# DR. RAVI KUMAR GANGWAR

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**Indian Institute of Technology (ISM) Dhanbad – 826004, Jharkhand, India.**
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**IEEE Senior member (General & Antenna and Propagation Society) (Member Id: 90346036)**


## Educational Experience:

| Degree Awarded | Specialization | Institute/University | Course Duration Details | | |
|---|---|---|---|---|---|
| | | | Year of Commencement | Year of Completion | Total Period |
| Bachelor of Technology (B.Tech) | Electronics and Communication Engineering | Dr. A.P.J. Abdul Kalam Technical University, Uttar Pradesh. Lucknow, | July, 2002 | June, 2006 | 4 years |
| Doctor of Philosophy (Ph.D.) | Electronics Engineering | Indian Institute of Technology (BHU), Varanasi | January, 2007 | March, 2011 | 4 years |

## Professional Experience:

| Organization | Designation | Service Period | | |
|---|---|---|---|---|
| | | From | To | Total Experience |
| Indian Institute of Technology (BHU), Varanasi, India | SRF/JRF | April 2007 | March 2011 | 4.0 year |
| Jaypee University of Engineering and Technology, Guna, India | Assistant Professor | July 2011 | May 2012 | 11 Month |
| Indian Institute of Technology (Indian School of Mines), Dhanbad, India | Assistant Professor | June 2012 | May 2019 | 7 years |
| Indian Institute of Technology (Indian School of Mines), Dhanbad, India | Associate Professor | June 2019 | June 2024 | 5-year |
| Indian Institute of Technology (Indian School of Mines), Dhanbad, India | Professor | July 2024 | Till date | 6 month |
| **Grand Total of Professional Experience** | | | | **17 years** |

## Award Achieved:

- Awarded **International Travel fellowship** for attending the International Conference at Corfu Island, Greece, from the Council of Scientific and Industrial Research (CSIR), India.
- Received **Best Paper Award** for presenting a research paper in Antenna Testing and Measurement Society (ATMS-2013), Kolkata, 11-13 Feb 2013.
- Received **INSA Visiting Scientist Fellowship** for the Year 2020-21.
- Received **Shastri Mobility Programme (SMP)** for the year 2020-21 for a period of 3 weeks to work with Prof. K Rambabu, University of Alberta, Canada. This program is supported by funds from the Ministry of Education (MoE), Government of India.
- Received **IETE- Smt. Ranjana Pal Memorial Award (2020)** for significant achievements in the field of RF Communications, Electromagnetics, Antennas, Microwaves (Circuits, Devices, etc.), and high-frequency electronics during the last 05 (five) years.
- Received **PSSI- Z. H. Sholapurwala Award (2023)** in the field of the Individual Category for outstanding contributions in the areas of RF and Microwave Applications.
- Received **IE(I) Engineers of the Year Award (2024)** in the field of the Individual Category for outstanding contributions in the areas of RF and Microwave Engineering.
- The following two papers are among the top 10% of most downloaded papers for the period January 2018 to December 2019. These papers are published in ***Microwave and Optical Technology Letter*** and ***International Journal of RF and Microwave Computer-Aided Engineering***:

✓ **Dielectric resonator-based wideband circularly polarized MIMO antenna with pattern diversity for WLAN applications**
✓ **Design approach for dual element hybrid MIMO antenna arrangement for wideband applications**

- One paper published in ***IET Microwaves, Antennas & Propagation*** has been selected under **Highlights from 2019**, and the journal made this article in the open access domain. The details of paper is as follows:
  Dielectric resonator-based four-element eight-port MIMO antenna with multi-directional pattern diversity, Authors: Gourab Das, Nikesh Kumar Sahu, Anand Sharma, Ravi Kumar Gangwar, Mohammad S. Sharawi

## Membership of Professional Bodies:

- Senior Member: IEEE (General & AP Society) (Membership No. **90346641**)
- URSI Senior Member, Union Radio-Scientifique Internationale / International Union of Radio Science.
- Fellow: Institution of Electronics and Telecommunication Engineers India (Membership No**. F-501341**)
- Fellow: Institution of Engineers India (Membership No. **F-1313084**)
- Member: Institution of Engineering and Technology, UK (Membership No. **1100894557**)
- Life Member: Indian Radio Science Society (InRaSS) (Membership No. **LM0332022**)

## Current Area of Research:

Multi-input Multi-output (MIMO) Antenna, Dielectric Resonator Antenna and antenna arrays, Microstrip Antenna and antenna arrays, Bio-electromagnetics, Preparation and Characterization of Ceramic Materials for Microwave Application

## Details of Research Students:

| Postdoctoral student Supervision | Ph.D. Student Supervision | M.Tech. Student Supervision |
|---|---|---|
| Ongoing:02, Graduated: 0**2** | Ongoing: 12, Graduated: **10** | Ongoing: **02**, Graduated: **25** |

## Served as a Reviewer [more than 20 journals]

IEEE Transactions on Antennas and Propagation, IEEE Transactions on Microwave Theory and Techniques, IEEE Transactions on Vehicular Technology, IEEE Transactions on Circuits and Systems II: Express Briefs , IEEE Transactions on Electromagnetic Compatibility, IEEE Antenna & Wireless Propagation Letters, IEEE Antennas and Propagation Magazine; IEEE Communication Magazine, IEEE Transaction on Vehicular Technology, IEEE Access, IET Microwaves, Antennas & Propagation, IET Electronics Letters, Microwave and Optical Technology Letters, AEU-International Journal of Electronics and Communications, Scientific Report, International Journal of RF and Microwave Computer-Aided Engineering, Progress in Electromagnetics Research (PIER), Wireless Personnel Communication, International Journal of Electronics, International Journal of Electronics Letters, International Journal of Microwave and Wireless Technology, Journal of Electromagnetic Waves and Applications, Journal of Electronic Materials, IETE Technical Review, etc.

## Editorship in journal

Associate Editor, IEEE Access
Associate Editor, IET Circuits, Devices & Systems
Academic Editor, International Journal of Antennas and Propagation
Academic Editor, International Journal of RF and Microwave Computer-Aided Engineering
Member Editorial Board of International Journal of Communications, Network and System Sciences (IJCNS)

## Details of Academic Identities:

| S. No. | ACADEMIC IDENTITY | ID |
|---|---|---|
| **1.** | **ORCID ID** | **0000-0002-6137-1644** |
| **2.** | **Scopus Author ID** | **35203333800** |
| **3.** | **Researcher ID** | **N-5275-2016** |
| **4.** | **Google Scholar ID** | **WuO_Ze0AAAAJ** |
| **5.** | **Research gate ID** | **Ravi-Gangwar-3** |
| **6.** | **IRINS profile ID** | **97523 (https://iitism.irins.org/profile/97523)** |
| **7.** | **Publons ID** | Ravi Kumar Gangwar (https://publons.com/researcher/1201937/ravi-kumar-gangwar/) |

## External Sponsored R&D Project Completed/ongoing:

| Project Title | Role | Funding Agency | Amount of Grant (INR.) | Period | Status |
|---|---|---|---|---|---|
| Studies on Multi-element Multi-segment Dielectric Resonator Antenna for Wireless Application | Principal Investigator | DRDO | 17.00 Lakh | 3 year | Completed |

| | | | | | |
|---|---|---|---|---|---|
| Design and Development of Circular Polarized Dielectric Resonator Antenna for Wireless Application | Principal Investigator | SERB-DST | 25.45 Lakh | 3 years | Completed |
| Investigation on Ultra-thin Conformal Metamaterial Absorbers for Multiband Applications | Co-Principal Investigator | SERB-DST | 46.56 Lakh | 3 years | Completed |
| A Compact Low-volume Dielectric Resonator Antenna Loaded with Metamaterial Structure for Small Satellite Application | Co-Principal Investigator | ISRO | 20.10 Lakh | 2 Years | Completed |
| Design and Analysis of Compact Triple Band Circularly Polarized Dielectric Resonator Antenna for GPS and RNSS Wireless Application | Principal Investigator | DRDO | 10.0 Lakh | 1 Year | Completed |
| Design & Development of Broadband Circularly Polarized Conformal Antenna Array for Airborne Applications | Principal Investigator | DRDO | 61.06 Lakh | 3 Year | Completed |
| Design and Fabrication of Light-weight Flexible Polarization Independent Broadband RF and Microwave Absorber Based on Active/Passive Anisotropic Metamaterial | Co-Principal Investigator | SERB-DST | 70.00 Lakh | 3 years | Completed |
| Design and Development of Compact and Low-profile Multiband Conformal Antenna Systems for In-vehicle Telecommunications Equipments Supporting Cellular/Communication Bands | Principal Investigator | SERB, DST, GoI, India | 33.92 Lacs | 3 years | Ongoing |
| Capacity building for human resource development in Unmanned Aircraft Systems (Drone and related Technology | Principal Investigator | MeitY, New Delhi | 150.91 lakh | 5 years | Ongoing |
| Development of ceramic dielectric material potentially viable for microwave devices | Principal Investigator | DST, GoI, India | 49.51 lakh | 2 years | Ongoing |
| Critical Analysis, Design, EM Modelling & Optimization of millimeter wave planar antenna | Principal Investigator | DRDO | 14.58 lakh | 1.5 years | Ongoing |
| NeTS Small NSF-DST Modernizing Underground Mining Operations with Millimeter-Wave Imaging and Networking | Co-Principal Investigator | NSF-DST | 190.58 lakh | 3 years | Ongoing |

## External Sponsored Project other than R&D (Completed/ongoing):

| Project Title | Role | Funding Agency | Amount of Grant (INR.) | Period | Status |
|---|---|---|---|---|---|
| Visvesvarara Ph. D Scheme for Electronics and IT Phase-II at IIT-ISM, Dhanbad | Nodal Officer | Meity, New Delhi | 12.00 Lacs | 5 year | Ongoing |
| Visvesvarara Ph. D Scheme for Electronics and IT Phase-II at IIT-ISM, Dhanbad | Nodal Officer | MeitY, New Delhi | 254.15 Lacs | 5 years | Ongoing |
| Visvesvarara Ph. D Scheme for Electronics and IT Phase-II at IIT-ISM, Dhanbad | Nodal Officer | Meity, New Delhi | 181.54 Lacs | 5 year | Ongoing |
| Visvesvarara Ph. D Scheme for Electronics and IT Phase-II at IIT-ISM, Dhanbad | Nodal Officer | MeitY, New Delhi | 108.92 Lacs | 5 years | Ongoing |
| Capacity building for human resource development in Unmanned Aircraft System (Drone and related Technology) | Principal Investigator | Meity, New Delhi | 150.91 Lacs | 5 years | Ongoing |
| Synergistic Training program Utilizing the Scientific and Technological Infrastructure (STUTI) | Co-Principal Investigator | DST, New Delhi | 224.47 Lacs | 1 Years | Completed |

## Departmental/Institutional Activities Performed:

- Served as a member of ***Board of Studies (BOS)*** of the Department of Electronics and Instrumentation Engineering, Faculty of Engineering and Technology, MJP Rohilkhand University, Bareilly, India from July 2018 to July 2021.
- Set up the **Microwave Anechoic Chamber** for measurement of Far-field parameters of the antenna at the Department of Electronics Engineering, Indian Institute of Technology (Indian School of Mines), Dhanbad, India.

- Set up the **Computer Simulation laboratory** at the Department of Electronics Engineering, Indian Institute of Technology (Indian School of Mines), Dhanbad, India
- Set up the **Drone Electronics laboratory** at the Department of Electronics Engineering, Indian Institute of Technology (Indian School of Mines), Dhanbad, India
- Served as a **Coordinator (2015-2019)** of 3 Year M.Tech. Program at IIIF New Delhi Centre of IIT(ISM) Dhanbad.
- Served as a **Member of the Institute Core Course Committee**, Indian Institute of Technology (Indian School of Mines), Dhanbad, India.
- Served as a **nodal person** for the **Common Offer Acceptance Portal (COAP-2018 &19)** for conducting counseling at the national level, including all IITs at the Indian Institute of Technology (Indian School of Mines), Dhanbad, India.
- Served as **liaison officer (2020-23),** Indian Institute of Technology (Indian School of Mines), Dhanbad, India.
- Served as **Hostel warden (2019-20),** Opal Hostel, Indian Institute of Technology (Indian School of Mines), Dhanbad, India.
- Served as **Local Coordinator, GIAN program of MHRD**, Indian Institute of Technology (Indian School of Mines), Dhanbad, India **(2019-2023).**
- Served as an **Associate Dean (R&D-Sponsored Research & Industrial Consultancy),** Indian Institute of Technology (Indian School of Mines), Dhanbad, India **(2019-2023).**
- Serving as **Nodal Office, Visvesvarara Ph. D Scheme for Electronics and IT Phase-II** under Meity-India, Indian Institute of Technology (Indian School of Mines), Dhanbad, India **(Since 2019).**
- Serving as a **Head of** the **Department of Electronics Engineering,** Indian Institute of Technology (Indian School of Mines), Dhanbad, India since January 2023.
- Serving as a **Chairman of** the **Department Faculty Scrutiny Committee (DFSC),** Department of Electronics Engineering, Indian Institute of Technology (Indian School of Mines), Dhanbad, India since January 2023.

## Conference/Workshop Organized

- Organized a 21 days Refresher program on **Recent Trends of Microwave Devices and Antennas** held at Indian School of Mines, Dhanbad, India, Dec. 26, 2016– Jan 15, 2017 as a Program Coordinator.
- Served as Publication Chair in the "**IEEE International Conference on Microwave and Photonics (ICMAP-2018)**" held at Indian Institute of Technology (Indian School of Mines, Dhanbad), India, February 09-11, 2018.
- Served as a Session Chair in **IEEE Indian Conference on Antennas and Propagation (InCAP-2018)**, held at Hyderabad International conventional Centre, Hyderabad, India, December 16-19, 2018.
- Served as a YP & SIGHT Chair in the organizing committee at the IEEE Indian Conference on Antennas and Propagation (InCAP-2020), held in Kolkata, India, December 17-20, 2020.
- Organized a 07 days training program on **"Hands-on Training on Microwave & Photonics Related Sophisticated Equipment and Components (HTMPRSEC22)"** held at MNNIT Allahabad., India, June 06, 2022– June 12, 2022, as a Program Coordinator.
- Served as a session chair in **IEEE Microwaves, Antennas, and Propagation Conference (MAPCON-2022)**, held at The Leela Bhartiya City, Bangalore, India, December 12-15, 2022.
- Served as a session chair in **IEEE Microwaves, Antennas, and Propagation Conference (MAPCON-2023)**, held at Forum Celebration Centre and Wyndham Hotel at Ahmedabad, India, December 11-14, 2023.
- Organized a Conference on **Institute Industry Interaction (III-2024)** held at the Indian Institute of Technology (Indian School of Mines, Dhanbad), India, on 3rd February 2024**,** as a Co-Convenyor.
- Organized total 13 Bootcamps on **Electronics for Unmanned Aerial Systems, Sensors, and Communication** held at the Indian Institute of Technology (Indian School of Mines, Dhanbad), India, as well as GEC Kishanganj in 2023-2024**,** as a Coordinator under a project funded by MeitY.

## Recent Invited Talks Delivered (more than 50 talks)

- Delivered an invited lecture for the peoples of Industry as well as academic on "***Dielectric Resonator Antenna: A potential radiator for Multi-Input Multi-output (MIMO) Antennas system***" in a Technical webinar sponsored by IEEE APS and CRFID Chapter, Delhi Section, India on Modern Antenna Designs for 5G and related applications at University of Delhi South Campus, Delhi, India in September 14-18, 2020.
- Delivered an invited lecture for the peoples of Industry as well as academic on "***Dielectric Resonator Antenna: Potential radiator for Multiband, Wideband, and MIMO Applications***" organized by IEEE AP-S Student Branch Chapter, IIT Kanpur along with IEEE AP-S Chapter Uttar Pradesh Section on November 05, 2020.

- Delivered an invited lecture for the peoples of Industry as well as academic on "***Dielectric Resonator Antenna: Potential radiator for Multi-Input Multi-output (MIMO) Antenna System***" in 5 days AICTE Training and Learning (ATAL) Academy sponsored Online FDP on Design and Characterization of Microwave Components and Antennas (DCMCA-2020) at Department of Electronics & Communication Engineering, Thapar Institute of Engineering and Technology, Patiala on November 17, 2020.
- Delivered an invited lecture for the peoples of Industry as well as academic on "***Dielectric Resonator Antenna: Potential radiator for Multi-Input Multi-output (MIMO) Antenna System***" in Indo-Canada SPARC-Course on "Dielectric Resonator and Its Applications, DRA-2020" during 20-24 November 2020 Department of Electronics & Communication Engineering, at National Institute of Technology Silchar on November 22, 2020.
- Delivered an invited lecture for the peoples of Industry as well as academic on "***Understanding of Multiband generation in Dielectric Resonator Antennas***" in Indo-Canada SPARC-Course on "Dielectric Resonator and Its Applications, DRA-2020" during 20-24 November 2020 Department of Electronics & Communication Engineering, at National Institute of Technology Silchar on November 23, 2020.
- Delivered an invited lecture for the people of Industry as well as academics on "***Understanding of Isolation Improvement in MIMO Antennas***" in EICT Sponsored Online Joint Faculty Development Program entitled "Advanced Communication and Antennas" at IIT Guwahati, during 15-28 February 2021.
- Delivered an invited lecture in AICTE ATAL FDP on "Modern Antenna Technologies for Futuristic Wireless Communication Systems on "***Dielectric Resonator Antenna: A Potential Radiator for Multiband/Wideband Antenna System***" at Guru Jambheshwar University of Science and Technology, Hisar (Haryana) during 20th August to 24th August, 2021.
- Delivered an invited lecture in Hands on Training on Microwave & Photonics Related Sophisticated Equipments and Components (HTMPRSEC22) on "***Dielectric Resonator Antenna: Potential radiator for MIMO Antenna System Applications***" at MNNIT Allahabad., India, June 06, 2022– June 12, 2022.
- Delivered an invited lecture in the SERB Karyashala on Design and Fabrication of Hybrid/Flexible Antennas for 6G and beyond Applications on "***Dielectric Resonator Antenna: Potential radiator for Multi-Input Multi-output (MIMO) Antenna System***" organized by ABVIIITM, Gwalior on 12th Sept to 18th Sept 2022.
- Delivered an invited lecture in one week FDP on Advancements in Antenna Design Techniques on "***Understanding of Isolation Improvement in MIMO Antennas***" at SSN College of Engineering, India, 5th Dec. 2022 - 10th Dec. 2022.
- Delivered an invited lecture for the peoples of Industry as well as academics on "***Dielectric Resonator Antenna: Potential radiator for Multiband, Wideband, and MIMO Applications***" organized by IEEE AP-S Student Branch Chapter, IIT Palakkad on February 11, 2023.
- Delivered a keynote address in the second International Conference on Artificial Intelligence Computational Electronics and Communication Systems on "***Dielectric Resonator Antenna: Potential radiator for MIMO Antenna System Applications***" organized by Dept. of E&C, MIT, Manipal, February 17, 2023.
- Delivered an invited lecture in the faculty development program on Recent Advancement and Challenges in Microwave and Photonics on "***Understanding of multiband and wideband characteristics in dielectric resonator antennas***" organized by VIT Vellore, on April 18, 2023.
- Delivered an invited lecture in the SERB Karyashala on Futuristic Trends in Microwave and Millimeter Wave Technologies: An ML Approach on "***Dielectric Resonator Antenna: Potential radiator for Multi-Input Multi-output (MIMO) Antenna System***" organized by NIT Silcher, on June 02, 2023.
- Delivered an invited lecture in the SERB Karyashala on Recent Trends in Dielectric Resonator Antennas on "***Dielectric Resonator Antenna: Potential radiator for Multi-Input Multi-output (MIMO) Antenna System***" organized by ABVIIITM, Gwalior on July 21, 2023.
- Delivered an invited lecture for the people of Industry and academics on "***Understanding of Isolation Improvement in MIMO Antennas,***" organized by the Antenna Test and Measurement Society on October 22, 2023.
- Delivered an invited lecture for the people of Industry and academics on "***Dielectric Resonator Antenna: A Potential Radiator for 5G/6G MIMO Antenna Technology,***" organized by the in Plasma Science Society of India's (PSSI) Annual Conference PLASMA-2023, at UPES, Dehradun.
- Delivered an invited lecture for the people of Industry and academics on "***Understanding of Isolation Improvement in MIMO Antennas"*** in a 3-day Invited lecture series on "Advancements in Antenna Development: Current Trends and Challenges" organized by the organized by the University of Delhi South Campus, Delhi on 7th February 2024.
- Delivered an invited lecture in the SERB Karyashala on Design and Fabrication of Modern Antennas for 5G/6G Wireless Communication on "***Dielectric Resonator Antenna: Potential radiator for Multi-Input Multi-output (MIMO) Antenna System***" organized by PEC Chandigarh on 4th March 2024.

- Delivered an invited lecture in the SERB Karyashala on Recent Trends in Antenna Design and Technology for Next Generation Communication Ecosystem on "***Dielectric Resonator Antenna: Potential radiator for Multi-Input Multi-output (MIMO) Antenna System***" organized by ABVIIITM, Gwalior on March 08, 2024.
- Delivered two invited lectures in the SERB Karyashala on Opportunistic Control of Advances in Antenna Design on "***Dielectric Resonator Antenna: Potential radiator for Multi-Input Multi-output (MIMO) Antenna System***" organized by NIT Tiruchirappalli on March 11, 2024.
- Delivered an invited lecture in the SERB Karyashala on Machine Learning Approach for Design and Synthesis of Antenna Pattern for Intelligent Beamforming in 5G Communication on "***Dielectric Resonator Antenna: Potential radiator for Multi-Input Multi-output (MIMO) Antenna System***" organized by NIT Warangal on March 08, 2024.
- Delivered an invited lecture in the SERB Karyashala on the Machine Learning Approach for design and Synthesis of Antenna Patterns for Intelligent Beamforming in 5G Communication on "***Understanding of multiband and wideband characteristics in dielectric resonator antennas***" organized by NIT Warangal on March 13, 2024.
- Delivered an invited lecture for the people of Industry and academics on "***Dielectric Resonator Antenna: A Potential Radiator for 5G/6G MIMO Antenna Technology,***" at IEEE STB 15118, Nagarjuna College of Engineering and Technology, Bangalore, Under IEEE Bangalore Section.
- Delivered a keynote talk for the people of Industry and academics on "***Dielectric Resonator Antenna: A Potential Radiator for 5G/6G MIMO Antenna Technology,***" Technically Sponsored by IEEE UP Section, Second International Conference on Microwave, Antenna, and Communication (MAC 2024), at Dehradun.
- Delivered a keynote talk for the people of Industry and academics on "***Design and Development of Circularly Polarized Dielectric Resonator based MIMO Antenna System for Modern Communication Applications,***" 7th International Conference on VLSI, Communication and Signal Processing, October 25-27, 2024, MNNIT Allahabad, Prayagraj.
- Delivered a keynote talk for the people of Industry and academics on "***Dual-polarized Dielectric Resonator based MIMO Antenna System for Modern Communication Applications,***" in RF to THz Technologies for Next-Generation Communication and Sensing, 06th - 10th January 2025, NIT Rourkela, Orissa.
- Delivered an invited talk for the people of Industry and academics on "***Dielectric Resonator Antenna: A Potential Radiator for 5G/6G MIMO Antenna Technology,***" Atal Faculty Development Program (FDP) on mmWave Technology, January 13-18, 2025 at Vivekanand Education Society's Institute of Technology, Mumbai.

**Research Papers Published in International Journals and Conferences: 233 articles**

| | | | | |
|---|---|---|---|---|
| **1.** | **International Journal** | **132** | **Source** | **Total no. of citations** |
| **2.** | **International Journal (SCI/SCI-E)** | **121** | **Google Scholar** | **2704** |
| **3.** | **International Journal (Scopus)** | **131** | **SCOPUS database** | **2229** |
| **4.** | **Other Journals** | **01** | **Research gate** | **2284** |
| **5.** | **International IEEE Conferences** | **53** | **Web of Science** | **1935** |
| **6.** | **International Conferences (including IEEE)** | **87** | **Index based on Google scholar (https://scholar.google.com/citations?user=WuO_Ze0AAAAJ&hl=en)** | |
| **7.** | **National Conferences** | **17** | **I-10 index** | **76** |
| | **Total (Journals + Conference)** | **236** | **H-Index** | **31** |

**List of some recently published International SCI Journals publications: (Complete List Attached as an Annexure-1)**

[1] Tripta Kumari, Kundan Kumar Suman, **Ravi Kumar Gangwar,** and R. K. Chaudhary, "$Al_2O_3$ Based Frequency Agile MIMO System with Beam Tilt Correction Using PLA Concave Parabolic Reflector," **IEEE Transactions on Dielectrics and Electrical Insulation,** January 2025.

[2] A. K. Pandey, **R. K. Gangwar** and R. K. Chaudhary, " A Compact SD-QMSIW-Based Self-Diplexing MIMO Antenna Using Two Modified L-Shaped Slots as Radiators for IoT Applications," in **IEEE Internet of Things Journal,** vol. 12, no. 3, pp. 2385-2394, February, 2025.

[3] Aks Raj, Varun Chaudhary, **Ravi Kumar Gangwar,** and R. K. Chaudhary, "Pioneering Multi-functionality through VO2-infused Polarization Insensitive Conformal Meta-Structures in Terahertz Regime," **IEEE Transactions on Nanotechnology**, September 2024. (Accepted)

[4] Sachin Maithani, and **Ravi Kumar Gangwar**, "A Compact, Dual-band, Full-Duplex Conformal Filtering Antenna Array for Seamless Vehicular Connectivity," **IEEE Transactions on Vehicular Technology**, vol. 73, no. 7, pp. 10617-10626, July 2024.

[5] Kundan Kumar Suman, **Ravi Kumar Gangwar,** Tripta Kumari and Veer Singh Gangwar, "Design and Optimization of a Monolithic Thinned Dielectric Superstrate for Performance Enhancement in DRAA," **IEEE Antennas and Wireless Propagation Letters,** vol. 23, no. 6, pp. 1904-1908, June 2024.

[6] A. K. Pandey, N. K. Sahu, **R. K. Gangwar** and R. K. Chaudhary, "A SIW-Cavity-Backed Wideband Circularly Polarized Antenna Using Modified Split-Ring Slot as a Radiator for mm-Wave IoT Applications," in **IEEE Internet of Things Journal**, vol. 11, no. 7, pp. 11793-11799, April, 2024.

[7] Nikesh Kumar Sahu, and **Ravi Kumar Gangwar,** "Dual-Port Compact MIMO-DRAs: Exploiting Metallic Sheets to Increase Inter-Port Isolation at 28 GHz 5G-Band," **IEEE Transactions on Circuits and Systems--II: Express Briefs,** vol. 69, no. 12, pp. 4814-4818, Dec. 2022.

[8] Poonam Kumari, **Ravi Kumar Gangwar** and R K Chaudhary, "An Aperture Coupled Stepped Dielectric Resonator UWB MIMO Antenna with AMC" **IEEE Antennas and Wireless Propagation Letters**, Volume 21, Issue 10, pp. 2040-2044, October 2022.

[9] Nikesh Kumar Sahu, Gourab Das, **Ravi Kumar Gangwar** and K Rambabu, "An Arrangement for four-element MIMO DRA with Complementary CP Diversity", **IEEE Antennas and Wireless Propagation Letter**, Vol. 20, Issue 09, pp. 1616-1620, September 2021.

[10] Anand Sharma, Gourab Das, Surbhi Gupta, and **Ravi Kumar Gangwar**, "Quad Band Quad Sense Circularly Polarized Dielectric Resonator Antenna for GPS/CNSS/WLAN/WiMAX Applications", **IEEE Antennas and Wireless Propagation Letter**, Vol. 19, Issue 03, pp. 403 – 407, March 2020.

[11] Gourab Das, Anand Sharma, **Ravi Kumar Gangwar** and M. S. Sharawi, "Performance Improvement of Multiband MIMO Dielectric Resonator Antenna System with a Partially Reflecting Surface", **IEEE Antennas and Wireless Propagation Letter**, Vol. 18, Issue 10, pp. 2105 – 2109, October 2019.

[12] Gourab Das, Anand Sharma, **Ravi Kumar Gangwar** and M. S. Sharawi, "FSS Based Spatially Decoupled Back to Back Four Port MIMO DRA with Multi-Directional Pattern Diversity", **IEEE Antennas and Wireless Propagation Letter**, Vol. 18, Issue 8, pp. 1552 – 1556, August 2019.

[13] Anand Sharma, Gourab Das, and **Ravi Kumar Gangwar**, "Composite Antenna for Ultra-Wide Bandwidth Applications", **IEEE Antennas & Propagation Magazine**, Volume: 60, Issue: 3, June 2018, Pages 57-65.

**Books/Reports/General articles etc.:**

Dielectric Resonator Antennas Terminated in a Bio-medium, LAP LAMBERT Academic Publishing ISBN-13: 978-3-659-21885-9, ISBN-10:3659218855, EAN: 9783659218859.

**Book chapter:**

G Das, Ravi Kumar Gangwar – "Chapter 10: Dielectric Resonator Based Multiple Input Multiple Output MIMO Antennas" Printed Antennas: Theory and Design, 2020 CRC Publishers

Kapil Gangwar, Anand Sharma, Ravi Kumar Gangwar- "Chapter 7: Sierpinski Fractal-Based Ceramic Antenna for Wideband Applications" Recent Trends in Electronics and Communication. Lecture Notes in Electrical Engineering, vol. 777. Springer, Singapore. https://doi.org/10.1007/978-981-16-2761-3_93

**Patents**

Ravi Kumar Gangwar, Nikesh Kumar Sahu and Sachin Maithani, "Multiband Ceramic Right Hand Circularly Polarised Dielectric Resonator Antenna for Navigation and Positioning Applications", Patent filed, November 2024, India (Application No. 202431093704)

Kundan Kumar Suman, Tripta Kumari, and Ravi Kumar Gangwar, "Design and Implementation of a CDRA Array for 256-QAM mmWave Transmission using LM", Patent filed, January 2025, India (Application No. 202531004486)

Tripta Kumari, Kundan Kumar Suman, and Ravi Kumar Gangwar, "A compact $Al_2O_3$ material-based CP MIMO Antenna System with Radome Integration for UAV Video Transmission", Patent filed, February 2025, India (Application No. )

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Place- Dhanbad, Jharkhand, India ( Ravi Kumar Gangwar)