

CURRICULAM VITAE

JAKKULA SHANKAR
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CAREER OBJECTIVES

To contribute efficiently towards the teaching of Applied Physics and research activities in the field of **Applied Physics and Materials Science** to achieve excellence in this field.

EDUCATION

Degree	Specialization	Year	University	Percentage	Division
Ph.D.	Ferroelectric Glass Ceramics	2012	N.I.T. Nagpur		
M.Sc (Tech)	Engineering Physics	2002	N.I.T. Warangal	74	Distinction
B.Sc.	Physics, Electronics., Maths	1999	Kakatiya University, Warangal	82	Distinction
H.S.C. (Intermediate)	M.P.C	1996	A.P. Board	83	FIRST
S.S.C. (Secondary)	-	1994	A.P.Board	88	FIRST

TEACHING EXPERIENCE

Post held	Institute	From	To	Total Period
Lecturer	Kavikulguru Institute of Technology and Science, Ramtek	16-08-2002	31-10-2009	7 Years 2 months
Sr. Lecturer	Kavikulguru Institute of Technology and Science, Ramtek	1-11-2009	30-11-2010	1 Year 1 month
Asst. Professor	Kavikulguru Institute of Technology and Science, Ramtek	1-12-2010	4-12-2015	5 Years
Professor	Sri Indu College of Engineering and Technology, Hyderabad	18-12-2015	31-5-2016	6 Months
Professor	Geethanjali College of Engineering and Technology, Hyderabad	1-6-2016	Till Date	

1. Worked as Warden for 7 years.
2. Worked as Chief Supervisor for University exams
3. Worked as In-charge Applied Physics Department
4. Visited Australia and Malaysia to present research papers on DST and AICTE travel grants

Academic Achievements/Professional Affiliations

1. Awarded National Merit Scholarship for the years 1994-96.
2. Awarded Telugu Vignana Merit Scholarship for the years 1991-1994.
3. Life Member ISTE.

Title of PhD Work

“Synthesis and Characterization of Lead Titanate based Ferroelectric Glass Ceramics.”

Supervisor : Professor. V. K. Deshpande, Dept.of Applied Physics, VNIT, Nagpur.

Publications in Refereed Journals

1. “Effect of MgO addition on the properties of PbO–TiO₂–B₂O₃ glass and glass–ceramics”
Ceramics International, volume 39, pp15 -18, 2013.
2. “Study of PbO-SrO-TiO₂-B₂O₃ glass and glass ceramics” Physica B, volume 407, pp 2160-2163,
2012.
3. “Effect of CaO Addition on the Properties of PbTiO₃ Glass Ceramic” Ferroelectrics, volume 423,
pp 116-125, 2011
4. “Electrical and thermal properties of lead titanate glass ceramics”, Physica B, volume 406, pp 588
- 592, 2011.
5. “Study of lead titanate based glass ceramics with addition of BaO”, Integrated Ferroelectrics,
volume 119, pp110 - 121, 2010.
6. “Effect of Heat Treatment Schedule on the Properties of Lead Titanate Based Glass Ceramic”,
Ferroelectrics, volume 393, pp 63 - 70, 2009.
7. “PbTiO₃ based ferroelectric glass ceramics”, Solid State Physics AIP Conference Proceedings,
volume 1591, pp 708-710, 2014.
8. “Study of PbO -TiO₂ -B₂O₃ glass and glass ceramics” Solid State Physics AIP Conference
Proceedings, volume 1665, pp 070001-070003, 2016.

9. "Synthesis and characterization of PbTiO₃ based glass ceramics" Solid State Physics AIP Conference Proceedings, volume 1832, pp 0700161-0700163, 2017.
10. "Crystallization and dielectric properties of PbTiO₃ based glass ceramics" Solid State Physics AIP Conference Proceedings, volume 1942, pp 070001-070004, 2018.
11. "Enhanced electrical properties of SrBi₄Ti₄O₁₅ ceramic with addition of ZrO₂" Solid State Physics AIP Conference Proceedings, volume 1942, pp 120007-120010, 2018.
12. "Application of Dielectric mixture formulae to PbTiO₃ based glass ceramic systems" Solid State Physics AIP Conference Proceedings, volume 2100, pp 020004-1-020004-4, 2019.
13. "Thermoluminescence characteristics and dosimetric aspects of Li₂O-Cao-B₂O₃ glasses doped with rare earth ions" Solid State Physics AIP Conference Proceedings, volume 2162, pp 0200431-0200434, 2019
14. "Shielding effectiveness studies of NiCuZn ferrite-polyaniline nanocomposites for EMI suppression applications" Solid State Physics AIP Conference Proceedings, volume 2162, pp 0200271-0200274, 2019.
15. "Study of microstructure and dielectric properties of PbTiO₃ based glass ceramics", Solid State Physics AIP Conference Proceedings, volume 2162, pp 0200451-0200454, 2019.
16. "Preparation and characterization of red emitting Yttrium Vanadate phosphor doped with Eu(III): Y_{1-x}VO₄: Eux", Solid State Physics AIP Conference Proceedings, volume 2162, pp 0201171-021175, 2019
17. "Complex permittivity and permeability properties analysis of NiCuZn Ferrite-Polymer nanocomposites for EMI suppressor applications", Journal of Physics: Conference Series, volume 1495, pp 012001-8, 2020
18. "Solid State Root Preparation, Characterization and Electrical Properties of NiCuZnFe₂O₄ / Paraformaldehyde Nanocomposites", Journal of Physics: Conference Series, volume 1495, pp 012004-8, 2020
19. "Study of microstructure and thermal properties of PbTiO₃ based glass ceramics" Solid State Physics AIP Conference Proceedings, volume 2269, pp 0300771-0300774, 2020.
20. "Quenching effect of co-dopant Pr³⁺ on red emitting yttrium vanadate phosphor doped with Eu (III)" Solid State Physics AIP Conference Proceedings, volume 2269, pp 0300631-0300636, 2020.
21. "Synthesis, microstructure and ferroelectric properties of PbO-TiO₂-B₂O₃ based glass ceramics" Materials Today: Proceedings, volume 64, pp 585-589, 2022.
22. "Influence of rare-earth ion doping on dielectric properties of lithium zinc borate glasses", Optical Materials, volume 131, pp 12718-12729, 2022.
23. "Structural Phase Modulation in Lanthanum and Tin –Cosubstituted Pb(Zr,Ti)O₃ Ceramics and its Energy and Pyroenergy Storage Properties", Physica Status Solidi A, pp 2200421-7, 2022.

24. "Effect of Sintering temperature on microstructure, dielectric and ferroelectric properties of BaTiO₃ceramics" Ferroelectrics, Vol 606,pp 207-218,2023.
25. "Effect of heat treatment on dielectric and ferroelectric properties of BST ceramics" Materials Today: Proceedings, **article in press**, 2023.
26. "Effect of Sintering temperature on physical and Dielectric Properties of SrTiO₃ceramics" Materials Today: Proceedings, **article in press**, 2023.
27. "Synthesis and thermal stability of ferrites added polymers nanocomposites" Materials Today: Proceedings, **article in press**, 2023.

Books Published

Published a book titled "PbTiO₃ based Ferroelectric Glass-ceramics" ISBN-10: 3659345180
ISBN-13: 978-3659345180 Lambert Academic Publishing, Year of publication 2017.

Laboratories Handled

1. Engineering Physics
2. Semiconductor Physics
3. Advanced Physics
4. Applied Physics
5. Semiconductor Devices

Contribution to Curriculum Development

1. Member of Board of Studies in Engineering Sciences of **Geethanjali College of Engineering and Technology, Hyderabad** (An Autonomous Institution) since June 2016. Designed the syllabus for the following courses
 - **Engineering Physics (Theory and Lab)**
 - **Physics for Engineers**
 - **Applied Physics**
 - **Semiconductor Physics (Theory and Lab)**
 - **Semiconductor Devices (Theory and Lab)**
2. Member of Board of Studies in Engineering Sciences of **Mallareddy College of Engineering and Technology, Hyderabad** since October 2021. Designed the syllabus for the following courses
 - **Applied Physics (Theory and Lab)**

Participation in Conferences/Workshops/Seminars / Symposia/Courses

I - Paper Presentations in Abroad

1. Presented a research paper titled “*Effect of MgO addition on the properties of PbO-TiO₂-B₂O₃ Glass and Glass-ceramics*” in 8th Asian Meeting on Electroceramics (AMEC) held at University Sains Malaysia, Penang, Malaysia, during 1-5, July, 2012.
2. Presented a research paper titled “*Synthesis and Characterization of PbTiO₃ based Ferroelectric Glass-ceramics*” in 5th International Conference on Electroceramics (ICE) held at University New South Wales, Sydney, Australia during 12th -16th , December, 2011.

II - Paper Presentations in India

1. Presented a research paper titled “Study of microstructure and thermal properties of PbTiO₃ based glass ceramics” in “2nd International Conference on Multifunctional Materials (ICMM-2022) at GCET, Hyderabad, India from 22 -24 December 2022.
2. Presented a research paper titled “Synthesis, microstructure and ferroelectric properties of PbO-TiO₂-B₂O₃ based glass ceramics” in “International Conference on Advanced Materials for Innovation and Sustainability (ICAMIS-2022) at MLRIT, Hyderabad, India during 18th -19th February 2022.
3. Presented a research paper titled “Study of microstructure and thermal properties of PbTiO₃ based glass ceramics” in “International Conference on Multifunctional Materials (ICMM-2019) at GCET, Hyderabad, India from 19th -21st December 2019
4. Presented a research paper titled “Application of dielectric mixture formulae to PbTiO₃ based glass ceramic systems” in National conference physics and chemistry of materials at Devi Ahalya University, Indore, India during 27th -28th December 2018.
5. Presented a research paper titled “Crystallization and dielectric properties of PbTiO₃ based glass ceramics” in 61st DAE Solid State Physics Symposium held at BARC, Mumbai, India during 26th -30th 2017.
6. Presented a research paper titled “Synthesis and Characterization of PbTiO₃ based Glass Ceramics” in 61st DAE Solid State Physics Symposium held at KIIT University, Bhubaneswar, India during 26th -30th December 2016.
7. Presented a research paper titled “PbTiO₃ based Glass Ceramics for High Energy Density Capacitors” in Conference on Emerging Materials (CEMAT-2016) held at Indian Institute of Science, Bangalore, India during 18th -19th July 2016.
8. Presented a research paper titled “*PbO-TiO₂-B₂O₃ Glass-ceramics*” in 59th DAE Solid State Physics Symposium held at VIT University, Vellore, India during 16 -20 December 2014.
9. Presented a research paper titled “*PbTiO₃ based Ferroelectric Glass-ceramics*” in 58th DAE Solid State Physics Symposium held at Thapar University, Patiala, India during 17 -21 December 2013.

10. Presented a research paper titled ***“Effect of addition of alkaline earth oxides on the properties PbTiO₃ Glass-ceramics”*** in XVII National Seminar on Ferroelectric and Dielectrics (NSFD) held at Siksha „O“ Anusandhan University, Bhubaneswar, Odhisha, India during 17 -19 December 2012.
11. Presented a research paper titled ***“Effect of CaO addition on the properties PbTiO₃ Glass-ceramics”*** in XVI National Seminar on Ferroelectric and Dielectrics (NSFD) held at GuruGhasidas Viswavidyalaya, Bilaspur, Chattisgarh, India during 2nd -4th , December, 2010.
12. Presented a research paper titled ***“Study of PbO-SrO- TiO₂-B₂O₃ Glass and Glass Ceramics”*** in International Workshop and Symposium on Synthesis and Characterization of Glass and Glass-Ceramics held at Centre for Materials for Electronics Technology (C-MET), Pune, India during 9th -10th , July, 2010.
13. Presented a research paper titled ***“Effect of BaO addition on the properties PbTiO₃ Glass-ceramics”*** in 4th International Conference on Electroceramics (ICE) held at University Delhi, Delhi, India during 13th -17th , December, 2009.
14. Presented a research paper titled ***“Effect of heat treatment schedule on the properties of lead Titanate glass ceramics”*** in XV National Seminar on Ferroelectric and Dielectrics (NSFD) held at Thapar University, Patiala, India during 6th -8th , November, 2008.
15. Presented a research paper titled ***“Dielectric Properties of Lead Titanate Glass-ceramics”*** in National Symposium on Science and Technology of Glass and Glass-ceramics held at Bhabha Atomic Research Centre(BARC), Mumbai, India during 15th -17th , October, 2008.
16. Presented a Paper titled ***“Simulation Studies on environmentally controlled chambers using adaptive neural and fuzzy control”*** in 27th National Symposium on Instrumentation (NSI-27) jointly organized by Department of Physics, Bharthiyar University, Coimbatore and Instrument Society of India, Indian Institute of Science, Bangalore held during 27th -29th November 2002

Participation in workshop/Seminars

1. Participated in two days international conference on advances in humanities, Sciences and management (ICAHSM) under the cloud of ICTIMES held at Malla Reddy College of Engineering, Hyderabad during 25th -26th November, 2016
2. Participated in a Mission 10X workshop organized by Wipro in association with ISTE held at Kavikulguru Institute of Technology and Science, Ramtek during 26th -30th September, 2011.
3. Participated in the Indo-Japanese Workshop on “Solid State Ionic Devices” organized by Department of Applied Physics, V.N.I.T., Nagpur on 1st March, 2011.
4. Participated in the National seminar on “Advanced Applications of Glasses” organized by Department of Applied Physics, V.N.I.T., Nagpur during 22nd -23rd March, 2010.
5. Participated in one day workshop on Curriculum Development in Applied Physics organized by Department of Physics, Shri Ramdeobaba Kamala Nehru Engineering College Nagpur on 2nd April, 2009 in association with Faculty of Engineering and Technology, RTM Nagpur University.
6. Participated in 2nd National Seminar on Materials Preparation & Characterization organized by Department of Physics, RTM Nagpur University, Nagpur during 30 - 31 March, 2007.
7. Participated in National Symposium on Science and Technology of Glass and Glass-ceramics held at Bhabha Atomic Research Centre (BARC), Mumbai, India during 15th -16th, September, 2006.
8. Participated National Seminar on “Emerging Trends in Physics-Celebration of Centenary of 1905” organized by Department of Humanities and Sciences of Kamala Institute of Technology and Science, Singapur, Huzurabad (A.P.) during 12th -13th, August 2005.
9. Participated in the National seminar on “Physics for Advanced Engineering and Technology” organized by Department of Applied Physics, V.N.I.T., Nagpur during 3rd -5th March, 2005.
10. Participated in National workshop on “Optical Fibers & Their Applications” organized by Departments of Humanities and Sciences and Electronics & Communication Engineering, Kamala Institute of Technology and Science, Singapur, Huzurabad (A.P.) during 10th -11th, September 2004.
11. Participated in AICTE-ISTE sponsored STTP on “Induction Training for Engineering Teachers” held at Kavikulguru Institute of Technology and Science, Ramtek during 15th -27th, March 2004.
12. Participated National Seminar on “Modern Foundations of Physical Electronics” held at Kavikulguru Institute of Technology and Science, Ramtek during 22nd -27th, December 2003.
13. Participated in one day workshop on Curriculum Development of B.E. second semester in the subject of Advanced Physics organized at Suryodaya College of Engineering Technology, Nagpur

on 4th February, 2013 in association with Faculty of Engineering and Technology, RTM Nagpur University, Nagpur.

14. Participated in one day workshop on Curriculum Development of B.E. First semester in the subject of Engineering Physics organized at Guru Nanak Institute of Engineering Technology, Nagpur on 27th August, 2012 in association with Faculty of Engineering and Technology, RTM Nagpur University, Nagpur.
15. Participated in one day workshop on Upgradation of B.E. First year Applied Physics Syllabus of RTM Nagpur University organized on 12th September 2011 at Bapurao Deshmukh College of Engineering, Sevagram, Wardha.

STRENGTH

- Ability to work independently.
- Good Communication Skills & Leadership Qualities.
- Interested to work with a team and can adapt easily to changes.
- Self-Learning, Highly Motivated, Committed person with Professional attitude.

PERSONAL DETAILS

Name	➤ Jakkula Shankar
Date of birth	➤ 06/04/1978
Sex	➤ Male
Age	➤ 44 years
Languages Known	➤ English, Telugu and Hindi (Fluent Reading, Writing and Speaking).
Address for communication	H.No 32-70-1/8, F-102, Divya Classic Apartment, Bank colony, R.K.Puram, Neredmet, Secunderabad-500 056
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Date 27/6/2023

(JAKKULA SHANKAR)

