

Dr.V.Appa Rao

M. Sc, M.Phil, Ph. D, PGDCA, BALS, FIETE, MIAPT

Professor

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ABOUT MYSELF

Dr. V.Appa Rao is a Professor of Physics, in the department of Humanities & Basic Sciences, Gokaraju Rangaraju Institute of Engineering and Technology, Hyderabad. He earned his Ph.D degree from Andhra University, Visakhapatnam in 1997. Prior to Ph.D; he earned his M.Phil degree from Andhra University in 1987 and M.Sc. degree from Bhopal University in 1985. He has more than 31 years of teaching, research and administrative experience. In addition to, he has 9 years of teaching, research and administrative experience in Foreign Universities. He has 26 publications on academic books and research papers in space physics. He has attended various Conferences, Workshops, Symposium and FDPs and presented more than five research papers, delivered more than nine Guest Lectures in National, International Universities and Research conferences. He is member, Editorial Board, GJSR, India and International Advisory Committee Member, IIRM. He is the author of “Comprehensive practical physics” and “Experiments in electronics” for undergraduate courses of science and technology. His research interests include Horizontal drift and anisotropy parameters of ionospheric irregularities, loop and dipole aeriels, vertical plasma drifts, electron densities, interplanetary magnetic field, solar cycle variation and Geomagnetic storms. He received “One of the Best Professor Award” from GJSR; India in 2020. He is Life Member, Indian Association of Physics Teachers (IAPT), Kanpur and Fellow, The Institution of Electronics and Telecommunication Engineers (IETE), New Delhi, India.

ACADEMIC EDUCATION

- B. Sc (P.M.C), Andhra University, Visakhapatnam, A.P (1978-1981).
- M. Sc (Physics), Bhopal University, Bhopal, M.P (1983-1985).
- M.Phil (Physics) with specialization in Aeronomy, Andhra University, Visakhapatnam, A.P (1986-1987).
- Ph. D (Physics) with specialization in Space Physics, Andhra University, Visakhapatnam, A.P (1989-1991).
- PGDCA from CIIT, Nalgonda (2000-2001).
- BALS from College of Foreign Languages, Jimma University, Ethiopia (2016-2017).

PROFESSIONAL EXPERIENCE

- Sept 2022 - Till date: Professor, Gokaraju Rangaraju Institute of Engineering and Technology, Hyderabad, Telangana.
- October 2021-August 2022: Professor, Gokaraju Lailavathi Women's Engineering, College, Hyderabad, Telangana.
- Jan 2020-Sept 2021: Professor, Institute of Aeronautical Engineering, Hyderabad, Telangana.
- Sept 2012-July 2018: Professor, Jimma University, Ethiopia (MOE).
- June 2011-Aug 2012: Professor&HOD, SITAM Engineering College, Visakhapatnam, A.P.
- Sept 2009-May 2011: Professor, Aljabal-Algarbi University, Libya (MOE).
- Jan 2008-July 2009: Associate professor, Wollo University, Ethiopia (MOE).
- Sept 2003-Dec 2007: Associate professor, S.V.P.Engineerign College, Visakhapatnam, A.P.
- Sept 1991-Aug 2003: Lecturer, G.V.P.Degree College, Visakhapatnam, A.P.
- Aug 1985-Mar1986: Lecturer, D.N.R. College, Bhimavaram, A.P.

COURSES TAUGHT

- Applied physics
- Applied physics Lab
- Engineering physics
- Engineering physics Lab
- Physics for Computing Science Lab (PCSL)
- Atmospheric physics
- Classical Mechanics
- Electromagnetic Theory
- Relativistic Astrophysics
- Stellar equilibrium and evolution
- Compact objects
- Metrology-1
- Metrology-2
- Metrology-3
- Engineering physics-1 & 2(Theory)
- Engineering physics -1&2(Lab)
- Wave and Optics
- Statistical Physics
- Electronics
- Advanced Physics Laboratory
- Experimental physics-1&2
- Physical Optics
- Introduction to Modern Physics
- Mechanics
- Experimental Electronics
- Materials Science
- Waves and Oscillations
- Heat and Thermodynamics
- Optics
- Experimental Physics – 3, 4
- Electricity and Magnetism
- B.Sc. and M.Sc. Projects

PUBLICATIONS

Research papers - International

1. Calculation of Atomic parameters of Bismuth Germinate Detectors.

Appa Rao Vegi and V.K.Mittal.

Journal of Ultrascientist of Physical Sciences, section-B (JUSPS-B). Volume 30(7); pp.81-87(2018).

2. Comparison of Density of Fermi Gas and Bose-Einstein Condensate in Single Valence Electron Bulk Metal Elements.

Gelana Chibsa and Appa Rao Vegi.

Global Journal of Scientific Frontier Research (GJSFR-A). Volume 18, Issue 3, Version 1.0: pp.21-23 (2018).

3. Long term variations of ionospheric drift and anisotropy of E-region irregularities at Waltair.

Appa Rao, Vegi.Jogulu, Challa and Suryanarayana, M.B. (2017).

American Scientific Research Journal for Engineering, Technology, and Sciences (ASRJETS).36(1): pp.184-197(2017). (<http://asrjetsjournal.org/>).

4. Geomagnetic storm effects on drift and anisotropy parameters of ionospheric irregularities in the E-region at Waltair.

Rao, V.A.Jogulu, C and Murthy, B.S.

Journal of Ultra Scientist of Physical Sciences.29 (10):pp.248-260. (2017).

(Website: - www.ultrascientist.org).

5. Study of Ionospheric Irregularities in the F-Region during Geomagnetic Storms.

Appa Rao Vegi.

Global Journal of Scientific Frontier Research (GJSFR-A). Volume 17, Issue 3, Version 1.0: pp.13-22 (2017).

National

1. Nocturnal Variation of F-Region Special drift at Waltair.

Rao, V.A. Murthy, B.S and Jogulu C.

Visakha science Journal.3(2):pp.93-98(1999).

BOOKS PUBLISHED - 15

1. Comprehensive Practical Physics for B.Sc.Vol-I,Waves and Oscillations(E.M).

A.R.Vegi.

V.G.S. Publishers,India (2001).

2. Comprehensive Practical Physics for B.Sc. Vol –II, Thermodynamics and Optics(E.M).
A.R.Vegi.
V.G.S. Publishers, India (2001).
3. Samagra prayoga Deepika, Bhouthika Sastram for B.Sc. Vol-I, Waves and Oscillations(T.M).
A.R.Vegi.
V.G.S. Publishers, India (2002).
4. Samagra prayoga Deepika, Bhouthika Sastram for B.Sc. Vol-II, Thermodynamics and Optics(T.M).
A.R.Vegi.
V.G.S. Publishers, India (2002).
5. Comprehensive Practical Physics for B.Sc. Vol-III, Electronics and Electrostatics(E.M).
A.R.Vegi.
V.G.S. Publishers, India (2004).
6. Comprehensive Practical Physics for B.Sc. Vol-IV, Modern physics(E.M).
A.R.Vegi.
V.G.S. Publishers, India (2004).
7. Comprehensive Practical Physics for I/IV B.E/B. Tech for JNT University, Hyderabad.
A.R.Vegi.
VEGI Publishers, India (2004).
8. Comprehensive Practical Physics For I/IV B.E/B. Tech for Andhra University, A.P.
A.R.Vegi.
VEGI Publishers, India (2004).
9. Comprehensive Practical Physics for B.Sc. Vol-I, Waves and Oscillations(E.M) for Revised Common core syllabus, 2004-2005, for all Universities in A.P.State, India.
A.R.Vegi.
V.G.S. Publishers, India (2005).
10. Comprehensive Practical Physics for B.Sc. Vol-II, Thermodynamics and Optics(E.M) for Revised common core syllabus, 2004-2005, for all universities in A.P.State.
A.R.Vegi.
V.G.S. Publishers, India (2005).
11. Samagra Prayoga Deepika, Bhoutika Sastram for B.Sc. Vol-I, Waves and Oscillations (T.M) for Revised common core syllabus 2004-2005, for all universities in A.P.State.
A.R.Vegi.
V.G.S. Publishers, India (2006).
12. Samagra Prayoga Deepika, Bhoutika sastram for B.Sc. Vol-II, Thermodynamics and Optics(T.M) for Revised common core syllabus, 2004-2005, for all Universities in A.P.State.
A.R.Vegi.
V.G.S. Publishers, India (2006).

13. Comprehensive practical physics for B.Sc. Vol –III, Electronics and Electrostatics(E.M) for Revised common core syllabus, 2004-2005, for all Universities in A.P.State
A.R.Vegi.
V.G.S. Publishers,India (2006).
14. Comprehensive Practical Physics for B.Sc. Vol-IV, Modern physics(E.M) for Revised common core syllabus, 2004-2005, for all universities in A.P. State.
A.R.Vegi.
V.G.S. Publishers,India (2006).
15. Experiments in Electronics for B.Sc. & B.E/B.Tech.
A.R.Vegi and Dr.K.Venkateswarlu.
Tulasi Enterprises,India (2006).

PRESENTATIONS IN THE NATIONAL CONFERENCES

1. Drift and anisotropy parameters from first and second order reflections recorded at spaced antennae.
National Space Science Symposium (NSSS-90) held at Nagpur University, Nagpur,India,March 1990.
2. Effect of Geomagnetic Storms on drift and anisotropy parameters of ionospheric irregularities at Waltair.
National Space Science Symposium (NSSS-96) held at Osmania University,Hyderabad,February, 6-10,1996.
3. Effect of Horizontal movements on the vertical drift of ionization in the F-region.
10th National Space Science Symposium held at Physical Research Laboratories, Ahmedabad, November 25-28,1997.
4. Nocturnal Variation of F-region spatial drifts at Waltair.
10th National Space Science Symposium held at Physical Research Laboratories, Ahmedabad,November 25-28,1997.
5. Effect of Interplanetary Magnetic Field (IMF) on E and F region Horizontal drift speeds at Waltair in relation to solar activity.
National Space Science Symposium (NSSS-2002) held at Barkatullah University, Bhopal,February 25-28,2002.

WORKSHOPS / TRAINING PROGRAMS / FDPS ATTENDED

1. Two-Day National Level FDP on “Higher Educational Institutions Preparedness for Implementation of National Educational Policy-2020” NEP-2020 sponsored by National Assessment and Accreditation Council (NAAC), organized by Internal Quality Assurance Cell (IQAC), Gokaraju Rangaraju Institute of Engineering and Technology, Hyderabad, February 3-4, 2023.
2. Five-Day online national level FDP on “Inculcating Universal Human Values in Technical Education”
Organized by All India Council for Technical Education (AICTE), New Delhi from January 2-6, 2023.

3. One week FDP on “Experimental Training on Innovative Teaching and Learning Methodologies” organized by Faculty Training & Development Centre, Gokaraju Rangaraju Institute of Engineering and Technology, Hyderabad, from October 17-22, 2023.
4. Faculty Development Program on “*Intellectual Property Rights and Patent Filing*”, organized by MGIT, Hyderabad during September 11-12, 2020.
5. Workshop on “*Effective and Efficient Writing of Research Papers for Web of Science, Scopus Indexed Journal and Conference Papers Using Typeset Research*”, organized by Ramco Institute of Technology in association with Nexus International Company on August 29, 2020.
6. Workshop on “*Basics of IPR&Plagiarism in Academic*”, organized by Dr.L.D.B.College of Arts and Commerce, Maharashtra on August 28, 2020.
7. Workshop on “*NLIST and Open Access E-Resources for Research*”, Sheshadripur College, Bangalore on August 25, 2020.
8. International Workshop on “*Taxonomy of Teaching, Learning and Assessing*”, organized by Bangladesh Psychometric Society (BPS) on August 24, 2020.
9. Workshop on “*Academic research methodologies*”, organized by Dept.of Commerce, Periyar E.V.R .College, Tiruchirappalli during August 19-20, 2020.
10. Faculty Development Program on “*Skill Development in Academic and Research*”, organized by Dept.of Commerce, TSWRDC, Warangal West during August 14-18, 2020.
11. Workshop on “*Measuring Research Output and Promoting Research Visibility*”, conducted by University, Vadodara, Gujarat on August 12, 2020.
12. Workshop on “*Quantitative Analysis of Research Productivity: Role of Journal Indexing and Scientometrics*”, conducted by Sree Narayana College, Sivagiri, Varkala on August 8, 2020.
13. Workshop on “*Crafting Quality Research for Academic Excellence*”, conducted by MGIT, Dept.of CSE, Hyderabad on July 27, 2020.

14. Workshop on “*Understanding plagiarism and consequences Using-URKUND as a Plagiarism Tool*”, conducted on July 24, 2020.
15. Faculty Development Program on “*Outcome Based Education*”, organized by School of Arts, Science & Commerce, IQAC, Ahmedabad during July 22-24, 2020.
16. Workshop on “*Research Methodology*”, conducted by Balaji Institute of Management Sciences, Narsampet, Warangal, Dept.of Management Sciences during July 13-17, 2020.
17. Workshop on “*Book Publishing*”, conducted by Elsevier on July 8, 2020.
18. Workshop on “*Research Indicators, Publishing and Predatory Journals*” conducted by Dr.MGR Janaki College of Arts &Science on July 4, 2020.
19. Workshop on “*Patents and Copyrights: An Overview and Practical Considerations*”, conducted by Ansal University, Gurgaon on June 20, 2020.
20. Training on “*Scientific Writing,Publication Ethics,E-resources&Reference Management Software*” organized by College of Natural Sciences,Jimma University,Ethiopia during April 17-18,2018.
21. International workshop on “*Crystal growth and characterization of technologically important materials*” Organized by Crystal Growth Center, Anna University, Chennai, during February 24-28, 2004.
22. Second SERC School on Upper Atmospheric Physics “*Plasma instabilities in the Ionosphere-Magnetosphere system*” organized by Department of physics, Andhra University, Visakhapatnam, During August 16-September 3, 1993.

CURRICULUM REVIEW MEMBER

Reviewed the curriculum for M.Sc. and Ph.D. Programs for Entoto Observatory, Addis Ababa, Ethiopia on March 2014.

ADMINISTRATIVE EXPERIENCE IN INDIA &FOREIGN UNIVERSITIES: 5 YEARS

1. Chairman, Department Graduate Committee (DGC) & Member of P.G. Board of studies in the Dept. of Physics, College of Natural Sciences, Jimma University, Jimma, Ethiopia, during Sept 2012 -2014.

2. Head, Dept. of Basic Sciences & Humanities and Coordinator, Student Affairs, SITAM Engineering College, JNT University, Kakinada, during June 2011 - August 2012.
3. I/C Head, Department of Engineering Physics, SVP Engineering College, Andhra University, India during 2006-2007.
4. Vice-Principal, Sri Gowri Degree College, Andhra University, Visakhapatnam, during 1997-1998.

GUEST LECTURES/ SEMINARS – INDIA AND FOREIGN UNIVERSITIES

1. Guest Lecture: S.V.V.P. Mahila Vidyapeeth, Visakhapatnam, Andhra University, India, Sept 2007.
2. Guest Lecture: Sri Y.N. College, Narsapur, Andhra University, India, December 2007.
3. Seminar: Wollo University, Dessie, Ethiopia, March 2008.
4. Seminar: Jimma University, Jimma, Ethiopia, January 2013.
5. Guest Lecture: Ethiopian Space Science Society, Annual Assembly (ESSS-2014), Addis Ababa, Ethiopia, March 2014.

INVITED SPEAKER/KEYNOTE SPEAKER FOR INTERNATIONAL CONFERENCES

1. Invited speaker for the Virtual International Conference on Recent Trends in Emerging Technologies and Engineering-ICRTETE-2022 organized by National Institute of Computing, India on December 18, 2022.
2. Invited speaker for the International Conference on Advances in Engineering and Web of Things-ICAEWoT-2022 organized by National Institute of Computing, India on December 4, 2022.
3. Invited speaker for the International Conference on Emerging Techniques in Engineering and Internet of Things-ICETEIOT-2022 organized by National Institute of Computing, India on November 13, 2022.
4. Invited speaker for the Second International Conference on Research and Developments in Engineering&Management-2nd ICRDEM-2022 organized by National Institute of Computing, India on November 13, 2022.

RESEARCH SUPERVISER: M. SC COURSE

1. Roles of Gravity, Turbulence and Magnetic Field in Star Formation, College of Natural Sciences, Dept. of Physics, Jimma University, Ethiopia, 2014.
2. Magnetic Field Evolution of Pre-Main Sequence Stars, College of Natural Sciences, Dept. of Physics, Jimma University, Ethiopia, 2014.
3. Magnetic Field Evolution of White Dwarf Stars, College of Natural Sciences, Dept. of Physics, Jimma University, Ethiopia, 2014.
4. Neutron Stars Magnetic Field Evolution & the Related Timing Noise, College of Natural Sciences, Dept. of Physics, Jimma University, Ethiopia, 2014.
5. Gravitational Radiation from Compact Binaries, College of Natural Sciences, Dept. of Physics, Jimma University, Ethiopia, 2014.

MEMBERSHIP OF PROFESSIONAL BODIES

- Fellow (F-184153, July 2006), The Institution of Electronics and Telecommunication Engineers (IETE), New Delhi-110003, India.
- Life Member (7761L4388, May 2006), Indian Association of Physics Teachers (IAPT), Kanpur-208025, India.

EDITORIAL BOARD MEMBER

- **Member, Editorial Board** –Glacier Journal of Scientific Research, ISSN: 2349-8498 (GJSR), Ahmedabad, India.
- **Member, International Advisory Committee, Reviewers Committee & Technical Program Committee** -International Institute of Research in Multidisciplinary (IIRM), India.

AWARDS

- **Best Professor Award (National Award of Excellence):** Global Management Council, Ahmedabad, August 2020.
- **Best Student Award:** Y.R.K. Raju Memorial Prize, Z.P.H. School, Konithiwada, W.G. District, A.P, June 1976.