

Resume



Dr. R. Bakkiyaraj

Assistant Professor (Sr.G.) and Head
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Current Areas of Research

- ✚ Nanomaterials
- ✚ Biomaterials
- ✚ Antimicrobial activity
- ✚ Photocatalytic activity
- ✚ Anti-cancer activity

Education

Ph.D. (2020) – Bharathiar University, Coimbatore, Tamilnadu, India.

M.Phil. (2008) – Periyar University, Salem, Tamilnadu, India.

M.Sc. (2004) – Department of Nuclear Physics, University of Madras, Chennai,
Tamilnadu, India.

B.Ed. (2002) – Institute of Advanced Study in Education, Chennai, Tamilnadu, India.

B.Sc. (2001) – Thiru A. Govindasamy Government Arts College, Tindivanam,
Tamilnadu, India.

Professional Experience

Assistant Professor, Department of Physics, Government College of Engineering, Bargur – 635104, India, (March 2008 – Till Date).

Additional Responsibilities

Head of the Department (i/c)

Public Information Officer

NSS Programme Officer

Deputy Warden – cum – Hostel Superintendent

Faculty Development/ Training Programmes Attended

One week FDP/ Trainings: 10

Two weeks FDP/Trainings: 4

Short Term Training Programme Attended

Short Term Trainings: 13

Refresher / Orientation Programmes Attended

Refresher Course: 2

Orientation Course: 1

Faculty Development Programme Organized

One week FDP – 1 (TEQIP-II Sponsored)

Two weeks FDP – 1 (TEQIP-III Sponsored)

Students Development Programme Organized

TEQIP-II Sponsored SDP: 16

Sponsored Projects

Completed : Nil

Ongoing : Nil

Conferences/ Seminars Attended

| S.No. | Name of the Seminars/ Conference/ Workshop/ | Name of the Sponsoring Agency | Place and Date |
|-------|---|-------------------------------------|---|
| 1 | Workshop on "Powder, Nano & Thin film Characterization using X-ray Diffraction". | UGC | 29-30 August 2013, Crystal Growth Centre, Anna University, Chennai. |
| 2 | National Conference on "Advanced Materials". | UGC | July 18-19, 2014, Sri Vidya Mandir arts and Science College, Uthangarai. |
| 3 | Short Term Programme on "Nano Structured Materials: Processing and characterization". | TEQIP-II | November 7-8, 2014, National Institute of Technology, Tiruchirappalli. |
| 4 | Workshop on "Introduction to Gaussian: Theory and Practice". | Gaussian Inc. | January 6-10, 2014, SCUBE Scientific |

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| | | | Software Solutions, New Delhi. |
| 5 | National Workshop on "Research Methodology". | ISTE-WPLP | 30 th April to 2 nd May, 2014, ISTE-WPLP, Bangaluru. |
| 6 | Certificate Course on "Advanced Materials Characterization Techniques". | MHRD-COE | 6-7 August 2015, PSG TECH, Coimbatore. |
| 7 | International Conference on "Smart Materials". | UGC | February 11 – 12, 2015, Sacred Heart College, Tirupattur. |
| 8 | 19 th National Space Science Symposium – 2016. | ISRO | 09-12 February, 2016, Space Physics Laboratory, Vikram Sarabhai Space Centre, Thiruvananthapuram. |

Research Guidance

Completed : Nil

Ongoing : Nil

Research Publications

Journals : International: 7

National: Nil

Conference Papers (Presented) : International: 0

National: 2

Recent Publications

- Effect of Cd Concentrations on the Structural, Optical, Morphological and Electrical Properties of CuO Thin Films Deposited by Jet Nebulizer Spray Pyrolysis Technique, G. Balaji, K. Mohanraj, D. Balasubramanian, N. Jhansi, and **R. Bakkiyaraj**, *Journal of Advanced Physics*, 7, 1-7 (2018). DOI: 10.1166/jap.2017.1382.
- Facile synthesis, structural characterization, photocatalytic and antimicrobial activities of Zr doped CeO₂ nanoparticles, **R. Bakkiyaraj**, M. Balakrishnan, G. Bharath and N. Ponpandian, *Journal of Alloys and Compounds*, 724, 555-564 (2017). DOI: 10.1016/j.jallcom.2017.07.049.
- Structural, Optical and Electrical Properties of Green Synthesis CdO Nanoparticles and Its Ag/CdO/P-Si Junction Diode Fabricated Via JNS Pyrolysis Technique, K. Mohanraj, D. Balasubramanian, N. Jhansi, **R. Bakkiyaraj** and J. Chandrasekaran, *International Journal of Thin Films Science and Technology*, 6, 87-91 (2017). DOI: 10.18576/ijfst/060207.
- Physical, Optical and Photochemical Properties of CeO₂ Nanoparticles Synthesized by Solution Combustion Method, **R. Bakkiyaraj**, M. Balakrishnan, *Journal of Advanced Physics*, 5, 1-7 (2016). DOI: 10.1166/jap.2017.1295.
- Synthesis, structural characterization, optical studies of CeO₂ nanoparticles and its cytotoxic activity, **R. Bakkiyaraj**, M. Balakrishnan, R. Subramanian, *Material Research Innovation*, 21, 351-357 (2016). DOI: 10.1080/14328917.2016.1265256.

- Solution combustion synthesis and physicochemical properties of ultrafine CeO₂ nanoparticles and their photocatalytic activity, **R. Bakkiyaraj**, G. Bharath, K. Hasini Ramsait, A. Abdel-Wahab, E. H. Alsharaeh, S. M. Chen, and M. Balakrishnan, *RSC Advances*, 6, 51238–51245 (2016). DOI: **10.1039/C6RA00382F**.

- Surfactant-Liaised Variation in ZrO₂ Nanocomposites Morphology, K. Gnanamoorthi, M. Balakrishnan, R. Mariappan, T. Prakash, E. Ranjith Kumar, R. Espinoza-Gonzalez, **R. Bakkiyaraj**, *Journal of Advanced Physics*, 4, 37-40, (2015). DOI: **10.1166/jap.2015.1171**.

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