

CURRICULUM VITAE

Dr. RAJKISHOR KUMAR

Ph.D. | Indian Institute of Technology (Indian School of Mines), Dhanbad

Assistant Professor Senior Grade

Department of Communication Engineering, School of Electronics Engineering
Vellore Institute of Technology, Vellore

Vellore Campus, Vellore – 632014, Tamil Nadu, India

Email: rajkishorkumar88@gmail.com

Phone: +91-8271976691

Web: <https://sites.google.com/site/rajkishormicrowave>



Research Interest:

- **Wearable and Implantable Sensors for Biomedical Applications**
- **Artificial intelligence (AI) and Machine learning (ML) Approach in Phased Antenna Arrays**
- **IoT-Based Smart Antenna (Adaptive Array Antennas, Digital Antenna Arrays, Multiple Antennas and, Recently, MIMO)**
- **RF/Microwave Antennas: Dielectric Resonator Metamaterial, Microstrip and Substrate Integrated Waveguide (SIW)**
- **RF/Microwave Filters: Dielectric Resonator Filter (DRF), Microstrip and Metamaterial Filters**

Professional Experience:

Organization	Designation	Service Period		
		From	To	Total Experience
Vellore Institute of Technology, Vellore, Tamil Nadu, India	Associate Professor	July 2024	Till Date	0.4 Years
Vellore Institute of Technology, Vellore, Tamil Nadu, India	Assistant Professor Senior Grade	January 2023	June 2024	1.6 Years
Vellore Institute of Technology, Vellore, Tamil Nadu, India	Assistant Professor	June 2020	December 2022	2.7 Years
Koneru Lakshmaiah Education Foundation (K L University), Vaddeswaram, AP, India	Assistant Professor	September 2018	May 2020	1.8 Years
Total Teaching experience				6.1 Years
Indian Institute of Technology (Indian School of Mines), Dhanbad, India	Senior Research Fellow/Junior Research Fellow	January 2014	September 2018	4.9 Years
Grand Total of Professional Experience				10.10 Years

Awards/Achievements

- Received **SERB International Research Experience for the year 2023-2024 supported by the Science and Engineering Research Board (SERB)**, a statutory body of the Department of Science and Technology, Government of India. The fellowship has been approved for a duration of 6 months with **Dr. Eng Leong Tan** at School of Electrical and Electronic Engineering, **Nanyang Technological University (NTU), Singapore**.

- Received **International Travel Grant under the DST (SERB) International Travel Support (ITS) Scheme, Government of India** for presenting a paper in 27th Asia-Pacific Conference on Communications (APCC 2022), Oct. 19-21, 2022, **South Korea**.
- Received **Outstanding Reviewer Certificate** of the **IEEE Antenna and Wireless Propagation Letters** from **IEEE Antennas and Propagation Society**, Jan. 2021- Dec. 2021.
- A research paper entitled “**A dual-band dual-polarized cubical DRA coupled with new modified cross-shaped slot for ISM (2.4 GHz) and Wi-MAX (3.3-3.6 GHz) band applications**” was among the top most downloaded papers in *International Journal of RF and Microwave Computer-Aided Engineering, Wiley journals*, in 2018-19.
- **Featured Article in IEEE Antennas and Propagation Magazine:** entitled “**Improvements in Wi-MAX Reception: A New Dual-Mode Wideband Circularly Polarized Dielectric Resonator Antenna**”, Vol. 61, No. 01, pp. 41 - 49, 2019.
- A research paper entitled “**Circularly Polarized Rectangular DRA Coupled through Orthogonal Slot Excited with Microstrip Circular Ring Feeding Structure for Wi-MAX Applications**” *was one of the Top 20 most downloaded papers* in *International Journal of RF and Microwave Computer-Aided Engineering, Wiley Journals*, in 2017-18.
- Received a fellowship from MHRD, Government of India, Jan. 2014-Sept. 2018.
- Received **International Travel Grant under the DST (SERB) International Travel Support (ITS) Scheme, Government of India** for presenting a paper in 39th Progress In Electromagnetics Research Symposium (PIERS), Nov. 19-22, 2017, **Singapore**.
- GATE Qualified 2013.

SPONSORED PROJECTS:

1. **Internet-of-Things Based System for Monitoring and Processing RF Energy Harvesting and Wireless Power Transfer Systems for 5G & sub-6 GHz: A Virtual Battery, Principal Investigator**, Vellore Institute of Technology (VIT), India, Rs. 3.5 Lacs, 2 Years, June 2023, **Completed**.
2. Received **Samsung PRISM Project** for the year 2023-2024 supported by Samsung Research Institute Bangalore, India to develop “**Self-diplexing Textile Wearable Antennas for Sensor Networks and IoT Applications**”, **Completed**.
3. Received **Samsung PRISM Project** for the year 2023-2024 supported by Samsung Research Institute Bangalore, India to develop “**Design of Phased Array Antennas for Sub 6-GHz and Beyond for Smart Devices Applications**”, **Completed**.
4. Received **SERB International Research Experience for the year 2023-2024** supported by the Science and Engineering Research Board (SERB), a statutory body of the Department of Science and Technology, Government of India. The fellowship has been approved for 6 months with **Dr. Eng Leong Tan at the School of Electrical and Electronic Engineering, Nanyang Technological University (NTU), Singapore**, Rs. 14.5 Lacs, 6 months, June 2023, **Completed**.

Foreign Collaboration for Research Work:

- ❖ I am working with the foreign collaboration to **Dr. N. Nasimuddin, Principal Scientist I**, Department of Signal Processing, RF & Optical (SRO), **Institute for Infocomm Research, A*STAR, Singapore, Singapore**.
- ❖ I am working with the foreign collaboration to **Dr. Eng Leong Tan, Associate Professor**, School of Electrical and Electronic Engineering, **Nanyang Technological University (NTU), Singapore**.

Served as a Editor:

1. **Academic Editor: Journal of Sensors, WILEY** (June 2023 - Till Date).
2. **Academic Editor: International Journal of Antennas and Propagation, WILEY** (May 2022 - Till Date).
3. **Associate Editors: IEEE Access** (2020 – 2022).

Served as a Reviewer:

1. Scientific Reports, **Nature**
 2. Applied Physics A, **Springer**
 3. IEEE Internet of Things Journal, **USA**
 4. IEEE Transactions on Microwave Theory and Techniques, **USA**
 5. IEEE Transactions on Antennas and Propagation, **USA**
 6. IEEE Transactions on Aerospace and Electronic Systems, **USA**
 7. IEEE Transactions on Very Large Scale Integration Systems, **USA**
 8. IEEE Photonics Technology Letters, **USA**
- and so on.

Book:

- Raghvendra Kumar Chaudhary, **Rajkishor Kumar**, Rakesh Chowdhury, “**Circularly Polarized Dielectric Resonator Antennas**”, **Artech House**, 685 Canton Street, Norwood, Massachusetts 02062, (781) 769-9750. ISBN: # 978-1-63081-817-3.

Ph.D.

Specialization: RF and Microwave Engineering

Indian Institute of Technology (Indian School of Mines) Dhanbad, India

Thesis title: Wideband Circularly Polarized Dielectric Resonator Antennas Using Different Coupling Schemes For Wireless Applications

Supervisor: Dr. Raghvendra Kumar Chaudhary, Assistant Professor, Dept. of Electronics Engg., Indian Institute of Technology (Indian School of Mines), Dhanbad, India

Thesis Submitted: Sept. 2018; **PhD Awarded:** Feb. 2019

Academic Background:

	Exam Name	Subject/Specialization	Institute/ University Name	Passing Year
1	Ph.D.	RF and Microwave Engineering	Indian Institute of Technology (Indian School of Mines), Dhanbad, India	Feb. 2019
2	B.E	Electronics and Communication Engineering	Tulsiramji Gaikwad-Patil College of Engg. & Tech., Nagpur/ R.T.M Nagpur University	2012

List of Publications (Research Work):

Types of Research Papers Nos.	Nos.
Research Book - Artech House, 685 Canton Street, Norwood, Massachusetts, USA	1
International SCI / SCI-Expanded Journals (Indexed in Thomson Reuters)	33
Patent Publications	03
IEEE International Conferences	21
Total Research Papers/ Patents	58*

*Complete list of the publications: Annexure-I

*See the Complete list of the publications and Other details on:

<https://sites.google.com/site/rajkishormicrowave>

<https://scholar.google.co.in/citations?user=wxmd9CsAAAAJ&hl=en> and <https://orcid.org/0000-0002-6140-1241>,

<https://www.scopus.com/authid/detail.uri?authorId=57198684226>

<https://publons.com/researcher/1203059/rajkishor-kumar/>

International SCI/ SCI-Expanded Journals (SELECTED)

1. Thennarasi Govindan, Sandeep Kumar Palaniswamy, Malathi Kanagasabai, Sachin Kumar, Rajesh Agarwal, **Rajkishor Kumar**, and Damodar Panigrahy, "Design and Analysis of a Conformal MIMO Ingestible Bolus Sensor Antenna for Wireless Capsule Endoscopy for Animal Husbandry", *Accepted for Publication in IEEE Sensors Journal*, Vol. xx(xx), pp. xxx-xxx, 2023.
2. UJJWAL, Radhakrishna Bhat, **Rajkishor Kumar**, "Generation of Broadband Optical Frequency Comb by Interfering Dual Lasers in Electro-optic Modulators", *Accepted for Publication in IEEE Access*, Vol. xx(xx), pp. xxx-xxx, 2023.
3. **Rajkishor Kumar**, T. Sreenath Reddy, and Raghvendra Kumar Chaudhary, "Improvements in Wi-MAX Reception: A New Dual-Mode Wideband Circularly Polarized Dielectric Resonator Antenna", *IEEE Antennas and Propagation Magazine*, Vol. 61, No. 1, pp. 41-49, 2019. DOI: 10.1109/MAP.2018.2883013.
4. **Rajkishor Kumar**, and Raghvendra Kumar Chaudhary, "A Wideband Circularly Polarized Cubic Dielectric Resonator Antenna Excited with Modified Microstrip Feed", *IEEE Antennas and Wireless Propagation Letters*, Vol. 15, No. 1, pp. 1285-1288, 2016. DOI: 10.1109/LAWP.2015.2504840.
5. T. Sreenath Reddy, **Rajkishor Kumar**, and Raghvendra Kumar Chaudhary, "Isolation Enhancement and Radar Cross Section Reduction of MIMO Antenna with Frequency Selective Surface", *IEEE Transactions on Antennas and Propagation*, Vol. 66, No. 03, pp. 1595 - 1600, 2018. DOI: 10.1109/TAP.2018.2794417.
6. **Rajkishor Kumar**, Reshma Singh and Raghvendra Kumar Chaudhary, "Miniaturized Triple-band Antenna Loaded with Complementary Concentric Closed Ring Resonators with Asymmetric CPW-fed Based on Epsilon Negative Transmission Line", *IET Microwave, Antenna, and Propagation*, Vol. 12, No. 13, pp. 2073-2079, 2018. DOI: 10.1049/iet-map.2018.5164.
7. T. Sreenath Reddy, **Rajkishor Kumar**, and Raghvendra Kumar Chaudhary, "Isolation and Frequency Reconfigurable Compact MIMO Antenna for WLAN Applications", *IET Microwave, Antenna, and Propagation*, Vol. 13, No. 04, pp. 519-525, 2019. DOI: 10.1049/iet-map.2018.5895.
8. Raghvendra Kumar Chaudhary, **Rajkishor Kumar**, and Rakesh Chowdhury, "Circularly Polarized Dielectric Resonator Antennas", *Artech House, 685 Canton Street, Norwood, Massachusetts 02062*, (781) 769-9750, 2020. ISBN: # 978-1-63081-817-3

Paper/Poster Presented in Conferences:

1. Implementation of Beam Steering/ Beam Scanning Based Semi-Flexible Antenna Array System Using the Modified Butler Matrix Topology, *Second(2nd) International Conference on Microwave, Antenna and Communication (MAC 2024)*, October 4-6, 2024, Dehradun, Uttarakhand, India.
2. A Flexible Microstrip Antenna for Wireless Communication Applications, *2023 International Conference on Next Generation Electronics (NEleX)*, 14th to 16th December, 2023, Vellore, Tamil Nadu India.
3. A Microstrip Feeding Structure to Generate Wideband Circular Polarization in Dielectric Resonator Antenna, *3rd IEEE International Conference on Microwaves and Photonics (ICMAP)* at Indian Institute of Technology (IIT-ISM), Feb. 09-11, 2018, Dhanbad, India.
4. A Compact CPW-fed Dual-band Open-ended ZOR Antenna Based on CRLH TL for Wireless Applications", *39th Progress In Electromagnetics Research Symposium (PIERS)*, Nov. 19-22, 2017, Singapore.
5. A Wideband Circularly Polarized DRA Excited with Meandered-line Inductor for Wi-MAX/LTE2500 Applications", *39th Progress In Electromagnetics Research Symposium (PIERS)*, Nov. 19-22, 2017, Singapore.
6. A Rectangular DRA Loaded with SRR and Excited with Question-Shaped Microstrip Feed for Application in Wideband Circular Polarization, *Asia Pacific Microwave Conference (APMC) and International Microwave and RF Conference (IMaRC)*, Dec. 05-09, 2016, New Delhi, India.
7. Slot Coupled Wideband Circularly Polarized Cylindrical Ring DRA for Wi-MAX Applications, *Asia Pacific Microwave Conference (APMC) and International Microwave and RF Conference (IMaRC)*, Dec. 05-09, 2016, New Delhi, India.
8. Wideband Circularly Polarized Cubical DRA Excited with Conformal-strip for Wireless Applications, *11th International Conference on Industrial and Information System (ICIIS)*, Indian Institute of Technology Roorkee (IIT-R), Dec. 03-04, 2016, Uttarakhand, India.

9. Wideband Circularly Polarized H-Shaped Dielectric Resonator Antenna Excited With Cross-Slot Feed, **5th Applied Electromagnetic Conference** at International Indian Institute of Technology (IIT-G), Dec.18-21, 2015, **Guwahati, India.**
10. A Wideband Circularly Polarized Slotted Rectangular Dielectric Resonator Antenna Excited with a Cross-Slot, **II International Conference on Microwaves and Photonics (ICMAP)** at Indian Institute of Technology (IIT-ISM), Dec.11-23, 2015, **Dhanbad, India.**

Invited Talk:

1. **Biotelemetry Using 6G Wireless Communication System - 6G Wireless Communication System; Technologies, Challenges & Applications** (*AICTE-ISTE Induction/Orientation Program*), Department of Electronics and Communication Engineering Chandigarh Engineering College, Mohali, Punjab, India, 18 January 2022.
2. **Antenna for the Biomedical Applications- Recent Advances in Wireless Systems and Emerging Technologies**(*FDP*), Koneru Lakshmaiah Education Foundation (K L University) Guntur, in Association with IETE-Vijayawada chapter, India, 28 September 2021.
3. **Antenna Design and Testing for Biomedical Applications-Recent Trends of RF Technology (Simulation and Fabrication)** (*Training Programm*), Department of Electronics & Communication Engineering, SLIET (CFTI under MoE, Govt. of India), Longowal, Punjab, India, 30 July 2021.
4. **C++ Programming-Recent Trends of RF Technology (Simulation and Fabrication)** (*Training Programm*), Department of Electronics & Communication Engineering, SLIET (CFTI under MoE, Govt. of India), Longowal, Punjab, India, 21 to 25 June 2021.
5. **mmWave Antenna Design and testing for Biomedical applications** *AICTE STTP (Short Term Training Programm)*, Department of Electronics & Communication Engineering, Rajalakshmi Institute of Technology – [RIT], Chennai, 11 December 2020.
6. **Modelling of Dielectric Resonator Antenna using HFSS**, *Short Term Course on Recent Trends in Microwave and Photonic Technology (RTMPT)*, Department of Electronics Engineering, Indian Institute of Technology (IIT-ISM), Dhanbad, 27 June - 29 June 2016.

Course Taught: at VIT University--Present

1. BECE203L/P: **Digital Systems Design** (UG)
2. BECE202L: **Signals and Systems** (UG)
3. BECE203L: **Circuit Theory** (UG)
4. BCSE103E: **Computer Programming: Java** (UG)
5. BECE101L: **Basic Electronics** (UG)
6. ECE2004: **Transmission Lines and Waveguides** (UG)
7. BCSE101E: **Computer Programming: Python** (UG)
8. CSE2006: **Microprocessor and Interfacing** (UG)
9. ECE1004: **Signals and Systems** (UG)
10. CSE1002: **Problem Solving and Object-Oriented Programming- C & C++ Programming & data structure** (UG)
11. CSE1001: **Problem Solving and Programming-Python Programming** (UG)
12. ECE2001: **Network Theory** (UG)
13. ECE4099: **Capstone Project** (UG)

Course Coordinator: at VIT University--Present

1. BECE202L: **Signals and Systems** (UG), Winter Semester, 2022-23

Course Coordinator: at K L University

1. 15EC3072: **Smart Antennas** (UG), 2019-2020-EVEN SEMESTER
2. 17EC3303: **Skilling (Wireless Communications)** (UG), 2019-2020-ODD SEMESTER
3. 15EC2205: **Communication Theory** (UG), 2018-2019-SUMMER SEMESTER
4. 17PH53E2: **Radar Systems and Satellite Communication** (PG), 2018-2019-EVEN SEMESTER

Course Taught: at K L University

14. 19EC2112: **Electromagnetics & Applications** (UG)

15. 15EC3072: **Smart Antennas** (UG)
16. 17EC3303: **Skilling (Wireless Communications)** (UG)
17. 17EC3303: **Wireless Communications** (UG)
18. 18EC2104: **Communication Signals and Systems Design** (UG)
19. 15EC2205: **Communication Theory** (UG)
20. 17PH53E2: **Radar Systems and Satellite Communication** (PG)
21. 15EC3057: **Human Machine Interaction (HMI/ HCI)** (UG)
22. 17TS401: **Skilling(LabView and MultiSim)** (UG)

Laboratories Taught: at K L University and IIT, Dhanbad

1. 18 EC 5205: **Microwave and Millimetric wave Circuits Lab** (PG)
2. ECC 52201: **Embedded Systems** (PG)
3. ECC 16102: **Embedded Systems** (UG)
4. ECC 13202: **Digital Circuit Lab** (UG)
5. EIC 13202: **Digital Circuit Lab** (UG)
6. ECC 13201: **Electronics Devices Lab** (UG)
7. EIC 15203: **Control System Lab** (UG)

Proctor: at VIT University--Present

1. **First Year - BTech Students** (2020 - 2021) - 20 Students
2. **Second Year - BTech Students** (2020 - 2021) - 20 Students

Counsellor: at K L University

1. **Third Year - BTech Students** (2019 - 2020) - 25 Students
2. **Fourth Year - BTech Students** (2018 - 2019) - 25 Students

Membership of Professional Bodies:

1. Member IEEE. (Jan. 2015 – 31st Dec. 2018), Member Id: 93369573.

Workshop / Tutorials Attended:

1. Keynote on **Advanced Interconnect and Antenna-in-package Design for Millimeter-wave 5G Communications** by Boping Wu (Intel Corporation), **39th Progress In Electromagnetics Research Symposium (PIERS)**, Nov. 19-22, 2017, **Singapore**.
2. Invited Talks on “Compact Cavity Resonators in Substrate Integrated Waveguide (SIW) Technology for RFID Applications” **39th Progress In Electromagnetics Research Symposium (PIERS)**, Nov. 19-22, 2017, **Singapore**.
3. Keynote on “*Next Generation Millimetre and Submillimetre Wave Wireless Communication and Sensing: Technologies and Industrial Challenges*” at 11th International Conference on Industrial and Information System (ICIIS), Indian Institute of Technology Roorkee (IIT-R), Uttarakhand, **India**.
4. Invited Talks on “*Mysteries of DRA Modes*” at 5th Applied Electromagnetic Conference International Indian Institute of Technology (IIT-G), Guwahati, **India**.
5. Plenary Talks on “*Challenges In Designing Reconfigurable Antennas For Broadband In The Sky Networks*” at 5th Applied Electromagnetic Conference International Indian Institute of Technology (IIT-G), Guwahati, **India**.
6. **DRA RESEARCH**: An Experience Over the Last Decade, National Level Workshop Conducted by Institute of Radio Physics and Electronics, University of Calcutta, Kolkata, India, May 2015.
7. **Fundamentals and Applications of Metamaterials**, National Level Workshop Conducted by Department of Electrical Engineering, Indian Institute of Technology, Kanpur (IIT-K), Kanpur, Apr. 06 - 10, 2015, **India**.
8. **RF Circuits and Systems for Industrial Applications**, National Level Workshop Conducted by Department of Electrical Engineering, Indian Institute of Technology, Kanpur (IIT-K), Kanpur, Sept. 08 - 12, 2014, **India**.

Technical/Equipment/Computer Skills:

Technical	<ol style="list-style-type: none">1. Microwave Antenna Measurements2. Resonance Frequency3. Measurement for Dielectric Resonators.4. Microwave Filter Measurement5. Microwave Absorbers Measurement
Equipments	<ol style="list-style-type: none">1. Vector Network Analyzers2. Spectrum Analyzers3. Signal Generators4. Microwave Test Bench5. VSWR Measurement6. PCB Milling Machine
Computer	<ol style="list-style-type: none">1. ModelSim-FPGAs/ HDL Simulator2. Ansoft HFSS3. CST MS4. ADS5. MATLAB6. C/C++ Programming Language7. Python Programming Language8. JAVA Programming Language9. NI LabVIEW10. NI my DAQ11. Design Pro12. DIP Trace13. Origin14. Visio15. Sigma Plot

Personnel Information:

- **Father's Name** : Mr. Jaynarayan Prasad
- **Date of Birth** : 12-Dec-1988
- **Permanent Address** : West-Champaran (Bettiah), Bihar, India
- **Sex** : Male
- **Marital Status** : Married
- **Languages Known** : English and Hindi
- **Nationality** : Indian
- **Passport No.** : P70XXXX5

References:

- **Dr. Raghvendra Kumar Chaudhary**, *Associate Professor*, Department of Electrical Engineering, Indian Institute of Technology Kanpur, India, Tel: +91-512-679-2306 (O), Mob No. +91-7766907806, Email: raghvendra.chaudhary@gmail.com, raghvendra@iitk.ac.in.
- **Dr. Nasimuddin**, *Senior Scientist*, Department of Satellite, Institute for Infocomm Research (I2R), A*STAR, Singapore, Tel: +65-640-82000 (O), Mob No. +65-98574243, Email: nasimuddin@i2r.a-star.edu.sg.
- **Dr. Jitendra Kumar**, *Professor*, Department of Electronics Engineering, Indian Institute of Technology (Indian School of Mines), Dhanbad, India, Tel: +91-326-223-5402 (O), Mob No. +91-9470194837, Email: jitenkg@rediffmail.com, jitendra@iitism.ac.in.

Declaration:

I hereby declare that the above information is true and correct to the best of my knowledge and I bear the responsibility for the correctness of the above-mentioned particulars.

Date: 22nd Oct. 2024

Place: Vellore



(Dr. Rajkishor Kumar)

Annexure - I

❖ Book Publication:

1. Raghvendra Kumar Chaudhary, **Rajkishor Kumar**, Rakesh Chowdhury, “**Circularly Polarized Dielectric Resonator Antennas**”, Artech House, 685 Canton Street, Norwood, Massachusetts 02062, (781) 769-9750. ISBN: # 978-1-63081-817-3

❖ Patent Publications: (Indian Patent Office, GOI)

1. VIT, **Rajkishor Kumar**, and Avinash Chandra “META-DIELECTRIC RESONATOR ANTENNA”, Granted in Design, Indian Patent Office, GOI, Application Number/ Design No: 417924-001, 2024, Intellectual Property India, GOI.
2. VIT, Vijay Kumar, Yogesh Kumar, Yogesh Kumar Choukiker, **Rajkishor Kumar**, and Avinash Chandra “TWO LAYERED METASURFACE LOADED MINIATURIZED ANTENNA”, Granted in Design, Indian Patent Office, GOI, Application Number/ Design No: 412706-001, 2024, Intellectual Property India, GOI.
3. VIT, Ravindiran Asaithambi and **Rajkishor Kumar**, “RECTANGULAR RING-SHAPED ANTENNA”, Granted in Design, Indian Patent Office, GOI, Application Number/ Design No: 409268-001, 2024, Intellectual Property India, GOI.

❖ SCI Journals Publications: (Indexed in Web of Science, Thomson Reuters)

1. Vijay Kumar, Avinash Chandra, and **Rajkishor Kumar** "Graphene–metal Hybrid based Reconfigurable Wideband Terahertz Antenna with Improved Far-Field Characteristics", *Optical and Quantum Electronics*, Springer, Vol. 56| Article Number 1176, 2024.
2. Sreenath Reddy Thummaluru, **Rajkishor Kumar** and, Raghvendra Kumar Chaudhary "Frequency Tunable SIW Band-Reject Filter with Increased Fundamental Mode Bandwidth for Spectrum Underlay Cognitive Radio", *International Journal of RF and Microwave Computer-Aided Engineering*, WILEY, Vol. 2024 | Article ID 4303470, pp. 01-09, 2024.
3. Ravindiran Asaithambi and **Rajkishor Kumar**, "Design and Implementation of Novel H-shaped Self-Diplexing SIW Rectangular Cavity Backed Antenna with Harmonics Suppression for Terrestrial Communications", *International Journal of Antennas and Propagation*, WILEY, Vol. 2024 | Article ID 6618202, pp. 01-10, 2024.
4. UJJWAL, Athul M Srinivas, **Rajkishor Kumar** and Prashanth Barla, "Blocking Triggered Multi-path Routing with Spectrum Retuning in Elastic Optical Networks ", *Optical Fiber Technology*, Vol. 83(103673), pp. 01-21, 2024.
5. Kalyanbrata Ghosh, Avinash Chandra, **Rajkishor Kumar**, and Arpan Shah and Ujjal Chakraborty, “CRLH-TL loaded Metamaterial Antenna with Frequency Band and Polarization Reconfigurability”, *International Journal of Communication Systems*, Wiley, Vol. 37, no. 03, pp. 01-12, 2024. DOI: <https://doi.org/10.1002/dac.5665>
6. Thennarasi Govindan, Sandeep Kumar Palaniswamy, Malathi Kanagasabai, Sachin Kumar, Rajesh Agarwal, **Rajkishor Kumar**, and Damodar Panigrahy, “Design and Analysis of a Conformal MIMO Ingestible Bolus Sensor Antenna for Wireless Capsule Endoscopy for Animal Husbandry”, *IEEE Sensors Journal*, Vol. 23, no. 22, pp. 28150 -28158, 2023. DOI: [10.1109/JSEN.2023.3323658](https://doi.org/10.1109/JSEN.2023.3323658).
7. UJJWAL, Radhakrishna Bhat, **Rajkishor Kumar**, “Generation of Broadband Optical Frequency Comb by Interfering Dual Lasers in Electro-optic Modulators”, *IEEE Access*, Vol. 11, pp. 113064-113076, 2023.

8. **Rajkishor Kumar**, Avinash Chandra, Naveen Mishra and Raghvendra Kumar Chaudhary, "A Frequency Tunable Dielectric Resonator Antenna with Reduction of Cross Polarization for Wi-MAX and Sub 6 GHz 5G Applications", *Defence Science Journal, DRDO*, Vol. 73(04), pp. 475-486, 2023.
9. Avinash Chandra and **Rajkishor Kumar**, "Development of wideband CPW-fed hexagon-shaped circularly polarized slot antenna for wireless-communications", *International Journal of Communication Systems*, Vol. 36(11): :e5503, pp. 01-12, 2023.
10. **Rajkishor Kumar**, Avinash Chandra, T. Sreenath Reddy, Md. Monirujjaman Khan and Raghvendra Kumar Chaudhary, "A Miniaturized Dual-band Short-ended ZOR Antenna with Backed Ground Plane for Improved Bandwidth and Radiation Efficiency", *International Journal of Antennas and Propagation*, Hindawi, Vol. 2023, Article ID 2478853, pp. 01-08, 2023.
11. Ujjwal and **Rajkishor Kumar**, "Optical Frequency Comb Generator Employing Two Cascaded Frequency Modulators and Mach–Zehnder Modulator", *Electronics*, MDPI, Vol. 12(13): 10.3390, pp. 01-13, 2023.
12. Avinash Chandra, **Rajkishor Kumar**, Naveen Mishra, Hemprasad Yashwant Patil, "A Superstrate and FSS Loaded High Gain Circularly Polarized Twist Waveguide Array", *Microwave and Optical Technology Letters*, vol. 65, no. 03, pp. 936-941, 2023.
13. Avinash Chandra, Naveen Mishra, **Rajkishor Kumar**, Kundan Kumar, Hemprasad Yashwant Patil, "A superstrate and FSS embedded dual band waveguide aperture array with improved far-field characteristics", *Microwave and Optical Technology Letters*, Vol. 65, Issue 1, pp. 341-347, 2023. DOI: <https://doi.org/10.1002/mop.33492>
14. Arvind Kumar, Ayman A. Althuwayb, Divya Chaturvedi, **Rajkishor Kumar**, Farnaz Ahmadfard, "Compact planar magneto-electric dipole-like circularly polarized antenna", *IET Communications*, Vol. 16, Issue 20, pp. 2448-2453, 2022. DOI: <https://doi.org/10.1049/cmu2.12499>.
15. **Rajkishor Kumar**, and Raghvendra Kumar Chaudhary, "A New Bidirectional Wideband Circularly Polarized Cylindrical Dielectric Resonator Antenna using Modified J-shaped Ground Plane for WiMAX/LTE Applications", *Radioengineering*, Vol. 28, No. 02, pp. 01-08, 2019. DOI: 10.13164/re.2019.0001.
16. **Rajkishor Kumar**, Nasimuddin, and Raghvendra Kumar Chaudhary, "Wideband Circularly Polarized Hybrid Dielectric Resonator Antenna with Bi-directional Radiation Characteristics for Various Wireless Applications", *International Journal of RF and Microwave Computer-Aided Engineering, Wiley Journals*, 2019. DOI: <https://doi.org/10.1002/mmce.21826>.
17. **Rajkishor Kumar**, Nasimuddin, and Raghvendra Kumar Chaudhary, "Compact Asymmetric Cross-shaped Rectangular Dielectric Resonator Antenna for Wideband Circular Polarization", *Microwave and Optical Technology Letters, Wiley Journals*, pp. 01-11, 2019. DOI: <https://doi.org/10.1002/mop.31808>
18. **Rajkishor Kumar**, Nasimuddin, and Raghvendra Kumar Chaudhary, "A New Dual C-shaped Rectangular Dielectric Resonator Based Antenna for Wideband Circularly Polarized Radiation", *International Journal of RF and Microwave Computer-Aided Engineering, Wiley Journals*, 2019. DOI: <https://doi.org/10.1002/mmce.21672>.
19. T. Sreenath Reddy, **Rajkishor Kumar**, and Raghvendra Kumar Chaudhary, "Isolation and Frequency Reconfigurable Compact MIMO Antenna for WLAN Applications", *IET Microwave, Antenna, and Propagation*, Vol. 13, No. 04, pp. 519-525, 2019. DOI: 10.1049/iet-map.2018.5895.
20. **Rajkishor Kumar**, and Raghvendra Kumar Chaudhary, "Stacked Rectangular Dielectric Resonator Antenna with Different Volumes for Wideband Circular Polarization Coupled with Step-shaped Conformal Strip", *International Journal of RF and Microwave Computer-Aided Engineering, Wiley Journals*, 2018. DOI: <https://doi.org/10.1002/mmce.21667>.
21. **Rajkishor Kumar**, T. Sreenath Reddy, and Raghvendra Kumar Chaudhary, "Improvements in Wi-MAX Reception: A New Dual-Mode Wideband Circularly Polarized Dielectric Resonator Antenna", *IEEE Antennas and Propagation Magazine*, Vol. 61, No. 01, pp. 41-49, 2019. DOI: 10.1109/MAP.2018.2883013.
22. **Rajkishor Kumar**, Reshma Singh and Raghvendra Kumar Chaudhary, "Miniaturized Triple-band Antenna Loaded with Complementary Concentric Closed Ring Resonators with Asymmetric CPW-fed Based on Epsilon Negative Transmission Line", *IET Microwave, Antenna, and Propagation*, Vol. 12, No.13, pp. 2073-2079, 2018. DOI: 10.1049/iet-map.2018.5164.

23. **Rajkishor Kumar**, and Raghvendra Kumar Chaudhary, “A Dual-band Dual-polarized Cubical DRA Coupled with New Modified Cross-shaped Slot for ISM (2.4 GHz) and Wi-MAX (3.3-3.6 GHz) Band Applications”, *International Journal of RF and Microwave Computer-Aided Engineering*, Wiley Journals, Vol. 29, Issue 1, pp. 01-06, 2019. DOI: <https://doi.org/10.1002/mmce.21449>
24. **Rajkishor Kumar**, and Raghvendra Kumar Chaudhary, “Investigation of Higher Order Modes Excitation Through F-Shaped Slot In Rectangular Dielectric Resonator Antenna For Wideband Circular Polarization With Broadside Radiation Characteristics”, *International Journal of RF and Microwave Computer-Aided Engineering*, Vol. 28, Issue 6, pp. 01-11, 2018. DOI: <https://doi.org/10.1002/mmce.21281>.
25. T. Sreenath Reddy, **Rajkishor Kumar**, and Raghvendra Kumar Chaudhary, “Isolation Enhancement and Radar Cross Section Reduction of MIMO Antenna with Frequency Selective Surface”, *IEEE Transactions on Antennas and Propagation*, Vol. 66. No. 03, pp. 1595 - 1600, 2018. DOI: 10.1109/TAP.2018.2794417.
26. Rakesh Chowdhury, **Rajkishor Kumar**, and Raghvendra Kumar Chaudhary, “A Coaxial Probe Fed Wideband Circularly Polarized Antenna using Unequal and Adjacent-Slided Rectangular Dielectric Resonators for WLAN Applications”, *International Journal of RF and Microwave Computer-Aided Engineering*, Vol. 28, Issue 4, 2018. DOI:<https://doi.org/10.1002/mmce.21210>.
27. **Rajkishor Kumar**, and Raghvendra Kumar Chaudhary, “Circularly Polarized Rectangular DRA Coupled Through Orthogonal Slot Excited With Microstrip Circular Ring Feeding Structure For Wi-MAX Applications”, *International Journal of RF and Microwave Computer-Aided Engineering*, Wiley Journals, Vol. 28, No. 1, pp. 1-9, Jan. 2018. DOI: 10.1002/mmce.21153.
28. **Rajkishor Kumar**, Rakesh Chowdhury and Raghvendra Kumar Chaudhary, “A New Dual-Mode Wideband Circularly Polarized Rectangular Dielectric Resonator Antenna Coupled with Stubs And Asymmetric Ground Plane For Wimax Applications”, *International Journal of RF and Microwave Computer-Aided Engineering*, Wiley Journals, Vol. 27, No. 9, pp. 1-9, Nov. 2017. DOI: 10.1002/mmce.21150.
29. **Rajkishor Kumar**, and Raghvendra Kumar Chaudhary, “Wideband Circularly Polarized Dielectric Resonator Antenna Coupled with Meandered-Line Inductor for ISM/WLAN Applications”, *International Journal of RF and Microwave Computer-Aided Engineering*, Wiley Journals, Vol. 27, No. 7, pp. 1-9, Sept. 2017. DOI: 10.1002/mmce.21108.
30. **Rajkishor Kumar**, and Raghvendra Kumar Chaudhary, “A New Modified CPW-Fed Wideband Circularly Polarized Half-Split Cylindrical Dielectric Resonator Antenna with Different Permittivity of two Layers in Radial Direction”, *International Journal of RF and Microwave Computer-Aided Engineering*, Wiley Journals, Vol. 27, No. 3, pp. 1-9, Mar. 2017. DOI: 10.1002/mmce.21068.
31. **Rajkishor Kumar**, and Raghvendra Kumar Chaudhary, “A Wideband Circularly Polarized Dielectric Resonator Antenna Excited with Conformal-Strip and Inverted L-Shaped Microstrip-Feed-Line for WLAN/ Wi-MAX Applications”, *Microwave and Optical Technology Letters*, Wiley Journals, Vol. 58, No. 10, pp. 2525-2531, 2016. DOI: 10.1002/mop.30085.
32. **Rajkishor Kumar**, and Raghvendra Kumar Chaudhary, “Modified Microstrip-line-fed Rectangular Dielectric Resonator Antenna Coupled with Slotted Ground Plane for Wideband Circular Polarization”, *Microwave and Optical Technology Letters*, Wiley Journals, Vol. 58, No. 1, pp. 206-210, 2016. DOI: 10.1002/mop.29523
33. **Rajkishor Kumar**, and Raghvendra Kumar Chaudhary, “A Wideband Circularly Polarized Cubic Dielectric Resonator Antenna Excited with Modified Microstrip Feed”, *IEEE Antennas and Wireless Propagation Letters*, Vol. 15, No. 1, pp. 1285-1288, 2016. DOI: 10.1109/LAWP.2015.2504840.

❖ IEEE International Conferences/ USRI GASS/ PIERS

1. Avinash Chandra.....and **Rajkishor Kumar**, "A Squared Shaped Ring Loaded with Improved Radiation 2-Element Waveguide Array for Radar Applications", **3rd IEEE International Conference on Artificial Intelligence For Internet of Things (AIIoT)**, 03rd to 04th May, 2024, **Vellore, Tamil Nadu India**.
2. **Rajkishor Kumar**, Avinash Chandra, Vijay Kumar Vytla and Manjunath Reddy Sodam, "A Flexible Microstrip Antenna for Wireless Communication Applications", **2023 International Conference on Next Generation Electronics (NEleX)**, 14th to 16th December, 2023, **Vellore, Tamil Nadu India**.
3. **Rajkishor Kumar**, Avinash Chandra, and Divya Chaturvedi, "Wideband Circularly Polarized Rectangular Dielectric Resonator Antenna using Inverted U-shaped Ground Plane for Sub 6 GHz and Upper Mid-Bands 5G Applications", **44th Photonics & Electromagnetics Research Symposium (PIERS)**, 3rd to 6th July 2023, **Prague, Czech Republic**.
4. Naveen Mishra, Avinash Chandra, Dilip Kumar Choudhary, and **Rajkishor Kumar**, "CRLH-TL Based Dual-Band Miniaturized Antenna for Microwave Communication", **2022 IEEE Conference on Interdisciplinary Approaches in Technology and Management for Social Innovation (IATMSI)**, 21-23 December 2022, **Gwalior, India**.
5. **Rajkishor Kumar**, Arvind Kumar , Avinash Chandra, Naveen Mishra, Kundan Kumar and Raghvendra Kumar Chaudhary, "Dual Triangular-shaped DRA Excited with Asymmetric Slot Coupled for Wideband Circular Polarization Applications", **27th Asia Pacific Conference on Communications (APCC-2020)**, Oct. 19-21, 2022, **South Korea**.
6. **Rajkishor Kumar**, Naveen Mishra and Raghvendra Kumar Chaudhary, "A Microstrip Feeding Structure to Generate Wideband Circular Polarization in Dielectric Resonator Antenna", **2018 IEEE 3rd International Conference on Microwave and Photonics (ICMAP-2018)**, Feb. 09-11, 2018, **Indian Institute of Technology (ISM), Dhanbad, India**.
7. Naveen Mishra, **Rajkishor Kumar** and Raghvendra Kumar Chaudhary, "A Compact Dual-Band Open-Ended Metamaterial Antenna for Microwave Frequency Applications", **2018 IEEE 3rd International Conference on Microwave and Photonics (ICMAP) (ICMAP-2018)**, Feb. 09-11, 2018, **Indian Institute of Technology (ISM), Dhanbad, India**.
8. **Rajkishor Kumar**, Mohammad Ameen and Raghvendra Kumar Chaudhary, "Wideband Circularly Polarized Half-split Embedded Cylindrical DRA Excited with Slotted Patch for WLAN/Wi-MAX Applications", **2017 IEEE International Conference on Antenna Innovations & Modern Technologies for Ground, Aircraft and Satellite Application (iAIM-2017)**, Nov. 24-26, 2017, **Bangalore, India**.
9. Mohammad Ameen, **Rajkishor Kumar**, Naveen Mishra and Raghvendra Kumar Chaudhary, "A Compact Triple Band Dual Polarized Metamaterial Antenna Loaded with Double Hexagonal SRR for WLAN/WiMAX Applications", **2017 IEEE International Conference on Antenna Innovations & Modern Technologies for Ground, Aircraft and Satellite Application (iAIM-2017)**, Nov. 24-26, 2017, **Bangalore, India**.
10. **Rajkishor Kumar**, Reshma Singh, Dilip Kumar Choudhary, and Raghvendra Kumar Chaudhary, "A Compact CPW-fed Dual-band Open-ended ZOR Antenna Based on CRLH TL for Wireless Applications", **39th Progress In Electromagnetics Research Symposium (PIERS)**, Nov. 19-22, 2017, **Singapore**.
11. **Rajkishor Kumar**, Dilip Kumar Choudhary, Reshma Singh and Raghvendra Kumar Chaudhary, "A Wideband Circularly Polarized DRA Excited with Meandered-line Inductor for Wi-MAX/LTE2500 Applications", **39th Progress In Electromagnetics Research Symposium (PIERS)**, Nov. 19-22, 2017, **Singapore**.
12. Dilip Kumar Choudhary, Naveen Mishra, **Rajkishor Kumar** and Raghvendra Kumar Chaudhary, "Compact Two Pole Metamaterial Bandpass Filter Using Inverted IDC, Meander Line and Rectangular Stub for WiMAX Application", **39th Progress In Electromagnetics Research Symposium (PIERS)**, Nov. 19-22, 2017, **Singapore**.

13. Dilip Kumar Choudhary, Naveen Mishra, **Rajkishor Kumar** and Raghvendra Kumar Chaudhary, "A Via-less Compact Bandpass Filter with Improved Selectivity Using Metamaterial Structure", **Asia Pacific Microwave Conference (APMC)**, Nov. 13-16, 2017, **Kuala Lumpur, Malaysia**.
14. **Rajkishor Kumar**, Chan-Wang Park and Raghvendra Kumar Chaudhary, "A Wideband Circularly Polarized Cylindrical DRA Loaded with SRR and Excited with a Question Shaped Microstrip Feed Line", **32nd URSI General Assembly and Scientific Symposium (GASS)**, Aug. 19-26, 2017, **Montreal, Canada**.
15. **Rajkishor Kumar**, Rakesh Chowdhury and Raghvendra Kumar Chaudhary, "A Rectangular DRA Loaded with SRR and Excited with Question-Shaped Microstrip Feed for Application in Wideband Circular Polarization", **Asia Pacific Microwave Conference (APMC) and International Microwave and RF Conference (IMaRC)**, Dec 05-09, New Delhi, India, 2016.
16. **Rajkishor Kumar**, Rakesh Chowdhury and Raghvendra Kumar Chaudhary, "Slot Coupled Wideband Circularly Polarized Cylindrical Ring DRA for Wi-MAX Applications", **Asia Pacific Microwave Conference (APMC) and International Microwave and RF Conference (IMaRC)**, Dec 05-09, New Delhi, India, 2016.
17. **Rajkishor Kumar**, and Raghvendra Kumar Chaudhary, "Wideband Circularly Polarized Cubical DRA Excited with Conformal-strip for Wireless Applications", **11th International Conference on Industrial and Information System (ICIIS)**, Dec. 03-04, 2016, Indian Institute of Technology Roorkee (IIT-R), Uttarakhand, India, 2016.
18. Rakesh Chowdhury, **Rajkishor Kumar**, and Raghvendra Kumar Chaudhary, "A New Technique to Enhance the Impedance Bandwidth of CDRA using Drilling Holes", **International Conference on Industrial and Information System (ICIIS)**, Dec. 03-04, Indian Institute of Technology Roorkee (IIT-R), Uttarakhand, India, 2016.
19. **Rajkishor Kumar**, and Raghvendra Kumar Chaudhary, "Wideband Circularly Polarized H-shaped Dielectric Resonator Antenna Excited with Cross-slot feed", **5th IEEE Applied Electromagnetics Conference (AEMC-2015)**, pp. 1-2, Dec. 18-21, 2015, IIT Guwahati, India.
20. **Rajkishor Kumar**, and Raghvendra Kumar Chaudhary, "A Wideband Circularly Polarized Slotted Rectangular Dielectric Resonator Antenna Excited with a Cross-slot", **II International Conference on Microwave and Photonics (ICMAP)**, pp. 1-2, Dec. 11-13, 2015, IIT (ISM), Dhanbad, India.
21. **Rajkishor Kumar**, and Raghvendra Kumar Chaudhary, "Circularly Polarized Ring Dielectric Resonator Antenna Excited with Cross-Slot", **IEEE International Symposium on Antennas and Propagation and North American Radio Science Meeting**, pp. 45-46, July 19-25, 2015, Vancouver, British Columbia, Canada.