

Staff Profile

1. Name : **Dr. R. DURGA**
2. Gender : Female
3. Age as on 01.04.2019& D.O.B : 42 & 30.09.1976
4. Educational Qualifications : M. Sc., M. Phil., Ph.D.,



S. No.	Degree	College / University	Year of passing	Subjects	Grade/ Percentage
1	Ph.D.,	Bharathidasan University	2018	Physics	-
2	M.Phil.,	Pondicherry University	2002	Physics	8.72 Out of 10 points
3	M.Sc.,	Govt. Arts College (Autonomous), Kumbakonam – 612 001	2001	Physics	86.40%
4	B.Sc.,	Govt. College for Women (Autonomous), Kumbakonam – 612 001.	1997	Physics	80.00%

5. Total Teaching Experience as on 01.04.2019:

Sl. No.	Name of the Institution	From	To	YY//MM/DD
1	Govt. College for Women (Autonomous), Kumbakonam – 612 001.	09.09.2002	30.04.2010	07/07/21
2	A.V.C. College (Autonomous), Mannampandal – 612 001.	01.07.2010	Till Date	08/09/00

6. Total Teaching Experience at A.V.C. College (specify SF/Aided) as on 01.04.2019: **SF**

Sl. No.	Institution	From	To	Subjects Taught	Remarks
1	Self financing	01.07.2010	Till Date	Physics	-

7. Orientations / Refresher courses attended : Total 1

Sl. No.	O/R	Title of the course	From	To	Name of the Institution and Place
1.	O	IQAC	02.09.2010	07.09.2010	A.V.C. College (Autonomous), Mannampandal – 609 305.

8. Conferences attended : Number 6

1. Attended “National level Conference on Recent Trends in Materials Science” sponsored by UGC, New Delhi at A.V.C. College (Autonomous), Mannampandal, Mayiladuthurai from 08.03.2012 to 09.03.2012.
2. Attended “National Level Conference on Recent Advances in Molecular Spectroscopy” organized by Department of Physics –TAC & KMCPGS, Puducherry on 14th Sep.2014.
3. Presented a paper entitled “Crystal growth, Experimental investigation [FT – IR, FT – Raman] and Theoretical (HF and DFT calculations) analysis on Bis(thiourea) Nickel Fluoride” in the National conference on Recent Advances in Molecular Spectroscopy organized by Department of Physics –TAC & KMCPGS, Puducherry on 14th Sep.2014.
4. Presented a paper entitled “Crystal growth and characterization, FT – IR and FT – Raman analysis on Bis(thiourea) Nickel Bromide using computational calculations” in the National conference on recent advances in Molecular Spectroscopy organized by Department of Physics –TAC& KMCPGS, Puducherry on 14th Sep.2014.
5. Presented a paper entitled “Molecular vibrational investigation [FT – IR, FT – Raman, UV – Visible and NMR] on Bis(thiourea) Nickel Chloride using HF and DFT calculations” in the National conference on recent advances in Molecular Spectroscopy organized by Department of Physics –TAC& KMCPGS, Puducherry on 14th Sep.2014.
6. Attended “National level Conference on Mini Winter School on Ultra cold atoms” sponsored by UGC, New Delhi at Government College for Women (Autonomous), Kumbakonam, on 22, 23 and 24.12.2014.

9. Seminars attended : Number 1

1. Attended State Level Seminar on “Challenges and Research Avenues in Physical Sciences” sponsored by UGC, New Delhi at Govt. College for Women (Autonomous), Kumbakonam on 10.02.2010.

10. Workshops attended : Number 2
1. Attended workshop on “Curriculum Development and Evaluation” sponsored by UGC, New Delhi at Govt. College for Women (Autonomous), Kumbakonam from 06.09.2007 to 08.09.2007.
 2. Attended workshop on “Setting Question Bank For Part-A Questions” at A.V.C. College (Autonomous), Mannampandal, Mayiladuthurai from 26.12.2011 to 27.12.2011 sponsored by UGC, New Delhi.
11. Training programmes attended : Number 1
1. Development of Teaching skills, A.V.C. College (Autonomous), Mannampandal, Mayiladuthurai. Conducted by IQAC from 02.09.2010 to 07.09.2010.
12. Invited Talk / Guest Lecture (2006 onwards) : Number 1
1. Acted as a resource person to deliver a **Lecture** in One day Seminar on “**EPSILON 2K19**” in **Department of Physics, Swami Dayananda College of Arts and Science, Manjakkudi** on 21.02.2019.

13. Research Articles Published : **10**

Journal

1. “*Molecular vibrational investigation [FT-IR, FT-Raman, UV-Visible and NMR] on Bis(thiourea) Nickel chloride using HF and DFT calculations*” in Spectrochimica Acta Part A : Molecular and Biomolecular Spectroscopy, 138 (2015) 203 – 215, S. Anand, R.S. Sundararajan, C. Ramachandraraja, S. Ramalingam, **R. Durga**.
2. “*Physico – Chemical characterization, Opto Electronic investigation and Vibrational Analysis on Coordinate covalent complex; Bis (thiourea) Nickel Bromide (BTNB) using Experimental and Computational tools*” in Journal of **Theoretical & Computational Science**, 3: 141 (2016) 1 – 15, Anand S, Sundararajan R.S, Ramachandraraja C, Ramalingam S and **Durga R**.
3. “*Vibrational Analysis and NLO Impact of Coordinate Covalent Bond on Bis (Thiourea) Cadmium Bromide: A Comparative Computational Study*” in Journal of **Theoretical & Computational Science**, 2: 133 (2015) 1 – 12, **Durga R**, Sundararajan R.S, Ramachandraraja C, Ramalingam S and Anand S.
4. “*Molecular Structure, Vibrational spectra [FT-IR and FT-Raman], Electronic spectra [UV-Visible] and NMR Analysis on Hydroquinone Using HF and DFT Calculations*” in International Advanced Research Journal in Science, Engineering and Technology, Vol. 3,

Issue 5 (May 2016) 211 – 223, **R. Durga**, S.Anand, K. Rajkumar, S. Ramalingam, R.S. Sundararajan.

5. *“The spectroscopic (FT-IR, FT-Raman, NMR & UV-Vis) and first order hyperpolarizability, HOMO and LUMO analysis of Maleic anhydride by HF and DFT methods”* in IOSR Journal of Applied Physics, Vol. 8, Issue 3 (June 2016) 1 – 14, **R. Durga**, S. Anand, K. Rajkumar, S. Ramalingam, R.S. Sundararajan.
6. *“Vibrational, NMR and UV-Visible spectroscopic investigation, HOMOLUMO and NLO studies on Bis(thiourea) Cadmium chloride (BTCC) Using quantum mechanical simulations”* in Journal of Computational Methods in Molecular Design, 2016, 6 (2):39-59, **R. Durga**, R. S. Sundararajan, S. Anand, C. Ramachandraraja and S. Ramalingam.
7. *“Vibrational Spectroscopic Investigation on Bisthiourea Magnesium Sulphate (BTMS) Using Experimental and Computational [HF and DFT] Analysis”* in Journal of **Theoretical & Computational Science**, 4: 153 (2017) 1 – 12, **Durga R**, Anand S, Sundararajan R.S, Ramachandraraja C.
8. *“Optical, Mechanical and Spectroscopic Studies of L-Alanine Cadmium Bromide (LACB) Single Crystals”*, in **Archives of Physics Research**, 2018, 9 (1): 9-16, MVT Sumathee, **R Durga**, S Anand*, RS Sundararajan.
9. *“Vibrational Spectroscopic Studies, Experimental and Computational Calculations of L-Glutamine Potassium Carbonate”* in International journal of basic and applied research, **March 2019** Volume 9 Number 3, **R. Durga**, R.S. Sundararajan, S. Anand, K. Rajkumar.
10. *“Growth and Characterisation of Novel Semi Organic Optical Crystal of DI-Valine Magnesium Nitrate Crystals”* in International journal of basic and applied research, **April 2019** Volume 9 Number 4, M.V.T.Sumathe, R.S.Sundararajan, K.Suganya, B.Samuel ebinezar, **R. Durga**.

14. Books Published

: Number

6

- **Computer Programming - “C” LANGUAGE – PRIYA PUBLICATIONS, KARUR-2. First Edition: December 2007 – Chapters IV & V.**
- **Energy Physics (Tamil Version) – PRIYA PUBLICATIONS, KARUR-2. First Edition: February 2008 – Chapters IV & V.**
- **Spectroscopy and Laser Physics (Tamil Version) – PRIYA PUBLICATIONS, KARUR-2. First Edition: May 2008 – Chapters IV & V.**

- **Solid State Physics (Tamil Version)** – PRIYA PUBLICATIONS, KARUR-2.
First Edition: **December 2008** – Chapters IV & V.
- **“LESSON WRITER”** for the following subjects in English version in **CENTRE FOR DISTANCE EDUCATION, BHARATHIDASAN UNIVERSITY, TRICHIRAPPALLI** – 620 024.

TITLE OF THE BOOK:

MECHANICS & RELATIVITY	–	JANUARY 2013
LASER PHYSICS	–	AUGUST 2013

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