CURRICULUM VITAE

Dr. P. RAGHAVA RAO
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PERSONAL PROFILE:

- Name : PARITALA RAGHAVA RAO
- Father's Name : ANJAIAH
- Phone No. : +91-9963394025
- Date of Birth : 15-06-1983
- Marital Status : Married
- Languages known : English, Telugu
- Nationality : Indian

Academic Qualifications	University	College / Institution	Year of passing	% of marks
Ph.D	Acharya Nagarjuna University, Guntur	A.N.U. P.G. Centre Nuzvid	2012	'A' Grade
M.Sc	Acharya Nagarjuna University, Guntur	A.N.U. P.G. Centre Nuzvid	2007	74.55% (I Div. with distinction)
B.Sc. (M.P.C.)	Acharya Nagarjuna University, Guntur	V.V. & M. College, Ongole	2004	61.55%
Intermediate (M.P.C.)	Board of Intermediate Education	Gowtham Jr. College, Guntur	2001	70.6%
SSC	Board of Secondary Education	Govt. High School, Santhamaguluru	1999	77.3%

Ph.D. Thesis Title: ***"Spectroscopic and electrical properties of Na_2SO_4–BaO–P_2O_5: Fe_2O_3 glass system & Role of modifier oxide in emission spectra and kinetics of Sm^{3+} and Er^{3+}–Ho^{3+} co-doped Na_2SO_4–BaO–P_2O_5 glasses"***

Research experience: 12 years

Teaching experience: 13 years

Research activities : Ph.D., Electrical and Spectroscopic properties of glass materials under the guidance of Prof. N. Veeraiah, Department of Physics, Acharya Nagarjuna University – Nuzvid Campus.

- Worked as a **Research Fellow** in a research project sponsored by DAE - BRNS, Mumbai, From December 2010 to July 2012.
- Publications : **21**
- **Life member** - Luminescence Society of India.
- Elected as **Associate Fellow** for Science & Technology (APAS)
- Seminars attended & presented papers
  - *International conferences* : **11**
  - *National Conferences* : **31**
  - *Workshops attended* : **10**

Experience in teaching:

- Worked as Lecturer in Physics at Sri Siddhartha Degree College, Nuzvid, for the period of 2007 to 2009.
- Worked as **Guest Faculty (B-**Category**)** in Physics Department, **A.N.U. Nuzvid Campus**, for the period of 2008 to 2012.
- Worked as **Guest Faculty** in Physics Department, **Krishna University Dr. MRAR P.G. Centre**, Nuzvid, for the period of 2012 to 2018.
- Has been working as Academic Consultant in the Department of Physics, **Krishna University Dr. MRAR P.G. Centre**, Nuzvid, from 2018.
- Has been working as Program Officer – NSS (Unit-I), **Krishna University Dr. MRAR P.G. Centre**, Nuzvid.

Guest lectures:

- Delivered a Guest lecture on Quantum Mechanics at A.N.R. College, Gudivada on 9-10-2015.

- Working as Academic Counselor at Indira Gandhi National Open University (IGNOU) study centre (33034), Dharma Appa Rao College, Nuzvid.

Area of Research: GLASS SCIENCE

Expertise in synthesis of glasses by melt-quenching technique and characterizing them by DSC of inorganic glass systems like phosphate, borate etc.,

1. Evaluation of insulating character of glass materials by means of dielectric studies (viz., constant, loss and ac conductivity as a function of temperature and frequency) and the structural evaluation of the glass materials.
2. IR, Raman, ESR, optical absorption spectra of glass systems doped with different transition metal ions and to probe the local structure of the dopants.
3. Luminescence spectra of glass materials doped with some rare earth ions and to evaluate transition probabilities, emission cross section etc.,

- **Instruments handled:**

  Capable of handling various sophisticated equipments such as LCR dielectric meter, JASCO Spectrophotometer, PTI Fluorescence spectrometer, JASCO IR spectrometer, Abbe refractometer and High temperature furnace.

List of Publications

1. Fluorescence features of Sm^{3+} ions in Na_2SO_4–MO–P_2O_5 glass system-influence of modifier oxide
   P. Raghava Rao, G. Murali Krishna, M.G. Brik, Y. Gandhi and N. Veeraiah
   Journal of Luminescence 131 (2011) 212-217.

2. Role of modifier oxide in emission spectra and kinetics of Er–Ho codoped Na_2SO_4–MO–P_2O_5 glasses
   P. Raghava Rao, N. Venkatramaiah, Y. Gandhi, V. Ravi Kumar, I.V. Kityk and N. Veeraiah
   Spectrochimica Acta Part A: Molecular and Bimolecular Spectroscopy, 86 (2012) 472– 480.

3. Electrical and Spectroscopic properties of Fe_2O_3 doped Na_2SO_4–BaO–P_2O_5 glass system
   P. Raghava Rao, L. Pavic, A. Moguš-Milanković , V. Ravi Kumar, I.V. Kityk and N. Veeraiah
   Journal of Non-Crystalline Solids, 358 (2012) 3255-3267.

4. Influence of titanium ions on spectroscopic and dielectric properties of PbO–Bi_2O_3–As_2O_3 glasses
   M. Srinivasa Reddy, M. Rami Reddy, M. Nagarjuna, **P. Raghava Rao**
   IOP Conf. Series: Materials Science and Engineering 2 (2009) 012048.

5. Influence of tungsten on the emission features of Nd^{3+}, Sm^{3+} and Eu^{3+} ions in ZnF_2–WO_3–TeO_2 glasses
   Y. Gandhi, I.V. Kityk, M.G. Brik, **P. Raghava Rao** and N. Veeraiah
   Journal of Alloys and Compounds, 508 (2010) 278-291.

6. Electrical conduction and other related properties of silver ion doped LiF–V_2O_5–P_2O_5 glass system
   M. Nagarjuna, **P. Raghava Rao**, Y. Gandhi and N. Veeraiah
   Physica B, 405 (2010) 668–677.

7. Investigation on spectral features of tungsten ions in PbO–Bi_2O_3–As_2O_3 glass matrix
   N. Srinivasa Rao, **P. Raghava Rao**, Y.Gandhi, Ch. Srinivasa Rao, G. Sahaya Baskaran, V. Ravi Kumar and N.Veeraiah
   Physica B, 406 (2011) 4494–4499.

8. Piezoelectric and elastic properties of ZnF_2–PbO–TeO_2: TiO_2 glass ceramics
   N. Narasimha Rao, I. V. Kityk, V. Ravi Kumar, **P. Raghava Rao,** B.V. Raghavaiah , P. Czaja , P. Rakus and N. Veeraiah
   Journal of Non-Crystalline Solids, 358 (2012) 702–710.

9. The structural influence of aluminium ions on emission characteristics of Sm^{3+} ions in lead aluminium silicate glass system
   K. Bhargavi, M. Srinivasa Reddy, **P. Raghava Rao**, N. Narasimha Rao, M. Sundara Rao, V. Ravi Kumar and N. Veeraiah
   Materials Research Bulletin, 47 (2012) 267-273.

10. Luminescence properties of Tb^{3+} doped Sr_2SnO_4 green phosphor in UV/VUV regions
    M. Srinivas, B. Appa Rao, M. Vithalb and **P. Raghava Rao**
    Luminescence: ***The Journal of Biological and Chemical Luminescence***
    DOI: 10.1002/bio.2401, 28 (2013) 597-601.

11. Thermo luminescence study of MnO doped borophosphate glass samples for radiation dosimetry
    B.J.R. Swamy, Bhaskar Sanyal, Y. Gandhi, R.M. Kadam, V. Natarajan, **P. Raghava Rao** and N. Veeraiah
    Journal of Non-Crystalline Solids 368 (2013) 40–44

12. On some physical properties of TiO_2 mixed lead tellurite glass ceramics
    V.Ravi Kumar, N. Narasimha Rao and **P. Raghava Rao**
    International Journal of Luminescence and its applications 32 (2013) 2277–6362.

13. Emission characteristics of Dy^{3+} ions in lead antimony borate glasses,
M. Chandra Shekhar Reddy, B.Appa Rao M.G. Brik, A. Prabhakar Reddy, **P. Raghava Rao** , C.K. Jayasankar and N. Veeraiah, ***Applied Physics B – Lasers and Optics,*** DOI 10.1007/s00340-012-4983.

14. Effect of alkali-earth modifier ion on electrical, dielectric and spectroscopic properties of Fe_2O_3 doped Na_2SO_4–MO–P_2O_5 glass system
L. Pavic´, A. Moguš-Milankovic´, **P. Raghava Rao**, A. Šantic´, V. Ravi Kumar, N. Veeraiah
Journal of Alloys and Compounds, 604 (2014) 352–362.

15. Effect of Doping Ti^{3+} Ions on Spectroscopic Behavior of Lead Bismuth Phosphate Glasses
V. Ravi Kumar, G. Naga Raju, S.V.G.V.A.Prasad, **P.Raghava Rao**, N. Narasimha Rao
International Journal of Science and Research (IJSR) ISSN (Online): 2319-7064 Paper ID: ATOM-201405.

16. Influence of Mo^{5+} ions on Spectroscopic Properties of PbO−ZnF_2–P_2O_5 glass system
P. Venkateswara Rao, G. Naga Raju, **P. Raghava Rao,** N. Narasimha Rao, P. Syam Prasad
Karbala International Journal of Modern Science 1 (2015) 101–109.

17. Structural studies of mixed glass former ZnO−B_2O_3–P_2O_5:TiO_2 glasses
G. Naga Raju, V. Ravi Kumar, N. Narasimha Rao, **P. Raghava Rao,** P. Sinrivasa Rao and P. Venkateswara Rao
International Conference on Science and Engineering of Materials for Future Needs **(ICSEMF -2015),** ISBN 978-1-329-77555-8.

18. Spectroscopic and physical properties of erbium doped Li_2O–BaO–P_2O_5 glasses
N.Ch. Ramesh Babua, **P. Raghava Rao**, N. Narasimha Rao, B.J.R.S.N. Swami, M.Vasu Babu, G. Naga Raju, N. Veeraiah
Materials Today: Proceedings 5 (2018) 26314–26321

19. Renewable energy sources – Natural resource management
P. Raghava Rao, N. Narasimha Rao, B. J.R.S.N. Swamy, A. Chitti Babu & Kumara Raja Kandula
RESEARCH REVIEW International Journal of Multidisciplinary ISSN: 2455-3085 (2019).

20. The dielectric properties of PbO–B_2O_3–Bi_2O_3 glasses doped with V_2O_5
P. Raghava Rao, N. Narasimha Rao, B.J.R.S.N. Swamy, N. Ch. Ramesh Babu, A. Chitti Babu, N. Veeraiah.
Recent advances in Material Science:Conf. Proceedings ISBN:978-93-87769-51-9

21. Influence of silver ions on dielectric properties of CaF_2–MoO_3–P_2O_5 glass system
N. Narasimha Rao, **P. Raghava Rao**, B.J.R.S.N. Swamy, V. Ravi Kumar
Recent advances in Material Science:Conf. Proceedings ISBN:978-93-87769-51-9

Conferences/Seminars/Workshops attended & Presented papers

❖ ***List of International conferences*** **: 11**

1. International Conference on Luminescence and its applications (ICLA-2008) organized by NPL, February – 2008, **Delhi.**
2. International Seminar on Science and Technology of Glass materials (ISSTGM-2009), organized by the Department of Physics, March – 2009, ANU & ANU Nuzvid Campus.
3. International Work shop & Symposium on the Synthesis and Characterization of Glass/Glass Ceramics (IWSSCGGC-2010), organized by CMET, July–2010, **Pune.**
4. International Conference on Multi Functional Materials (ICMM-2010), organized by Department of Physics, **Banaras Hindu University**, December 2010, **Varanasi.**
5. International Conference on specialty Glass and Optical fiber: Materials, Technology & Devices (ICGF-2011), organized by CGCRI, August-2011, **Kolkata.**
6. International Conference on Physics of Materials and Materials based Device Fabrication (ICPM-MDF-2012), organized by Department of Physics, Shivaji University, January-2012, **Kolhapur.**
7. International Conference on Luminescence and its Applications (ICLA-2012), organized by RGUKT, IICT and Luminescence Society of India, February-2012, **Hyderabad.**
8. International Seminar on Glasses and other Functional Materials (ISGFM-2014) organized by the Department of Physics, Acharya Nagarjuna University, December-2014, Guntur, A.P.
9. 2nd Andhrapradesh Science Congress (APSC-2016) held at P.B. Siddhartha College of Arts & Science, organized by A.P. Academy of Science in association With Dr. N.T.R. University of Health and Science, A.N.U & K.R.U, November -2016, **Vijayawada.**
10. Indian Science Congress Association (104th Indian Science Congress) held at S.V. University, January-2017, **Tirupati.**
11. The International Seminar on "Materials for the Societal Advancement with Emphasis on Health & Energy" organized by P.B. Siddhartha College of Arts & Science, February-2017, Vijayawada.

❖ ***List of National Conferences*** **: 31**

1. National Symposium on Science & Technology of Glass and Glass-Ceramics (NSGC-08) organized by BARC, October – 2008, **Mumbai.**
2. UGC Sponsored National Seminar on Physics and Chemistry of Materials organized by the Sri Velagapudi Ramakrishna memorial College, July – 2009, Nagaram.
3. National Seminar on Display Phosphors and its Applications (NSDPA-2009), organized by the Vivekananda Degree College, October – 2009, Bangalore.
4. UGC National Seminar on "Nanomaterials & Their Applications" (NSNMA-2009) organized by Dharma Apparao College, December – 2009, Nuzvid.
5. National seminar on Novel materials for display applications, organized by Department of Physics, SVRM College, October-2010, Nagaram.
6. National Conference on Luminescence and its Applications (NCLA-2011), organized by Department of Physics, Pt. Ravishankar Shukla University, February-2011, **Raipur.**
7. Theme Meeting on Laser Glass Science & Technology organized by Srivenkateswara University, March-2011, **Tirupati.**
8. National Seminar on Chemistry our Life, our Future (CLF-2011), organized by Department of Chemistry, Krishna University – Dr. M.R.A.R. Campus, December-2011, Nuzvid.
9. National Seminar on "Recent Trends in Advanced Materials", organized by Department of Physics and Chemistry, Sir. C.R.Reddy Autonomous College, January-2012, Eluru.
10. "AP Science Congress – 2012" organized by Andhra Pradesh Akademi of Sciences & Acharya Nagarjuna University, November – 2012, Guntur.
11. National Seminar on "Multi Functional Materials" (NSFM-2013), organized by Department of Physics, Andhra Loyola College, March-2013, Vijayawada.
12. National Seminar on "Recent Trends in Surface Science and Nanotechnology" (RTSSN-2013), organized by Department of Science and Humanities, PCM College of Engineering & Technology, November-2013, Vijayawada.
13. State level seminar on "Recent trends in materials science" organized by the Department of Physics, Ideal College of Arts & Science, February – 2014, Kakinada.

14. National Seminar on "The Role of Natural Product Chemistry in Drug Discovery" (RNPCDD-2014) organized by Dept. of Chemistry, Krishna University, September-2014.
15. National Seminar on " Development of Advanced Materials in Physics & Electronics and their applications" organized by Department of Physics & Electronics, KBN College, October-2014, Vijayawada.
16. National Conference on Advanced Technology Oriented Materials (ATOM – 2014), organized by Department of Physics, Crystal Growth and Nano Science Research Centre, Government College, December-2014, Rajahmundry.
17. National Conference on "Emerging Frontiers of Materials Science" organized by Department of Physics, Maris Stella College, February-2015, Vijayawada.
18. National Seminar on "Emerging Techniques in Physics Teaching and Training" (ETPTT-2015) organized by the Department of Physics, S.V.R.M. College, August-2015, Nagaram.
19. One Day Seminar on "Chemistry for the Sustainable Development" (CSD-2015) organized by The Royal Society of Chemistry (London)-DS & APAS held at Krishna University Dr.MRAR PG Centre, Nuzvid, Septembetr-2015.
20. National Conference on Need and role of Nano Sciences in the present era (NRNSPE) organized by the Department of Physics, P.B. Siddhartha College of Arts & Science, October-2015, Vijayawada.
21. National Seminar on "Recent Trends in Applied Physics" organized by K.R.K. Govt. Degree College, December–2015, Addanki.
22. National Seminar on Characterization Techniques of Materials (NSCTM-2016) organized by the Department of Nanotechnology, Acharya Nagarjuna University, March – 2016, Guntur.
23. One day National Seminar on Materials Science & Technology (NAMASTE-2016) organized by Department of Physics, V.R. Siddhartha Engineering College, November-2016, Vijayawada.
24. Recent trends in Material Science, Nano Science & Nano Technology (RTMSNN-2017) organized by Department of Chemistry, A.G. & S.G. Siddhartha Degree College of Arts & Science, January-2017, Vuyyuru.
25. National Seminar on "Advances in Biomaterials & Characterization Techniques (ABCT-2017)" organized by Department of Physics, Andhra Loyola College, January-2017, Vijayawada.
26. National Seminar on "Physics & Chemistry of Non-Crystalline Materials (PCNCM-2017)" organized by Department of Physics Chemistry, K.V.R. College, Nandigama, 1st & 2nd December -2017.

27. National Conference on "Luminescence and it's applications" (NCLA-2018), organized by CSIR-National Institute for Interdisciplinary Science & Technology, Trivandrum, 14^{th} – 16^{th} February,2018.
28. National Seminar on "Recent advances in materials physics" (RAMP-2018), organized by Dept. of Physics, Sri Krishna Devaraya University, Anantpur, 24^{th} & 25^{th} February, 2018.
29. "AP Science Congress – 2018" organized by Andhra Pradesh Akademi of Sciences & Yogi Vemana University, November – 2018, Kadapa.
30. National Seminar on "Recent Advances in Material Science" organized by Department of Physics, JKC College, February-2019, Guntur.
31. National Seminar on "Optical characterization techniques" (NSOCT-2019) organized by Department of Physics, Andhra Loyola College, March-2019, Vijayawada.

❖ ***List of Workshops attended*** **: 10**

1. Workshop on Analytical Techniques on Materials Characterization, organized by Andhra Loyola College, February – 2009, Vijayawada.
2. National Workshop on "Soft Materials", organized by J.M.J. College for Women, January-2012, Tenali.
3. National Workshop on "Fundamentals & Applications of Nano Materials" organized by Department of Nano-Technology, ANU-Nagarjuna Nagar, March-2012, Guntur.
4. "Work shop on Intellectual Property and Innovation Management in Knowledge Era" organized by NRDC and Krishna University Dr. MRAR PG Centre, February-2013, Nuzvid.
5. Work Shop on "Condensed Matter Physics & Embedded Systems" organized by The Department of Physics & Electronics of P.B. Siddhartha College of Arts & Science, December – 2013, Vijayawada.
6. Work Shop on "Mathematica and its Computations in the Present Era" (MCPE-2013) organized by Dept. of Mathematics, Krishna University Dr.MRAR PG Center, December-2013, Nuzvid.
7. National Work shop on "Green Chemistry, its need and role in our society" organized by Department of Chemistry, D.A.R. College, February – 2014, Nuzvid.
8. National Work Shop on "Advances in Materials Processing" organized by Dept. of Nano-Technology, Acharya Nagarjuna University, March-2014, Guntur.

9. Science Academies Lecture Work Shop on “Applications of Quantum Mechanics to Optics” organized by Dept. of Physics & Electronics, KBN College, February-2019, Vijayawada.
10. A One Day Faculty Development Programme on “Effective writing of Research proposals” organized by NAIPUNYA at Ramachandra College of Engineering, November-2019, Eluru.

DECLARATION

I hereby declare that the information furnished above is true to the best of my knowledge.

Place: (P. Raghava Rao)

Date: