CURRICULUM VITAE

Dr. G. PAVAN KUMAR
Assistant Professor,
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EDUCATIONALQUALIFICATIONS:

- [2018] **Diploma** in theater of arts in **Direction** course, Andhra University, Visakhapatnam, India.
- [2015] **Ph.D., (**Physics), Andhra University, Visakhapatnam, India.
- [2007] **M.Sc.,**(Physics), P. B. Siddartha P.G. Center, Vijayawada, Andhra Pradesh, India. 65.15%.
- [2005] **B.Sc.,**(Physics, Mathematics and Chemistry), P.B. Siddartha Arts and Science College, Vijayawada, Andhra Pradesh, India. 62.52%
- [2000] **Intermediate** (Physics, Mathematics and Chemistry) Sri Aravindha Junior College, Vijayawada, Andhra Pradesh, India. 54.4%
- [1997] **SSC,** St. Xavier's (T.M) High School, Eluru, A.P. India, 60.15%

Ph.D. THESIS TITLE :

My principle research work in the field of "Acoustical and thermodynamic studies of liquid mixtures".

"STUDY OF ULTRASONIC VELOCITY, THERMODYNAMIC AND EXCESS THERMODYNAMIC PARAMETERS OF SOME BINARY AND TERNARY LIQUID MIXTURES".

RESEARCH INTERESTS:

- Nano- Magnetic particles for medical applications
- Materials Science
- Under water acoustical studies.

RESEARCH EXPERIENCE:

- Worked as Project assistant in DST Purse Programme Laboratory, Andhra University Visakhapatnam, India.

- In this laboratory we learn few samples biomedical applications for life sciences and also in engineering stream.
- Presently I am learning how to analyze nano materials and computational studies by using
- Gaussian method.
- Passed Pre-PhD examination with the following papers
  - Common Core Physics
  - Research methodology
  - Solid State Physics

Present work:

1. Prepared few ferrite nano magnetic materials and multi ferric materials for bio medical applications.
2. Preparing Lithium Cobalt nano Battery materials.
3. Preparing some transition metal ion substituted nano ferroelectric materials (PZT, $BaTiO_3$) via different chemical methods.

JOURNALS PUBLISHED:

1. **G. Pavan Kumar**, Ch. Praveen Babu, K. Samatha, A. N. Jyosthna and K. Showrilu, "*Acoustical studies of binary liquid mixtures of P-Chlorotoluene in Chlorobenzene at different temperatures*". **Int. J. Research in Pure and Appl. Phy.,** 10, 25, 2014.

2. **G. Pavan Kumar**, Ch. Praveen Babu, K. Samatha, A. N. Jyosthna and K. Showrilu, "*Acoustical studies of binary liquid mixtures of P-Chlorotoluene in Benzene at different temperatures*". **Int. Let. Chem. Phy and Astro.,** 29, 25, 2014.

3. Ch. Praveen Babu, **G. Pavan Kumar**, B. Nagarjun and K. Samatha, "*Theoretical evaluation of ultrasonic velocities of binary liquid mixtures of 1-bromopropane in chlorobenzene at 303.15, 303.15, 313.15 and 318.15 K*" **Int. Let. Chem. Phy and Astro.,** 30, 9, 2014.

4. Ch. Praveen Babu, **G. Pavan Kumar** and K. Samatha "*Ultrasonic investigations on 1-Bromopropane in Chlorobenzene mixtures at* 303.15K, 308.15K, 313.15K and 318.15K *with 2 MHz",* **Int. J. Adv. Sci. Res.,**69, 65, 2014.

5. SrilathaManukonda, **G. Pavan Kumar** and Ch. Praveen Babu, "Molecular investigations in Binary organic liquid mixtures containing Ethyl Oleate and ethanol at 2 MHz",Int. Let. Chem. Phy and Astro., 40, 17,2014.

6. Ch. Praveen Babu, **G. Pavan Kumar** and K. Samatha, "*Comparison of experimental viscosities by theoretically for 1-bromopropane in chlorobenzene mixture at (303.15, 308.15, 313.15 and 318.15) K,* **Int. J. Adv. Sci. Res.,** 76, 27, 2015.

7. G. Pavan Kumar, Ch. Praveen Babu, K. Samatha, "*Thermodynamic interactions of P-Chlorotoluene in P-xylene at 303.15K, 308.15K, 313.15K and 318.15K*". **Int. J. Research in Pure and Appl. Phy.,** 52, 53, 2015.

8. G. Pavan Kumar, V. Raghavendra and Ch. Praveen Babu, "*Synthesis, Structural Studies on Ni-Zn Ferrite by Solid State Reaction Method*". **Chem. Sci. Trans.,** 5, 4, 2016.

9. N. Muralia, S.J. Margarette, **G. Pavan Kumar**, B. Sailaja, S. Yonatan Mulushoa, P.Himakar, B. Kishore Babu, V. Veeraiah., *"Effect of Al substitution on the structural and magnetic properties of Co-Zn ferrites"* **Physica B**, 522, 1, 2017.

10. Ch. Praveen Babu, Aprna, Bonju babu, **G. Pavan Kumar** and K. Samatha, *"Evaluation of excess thermodynamic properties of 1-bromopropane in chlorobenzene binary liquid mixture at four different temperatures with 2 MHz"*. **Mat. Today: Pro**, MATPR6474.

11. Raghavendra Vemuria, G. Raju, M. Gnana Kiran, M.S.N.A. Prasad, E. Rajesh, **G. Pavan Kumar**, N. Murali, "*Effect on structural and magnetic properties of Mg2+ substituted cobalt nano ferrite"* **Results in Physics** 12, 947, 2019.

JOURNALS COMMUNICATED:

1. G. Pavan kumar* Ch.Praveen babu, Vemuri Raghavendra and Samatha "*Synthesis, Structural and Magnetic Studies on $Co_{1-x}Zn_xFe_2O_4$ (x=0.10, 0.15.0.20, 0.25) nanoparticles by Co-Precipitation method.* **Asian Ceramic Society.**

2. G.Pavan kumar* Ch.Praveen babu, Vemuri Raghavendra and Samatha, "*Molecular interaction thermal studies in ternary liquid mixtures at different temperatures*" **Theoretical Physics**.

3. G. Pavan kumar* Ch.Praveen babu, Vemuri Raghavendra and Samatha "*Synthesis, Structural and Magnetic Studies on $Co_{1-x}Zn_xFe_2O_4$ (x=0.10, 0.15.0.20, 0.25) nanoparticles by Sol-gel method.* **fyzika**

SEMINARS/WORKSHOPS ATTENDED:

1. Seminar on advances in material science 10th February **2007**.
2. Andhra university academic Exhibition 12th to 16th February **2011**.
3. Participated and poster entitled Ultrasonic study of molecular interactions in some ternary liquid mixtures in 2nd DAE-BRNS Symposium on acoustic, molecular and Optical Physics during 22nd to 25thFeb **2011** at Dharwad, Karnataka, India.
4. Two days national seminar on recent trends in advanced materials during 27th -28th January **2012**.
5. Attend the Andhra Pradesh Science Congress Conference duringNovember14th-16th **2012** At Nagarjuna University, Guntur.
6. The Indian science congress association January 3rd to 7th, **2013**.
7. One day workshop held at A.U. Engineering College (A), Dept. of Geo-Engineering and Centre for remote sensing 25th -26th March **2013**.

8. National symposium on remote sensing and GIS for environment with special emphasis on marine and coastal dynamics during on 4^{th} -6^{th} December **2013**.
9. National workshop on Effects of emissions and effluents on environment during 24^{th} December **2013**.
10. Training programme on Nuclear Magnetic Resonance Spectroscopy 6^{th}-8^{th} March **2014**.
11. IASc - Andhra University work shop on Functional materials and their applications in devices 3^{rd}- 4^{th} April **2014**.
12. National conference on advanced functional materials and computer applications in materials technology (CAMCAT-2014) during 18^{th} -19^{th} December **2014**.
13. One day workshop on advanced materials for engineering applications (AMEA-2015) 26^{th} March **2015.**
14. National workshop on advanced techniques related to analytical molecular, material testing and statistical tools held during 27^{th} to 29^{th} March, **2018**.
15. Emerging trends in materials science and technology (NSETMST-2018), Under UGC-SAP-CAS Phase-2 Programme on 9^{th} and 10^{th} March **2018**.
16. Science Academies' Lecturer workshop on Higher Energy Physics on August 9^{th} and 10^{th} **2018**.

COMPUTER SKILLS:

- Certified in Computer Applications (Diploma in Computer Applications)
- Ms Office/ Dos
- Scientific Software's: Origin, JC PDF, XRD Software and SSPS (Little bit)

TEACHINGEXPERIENCE:

- Worked as a Lecturer in Govt. Degree College, Jaggampet, East Godavari (Dt), Andhra Pradesh, India (for two academic years 2008-2010).

- Conducting Lab for Electronics to M.Sc. Students 2011 to 2014 at department of physics, Andhra University.

- Worked as Project assistant in advanced analytical laboratory, DST Purse Programme since august 2015 to June 2018, Andhra University and Visakhapatnam.

- Present working as Assistant Professor in department of Physics, St. Joseph's women's College, Visakhapatnam.

AWARDS / SCHOLARSHIPS:

- **UGC-SAP**, Sponsored **Research Fellowship** in the department of Physics, Andhra University for **Meritorious Students** in 2009.
- Merit Scholarship Award during school level.

PROFESSIONAL SKILLS:

Carried out Dielectric Studies of a prepared binary liquid mixtures by using Microwave method at **Central University of Hyderabad (HCU)**, Hyderabad and Andhra Pradesh, India.

Excellent expertise in operating and handling various Scientific Instruments such as

1. Ultrasonic interferometer (2MHz)
2. XRD
3. SEM
4. FTIR
5. DSC and TG DTA
6. Network Analyzer
7. ESR and
8. Furnace

Instruments used in DST laboratory, Andhra University, Visakhapatnam.

PERSONAL DETAILS:

Name	: G. PAVAN KUMAR
Father's Name	: RAVI PRASAD BABU
Mother's Name	: NIRMALA
Date of Birth	: 24th June 1983
Place of Birth	**:** NUZIVID, Andhra Pradesh, INDIA.
Gender	:Male
Marital status	: Un married
Nationality	: Indian
Languages Known	:English, Telugu and Hindi

References:

Prof. K. Samatha	
Head of the department	
Dept. of Physics,	Mobile: 9441044529
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Andhra University, Visakhapatnam-530003.	
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