | | |

**Consultancy contribution**

| S.No. | Year | Amount | Details |
|---|---|---|---|
| **1** | | | |

**Student Project/research guidance**

| S.No | Level | Total number |
|---|---|---|
| 1 | UG | Completed: 10+ Ongoing: |
| 2 | PG | Completed: Ongoing: |
| 3 | PhD | Completed: Ongoing: |

**Administrative experience**

| S.No. | Role | Duration (From – to) |
|---|---|---|
| 1 | Department website coordinator | 2015-2021 |

**Research credentials**

| Index/database | ID/Link |
|---|---|
| Google Scholar | **Google Scholar link:** |
| SCOPUS | |
| Web of Science | |
| Vidwan ID | |

**Any other relevant information**

***Communicated Articles:***

1. K Nagaraju, N. Venkateswararao,G. Mahesh, Shaik Idrish"Linear Phased Quatrefoil slotted patch Antenna Array at 28GHz for 5G Base stations", Communicated to journal of Telecommunications and Radio Engineering **(Scopus)** with Manuscript Number THAF-53511 (Status: Assigned to Editor)

2. K Nagaraju , A. Kavitha, CH Sekharrao Kaitepalli, "Design of Reconfigurable structured Patch Antenna with Beam-steering capabilities using Meta-materials", Communicated to journal of Wireless Personal communication **(SCIE)** with Manuscript Number WIRE-D-21-02854. (Status: Reviewer assigned)

3. K. Raju and A. Kavitha, "Miniaturization and radiation analysis of metamaterials imprinted 5G patch antenna at 28 GHz", Comptes Rendus de l'Académie des Sciences **(SCIE).** (Status: With Editor)

Kakumanu Naga Raju
15-07-2024