

Dr. K. Bansura Banu
Assistant professor
Holy Cross college, Trichy.



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SUMMARY

- An innovative and knowledge profession having more than 6 years experience as an Assistant Professor.
- Proficient in giving conceptual knowledge.
- Excellent knowledge of the subject and practicals.
- Extensive participation on committees and extracurricular activities.

WORK EXPERIENCE

Assistant professor of physics

Cauvery College For Women, Trichy

Sep 2005 – Sep 2007

Assistant professor of physics

JBAS College For Women, Chennai.

June 2008– Feb 2009

Assistant professor of physics

Holy Cross College, Trichy.

June 2018– till date.

- Handled syllabus at the undergraduate and postgraduate curriculum.
- Prepared question bank.

EDUCATION

| Degree | Year | Institution | % of marks |
|--------|------|--|------------|
| Ph.D | 2019 | Periyar E. V. R College, Trichy. | Commended |
| M.Phil | 2008 | CDE, Bharathidasan University, Trichy | 88 |
| M.Sc | 2005 | Cauvery College For Women. Trichy | 81 |
| B.Sc | 2003 | Holy Cross College, Trichy. | 82 |

SUBJECT OF EXPERTISE

Computational Modelling of nanoparticles

Nano particle synthesis and characterization – Research area

Digital electronics, Basic electronics, Optics,

Mathematical physics – Teaching area

Paper Presented in International/national Conferences and Seminars

INTERNATIONAL CONFERENCES IN WHICH PAPERS ARE PRESENTED

[1] International Conference on Advances in Materials (AIM 2017), 7th April 2017, Department of Physics, M. Kumarasamy College of Engineering, Karur, Tamilnadu, India.

[2] International conference on Material Physics (ICOMP 2018), 9th January 2018, PG and Research Department of Physics, Bishop Heber College, Tiruchirappalli, Tamilnadu, India.

[3] International Conference on Networking, Research and Innovations in higher Education for a sustainable society: challenges and channels (ICNRI 2018), 25-27th July 2018, Holy Cross college, Tiruchirappalli, Tamilnadu, India.

[4] International Conference on Advances in Materials processing & Manufacturing Applications (iCADMA 2020), November 5-6th 2020, Malaviya National Institute of Technology, Jaipur, Rajasthan, India.

NATIONAL CONFERENCES/SEMINARS IN WHICH PAPERS ARE PRESENTED

[1] National Conference on Computational and Experimental Physics of Functional Materials (NCCEPFM-2016), 16-17th December 2016, Department of Physics, KSR College of Arts and Science for Women (Autonomous), Tiruchengode, Namakkal, Tamilnadu, India.

[2] National Level Seminar on Recent Advancements in Materials (NLS - RAM: 17), 15th February 2017, PG and Research Department of Physics, Jamal Mohamed College, Tiruchirappalli, Tamilnadu, India.

[3] National Conference on Recent Developments in Nano Materials and Thin Films (RDNMTR – 2017), 4-5th march 2017, PG and Research Department of Physics, Sri AVVM Pushpam College, Poondi, Thanjavur, Tamilnadu, India.

[4] National Conference on Recent Developments in Nano Materials and Thin Films (RDNMTR -2018), 9-11th March 2018, PG and Research Department of Physics, Sri AVVM Pushpam College, Poondi, Thanjavur, Tamilnadu, India.

NATIONAL/ INTERNATIONAL CONFERENCES/ SEMINARS PARTICIPATED

[1] National Seminar on Solid state physics and its applications (NaSSSPA-2018), 28th February 2018, PG and Research Department of Physics, Jamal Mohamed College, Tiruchirappalli, Tamilnadu, India.

[2] National Seminar on Popularization of solar energy and materials for solar cell (SEMISC - 2020), 31st January 2020, PG and Research Department of Physics, Periyar E.V.R College (Autonomous), Tiruchirappalli, Tamilnadu, India.

RESEARCH PUBLICATION IN UGC APPROVED PEER REVIEWED JOURNAL:

[1] S. Dheivamalar, **K. Bansura Banu**, A DFT study on Functionalization of Acrolein on Ni-doped (ZnO)₆ nanocluster in dye-sensitized solar cells, **Heliyon, Vol. 5, No. 12 (2019) e02903 - Impact Factor 2.85**

[2] S. Dheivamalar, **K. Bansura Banu**, The adsorption mechanism, structural and electronic properties of pyrrole adsorbed ZnO nano clusters in the field of photovoltaic cells by density functional theory, **Indian Journal of Pure and Applied Physics**, **57 (10) (2019) 713-724 - Impact Factor 0.923**

[3] S. Dheivamalar, **K. Bansura Banu**, Enhancing the light harvesting efficiency, open circuit voltage and stability of molybdenum doped (ZnO)₆ nanocluster in dye-sensitized solar cells: A DFT study, **Oriental Journal of Chemistry**, **34 (5) (2018) 2292-2304 – Impact factor 0.68**

[4] S. Dheivamalar, **K. Bansura Banu**, L-Alanine adsorbed Aluminium doped ZnO structures for nanocomposites with tailored photovoltaic properties: A DFT study, **Functional composites and structure**, **2 (2020) 035006**.

[5] S. Dheivamalar, **K. Bansura Banu**, Theoretical Studies on Photocatalytic application of GO-ZnO nanocomposite for the reduction of methylene blue dye, **Materials today Proceedings [Accepted] – Impact Factor 0.97**

[6] S. Dheivamalar, **K. Bansura Banu**, A combined Experimental and First principles studies on (ZnO)₁₂ nanocluster, **Indian Journal of Pure and Applied Physics**, **59 (1) (2021) 11-22 - Impact Factor 0.923**

[7] **K. Bansura Banu, Sr. Udith Ferdila, M.D. Mercy Jennifer**, Photocatalytic application of graphene oxide -ZnO nanocomposite for the degradation of methylene blue dye **Functional composites and structure**, **3 (4) (2021) 045006**.

[8] **K. Bansura Banu, M. D. Mercy Jennifer**, Photocatalytic application of graphene oxide -CuO nanocomposite for the degradation of methylene blue dye **Communicated - Journal of Molecular Structure – Impact Factor 2.463**

ADDITIONAL ACHIEVEMENTS

[1] **Best oral presentation award** in National Conference on Recent Developments in Nanomaterials and Thin Films (RDNMTR – 2017), 4-5th march 2017, PG and Research Department of Physics, Sri AVVM Pushpam College, Poondi, Thanjavur, Tamilnadu, India.

[2] **Best oral presentation award** in National conference on Recent Developments in Nanomaterials and Thin Films (RDNMTR - 2018), 9-11th March 2018, PG and Research Department of Physics, Sri AVVM Pushpam College, Poondi, Thanjavur, Tamilnadu, India.

[3] NPTEL –AICTE Faculty Development Programme on Solar Photovoltaics fundamentals, Technology and Applications – 8 weeks online course

Declaration

I hereby declare that all the information provided above are true up to the best of my knowledge.

Date: / /2021

Place: Trichy

Yours Sincerely,

(**K. Bansura Banu**)