

Dr.K.VIJAYALAKSHMI

Associate Professor,
Department of Physics,
Bishop Heber College,
Tiruchirappalli - 17.

E-mail : viji71naveen@yahoo.com

Phone : 9994647287

Web:

Qualification

Degree	Branch	Institution / University	Year of Passing
Ph. D in physics	Physics	Bharathidasan	2002
M.Phil		Seethalakshmi Ramaswamy College Tiruchirappalli	1998
M.SC	Physics	Seethalakshmi Ramaswamy College Tiruchirappalli	1995
B.Ed	Physics	Madras University	1993
B.Sc.	Physics	Bdu	1992

Ph.D. Details

Title of Thesis	Area of Specialization	
Material science	Material science	
Research Supervisor	Research Centre	Year of Award
Bharathidasan university	Bishop Heber College, Tiruchirappalli	2004

Cleared NET / SET :	Details	Year of Passing

Additional Qualification

Name of Course	Place of Study	Date	Duration
Advanced diploma in Computer application	Tiruchirappalli		
• Advanced Diploma in JAVA Programming. [Course coverage OOPS, JAVA, C++, and HTML]			
• • Diploma in D base IV	ISS Tiruchirappalli		

Work Experience

Name of Institution	Address of Institution	Designation	From	To
Bishop Heber College Tiruchirappalli	Bishop Heber COLlege Tiruchirappalli	Assistant Professor	September 2006	till date
Cauvery College For Women	Cauvery College For Women Tiruchirappalli	Lecturer	17.7.95	1.09. 2006

Teaching / Research Experience

U.G. : 27 **P.G. :** 25 **M.Phil. :** 27 **Ph.D. :** 20

Research Guidance

U.G. : **P.G. :** **M.Phil. :** **Ph.D. :** 5



Table of Contents

1.	Conferences / workshops / Seminars Attended	31
2.	Research Papers Presented	36
3.	Publication in Journals	53
4.	Publication in Books	0
5.	Books Published / Edited	1
6.	Conferences / Workshops / Seminars Organised	6
7.	Research Projects	6
8.	Resource Person	6
9.	Consultancy	4
10.	Awards Recieved	14
11.	Patent	0
12.	Extension Activities Undertaken	8
13.	Professional Membership	4
14.	M.Phil. / Ph.D. Produced	3 / 9

1. National level Conference on **"National Conference on Computational and Experimental Physics of Functional Material"** sponsored by K. S. R College of Arts and Science for Women organized by K. S. R College of Arts and Science for Women at Tiruchengode during 16/12/2016 to 17/12/2016.
2. International level Conference on **"International Conference on Renewable Energy and Environment"** sponsored by Sri Ramakrishna Mission Vidyalaya College of Arts and Science organized by Sri Ramakrishna Mission Vidyalaya College of Arts and Science at Coimbatore during 15/12/2016 to 16/12/2016.
3. State level Workshop on **"Two day Workshop on Curriculum Design and Evaluation Techniques"** sponsored by Bishop Heber College organized by Bishop Heber College at Tiruchirappalli during 21/11/2016 to 22/11/2016.
4. State level Seminar on **"State level seminar on material science and its applications"** sponsored by Sri Vijay Vidyalaya College of Arts and Science organized by Sri Vijay Vidyalaya College of Arts and Science at Dharmapuri during 24/09/2016 to 01/01/1900.
5. International level Conference on **"Two Days International Conference and Intercollegiate Meet on Recent Advancements in Advanced Materials"** sponsored by Ananda college of Arts and Science organized by Ananda college of Arts and Science at Devakottai during 19/09/2016 to 20/09/2016.
6. International level Conference on **"International conference on materials for sustainable future"** sponsored by Sastra University organized by Sastra University at Thanjavur during 14/07/2016 to 15/07/2016.
7. International level Conference on **"International Conference on chemistry for Renewable Energy"** sponsored by Bishop Heber College organized by Bishop Heber College at Tiruchirappalli during 25/02/2016 to 26/02/2016.
8. International level Conference on **"International conference on Recent Advancements in Materials (ICRAM-15)"** sponsored by Anna University organized by Anna University at Tiruchirappalli during 16/10/2015 to 17/10/2015.
9. National level Conference on **"National Conference on Advanced Materials (NCAM-2014)"** sponsored by Sree Kerala Varma College organized by Sree Kerala Varma College at Kerala during 16/10/2014 to 17/10/2014.
10. National level Conference on **"National Conference on Recent Advances in Materials Science (RAMS-2014)"** sponsored by Bharathidasan University organized by Bharathidasan University at Tiruchirappalli during 03/02/2014 to 04/02/2014.
11. National level Conference on **"National Conference on Recent Advances in Surface Science(RASS-13)"** sponsored by Gandhigram Rural Institute organized by Gandhigram Rural Institute at Dindigul during 14/02/2013 to 15/02/2013.
12. National level Conference on **"6. National Conference on Nano Materials (NCNM-2012)"** sponsored by Karunya University organized by Karunya University at Coimbatore during 03/12/2012 to 04/12/2012.
13. National level Conference on **"Research in Condensed Matter Physics (RCMP-2012)"** sponsored by University of Madras organized by University of Madras at Chennai during 01/10/2012 to 03/10/2012.
14. National level Seminar on **"National seminar on New Materials Research and Nanotechnology (NSNMRN-2012)"** sponsored by Government Arts College organized by Government Arts College at Ooty during 12/09/2012 to 14/09/2012.
15. International level Conference on **"International conference on thin films and applications (ICTFA)"** sponsored by SASTRA University organized by SASTRA University at Thanjavur during 15/03/2012 to 17/03/2012.
16. National level Conference on **"National Conference on Advanced Nanomaterials"** sponsored by Periyar University organized by Periyar University at Salem during 06/02/2012 to 07/02/2012.

17. National level Conference on **"Workshop on Examination Reforms and Evaluation"** sponsored by Bishop Heber college organized by Bishop Heber college at Tiruchirappalli during 11/03/2011 to 12/03/2011.
18. National level Conference on **"National conference on perspectives in Laser, Optics, Spectroscopy and Nanoscience."** sponsored by Bishop Heber college organized by Bishop Heber college at Tiruchirappalli during 14/02/2011 to 14/02/2011.
19. International level Conference on **"International conference on Nano technology and Ultrasound(ICNU 2011)"** sponsored by St.Josephs College organized by St.Josephs College at Tiruchirappalli during 11/01/2011 to 12/01/2011.
20. National level Conference on **"National Conference on Nanomaterials"** sponsored by Karunya University organized by Karunya University at Coimbatore during 03/12/2010 to 04/12/2010.
21. National level Conference on **" National conference on recent innovations in production engineering (RIPE 2010)"** sponsored by Anna University organized by Anna University at Tiruchirappalli during 16/04/2010 to 17/04/2010.
22. National level Conference on **"Awareness programme on Nanotechnology(APNT)"** sponsored by Centre for Nanoscience and nano technology, Bharathidasan University organized by Centre for Nanoscience and nano technology, Bharathidasan University at Tiruchirappalli during 27/02/2010 to 28/02/2010.
23. National level Conference on **"National conference on Innovative Qualitative and Quantitative Research Techniques in Digital Era 13 Feb 2010, Bishop Heber college, Tiruchirappalli."** sponsored by Bishop Heber college organized by Bishop Heber college at Tiruchirappalli during 13/02/2010 to 13/02/2010.
24. National level Seminar on **"National seminar and Exhibition on NDE"** sponsored by BHEL and NIT organized by BHEL and NIT at Tiruchirappalli during 10/12/2009 to 12/12/2009.
25. National level Conference on **"National conference on Recent advances in Chemistry"** sponsored by Bishop Heber college organized by Bishop Heber college at Tiruchirappalli during 18/09/2009 to 01/01/1900.
26. National level Conference on **"Recent advances in spectroscopic techniques"** sponsored by Bishop Heber college organized by Bishop Heber college at Tiruchirappalli during 07/09/2009 to 07/09/2009.
27. National level Conference on **"National conference on Nano materials for energy conservation and conversion"** sponsored by Bishop Heber college organized by Bishop Heber college at Tiruchirappalli during 26/03/2009 to 01/01/1900.
28. National level Workshop on **"Workshop on Cyclic Volta metric studies and its application"** sponsored by Bishop Heber college organized by Bishop Heber college at Tiruchirappalli during 20/12/2008 to 20/12/2008.
29. National level Workshop on **"Five Day Orientation workshop on E content Development"** sponsored by UGC SAP Consortium for Educational communication organized by UGC SAP Consortium for Educational communication at New Delhi during 12/05/2008 to 16/05/2008.
30. National level Conference on **"National conference on Nano materials - preparation characterization and devices"** sponsored by Bishop Heber college organized by Bishop Heber college at Tiruchirappalli during 14/03/2008 to 01/01/1900.
31. National level Workshop on **"Workshop on Frontier topics in Physics"** sponsored by Bishop Heber college organized by Bishop Heber college at Tiruchirappalli during 04/02/2008 to 05/02/2008.

1. **"1. Highly sensitive hydrogen gas sensor based on W-ZnO/ITO films prepared on spray deposition route"** in the International conference on *Bringing the Nano-world Together* sponsored by , organized by at chennai during 03/12/2015 to 04/12/2015.
2. **"P-type Ni:TiO₂ nanorods fabricated on ITO substrate for H₂ sensing application"** in the Select conference on *Bringing the Nano-world Together* sponsored by , organized by at chennai during 03/12/2015 to 04/12/2015.
3. **"Enhanced H₂ sensing performance of Mg doped ZnO films fabricated on ITO substrate"** in the National conference on *National Conference on Advanced Materials* sponsored by , organized by at during 16/10/2015 to 17/10/2015.
4. **"Effect of deposition thickness on the properties of multi-walled carbon nanotubes synthesized by e-beam evaporation technique"** in the International conference on *International conference on Recent Advancements in Materials* sponsored by , organized by at during 16/10/2015 to 17/10/2015.
5. **"Effect of substrate temperature on the properties of MnO₂ thin films"** in the International conference on *Bringing the Nano-world Together* sponsored by , organized by at chennai during 12/03/2015 to 12/04/2015.
6. **"Effect of Fe doping on the properties of TiO₂ thin films for ethanol sensing"** in the National conference on *Second National Conference on thin film science and nano technology* sponsored by , organized by at during 02/03/2015 to 03/03/2015.
7. **"Effect of Fe doping on the properties of TiO₂ thin films for ethanol sensing"** in the National conference on *Second National Conference on thin film science and nano technology* sponsored by , organized by at during 02/03/2015 to 03/03/2015.
8. **"Preparation of ZnO:Mg films on ITO coated glass substrate for H₂ sensing application"** in the National conference on *National Seminar on Recent Advances in Materials Science* sponsored by , organized by at during 03/02/2014 to 04/02/2014.
9. **"Preparation of nanostructured ZnO:Mg films on ITO coated Glass substrates for H₂ sensing"** in the National conference on *National Conference on Matter Physics and Applications* sponsored by , organized by at during 27/12/2013 to 28/12/2013.
10. **"Influence of Mg dopant concentration on the properties of ZnO film prepared on ITO substrates"** in the National conference on *National Conference on Perspectives in Materials Science* sponsored by , organized by at during 06/08/2013 to 07/08/2013.
11. **"Synthesis of Mg doped ZnO nanopowder by microwave technique"** in the National conference on *National conference on Frontier Topics in Advanced Materials* sponsored by , organized by at during 11/03/2013 to 11/03/2013.
12. **"Microwave assisted processing of Mg doped ZnO"** in the National conference on *National conference on Recent Advances in Surface Science* sponsored by , organized by at during 14/02/2013 to 15/02/2013.
13. **"Quantum confinement effect of nanostructured ZnO thin films on Al₂O₃ by dc sputtering for enhanced H₂ sensing application"** in the State conference on *State Level Conference on Emerging Trends in Materials Synthesis and Characterization* sponsored by , organized by at Tiruchirappalli during 19/01/2013 to 20/01/2013.
14. **"Ethanol sensing properties on nano structured indium tin oxide film"** in the National conference on *National conference on Advanced nanomaterials* sponsored by , organized by at Salem during 06/02/2012 to 07/02/2012.

15. **"Structural, optical and electrical characteriation Flourine doped tin oxide thin films by spray pyrolysis"** in the National conference on *National conference on perspectives in Laser, Optics, Spectroscopy and Nanoscience* sponsored by , organized by at during 14/02/2011 to 01/01/1900.
16. **"Characterization of spray deposited CuFe₂O₄ thin film"** in the National conference on *National conference on perspectives in Laser, Optics, Spectroscopy and Nanoscience* sponsored by , organized by at during 14/02/2011 to 01/01/1900.
17. **"Structural optical and electrical characterization of bismuth oxide nanoparticles synthesis by microwave heating"** in the National conference on *National conference on perspectives in Laser, Optics, Spectroscopy and Nanoscience* sponsored by , organized by at during 14/02/2011 to 01/01/1900.
18. **"Photoemission studies of nanostructured In₂ O₃ thin films prepared by spray pyrolysis method"** in the National conference on *National conference on perspectives in Laser, Optics, Spectroscopy and Nanoscience* sponsored by , organized by at during 14/02/2011 to 01/01/1900.
19. **"Optical and structural properties of nanostructured indium oxide thin films"** in the National conference on *National conference on perspectives in Laser, Optics, Spectroscopy and Nanoscience* sponsored by , organized by at during 14/02/2011 to 14/02/2011.
20. **"Microwave assisted synthesis characterization and photoemission properties of ZnOnanopowders"** in the National conference on *National conference on perspectives in Laser, Optics, Spectroscopy and Nanoscience* sponsored by , organized by at during 14/02/2011 to 01/01/1900.
21. **"Structural, electrical and optical characterization of nano structured ITO thin film for NO₂ sensor"** in the National conference on *National Conference on Multifunctional Nanomaterials and Nanocomposites* sponsored by , organized by at Coimbatore during 04/02/2010 to 05/02/2010.
22. **"Preparation and Characterization of Copper Oxide thin films prepared by dc magnetron sputtering"** in the National conference on *National conference on Recent advances in Chemistry* sponsored by , organized by at Tiruchirappalli during 18/09/2009 to 18/09/2009.
23. **"Structural and optical characterization of tin oxide thin films by spray pyrolysis technique"** in the National conference on *National conference on Nano materials for energy conservation and conversion* sponsored by , organized by at Tiruchirappalli during 26/03/2009 to 26/03/2009.
24. **"Preparation and characterization of MgSnO₃ film coated by spray pyrolysis technique"** in the National conference on *National conference on Nano materials for energy conservation and conversion* sponsored by , organized by at Tiruchirappalli during 26/03/2009 to 26/03/2009.
25. **"Preparation and characterization of zinc stannate thin films by spray pyrolysis method"** in the National conference on *National conference on Nano materials for energy conservation and conversion* sponsored by , organized by at Tiruchirappalli during 26/03/2009 to 26/03/2009.
26. **"Structural and optical characterization of Indium Tin Oxide thin films by spray pyrolysis"** in the National conference on *National conference on Nano materials for energy conservation and conversion* sponsored by , organized by at Tiruchirappalli during 26/03/2009 to 26/03/2009.
27. **"Structural ,optical, electrical and magnetic properties of cobalt oxide thin films by spray pyrolysis method"** in the National conference on *National Conference on Thin films and its Applications* sponsored by , organized by at Thanjavur during 06/03/2009 to 07/03/2009.
28. **"Structural and optical characterization of tin oxide thin films by spray pyrolysis"** in the National conference on *National Conference on Thin films and its Applications* sponsored by , organized by at Thanjavur during 06/03/2009 to 07/03/2009.
29. **"Preparation and Characterization of Nano structured ITO Thin Films by rf Sputtering"** in the National conference on *National Conference on Thin films and its Applications* sponsored by , organized by at Thanjavur during 06/03/2009 to 07/03/2009.

30. **"Structural characterization of ITO thin films by Rf Sputtering technique"** in the National conference on *National conference on Nano materials - preparation characterization and devices* sponsored by , organized by at Tiruchirappalli during 14/03/2008 to 01/01/1900.
31. **"Structural studies on sputtered TiO₂ thin film"** in the National conference on *National conference on Nano materials - preparation characterization and devices* sponsored by , organized by at Tiruchirappalli during 14/03/2008 to 01/01/1900.
32. **"Structural characterization of TiO₂ thin films"** in the National conference on *National seminar on advances in material science* sponsored by , organized by at Tirunelveli during 04/02/2008 to 05/02/2008.
33. **"Effect of Mg doping on the microstructure and PL emission of wurtzite ZnO synthesized by microwave processing"** in the National conference on *National conference on Recent advances in Surface science* sponsored by , organized by at Dindugal during 01/01/1900 to 01/01/1900.
35. **"Microwave assisted synthesis of ZnO nanopowders"** in the National conference on *National conference on Recent advances in Surface science* sponsored by , organized by at Dindugal during 01/01/1900 to 01/01/1900.
36. **"Microwave assisted processing of Mg doped ZnO"** in the National conference on *National conference on Recent advances in Surface science* sponsored by , organized by at Dindugal during 01/01/1900 to 01/01/1900.



1. **"Enhanced antibacterial and corrosion resistance properties of Ag substituted hydroxyapatite/functionalized multiwall carbon nanotube nanocomposite coating on 316L stainless ..."** published in Ultrasonics sono chemistry (PEER REVIEW) Vol. , Issue No. , December 2019 ISSN : ---.
2. **"Novel synthesis of bioactive hydroxyapatite/f-multiwalled carbon nanotube composite coating on 316L SS implant for substantial corrosion resistance and antibacterial activity"** published in Journal of alloys and compounds (PEER REVIEW) Vol. , Issue No. , October 2019 ISSN : ---.
3. **"Fe overlayered hybrid TiO₂/ITO nanocomposite sensor for enhanced hydrogen sensing at room temperature by novel two step process"** published in Sensors and actuators B (PEER REVIEW) Vol. , Issue No. , May 2019 ISSN : ---.
4. **"Substantial effect of Pd incorporation in MnO₂ synthesized by spray pyrolysis on MWCNTs/Ta electrode for better H₂O₂ sensitivity"** published in Ceramic international (PEER REVIEW) Vol. , Issue No. , February 2019 ISSN : ---.
5. **"Hybrid Cr/TiO₂/ITO nanoporous film prepared by novel two step deposition for room temperature hydrogen sensing"** published in Physical B (PEER REVIEW) Vol. , Issue No. , January 2019 ISSN : ---.
6. **"Substantial effect of palladium overlayer deposition on the H₂ sensing performance of TiO₂/ITO nanocomposite"** published in Ceramic international (PEER REVIEW) Vol. , Issue No. , December 2018 ISSN : ---.
7. **"Novel two-step process for the fabrication of MnO₂ nanostructures on tantalum for enhanced electrochemical H₂O₂ detection"** published in Material chemistry and physics (PEER REVIEW) Vol. , Issue No. , August 2018 ISSN : ---.
8. **"Fabrication of highly sensitive MnO₂/F-MWCNT/Ta hybrid nanocomposite sensor with different MnO₂ overlayer thickness for H₂O₂ detection"** published in Ceramic international (PEER REVIEW) Vol. , Issue No. , January 2018 ISSN : ---.
9. **"Substantial effect of Pd incorporation on the room temperature hydrogen sensing performance of ZnO/ITO nanowires prepared by spray pyrolysis method"** published in Journal of material science and electronics (PEER REVIEW) Vol. , Issue No. , January 2018 ISSN : ---.
10. **"Substantial effect of magnesium incorporation on hydroxyapatite/carbon nanotubes coatings on metallic implant surfaces for better anticorrosive protection and antibacterial ability"** published in Journal of analytical and applied pyrolysis (PEER REVIEW) Vol. , Issue No. , January 2018 ISSN : ---.
11. **"Substantial effect of magnesium incorporation on hydroxyapatite/carbon nanotubes coatings on metallic implant surfaces for better anticorrosive protection and antibacterial ability"** published in Journal of analytical and applied pyrolysis (PEER REVIEW) Vol. , Issue No. , January 2018 ISSN : ---.

12. **"Preferential killing of bacterial cells by hybrid carbon nanotube-MnO₂ nanocomposite synthesized by novel microwave assisted processing"** published in Material science and engineering C (PEER REVIEW) Vol. , Issue No. , December 2017 ISSN : ---.
13. **"Electron beam and spray technologies fabrication of hybrid MnO₂/CNT/Ta nanocomposite for the electrochemical detection of H₂O₂"** published in Ceramic international (PEER REVIEW) Vol. , Issue No. , November 2017 ISSN : ---.
14. **"Influence of post-deposition annealing and the ITO underlayer on the properties of hybrid TiO₂/ITO nanocomposite for enhanced hydrogen sensing at room ..."** published in Ceramic international (PEER REVIEW) Vol. , Issue No. , October 2017 ISSN : ---.
15. **"High performance electrochemical H₂O₂ sensor based on MWCNT thin films fabricated by novel electron beam evaporation"** published in Ceramics international (PEER REVIEW) Vol. 42, Issue No. 14, November 2016 ISSN : ---.
16. **"High performance electrochemical H₂O₂ sensor based on MWCNT thin films fabricated by novel electron beam evaporation"** published in Ceramics international (PEER REVIEW) Vol. 42, Issue No. 14, November 2016 ISSN : ---.
17. **"Substrate effect on the properties of functionalized multiwalled carbon nanotubes grown by e-beam evaporation for high performance H₂O₂ detection"** published in Analyst (PEER REVIEW) Vol. 141, Issue No. , August 2016 ISSN : ---.
18. **"Substrate effect on the properties of functionalized multiwalled carbon nanotubes grown by e-beam evaporation for high performance H₂O₂ detection"** published in RSC Analyst (PEER REVIEW) Vol. , Issue No. , August 2016 ISSN : ---.
19. **"A novel room temperature ethanol sensor based on catalytic Fe activated porous WO₃ microspheres"** published in Catalysis communication (PEER REVIEW) Vol. , Issue No. , May 2016 ISSN : ---.
20. **"Synergistic antibacterial activity of barium doped TiO₂ nanoclusters synthesized by microwave processing"** published in RSC advances (PEER REVIEW) Vol. , Issue No. , January 2016 ISSN : ---.
21. **"3. Synergistic antibacterial activity of barium doped TiO₂ nanoclusters synthesized by microwave processing"** published in RSC Adv. (PEER REVIEW) Vol. 6, Issue No. 2016, January 2016 ISSN : ---.
22. **"A novel room temperature ethanol sensor based on catalytic Fe activated porous WO₃ microspheres"** published in Catalysis Communications (PEER REVIEW) Vol. 6, Issue No. 2016, January 2016 ISSN : ---.
23. **"Highly (101) oriented MnO₂ nanofibers synthesized using novel spray pyrolysis technique"** published in Journal of Materials Science: Materials in Electronics (PEER REVIEW) Vol. 26, Issue No. 12, December 2015 ISSN : ---.

24. **"Dependence of pyrolytic temperature on the growth of high quality MnO₂ nanofibers"** published in Superlattices and microstructures (PEER REVIEW) Vol. 85, Issue No. , September 2015 ISSN : ---.
25. **"Effect of Cr incorporation on the properties of TiO₂ nanoparticles synthesized by microwave technique"** published in Journal of Materials Science: Materials in Electronics (PEER REVIEW) Vol. 26, Issue No. 6, June 2015 ISSN : ---.
26. **"Effect of pyrolytic temperature on the properties of TiO₂/ITO films for hydrogen sensing"** published in Spectrochimica Acta Part A: Molecular and Biomolecular Spectroscopy (PEER REVIEW) Vol. 138, Issue No. 5, March 2015 ISSN : ---.
27. **"High quality ZnO film prepared on ITO substrate for H₂ sensing application"** published in Journal of Luminescence (PEER REVIEW) Vol. 161, Issue No. 2015, January 2015 ISSN : ---.
28. **"Influence of Fe catalytic doping on the properties of TiO₂ nanoparticles synthesized by microwave method"** published in Journal of Materials Science: Materials in Electronics (PEER REVIEW) Vol. 25, Issue No. 11, November 2014 ISSN : ---.
29. **"The role of substrates on the structural, optical and morphological properties of ZnO nanotubes prepared by spray pyrolysis"** published in Microscopy Research and Technique (PEER REVIEW) Vol. 77, Issue No. , January 2014 ISSN : ---.
30. **"Effect of rf power on the structural properties of indium tin oxide thin film prepared for application in hydrogen gas sensor"** published in Journal of Material Science: Material in Electronics (PEER REVIEW) Vol. 24, Issue No. 2013, June 2013 ISSN : ---.
31. **"Effect of pyrolytic temperature on the properties of nanostructured CuO optimized for ethanol sensing applications"** published in Journal of Material Science: Material in Electronics (PEER REVIEW) Vol. 24, Issue No. 2013, March 2013 ISSN : ---.
32. **"Influence of Mg doping on the morphology and optical properties of ZnO films for enhanced H₂ sensing"** published in Microscopy Research and Technique (PEER REVIEW) Vol. 76, Issue No. , January 2013 ISSN : ---.
33. **"Structural and optical characterization of Copper oxide thin film by spray pyrolysis technique for solar cell applications"** published in International Journal of Nanotechnology and Applications (PEER REVIEW) Vol. 6, Issue No. , September 2012 ISSN : ---.
34. **"Dependence of sputtering power on the properties of nanostructured ZnO thin films"** published in International Journal of Nanotechnology and Applications (PEER REVIEW) Vol. 6, Issue No. , March 2012 ISSN : ---.
35. **"Influence of Sputter Deposition Time on the Growth of c-Axis Oriented AlN/Si Thin Films for Microelectronic Application"** published in Journal of Minerals and Materials Characterization and Engineering (PEER REVIEW) Vol. 11, Issue No. , March 2012 ISSN : ---.

36. **"42. Characterization of duplex stainless steel heat treated at 1300°C,R"** published in International Journal of Scientific and Research Publications (PEER REVIEW) Vol. 2, Issue No. , January 2012 ISSN : ---.
37. **"Microstructural evolution and dielectric properties of 1D AlN powders synthesized by microwave technique"** published in Superlattices and microstructures (PEER REVIEW) Vol. 51, Issue No. 6, January 2012 ISSN : ---.
38. **"Influence of annealing on the photoluminescence of nanocrystalline ZnO synthesized by microwave processing"** published in Philosophical Magazine Letters (PEER REVIEW) Vol. 92, Issue No. , January 2012 ISSN : ---.
39. **"44. Effect of heat treatment on ultrasonic parameters of SAF 2205 Duplex stainless steel"** published in Advanced Materials Research (PEER REVIEW) Vol. 190, Issue No. , January 2011 ISSN : ---.
40. **"43. Microstructural characterization of SAF 2205 Duplex stainless steel heat treated at 1300oC"** published in Material science Research India (PEER REVIEW) Vol. 8, Issue No. , January 2011 ISSN : ---.
41. **"Micro Structural Evolution and Growth of Highly A Axis Oriented AlN Films by D.C. Magnetron Sputtering,"** published in International Journal of Nanotechnology and Applications (SELECT) Vol. 5, Issue No. 3, January 2011 ISSN : ---.
42. **"39. Effect of heat treatment on the NO₂-sensing properties of sputter-deposited indium tin oxide thin films"** published in Philosophical Magazine Letters (PEER REVIEW) Vol. 91, Issue No. , January 2011 ISSN : ---.
43. **"Influence of Deposition Parameter and Heat Treatment on the NO₂ Sensing Properties of Nano Structured ITO Thin Film"** published in Thin solid films (PEER REVIEW) Vol. 519, Issue No. , January 2011 ISSN : ---.
44. **"40. Influence of metal organic and inorganic precursors on sparypyrolyzed ceramic MgO (200) thin films for epitaxial over layers"** published in Journal of Non-Crystalline Solids (PEER REVIEW) Vol. 354, Issue No. , January 2008 ISSN : ---.
45. **"Study of electronegativity and inductive effect in polar-non polar liquid mixtures"** published in Asian Journal of Chemistry (PEER REVIEW) Vol. 20, Issue No. 1, January 2008 ISSN : ---.
46. **"Excess thermodynamic study of molecular interaction in polar-nonpolar liquid mixtures"** published in Journal of Pure and Applied Ultrasonics (PEER REVIEW) Vol. 28, Issue No. , January 2006 ISSN : ---.
47. **"Acoustic parameter study of molecular interaction in polar and non polar liquid mixtures"** published in Acta Ciencia Indica (PEER REVIEW) Vol. 212, Issue No. 3, January 2006 ISSN : ---.

48. **"Correlation between activity Coefficient and equivalent conductance of aqueous solutions of electrolytes through ultrasonic measurements"** published in Journal of Pure and Applied Ultrasonics (PEER REVIEW) Vol. 28, Issue No. , January 2006 ISSN : ---.
49. **"Acoustic and Excess parameter studies on interaction in ternary liquid mixtures"** published in Journal of Pure and Applied Ultrasonics (PEER REVIEW) Vol. 28, Issue No. , January 2006 ISSN : ---.
50. **"Structural, Optical and Photoemission Studies of Nano Structured Indium Oxide Thin Films Prepared by Spray Pyrolysis Method"** published in International Journal of Nanotechnology and Applications (PEER REVIEW) Vol. 5, Issue No. , January 1900 ISSN : ---.
53. **"2. Highly sensitive hydrogen safety sensor based on Cr incorporated ZnO nano-whiskers array fabricated on ITO substrate"** published in Sensor and Actuators B: Chemical (PEER REVIEW) Vol. , Issue No. , January 1900 ISSN : ---.

Books Published / Edited

- 1

- * . **Advanement of women in science and technology**. : , January 2014.

Conferences / Workshops / Seminars Organised

- 6

1. National level Workshop Entitled **"ANALYTICAL TECHNIQUES FOR RESEARCH IN PHYSICS CHEMISTRY AND LIFESCIENCES"** at BHC TRICHHIRAPPALLI, sponsored by BHC, during 02/04/2018 to 02/04/2018.
2. National level Conference Entitled **"Advancement of Women in Science and Technology"** at Bishop Heber College, Tiruchirappalli, sponsored by UGC, during 05/08/2014 to 06/08/2014.
3. National level Conference Entitled **"National conference on perspectives in Laser, Optics, Spectroscopy and Nanoscience (NCLOSN 2011)"** at Bishop Heber College, Tiruchirappalli, sponsored by , during 14/02/2011 to 14/02/2011.

Award Name	Presented by	Year	Level	Instituted by / Place	amount
Outstanding reviewer		01/03/2017	INTERNATIONAL	elsevier netherlands	
Best paper award in State level seminar on material science and its applications	Sri Vijay Vidyalaya College of Arts and Science	24/09/2016	STATE	Department of Physics, Sri Vijay Vidyalaya College of Arts and Science, Dharmapuri.	
Best paper award in International Conference on chemistry for Renewable Energy	Bishop Heber College	25/02/2016	INTERNATIONAL	Department of Chemistry, Bishop Heber College, Tiruchirappaalli	
Best paper award for Effect of deposition thickness on the properties of multi-walled carbon nanotubes synthesized by e-beam evaporation technique	K. Vijayalakshmi	17/10/2015	INTERNATIONAL		
Best paper award in International conference on Recent Advancements in Materials	Anna University	16/10/2015	INTERNATIONAL	Department of Physics, Anna University, Tiruchirappalli.	
BEST RESEARCHER AWARD	COLLEGE MANAGEMENT	10/03/2015	COLLEGE	BISHOP HEBER COLLEGE TIRUCHIRAPPALLI	1000
Best poster award	Sree Kerala varma College	17/10/2014	NATIONAL	Sree Kerala varma College	
Best Researcher award among sciences 2014	Bishop Heber College	30/04/2014	COLLEGE	Bishop Heber College	
Best Researcher award among sciences 2013	Bishop Heber College	05/04/2013	COLLEGE	Bishop Heber College	
Best researcher award among sciences	Bishop Heber College	13/03/2013	COLLEGE	Bishop Heber College	1000
Best paper award for "Influence of deposition time on the photoluminescence properties of a-plane ZnO thin films	Government Arts College, Ooty	14/09/2012	NATIONAL	Government Arts College, Ooty	
Best Researcher award among sciences 2012	Bishop Heber College	05/03/2012	COLLEGE	Bishop Heber College	
e. Best paper award for the paper titled "Structural and optical characterization of Indium Tin Oxide thin films by spray pyrolysis"	Bishop Heber College	26/03/2009	NATIONAL	Bishop Heber College	

1. Minor project entitled **"TRAVEL GRANT"** (*PRINCIPAL INVESTIGATOR*), Sponsored by UGC, during 09/11/2017 to [Completed].
2. Minor project entitled **"TRAVEL GRANT"** (*PRINCIPAL INVESTIGATOR*), Sponsored by DST, during 01/01/2017 to [Completed].
3. Major project entitled **"Fabrication of highly sensitive nanocomposited MnO₂/CNTs based sensors for the detection of H₂O₂ in milk"** (*PRINCIPAL INVESTIGATOR*), Sponsored by DST-SERB Ministry Of Food Processing Industries, New Delhi, India, during 01/09/2014 to 2017 [Completed].
4. Minor project entitled **"CONFERENCE GRANT"** (*PRINCIPAL INVESTIGATOR*), Sponsored by UGC, during 01/01/2014 to [Completed].
5. Major project entitled **"Quantum confinement effect of nanostructured Magnesium doped Zinc oxide thin films for enhanced hydrogen sensing applications"** (*PRINCIPAL INVESTIGATOR*), Sponsored by University Grants Commission, during 01/06/2011 to 05/30/2013 [Completed].
6. Minor project entitled **"Development Of nanostructured Indium Tin Oxide Films For NO₂Gas Sensors"** (*PRINCIPAL INVESTIGATOR*), Sponsored by University Grants Commission, during 01/03/2008 to 02/28/2010 [Completed].



1. Professor, Conducted cultural programmes for the women students for SADHANA for the during 01/01/2011 to 01/01/2012.
2. Judge, he Muthamizhilvizha programme for for the Natupuranadanam during 01/01/2010 to 01/01/1900.
3. Judge, Mime competition in the Muthamizhilvizha programme for for the Tiruchirappalli during 01/01/2007 to 01/01/1900.
4. Professor, Gender sensitization program in collaboration for for the Department of Women studies , Bharathidasan, university, Tiruchirappalli during 01/01/1900 to 01/01/1900.
5. Judge, Health awareness programs for students for for the Natupuranadanam during 01/01/1900 to 01/01/1900.
6. Professor, Training for twelfth students for practical and theory for for the Ariyalur CSI School during 01/01/1900 to 01/01/1900.
7. Vice president, SADHANA (a cell for women) for for the Tiruchirappalli during 01/01/1900 to 01/01/1900.
8. Professor, Regional workshop on Relevance Of Womens studies for for the Regional Association of womens Studies at Tiruchirappalli during 01/01/1900 to 01/01/1900.

PROFESSIONAL MEMBERSHIP

- 4

- * MRSI(2014) of • Life member –Materials Research Society of India(2014) during 01/01/2014 -
- * PM- 0141 TC) of • Professional member -Indian society for non-destructive testing, Trichy chapter during 01/03/2009 -
- * 2007 of Member Board of studies St. Xaviers College, Palayamkottai. Tirunelveli.(from 2007) • during 01/01/2007 -
- * 2006 of Member Board of studies Bishop Heber College, Tiruchirappalli. (from 2006) during 01/01/2006 -

TRAINING PROGRAMME

- 5

- # NATIONAL level on "• **Underwent an orientation program on e - content development organized by UGC CEC in June 2008.**" Sponsored by UGC, Organized by at during 10/06/2008 - 16/06/2008.
- # NATIONAL level on "• **Member for the UGC funded Civil services coaching, for training students belonging to Minority Community (for physics) (2008 -2009)**" Sponsored by UGC, Organized by at during 20/01/2008 - 04/03/2009.
- # COLLEGE level ORIENTATION on "**Orientation Course**" Sponsored by , Organized by Academic Staff College at Bharathidasan University Tiruchirappalli during 11/01/2008 - 01/01/1900.
- # UNIVERSITY level REFRESHER on "**Refresher Course**" Sponsored by , Organized by Academic Staff College at Bharathidasan University Tiruchirappalli during 01/01/1900 - 01/01/1900.
- # UNIVERSITY level REFRESHER on "**Refresher Course**" Sponsored by , Organized by Academic Staff College at Bharathidasan University Tiruchirappalli during 01/01/1900 - 01/01/1900.

RESOURCE PERSON

- 6

1. College level Expert Committee on "**staff interview**" at Cauvery college for women, 26/12/2017.
2. National level Conference on "**Current trends in Material Science and Nano-structured materials**" at , 23/01/2013.
3. National level Conference on "**Nano materials for Energy conservation and conversion**" at , 26/03/2009.
4. National level Conference on "**Nano materials preparation, characterization and devices**" at , 14/03/2008.
5. Regional level Invited Lectures on "**District level Interschool science exhibition**" at E.R. Higher Secondary School, Tiruchirappalli., 01/01/2006.
- 6.
16. **Member** of International Journal "*International journal of hydrogen energy*"(vol.) at during 01/01/1900 - .
17. **Member** of International Journal "*sensors and actuators B*"(vol.) at during 01/01/1900 - .

CONSULTANCY

- 4

College Invited lecture on Gas sensor and its application in the Summer Research Training Programme held at Bishop Heber College, Thiruchirappalli from May 2014 - .

College Invited lecture on Metal oxides Gas sensor in the seminar held at Seethalakshmi Ramasamy College, Thiruchirappalli from December 2012 - .

College Invited lecture on Semiconductor Gas sensor workshop on nano and Thin film materials at Rajah Serfoji College, Thanjavur from October 2012 - .

College Invited lecture on Basic instrumentation techniques at TNAU, Navalurkuttapat, Tiruchirappalli from April 2008 - .

