## GMU - Faculty & Staff Profile

# Dr. Rakesh Vishwarup

Assistant Professor Department of Physics

**Faculty**
Faculty of Basic and Applied Science.

**School / Program**
School of Mathematical and Physical Science.

**Faculty Introduction**
Dr. Rakesh Vishwarup serving as an Assistant Professor in department of Physics at G.M. University, Davanagere holds Ph.D. in Physics from VTU Belagavi and has over eleven years of teaching experience. He has published several research papers in reputed international journals focusing on nanomaterials and ferrite synthesis. His academic and research interests include material science, nanotechnology, and solid-state physics, complemented by active participation in conferences, seminars, and faculty development programs.

## Contact

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**Websites**
Google Scholar-
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Research Gate-
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SCOPUS ID -57220777935,
Orcid id-https://orcid.org/0009-0006-5881-6215
**Researcher Id-**
https://www.webofscience.com/wos/author/record/JXL-5850-2024

## Qualifications

**Ph.D. (Ferrites- Material Science)**
Visvesaraya Technological University, Belagavi, 2023

**M.Sc. Physics (Solid State Physics)**
Davanagere University – Davanagere, Karnataka, 2014

**B.Sc. (PMCs)**
Karnataka University, Dharwad, 2012

## Experience

### Teaching

- Total 11 Years of teaching experience.
- 3 years in STJ Institute of Technology Ranebennur from 2014-2017
- 3 years in Jain PU College Davanagere from 2018-2020
- 2 years Nittur Central School Ranebennur from 2021-2022
- 3 years in G M University from 2022 to till to date

### Industry

## Research

- 6 years of Research experience in the field of Ferrites and Material Science.

## Training Program Attended

- Future of Education: Integrating ICT Tools in the Teaching-Learning Process
- Research Best Practices & Transforming Research into Reality
- Winning Grant Proposals: Proven Tips and Case Studies for Success Across Funding Agencies

## Research Interest

- Synthesis and characterization of nanomaterials and ferrites
- Structural, electrical, magnetic, and dielectric properties of spinel ferrites
- Co-precipitation and sol-gel synthesis methods
- Nanocomposites and functionalized materials for advanced applications
- Material science and solid-state physics

## Awards & Achievements

## Publication / Patents

Ph.D. Dissertation: "*Synthesis, Characterization, Electrical and Magnetic Studies of* $Mg_{1-x}Zn_xFe_2O_4$, $Mg_{1-x}Ni_xFe_2O_4$ *and* $Mg_{1-x}Co_xFe_2O_4$ *ferrites*"

- International Conference Papers:

Rakesh Vishwarup, Akshay B. Kulkarni, S. R. Manohara, and Shridhar N. Mathad, "*Influence of Zinc Doped Structural Properties of Nano-MgFe2O4 Ferrites Synthesized by Co-Precipitation Method*". Macromol. Symp. 400-2100088, 2021. ($Q_3$ I.F=0.896).
https://doi.org/10.1002/masy.202100088

Akshay B. Kulkarni, S. R. Manohara, Rakesh Vishwaroop, and Shridhar N. Mathad, *Electrical and Dielectric Studies of the Cd-Doped Co-Ni Ferrites Synthesized by Solid State Reaction Method*, Macromol. Symp, 400, 2100113[a], 2021. ($Q_3$ I.F=0.896).
https://doi.org/10.1002/masy.202100113

Rakesh Vishwarup, G H Pujar, Satish Jogad, Virupaxappa S Betageri, Sushma Katti, Latha M S, "Effect of Barium ferrite doping on Strutural Features and Thermal Properties of Polyaniline composite." *South Asian Review,* ISSN 0275-9527 Vol 3, Issue 2, Feb 2024.($Q_1$)

International Journal Papers:

- Rakesh Vishwarup, S.N.Mathad, *"Synthesis, Structural, W-H plot and Size-Strain analysis of Nano cobalt doped $MgFe_2O_4$ Ferrite"*, Science of Sintering, Volume 52, Issue 3, pages 349-358, 2020. ($Q_2$ I.F=1.725)
  https://doi.org/10.2298/SOS2003349V
- Rakesh Vishwarup, Shridhar N.Mathad, *"Elastic properties of nano $Mg_{1-x}Co_xFe_2O_4$ (x=0.15, 0.2, 0.25, 0.3, 0.35 and 0.4) synthesized by co-precipitation method",* Materials Science for Energy Technologies Volume 3, Pages 559-565, 2020. ($Q_1$ I.F=8.25)
  https://doi.org/10.1016/j.mset.2020.05.006
- RakeshVishwarup, Shridhar N. Mathad, *"Facile Synthesis of Nano Mg-Co Ferrites(x=0.15, 0.2, 0.25, 0.3, 0.35 and 0.4) via co-precipitation route: Structural Characterization",* Materials international, 10thdecember 2020. Volume 2, Pages 0471-0476, 2020.
  https://doi.org/10.33263/Materials24.471476

Rakesh Vishwarup, Shridhar N Mathad, Amir Altinawi, Raed H Altomali, Anish Khan, AM Ibraheem, Khalid A Alzahrani, BC Anand, Vikas Gupta," Effect of zinc substitution on structural, electrical, dielectric and magnetic properties of magnesium nano-ferrites prepared by co-precipitation route", *Inorganic Chemistry Communication*, vol 167, papges-112733, Elsevier, September-2024. ($Q_1$ I.F=4.52).
https://doi.org/10.1016/j.inoche.2024.112733

Rakesh Vishwarup, Shridhar N. Mathad, S. Nagaraju , Sandip V. Kamat , Deepak B. Shirgaonkar, *"Structural and Anticoagulant studies of Mg1- xZnxFe2O4, Mg1-xCoxFe2O4 and Mg1-xNixFe2O4 (x=0.15, 0.25 and 0.35) ferrites synthesized by Co-precipitation",* ChemSci Advances, Vol. 1, No. 3, 111-119, Ariston Publications, june-2024.
https://doi.org/10.69626/csa.2024.0111

Rakesh Vishwarup, Satish Jogad ,Latha M S , V S Betageri,, G H Pujar," *Structural and Dielectric Properties of Strontium Ferrite Doped Polyaniline Composite*" Letters in High Energy Physics, ISSN 2632-2714, December 2024. (Q2, I.F=0.93)

Rakesh Vishwarup, S.N.Mathad, *"Comprehensive Insights into Some Nanoferrites: Properties, Characterization, and Multifaceted Applications"* Doklady Physics, Vol 69, Issue 10-12, ISSN 1028-3358, 21st July 2025. (Q3, I.F=0.5)
https://doi.org/10.1134/S1028335824600287

## Professional Membership

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## Awards & Recognitions

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## Administrative Responsibilities

- **Department Level**: IA Coordinator for First year, Main coordinator for Induction program of First year students.
- **University Level:** BOS Member for M.Sc. Physics in GM University

## Workshops / FDPs / Seminars Attended

- Presented poster *"Synthesis and structural studies of* $Mg_{0.8}Co_{0.2}Fe_2O_4$ *Ferrite"*, National Seminar on *"Emerging trends and innovations in Science and technology (ETIST-2020)"*, and *Yashwantrao Chavan Mahavidyalaya Halkarni, Dist-Kolhapur, Maharastra, on 1st February 2020.*
- Attended One Day Workshop on *"Frontiers of Physical Science", Davanagere University, Davanagere, Karnataka on 3rd Febrauary 2020.*
- Attended three-day online Faculty development program on "*Physics of materials"organized by Department of Physics, JAIN (Deemed to be University) from 28th May to 30th May 2020.*
- Participated in the National Webinar on *"Nano Materials"*, organized by *The Research Department of Chemistry, SadakathullahAppa College (Autonomous), Rahmath Nagar, Tirunelveli, on 6th June 2020.*
- Participated in the One day National Webinar on " *Nanomaterials and Robotics"* organized by *Department of Physics, Raja Lakshmanagouda Science Institute(Autonomous) Belagavi, on 16th June 2020.*
- Participated in the Two day National Webinar on " *Functionalized Nano materials and their applications*" organized *by Department of Physics, Tulajaram Chaturchand college , Baramati, Dist Pune on 9th 10th February 2021.*
- Rakesh Vishwarup, Akshay B. Kulkarni, S. R. Manohara, and Shridhar N. Mathad, "*Influence of Zinc Doped Structural Properties of Nano-MgFe2O4 Ferrites Synthesized by Co-Precipitation Method",* Sixth International Conference on *"Advances in Materials Science (ICAMS - 2021)" on 23rd – 24th April 2021 organized by Post – Graduate Department of Physics Raje Ramrao Mahavidyalaya, Jath.*
- Participated in two Day Workshop on *"Product Design", organised by GM University, Davanagere, on 22rd and 23rd August 2025*
- Participated in the One day Faculty development program on *Applied Phsics"* organized by *Visweswaraya*

*Technological University Belagavi in association with JNN College of Eingineering Shimogga, on 30th August 2025.*

## Workshops / FDPs / Seminars Organized

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## Projects Guided

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## Funded Projects / Grants Received

- Under GMU Seed Money Research grants, received grant of 15,000 rupees as Principal Investigator for the project entitled “Impact of Copper Doping on the magnetic and dielectric properties of Mn-Zn nano ferrites”.

## Any Other Contributions

Nil