

CURRICULUM VITAE

PERSONAL INFORMATION

Name : Dr. RAJU PANTHAGANI M.Sc., Ph.D.
Address : Flat No 401, Grand Enclave, Nagaram,
Hyderabad, Telangana, India.
Contact : +91 7981417854, +91 9394857400
Email : panthagani.raju@gmail.com
Sex : Male
Date of birth : 16th June, 1988
Nationality : Indian
Website : <https://rajupanthagani.weebly.com/>



PERSONAL SKILLS

Goal oriented, Hard-working, Highly organized, Self-motivated and a Team player.
Intercultural skills: Skilled, Adaptive and Proactive in any multicultural environment.

EDUCATION QUALIFICATIONS

Duration	Education	Percentage
07/2017	Ph.D. (Physics) Supervisor: Prof. S. Ramana Murthy Department of Physics, Osmania University, Hyderabad, India. Funded by UGC Non-Net fellowship scheme.	Thesis title: "Development of ferrite-polymer nanocomposites for EMI applications"
2008–2010	M. Sc (Physics, Nanoscience) Osmania University, Hyderabad, India	80 % (Distinction) First class with 1 st rank
2005–2008	B. Sc (M. P. C) Andhra Pradesh Residential Degree College (APRDC) Nagarjuna sagar, Acharya Nagarjuna University, Guntur, India	84% (Distinction) First class
2003–2005	Intermediate (M. P. C) Board of Intermediate Education, Andhra Pradesh, India	82.2 % (Distinction) (Topper in College)
2003	SSC (10th Class) Board of Secondary Education, Andhra Pradesh, India	83.5% (Distinction) Gold Medal

PUBLICATIONS - #33

- Structural, Optical, Magnetic and Dielectric Properties of Ce-Doped MgFe₂O₄ Prepared by Microwave Hydrothermal Method**
T. Suresh Kumar, G. Sriramulu, P. Raju, T. Ramesh, K. Praveena and S. Katlakunta
ECS J. Solid State Sci. Technol. 12 093014, 2023, DOI: [10.1149/2162-8777/acf7ef](https://doi.org/10.1149/2162-8777/acf7ef)
- Ultrasonic Velocity Studies in Pure and Adulterated Edible Oils**
SK Mahammad Ali, P. Raju, T V Prashanthi, J. Shankar, J. Anjaiah, SK.Nuslin Bibi and S. Rajesham
AIP Conf. Proc. 2764, 040005-1–040005-9; <https://doi.org/10.1063/5.0145830>
- Synthesis and thermal stability of ferrites added polymers nanocomposites**
P. Raju, A Thirupathi, Ch. Kalyani, Sk. Mahammed Ali, J. Shankar, G. Neeraja Rani, J. Anjaiah, M. Kanaka Durga
Materials Today: Proceedings, <https://doi.org/10.1016/j.matpr.2023.06.303>
- Effect of sintering temperature on physical and dielectric properties of SrTiO₃ ceramics**



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- S.K. Muhammad Ali, J. Shankar, A. Shiva Kumar, **P. Raju**
Materials Today: Proceedings, <https://doi.org/10.1016/j.matpr.2023.04.587>
5. **Permittivity and permeability studies of multiferroic nanocomposites: Comparison of experimental results with theoretical models**
M. Kanaka Durga, G. Neeraja Rani, **P. Raju**
Materials Today: Proceedings, <https://doi.org/10.1016/j.matpr.2023.03.590>
6. **Synthesis, microstructure and ferroelectric properties of PbO-TiO₂-B₂O₃-based glass ceramics**
J. Shankar, A. Shiva Kumar, **P. Raju**, J. Anjaiah, Sk. Mahammad Ali, G. Neeraja Rani, V.K. Deshpande
Materials Today: Proceedings, <https://doi.org/10.1016/j.matpr.2022.05.120>
7. **Effects of Al³⁺ concentration on the structural, dielectric and conductivity properties of Al-doped ZnO**
CH. Kalyani, I.V. Subba Reddy, **P. Raju**, P. Missak Swarup Raju
Materials Today: Proceedings, <https://doi.org/10.1016/j.matpr.2022.12.005>
8. **Microwave Attenuation Studies of Polypyrrole-SWCNT Nanocomposite Films for Improved EMI Shielding**
P. Raju, M. Kanaka Durga, S. Udaya Kumar, and G. Neeraja Rani,
ECS Journal of Solid State Science and Technology, 2022 11 091007; [10.1149/2162-8777/ac90eb](https://doi.org/10.1149/2162-8777/ac90eb)
9. **Influence of rare-earth ion doping on dielectric properties of lithium zinc borate glasses**
J. Anjaiah, C. Laxmikanth, Stanley Ferdinand Mwanga, **P. Raju**, S.K. Mohammad Ali, J. Shankar, G. Neeraja Rani, Benard Mwankemwa
Optical Materials 131 (2022) 112718, <https://doi.org/10.1016/j.optmat.2022.112718>
10. **PANI-SWCNT Blends with PVA Nanocomposite Films: Structural, Morphological and Electrical Properties for Effective EMI Shielding Applications**
Neeraja Rani G, Kanaka Durga M, and **Raju P**
ECS Journal of Solid State Science and Technology, 2022 11 073005; [10.1149/2162-8777/ac7f57](https://doi.org/10.1149/2162-8777/ac7f57)
11. **Ni_{0.48}Cu_{0.12}Zn_{0.4}Fe₂O₄+ paraformaldehyde nanocomposites as microwave absorbent dominant materials**
P. Raju, A. Thirupathi, P. Neelima, M. Kanakadurga
Solid State Communication, 2022, 114790, <https://doi.org/10.1016/j.ssc.2022.114790>
12. **Synthesis, Structural, Microscopic, and Electrical Properties Studies of Neodymium Chromite Perovskite Nanoparticles**
Jada Shanker, J. Ananthaiah, N. Pavan Kumar, Kasarapu Venkataramana, **P. Raju**, M. Anand pandarinath, E. Meher Abhinav, and Ujwal U P
ECS Journal of Solid State Science and Technology, 2022 11 043011: DOI: [10.1149/2162-8777/ac611b](https://doi.org/10.1149/2162-8777/ac611b)
13. **Giant dielectric behavior in NdCrO₃ perovskite**
Jada Shanker, J Ananthaiah, N Pavan Kumar, Kasarapu Venkataramana, M Anand pandarinath, Ujwal U P, **P. Raju**, E Meher Abhinav and D Suresh babu
IOP Conf. Series: Materials Science and Engineering 1233 (2022) 012011 doi:[10.1088/1757-899X/1233/1/012011](https://doi.org/10.1088/1757-899X/1233/1/012011)
14. **Ultrasonically induced in situ polymerization of PANI-SWCNT nanocomposites for Electromagnetic shielding applications.**
P. Raju, G. Neeraja Rani, S.Udaya Kumar, Andrews Joseph and K. C. James Raju
J Mater Sci: Mater Electron (2022) <https://doi.org/10.1007/s10854-022-07702-2>
15. **Effect of BaTiO₃ phase on frequency dispersion characteristics of Mg_{0.48}Cu_{0.12}Zn_{0.4}Fe₂O₄ + BaTiO₃ nanocomposites.**
M. Kanaka Durga, **P. Raju**
Materials Science and Engineering B 272 (2021) 115340 <https://doi.org/10.1016/j.mseb.2021.115340>
16. **Enhanced Microwave Absorption Properties of Ni_{0.48}Cu_{0.12}Zn_{0.4}Fe₂O₄ + Polyaniline Nanocomposites**
P. Raju, P. Neelima, G. Neeraja Rani, M. Kanaka Durga
Journal of Physics and Chemistry of Solids 154 (2021)110048, <https://doi.org/10.1016/j.jpics.2021.110048>
17. **Structural and Microwave Behavior of Dy³⁺ substituted Ni_{0.5}Zn_{0.5}DyxFe_{2-x}O₄ Ferrites.**



- P. Neelima, ramesh thotakura, **P. Raju**, S R Murthy
J Mater Sci: Mater Electron (2021). <https://doi.org/10.1007/s10854-020-04941-z>
18. **Study of microstructure and thermal properties of PbTiO₃ based glass ceramics.**
J. Shankar, **P. Raju**, A. Shiva Kumar, J. Anjaiah, G. Neeraja Rani, and V. K. Deshpande
AIP Conf. Proc. 2269, 030077-1–030077-4 (2020); <https://doi.org/10.1063/5.0019493>
 19. **Quenching effect of co-dopant Pr³⁺ on red emitting yttrium vanadate phosphor doped with Eu(III)**
G. Neeraja Rani, J. Shankar, **P. Raju**, J. Anjaiah, B. Mamatha, and N. H. Ayachit
AIP Conf. Proc. 2269, 030063-1–030063-6 (2020); <https://doi.org/10.1063/5.0019645>
 20. **Complex permittivity and permeability properties analysis of NiCuZn Ferrite-Polymer nanocomposites for EMI suppressor applications.**
P Raju, J Shankar, J Anjaiah, Ch Kalyani and G Neeraja Rani
J. Phys.: Conf. Ser. 1495 012001 (2020) doi:[10.1088/1742-6596/1495/1/012001](https://doi.org/10.1088/1742-6596/1495/1/012001)
 21. **Solid State Root Preparation, Characterization and Electrical Properties of NiCuZnFe₂O₄ / Paraformaldehyde Nanocomposites**
P Raju, S Rajesham, J Shankar, J Anjaiah and G Neeraja Rani
J. Phys.: Conf. Ser. 1495 012004 (2020) doi:[10.1088/1742-6596/1495/1/012004](https://doi.org/10.1088/1742-6596/1495/1/012004)
 22. **Microstructure, Frequency & Temperature dependent dielectric properties of nanocrystalline Zinc Ferrite**
P. Raju, S.R.Murthy
AIP Conf. Proc. 2115, 030113-1–030113-4 (2019); <https://doi.org/10.1063/1.5112952>
 23. **Shielding effectiveness studies of NiCuZn ferrite – Polyaniline nanocomposites for EMI suppression Applications**
P. Raju, J. Shankar, J. Anjaiah, and S. R. Murthy
AIP Conf. Proc. 2162, 020027-1–020027-7 (2019); <https://doi.org/10.1063/1.5130237>
 24. **Study of Microstructure and Dielectric Properties of PbTiO₃ based Glass Ceramics**
J. Shankar, G. Neeraja Rani, J. Anjaiah, **P. Raju**, and V. K. Deshpande
AIP Conf. Proc. 2162, 020045-1–020045-6 (2019); <https://doi.org/10.1063/1.5130255>
 25. **Thermoluminescence Characteristics and Dosimetric Aspects of Li₂O-CaO-B₂O₃ Glasses Doped with Rare Earth Ions**
J. Anjaiah, G. Neeraja Rani, J. Shankar, and **P. Raju**
AIP Conf. Proc. 2162, 020043-1–020043-8 (2019); <https://doi.org/10.1063/1.5130253>
 26. **MgCuZnFe₂O₄ + PbZrTiO₃ Nanocomposites for EMI Applications**
M. Kanakadurga, **P.Raju**, S.R. Murthy
Materials Today: Proceedings 3 (2016) 1398–1408, <https://doi.org/10.1016/j.matpr.2016.04.021>
 27. **Ferrite + Polymer nanocomposites for EMI applications**
P. Raju, T. Ramesh and S.R.Murthy
Int.J. ChemTech Res. [2014-2015,7\(3\),pp 1343-1350](https://doi.org/10.1016/j.matpr.2016.04.021)
 28. **Microwave Hydrothermal Synthesis and Electromagnetic properties of Nanocrystalline Y_{3-x}Dy_xFe₅O₁₂ garnets for microwave antenna applications**
T.Ramesh, **P.Raju**, R.S.Shinde and S.R.Murthy,
Int.J. ChemTech Res. [2014-2015,7\(2\),pp 539- 546](https://doi.org/10.1016/j.matpr.2016.04.021)
 29. **Multiferroic properties of microwave sintered BaTiO₃-SrFe₁₂O₁₉ composites**
Sadhana Katlakunta, **Pantagani Raju**, Sher Singh Meena, Sanyadanam Srinath, Reddigari Sandhya, Praveena Kuruva, Sarabu Ramana Murthy
Physica B 448 (2014)323–326, <https://doi.org/10.1016/j.physb.2014.04.073>
 30. **Preparation and characterization of BaTiO₃+MgCuZnFe₂O₄ nanocomposites**
M. Kanakadurga, **P. Raju**, S.R. Murthy
JMMM, 341 (2013) 112–117, <https://doi.org/10.1016/j.jmmm.2013.04.037>
 31. **Preparation and characterization of Ni-Zn ferrite + polymer nanocomposites using mechanical milling method**



P.Raju and S.R.Murthy.

Appl Nanosci (2013) 3:469–475, <https://doi.org/10.1007/s13204-012-0163-z>

32. Electromagnetic properties of microwave sintered $x\text{TiO}_2 + (1-x)\text{CoFe}_2\text{O}_4$ nanocomposites

K. Sadhana. K. Praveena. **P. Raju.** S. R. Murthy

Appl Nanosci (2012) 2:203–210, <https://doi.org/10.1007/s13204-012-0084-x>

33. Microwave-hydrothermal synthesis of CoFe_2O_4 - TiO_2 nanocomposites

P.Raju and S.R.Murthy (2012)

Adv. Mat. Lett. 2013, 4(1), 99-105, DOI [10.5185/amlett.2012.icnano.130](https://doi.org/10.5185/amlett.2012.icnano.130)

BOOK CHAPTERS -#1

1. Preparation of Polymer + Ferrite Nanocomposites for EMI Applications

P. Raju & S. R. Murthy,

Advanced Polymeric Materials, From Macro- to Nano-Length Scales, Chapter 6, (2017) pg 99-118.

REVIEWER and EDITOR for the books -#2

1. American Institute of Physics (AIP) Conference Proceedings : International Conference on Multifunctional Materials (ICMM-2019) (19-21, December, 2019). Volume 2269, ISBN: 978-0-7354-2032-8, ISSN: 0094-243X, 010001 (2020); <https://doi.org/10.1063/1.2001002>, Published Online: 12 October 2020

Editors: G. Neeraja Rani, J. Anjaiah, **P. Raju**

2. Book of Abstracts "International Conference on Multifunctional Materials (ICMM-2019)"

Editors: G. Neeraja Rani, J. Anjaiah, **P. Raju** and M. Aruna Bharathi

ISBN:9789353962067

TEACHING EXPERIENCE

09/2017–Present

Assistant Professor

Geethanjali College of Engineering and Technology (GCET), Hyderabad

08/2016–06/2017 (1 year)

Assistant Professor

Government City College, Hyderabad

08/2012–06/2013 (1 year)

Assistant Professor

Department of Physics, Osmania University, Hyderabad

***As a Junior lecturer (JL)- 6 years for Intermediate**

RESEARCH EXPERIENCE

07/2013–07/2017

Ph. D, Research Scholar

Supervisor: Prof. S. Ramana Murthy

Department of Physics, Osmania University, Hyderabad, India.

Topic: "Development of ferrite-polymer nanocomposites for EMI applications"

06/2010–07/2012

Junior Research Fellow (JRF)

Supervisor: Prof. S. Ramana Murthy

Department of Physics, Osmania University, Hyderabad, India.

Topic: " Development of high quality nanostructured magnetic materials for high frequency planer devices and magnetic sensor applications"

Funded by DRDO, New Delhi, India.

01/2010–06/2010

M.Sc. Project

Supervisor: Prof. S. Ramana Murthy

Department of Physics, Osmania University, Hyderabad, India.

Title: "Structural Characterization of Nano structured $\text{Ni}_0.8\text{Zn}_0.2\text{Fe}_2\text{O}_4$ prepared By Microwave-Hydrothermal (M-H) Method"

Funded by DST New Delhi.



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CONFERENCES ORGANISED - #2

1. **2nd International Conference on Multifunctional Materials (ICMM-2022)**
(22-24, December 2019), Geethanjali College of Engineering and Technology (GCET), Hyderabad.
2. **International Conference on Multifunctional Materials (ICMM-2019)**
(19-21, December 2019), Geethanjali College of Engineering and Technology (GCET), Hyderabad.

FDPs ORGANISED - #3

1. **AICTE-ISTE Online Induction/Refresher Program On Electronic CKT Analysis with MATLAB**
(27-12-2021 to 01-01-2022), Geethanjali College of Engineering and Technology (GCET), Hyderabad.
2. **Research Methodology and Budgeting**
(13-17, September 2021), Geethanjali College of Engineering and Technology (GCET), Hyderabad.
3. **The use of Virtual Physics labs-Creating Next generation Teachers**
(20-24, May 2020), Geethanjali College of Engineering and Technology (GCET), Hyderabad.

GUEST LECTURES / SPEAKER - #11

1. **The use of Virtual Physics labs-Creating Next generation Teachers**
(20-24, May 2020), Geethanjali College of Engineering and Technology (GCET), Hyderabad.
2. **Figment of Imagination in Physics Via Simulations**
(29-30, May 2020), Sri GVG Vishalakshi college for women, Udamalpet, Tamilnadu.
3. **2 Day FDP on Virtual Physics Labs**
(4-5, June 2020), MRIET, Hyderabad.
4. **Physics Experiments through Virtual Lab**
(8-10, June 2020), Dr. MGR Educational Research Institute, Chennai, Tamilnadu.
5. **Two Day E-Workshop on Virtual Labs in Physics and Electronics**
(3-4, July 2020), Aurora's Degree and PG college, Hyderabad.
6. **Two Day webinar on Virtual Labs in Physics**
(17-18, July 2020), Usha Rama College of Engineering and Technology, Gannavaram.
7. **Webinar On Use of Virtual lab – a powerful tool for e-learning**
(14th, September 2020), Department of Applied Physics, Jabalpur Engineering College, Jabalpur, M.P.
8. **National Workshop on Virtual lab**
(26th, September 2020), PG and Research Department of Physics, Vimala college, Thrissur, Kerala.
9. **"Three days student development program – An orientation on Virtual labs."**
(28-30, November 2020), Rathinam College of Arts and Science, Coimbatore.
10. **"3-Day Virtual National Workshop on E-Labs in Physics & Electronics".**
(23-25, March 2021), R.B.V.R.R.WOMEN'S COLLEGE (AUTONOMOUS), Narayanaguda, Hyderabad.
11. **"Workshop on Electronic circuit design and simulation using Falstad"**
(27th, May 2021), Sri GVG Vishalakshi college for women, Udamalpet, Tamilnadu.

Faculty Induction Programme completed.

1. "Participated in the Faculty Induction Training Programme supported by MHRD, under the scheme Pandit Madan Mohan Malaviya National Mission on Teachers and Teaching (PMMMMNTT)"
Organised by Teaching Learning Centre,
Indian Institute of Technology Hyderabad (IITH).
From 20th May 2019 to 8th June 2019.

ACADEMIC ACHIEVEMENTS

1. Secured **1st Rank** in **M. Sc Nanoscience**, from Osmania University, Hyderabad, India.
2. Secured All India **9th rank** in Osmania University, for entrance into M. Sc-Nanoscience
3. Secured State **20th rank** in A.P.R.D.C. CET for entrance into B. Sc (MPC) in Nagarjuna Sagar

FELLOWSHIPS

1. Selected for UGC Non-Net fellowship scheme Scholarship from University Grant commission to pursue Ph.D.
2. Selected for Junior Research fellow (JRF) for DRDO project.
3. Selected for UGC Nanoscience fellowship to study M. Sc (Nanoscience)



TECHNICAL SKILLS AND EXPERTISE

Laboratory Techniques: - Microwave Digestion System(MARS), FTIR Spectrometer, TG/DTA, DSC, KC-605 LCR meter, Agilent 4291B RF Impedance analyser, Microwave Furnace (1000°C), Start-D microwave digestion system and Ball mill PM100 model.

Conference organising services.

ONLINE COURSES COMPLETED (Coursera)

1. AI for Everyone
2. How things work: An introduction to Physics
3. Nanotechnology and Nano sensor's part 1
4. Semiconductor Physics
5. Quantum Mechanics

CONFERENCES ATTENDED

1. **International Conference on Multifunctional Materials (ICMM-2019) (19-21, December, 2019)**
Paper Presented: Complex permittivity and permeability properties analysis of NiCuZn Ferrite-Polymer nanocomposites for EMI suppressor applications.
2. **International Conference on Advanced Materials (ICAM 2019) (12-14, June 2019)**
Paper Presented : "Shielding Effectiveness studies of NiCuZn ferrite-Polyaniline nanocomposites for EMI suppression applications"
3. **63rd DAE Solid State Symposium (December 18-22, 2018)**
Paper Presented: "Microstructure, Frequency & Temperature dependent dielectric properties of nanocrystalline Zinc Ferrite"
4. **International Conference on Recent Advances in Nano Science and Technology (RAINSAT- July 8-10, 2015)**
Paper Presented: "Microstructure, Frequency & Temperature dependent dielectric properties of monocrystalline Zinc Ferrite"
5. **3rd International Conference on Nanoscience and Nanotechnology (ICNN- February 4 -6, 2015)**
Poster Presented: "Ferrite + Polymer nanocomposites for EMI applications"
6. **National conference on Recent Advances in Material Science & Manufacturing Engineering (Jan 30-31, 2015)**
Paper Presented: "Preparation and characterization of Cu/NiZn ferrite composites for EMI/micro inductor applications"
7. **Second two day National Conference on Applied Physics and materials Science(APMS- August 1 -2, 2014)**
8. **International Conference on Nano, Bio& Materials Sciences (ICONBMS- Jan 8 -10, 2014)**
9. **Workshop of Research Scholars on Recent Advances in Materials Synthesis and Characterization (31st August 2013)**
10. **National Seminar on Advanced Materials and their Applications (27 -28, 2013)**
11. **International Conference on Nanomaterials & Nanotechnology (ICNANO- December 18-21, 2011)**
Poster Presented: "Microwave-hydrothermal synthesis of CoFe₂O₄- TiO₂ nanocomposites"
12. **40th National Seminar on Crystallography (November 26 -28, 2011)**
13. **International Conference on Applications of Renewable and Sustainable Energy for Industry and Society (December 16 -18, 2010)**
14. **National Symposium on Microwave Processing of Materials(NSMWP- 28th November 2010)**

WEBINARS ATTENDED

1. **The use of Virtual Physics Labs-Creating Next generation Teachers**
(20-24, May 2020), Geethanjali College of engineering and Technology (GCET) Hyderabad
2. **1 week FDP on SciLab**
(15-19, June 2020), St Peters Engineering College Hyderabad
3. **Science and Technology of Thin films**
(23, June 2020), MRITS, Dhulapally, Hyderabad

REFERENCES

Dr. Ravi Kumar Pujala



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Assistant Professor,
Indian Institute of Science Education and Research (IISER),
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Tirupati, India.
E-mail: pujalaravikumar@gmail.com,
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