



PROFILE

Name : **Dr. Ponnusamy Munusamy Anbarasan**

Designation : **Professor of Physics & Coordinator**
Centre for Nanoscience & Technology, Department of Physics
Periyar University, Salem – 636 011, Tamilnadu, India

Date of Birth : 29th May, 1964; **Age: 51 Years**

Contact Details : **Mobile: +91 9443659435, 9486973213 & anbarasanpm@gmail.com**

Qualifications : **M.Sc., M.Phil., Ph.D., M.A (Pub. Admn.),, Dip. in Hindi, F.OSI, F.SESI.,**

Experience : **27 Years of Teaching & Research**

Degree	Ph.D	M.Phil	M.Sc	M.Tech
Guided	14	45	42	1
Guiding	8	4	4	-

Area of Research : **Laser & Spectroscopy, Nano-Optics, Solar Cells & Materials Science**

Fellowship/ Scholarship Awarded : **Indo-Hungarian Educational Exchange Programme**

Countries visited : **Italy, France, Germany, Hungary, Poland & Romania**

List of Publications : **112**

Books/Edited/Materials	Books/ Edited - 3	Study Materials - 6
International Journals	Published - 95	Submitted - 6
National Journals	Published - 17	Submitted - 2

Number of Conference/ Seminar/Lecture
Organized, Attended & paper presented : **Organized: 15 & Paper Presented: 142**

Membership in the Professional Bodies :

1. **Fellow & Life Member, Optical Society of India (OSI)**
2. **Life Member, Indian Spectro-Physics Association (ISPA)**
3. **Member, Indian Laser Association (ILA)**
4. **Life Member, Indian Association for Crystal Growth (IACG)**
5. **Fellow & Life Member, Atti della Fondazione Giorgio Ronchi (Microoptica), Italy**
6. **Fellow& Life Member, Solar Energy Society of India (SESI)**

Major Research Projects/Travel Grants:

S. No	Title of Project/ Seminar/ Conference /Exchange Programme	Name of the funding Agency & Amount	Status
1.	Design, Optical Study and Light Trapping Scheme of Low Order Aberration Microlens for Micromachined Silicon Solar Cells	UGC Rs. 10,19,800/- F. No. 34-5/2008 (SR) Dt. 02.01.2009	Principal Investigator - Completed
2.	Conversion of Sunlight into Electricity Schemes Through Centre for Nanoscience and Nanotechnology, Periyar University, Salem – 636 011	Tamilnadu Govt. Rs. 1,00,00,000/- G.O. (Ms). No. 307/Dt.14.08.2009	Principal Investigator – On Going
3.	Synthesis, properties and dynamics of potential nanostructured Materials applicable to Health and Energy	DST - Nanomission Rs. 14,76,60,848/-	Principal Investigator - Under Review
4.	Tight Focusing Properties of Radially and Azimuthally Polarized beam with Controllable Spatial Coherence	DST Rs. 37,24,894/-	Principal Investigator - Under Review
5.	Exact propagating Soliton Solutions of Some Nonlinear PDEs Governing the Director Dynamics of Nematic Liquid Crystal Medium	NBHM (Ref. No. 2/48(9)/ 2011/-R & D/II/1223 – Rs. 9,66,000/-	Co-Principal Investigator (2012-2015) Ongoing
6..	Joint ICTP-KFAS Workshop on Nanoscience for Solar Energy Conversion (2008)	Ref: ICTP/310/1938/ Dt. 27.08.2008/ Euro: Travel + DA	International Workshop, ICTP, ITALY
7.	Indo-Hungarian Educational Exchange Programme (2009) - Long Term Collaborative Research at the Dept. of Optics & Quantum Electronics, University of Szeged, Hungary	D.O. No. F.27-14/2009(IC-II) / Dt.20.07.2009 UGC - Rs. 76,000/- + 118 000 HUF/month+ 800 HUF/month for accommodation.)	Collaborative Research with Prof. Dr. Karoly Osvay, University of Szeged, Hungary
8.	Light at Extreme Intensity- Scientific Opportunities & Technological Issues – LEI 2009, Brasov, Romania (2009)	Ref: S303/Travel for Education/24.09.2009/ Romanian Leu (RON) 8600+Accommodation	International Conference, LEI, 2009, Romania

Merit/Award/others if any:

GATE'87 passed and joined M.Tech (Opto-Electronics and Optical Communication, IIT, Delhi & UPSC (All India) 2nd Position (Lecturership – Govt. of Pondicherry) – 1988 & Best Motivator-cum-Teacher Awards by three trustees.

Languages known

: Tamil, English, Malayalam, Hindi, French & Telugu.

Books / Study materials written:

1. Nano-Optics – Text Book
2. Micro-Optics (ROE, DOE, HOE & Applications) – Text Book
3. Microlenses in Micro-optics – Text Book
4. Advanced Physics - Paper -II - Study Material
M.Phil (Physics), Periyar Institute of Distance Education (PRIDE), Periyar University, Salem-636 011
5. Electromagnetic Theory – Study Material
M.Sc. (Physics), Periyar Institute of Distance Education (PRIDE), Periyar University, Salem-11
6. Solar Energy - Study Material
B.Sc (Physics), Periyar Institute of Distance Education (PRIDE), Periyar University, Salem- 636 011
7. Computational Physics - Study Material
B.Sc (Physics), Periyar Institute of Distance Education (PRIDE), Periyar University, Salem- 636 011

Editor/Associate Editor/Reviewers for the Following National & International Journals:

1. Journal of Optics and Lasers in Engineering
2. Optik - International Journal for Light and Electron Optics
3. Acta Physica Polonica
4. Physics Express - Associate Editor
5. Journal of Spectrochimica Acta Part A
6. Atti della Fondazione Giorgio Ronchi (Journal of Optics), ITALY, ISSN 0391 2051
7. Recent Research in Science and Technology - Associate Editor
8. European Journal of Chemistry
9. Chemical Papers

10. Journal of Spectroscopy and Dynamics - Associate Editor
11. Journal of Chemical Engineering and Materials Science
12. Molecular Simulation
13. Computational and Theoretical Chemistry
14. Journal of Silicon
15. Crystal Research Technology
16. Indian Journal of Physics
17. Physica B
18. Journal of Scientific & Academic Publisher
19. Bulletin of Materials Science
20. Nano Science – Nano Technology: An Indian Journal, Trade Science Inc.
21. Indian Journal of Pure and Applied Physics
22. Environmental Science and Pollution Research (Springer)
23. International Journal of Advanced Science & Engineering - Editor
24. Journal of Materials Science & Technology (Elsevier)
25. Solar Energy (Elsevier)
26. Journal of Materials Chemistry C (RSC)
27. Chinese Chemical Letters (Elsevier)

The following Professors/Scientists/Technologists/Experts are given talk/visit in our Department/Centre by our Invitations:

1. Prof. S. Umapathy, IISc, Bangalore - One day Special Lectures on “50 Years of Lasers” organized by the Centre for Nanoscience and Nanotechnology, Periyar University, Salem, on 15th December, 2010
2. Prof. E. S. Sooriyamoorthy, Madurai Kamaraj University - One day “Energy Conservation – Awareness Programme” organized by the Centre for Nanoscience and Nanotechnology, Periyar University, Salem, on 20th December, 2010.
3. Dr. V. Sarananan, Energy Consultant, Madurai - One day “Energy Conservation – Awareness Programme” organized by the Centre for Nanoscience and

Nanotechnology, Periyar University, Salem, on 20th December, 2010.

4. **Prof. K. Muthuchelian, V.C, Periyar University, Salem - One day “Energy Conservation – Awareness Programme”** organized by the Centre for Nanoscience and Nanotechnology, Periyar University, Salem, on 20th December, 2010.
5. **Prof. P. Natarajan, National Centre for Ultra Fast Process, Madras University,** National Conference on “**Advanced Nanomaterials (ANM-2012)**” organized by the Centre for Nanoscience and Nanotechnology, Periyar University, Salem, Tamilnadu, during 6-7, February, 2012.
6. **Prof. R. Ramarajan, Madurai Kamaraj University, National Conference on “Advanced Nanomaterials (ANM-2012)”** organized by the Centre for Nanoscience and Nanotechnology, Periyar University, Salem, Tamilnadu, during 6-7, February, 2012.
7. **Prof. N. Rajesh, BITS, Pilani, Hyderabad Campus, National Conference on “Advanced Nanomaterials (ANM-2012)”** organized by the Centre for Nanoscience and Nanotechnology, Periyar University, Salem, Tamilnadu, during 6-7, February, 2012.
8. **Prof. S. Chandrasekaran, Hindustan Lever Research Professor, JNCASR & IISc, Bangalore– National Science Academies’ Lecture workshop on ‘Modern Trends in Chemistry’** organised by the Centre for Nanoscience and Nanotechnology, Periyar University, Salem, Tamilnadu, during 13-14, August, 2012.
9. **Prof. N. Sathyamurthy, Director, IISER, Mohali – National Science Academies’ Lecture workshop on ‘Modern Trends in Chemistry’** organised by the Centre for Nanoscience and Nanotechnology, Periyar University, Salem, Tamilnadu, during 13-14, August, 2012.
10. **Prof. R. Ramarajan, Madurai Kamaraj University - National Science Academies’ Lecture workshop on ‘Modern Trends in Chemistry’** organised by the Centre for Nanoscience and Nanotechnology, Periyar University, Salem, Tamilnadu, during 13-14, August, 2012.
11. **Dr. Ramaiah, NIIST, Trivandrum - National Science Academies’ Lecture workshop on ‘Modern Trends in Chemistry’** organised by the Centre for Nanoscience and Nanotechnology, Periyar University, Salem, Tamilnadu, during 13-14, August, 2012.
12. **Dr. M.L.P. Reddy, NIST, Trivandrum - National Science Academies’ Lecture workshop on ‘Modern Trends in Chemistry’** organised by the Centre for Nanoscience and Nanotechnology, Periyar University, Salem, Tamilnadu, during 13-14, August, 2012.
13. **Dr. A. P. J. Abdul Kalam, Former President of India - Stone Inscriptions function of Centre for Nanoscience and Nanotechnology and Interaction with student** on 12-01-2013.

Teaching experience at Universities/ Centres/Colleges of Higher Education

Name of the Institution	University	Designation	Nature of post Temporary/ Permanent	Classes taught Under Graduate/ Post- Graduate/Research	Period (Give dates)	Length of experience (Years/ Months)
Govt. of Pondicherry (P.G. Centre)	Pondicherry University	Lecturer in Physics (SG)	Permanent	U.G, P.G and Research	28-11-1988 to 16-03-2005	16 years & 3 Months
Periyar University Salem, TN	Periyar University Salem, TN	Reader in Physics	Permanent	P.G and Research	17-03-2005 to 31-12-2005	9 Months
Periyar University Salem, TN	Periyar University Salem, TN	Associate Professor in Physics	Permanent	P.G and Research	01-01-2006 to 31-12-2008	3 Years
Periyar University Salem, TN	Periyar University Salem, TN	Professor of Physics	Permanent	P.G and Research	01-01-2009 To Till date	5 Years & 10 Months
Total Experience						27 Years

MEMORANDUM OF UNDERSTANDINGS (MOUs)

1. Memorandum Of Understanding (MOU) between Periyar University, Salem, and ARCHES, Italy, has been signed to facilitate staff exchange and collaborative research exchange of scientific information and publications.

Dr. Vincent Aroulmoji from ARCHES – Italy and Dr. P. M. Anbarasan, Professor from Periyar University, Salem, had been appointed as contact officers. This MOU would be in force for a period of three years. It would help the development of the research activities.
Training: This understanding would include various activities such as exchange of research

staff, training of researchers, collaborative research exchange of scientific information and publications and industry and academic collaboration. The agreement was signed in front of Vice Chancellor and others.

2. Memorandum of Understanding (MOU) between Periyar University, India– Silicon Ventures, Uk for industry collaboration setting-up technical excellence centre and R&D facility on Microelectronics at Periyar University, Salem - 636 011, Tamilnadu, India. Mr.Gopal Dharmaraj from UK and Prof. P. M. Anbarasan from Periyar University had been appointed as Contact Officers.

Activities are Planned at the site: 1. To scale up operation from present 10 students to 140 students and growing as per the business plan to complete the R&D to prove the concept and start industrialization of the IP development process, run silicon verification shuttles before going to market and deliver profitability. 2. To provide access to PERIYAR UNIVERSITY Faculty, Research Scholars and M.Sc Students specializing in microelectronics as extended high-end research facility. 3. Give exposure to the Students live project environment including interacting with our European clients. 4. Joint R & D activity between our Specialist and experts with PERIYAR UNIVERSITY faculty.

I. LIST OF PUBLICATIONS: (REFEREED INTERNATIONAL & NATIONAL JOURNALS): (Total number of Citations: >500)

Top 20 Articles, since its Publication (2010)* & (2012)* respectively.

*Rajesh KB, Jaroszewicz Z, **Anbarasan PM**: Improvement of Lens Axicon's Performance for Longitudinally Polarized Beam Generation by Adding a Dedicated Phase Transmittance. *Opt Express*; 2010 Dec 20; 18(26): 26799-805

*Lalithambigai K, Suresh P, Ravi V, Prabakaran K, Jaroszewicz Z, Rajesh KB, **Anbarasan PM**, Pillai TV., "Generation of Sub Wavelength Super-Long Dark Channel Using High NA Lens Axicon" *Opt. Lett*; 2012 Mar 15; 37(6): 999-1001.

1. K. Lalithambigai, K. B. Rajesh & P. M. **Anbarasan**, "Creation of super-long bright channel using high NA lens axicon with dedicated multibelt binary phase mask", has been accepted for publication in **Optical and Quantum Electronics (OQEL)**,: Your Submission OQEL-D-14-00217R1, **Impact Factor; 1.078, SSN: 0306-8919.**
2. K. Lalithambigai, K. B. Rajesh & P. M. **Anbarasan**, "Formation of optical needle by high NA lens axicon with dedicated complex spiral phase mask", has been accepted for publication in **Optical and Quantum Electronics (OQEL)**, Your Submission OQEL-D-14-00225R1, **Impact Factor; 1.078, SSN: 0306-8919.**
3. A. Prakasam and P. M. **Anbarasan**, "Molecular Modeling Of 1, 4-Phenylenediacetonitrile Dye Sensitizer For Solar Cells Using Quantum Chemical Calculations" **Journal of Computational Chemistry**, *Elixir Comp. Chem.* 76 (2014) 28245-28251, **ISSN-2229-712X.**

4. T. Selvankumar, C. Sudakar, K. Selvam, M. Govarthanan, B. Senthil Kumar, **P. M. Anbarasan**, S. Kamala-Kannan, “**Statistical Optimization of Citric Acid Production from Alkali-Treated Coffee Husk with Lemon Peel Pomace by Using *Aspergillus Niger***”, **Int. J. Adv. Sci. Eng.** Vol. 1, No. 2 (2014) 14-19; Online ISSN-2349-5359.
5. K. M. Prabu, K. Suguna, **P. M. Anbarasan** and V. Aroulmoji, “**Sensitizers Performance of Dye-Sensitized Solar Cells Fabricated With Indian Fruits and Leaves**” **Int. J. Adv. Sci. Eng.** Vol. 1 No.2 (2014) 24-32; Online ISSN-2349-5359.
6. **P. M. Anbarasan**, L. Arivuselvam, D. Sakthi, P. Sakthivel, S. Selvanandan, S.K. Bhullar and V. Aroulmoji, “**Heat Transfer Investigation on Performance of Dye Sensitized and V-Grooved Silicon Solar Cells**” **Int. J. Adv. Sci. Eng.** Vol. 1 No. 2 (2014) 41-50; Online ISSN-2349-5359
7. K. Prabakaran, K.B. Rajesh, **P.M. Anbarasan**, “**Tight Focusing of Phase Modulated Radially Polarized Hollow Gaussianbeam Using Complex Phase Filter**” **Journal of Optik** xxx (2014) xxx–xxx, (2014) 2225–2228, ISSN: 0030-4026
8. K. Lalithambigai, C. Mohana Sundaram, **P. M. Anbarasan** and K. B. Rajesh, “**Combination of spherical aberration and defocusing effect for azimuthally polarized beam**” **Physics Express**, Volume x | Issue x | February (2014) pg. xx-xx. www.simplex-academic-publishers.com, ISSN 2231 - 0002 | EISSN 2231 – 0010
9. K. Lalithambigai, C. Mohana Sundaram, **P. M. Anbarasan**, K. B. Rajesh, “**Creation of Multiple Transversally Polarized Focal Spots Using Complex Spiral Phase Mask**” **Physics Express**, Volume x | Issue x | February (2014) pg. xx-xx. www.simplex-academic-publishers.com, ISSN 2231 - 0002 | EISSN 2231 – 0010
10. K. Lalithambigai, C. Mohana Sundaram, **P. M. Anbarasan**, K. B. Rajesh’ “**Creation of Needle of Transversely Polarized Beam in Vacuum by Using Complex Phase Plate**” **J. Environ. Nanotechnol.** Volume 3, No.3 (2014) pp. 67-72 ISSN (Print): 2279-0748 ISSN (Online): 2319-5541 doi: 10.13074/jent.2014.09.143097
11. K. Lalithambigai, C. Mohanasundaram, **P. M. Anbarasan**, K. B. Rajesh, “**Tight Focusing of Double-Ring-Shaped Azimuthally Polarised Beam using High NA Lens Axicon**” **J. Environ. Nanotechnol**, Volume 2, No. 4 (2014) pg. 11-14, ISSN: 2319-5541, doi: 10.13074/jent.2014.12.144123
12. K. Lalithambigai, C. Mohanasundaram, **P. M. Anbarasan**, K. B. Rajesh, “**Creation of Optical Chain of Focal Holes using Azimuthally Polarized Beam**” **J. Environ. Nanotechnol**, Volume 2, No. 4 (2014) pg. 23-27, ISSN: 2319-5541, doi: 10.13074/jent.2014.12.144129
13. K. Lalithambigai, C. Mohanasundaram, **P. M. Anbarasan**, K. B. Rajesh, “**Generation of Multiple Focal Spots of Transversely Polarized using Complex Spiral Phase Mask**”

J. Environ. Nanotechnol, Volume 2, No. 4 (2014) pg. 41-44, ISSN: 2319-5541, doi: 10.13074/jent.2014.12.144129

14. K. M. Prabu, **P. M. Anbarasan** & S. Ranjitha, “**Natural Dye-Sensitized Solar Cells (Ndsscs) From Opuntia Prickly Pear Dye Using ZnO Doped TiO₂ Nanoparticles by Sol-Gel Method**” **Int. Journal of Engineering Research and Applications**, ISSN : 2248-9622, Vol. 4, Issue 7, July 2014, pp.140-149
15. K. M. Prabu, **P. M. Anbarasan**, “**Improved Performance of Natural Dye-Sensitized Solar Cells (NDSSCS) Using ZnO Doped TiO₂ Nanoparticles by Sol-Gel Method**” **International Journal of Science and Research (IJSR)** ISSN (Online): 2319-7064, Impact Factor (2012): 3.358, Volume 3 Issue 6, June 2014, pg.1740-1747
16. **P. M. Anbarasan**, A. Prakasam D. Sakthi, P. Sakthivel, et al “**A Study on Structural and Optical Properties of Mg Doped SnO₂ Nanocrystallites**”, **Journal of Materials Science & Technology (Elsevier)**, Manuscript ID is JMST-2014-1166.- ISSN: 1005-0302 -Submitted
17. K. Lalithambigai, **P.M. Anbarasan** and K.B. Rajesh, “**Generation of Multiple Focal Holes by Tightly Focused Azimuthally Polarized Double-Ring-Shaped Beam with Complex Phase Mask**” **Optik** 125 (2014) 2225–2228, ISSN: 0030-4026
18. K. Lalithambigai, K. B. Rajesh & **P. M. Anbarasan**, “**Study on Higher Order Azimuthally Polarized Laguerre-Gaussian Mode Beams with High NA Lens**”, **Journal of Theoretical and Applied Physics**, (J Theor Appl Phys) (2014) 8:134 DOI 10.1007/s40094-014-0134-8, ISSN: 2251-7235.
19. K. Lalithambigai, K. B. Rajesh & **P. M. Anbarasan**, “**Generation of Double-Ring-Shaped Transversely Polarized Beam By Complex-Spiral Phase Mask**”, has been accepted for publication in Journal of **Optical and Quantum Electronics**, Manuscript number, OQEL – D - 14 – 00005. (Opt Quant Electron) DOI 10.1007/s11082-014-9958-3, Journal of **Optical and Quantum Electronics**, Impact Factor; 1.078, SSN: 0306-8919
20. M. Geetha, K. Suguna, **P. M. Anbarasan** and V. Aroulmoji, “**Preparation and Characterisation of Tailored TiO₂ nanoparticles Photoanode for Dye Sensitised Solar Cells**” **Int. J. Adv. Sci. Eng.** Vol. 1 No. 1 (2014) 1-4; Online ISSN-2349-5359.
21. K. Lalithambigai, **P. M. Anbarasan**, K.B. Rajesh, “**Formation of Multiple Focal Spots by High NA Lens with Complex Spiral Phase Mask**” **Physica Scripta**. 89 (2014) 075501 (7pp), doi:10.1088/issn.1402-4896, Online ISSN: 1402-4896, Print ISSN: 0031-8949, Impact Factor: 1.032
22. K. M. Prabu and **P. M. Anbarasan**, “**Dye-Sensitized Solar Cells using natural Dye Extracted from Mirabilis Jalapa**” **Journal of NanoScience and NanoTechnology-Spring Edition**, ISSN- 2279 - 0381 –Vol. 2, Issue 5 (2014) 593-597

K. Lalithambigai, **P. M. Anbarasan** & K. B. Rajesh, “ **Generation of Ultra-Long Focal Depth by Tight Focusing of Double-Ring-Shaped Azimuthally Polarized Beam**” **Journal of Optics** , Optical Society of India (OSI), Ref.: Ms. No. OPTI-D-13-00056 – Accepted, ISSN: 0974-6900

23. **T** Mohr, V. Aroulmoji, R. Samson Ravindran, R. Müller, S. Ranjitha, G. Rajarajan And **P. M. Anbarasan**, “**DFT And TD-DFT Study on Geometries, Electronic Structures and Electronic Absorption of Some Metal Free Dye Sensitizers for Dye Sensitized Solar Cells,**” – **Spectrochimica Acta Part A: Molecular and Biomolecular Spectroscopy**, ISSN: 1386-1425;; **Impact Factor: 1.977** Volume xxx, (2014) Pages xx–xx,
24. S. Ranjitha, V. Aroulmoji, T. Mohr, **P. M. Anbarasan** & G. Rajarajan, “**Structural and Spectral Properties of 1,2, Dihydroxy 9-10 Anthraquinone Dye Sensitizer For Solar Cell Applications**”, **Acta Physica Polonica, Vol. 126 (2014) No.3, pg. 833-839**
25. P. Ramu, **P.M. Anbarasan**, R. Ramesh, S. Ponnusamy, C. Muthamizhchelvan, “**Synthesis of Dumbbell Shaped ZnO Crystals Using One-Pot Hydrothermal Method and their Characterisations**” **Materials Letters, (Elsevier)**: Ref.: Ms. No. MLBLUE-D-14-00256R1, ISSN: 0167-577X, **Impact Factor:2.224 – In Press**
26. K. M. Prabu, L. Arivuselvam, K. Suguna, K. Subramani, V. Aroulmoji and **P. M. Anbarasan**, “**Synthesis of Silver Particles Using the Extracts of Strychnos Potatorium**” **Nano Science & NanoTechnology: An Indian Journal Science Inc.** ISSN- 0974 - 7494, **NSNTAIJ, 8(4), 2014 [130-137]**
27. N. Sakthivel, L. Arivuselvam, K. Suguna, K. Subramani, V. Aroulmoji and **P. M. Anbarasan**, “**Growth, Characterization and Computational Analysis on the NLO Crystal 3-Pyridinecarboxamide**” **Materials Science: An Indian Journal**, MSAIJ_781, Trade Science Inc. pg. 1-7 (2014), **ISSN (PRINT): 0974-7486**
28. P. Senthilkumar, C. Nithya and **P. M. Anbarasan**, “**Quantum Chemical Investigations on the Effect of Dodecyloxy Chromophore in 4-Amino Stilbene Sensitizer for DSSCs**” **Spectrochimica Acta Part A: Molecular and Biomolecular Spectroscopy**, Ms. Ref. No.: SAA-D-13-01964R1, ISSN: 1386-1425;; **Impact Factor: 1.977** Volume 122, 25 March 2014, Pages 15–21, 10.1016/j.saa.2013.11.023
29. K. Lalithambigai, **P.M. Anbarasan**, K.B. Rajesh, “**Generation of Multiple Focal Holes for Tight Focusing of Azimuthally Polarized Beam Through Complex Phase Mask**” **Journal of OPTIK (International Journal for Light and Electron Optics)** 13-742, DOI: 10.1016/j.ijleo.2013.10.051, Ref. No. IJLEO5404; ISSN: 0030-4026, **Impact Factor: 0.524**
30. D. Narayanasamy, P. Kumaresan, P. Ambalavanan and **P. M. Anbarasan**, “**Effect of Amino Acids Doped TGS Crystals for IR Detectors**” **Optoelectronics and Advanced**

31. P. Senthilkumar, C. Nithya and **P. M. Anbarasan**, “**Effect of Donor (Tetradecyloxy) and Acceptor (Carboxamide) groups in Trans-Stilbene for DSSCs: Quantum Chemical Investigations**”, Elsevier, **Spectrochimica Acta Part A: Molecular and Biomolecular Spectroscopy**, 117 (2014) 181–185, <http://dx.doi.org/10.1016/j.saa.2013.07.110>. ISSN: 1386-1425, **Impact Factor: 1.977**
32. P. Ramu, **P.M. Anbarasan**, R. Ramesh, S. Ponnusamy, C. Muthamizhchelvan, “**Synthesis of ZnO Nanoflakes by the Wet Chemical Method in the Presence of Pb²⁺ Alien Cation and their Structural and Morphological Properties**” **Materials Letters**, (Elsevier) 106 (2013) 59–62.: ISSN: 0167-577X, **Impact Factor:2.224**
33. C. Indira Priyadharsini, A. Prakasam and **P. M. Anbarasan**, “**Enhanced Photoelectrical Performance of DSSC by Co-doped SnO₂ Nanoparticles**” **International Letters of Chemistry, Physics and Astronomy** 12 (2013) 82-93; ISSN 2299-3843.
34. K. Lalithambigai, **P.M. Anbarasan** & K.B. Rajesh, “**Generation of Nano-scale Transversally Polarized Multiple Focal Spot using Complex Phase Filter**” in the Proceedings of **Third National Conference on Multifunctional Nanomaterials and Nanocomposites – Volume - II**, Bharathiar University, Coimbatore, Tamilnadu, India, ISBN-978-81-9212 (2013) Pg: 31-36.
35. K. Lalithambigai, R. C. Saraswathi, K. B. Rajesh, Z. Jaroszewicz and **P. M. Anbarasan**, “**Generation of Multiple Focal Hole Segments using Double-Ring Shaped Azimuthally Polarized Beam**” Accepted to be Published in **Journal of Atomic, Molecular, and Optical Physics**, Hindawi Publishing Corporation (2013) ISSN-1687-9384, e-ISSN- 1687-9392, Article Id 451715, 4 Pages <http://Dx.Doi.Org/10.1155/2013/451715>
36. P. Senthilkumar, C. Nithya & **P. M. Anbarasan**, “**2,3'- Diamino- 4,4'- Stilbenedicarboxylic acid Sensitizer for Dye Sensitized Solar Cells: Quantum Chemical Investigations**” **Journal of Molecular Modeling - Springer-Verlag - DOI** (2013) 19:4561–4573; DOI 10.1007/s00894-013-1953-2 - ISSN: 0948-5023, **Impact factor: 2.336**
37. D. Narayanasamy, P. Kumaresan, P. Ambalavanan, **P. M. Anbarasan**, “**Thermal, Dielectric Studies on Pure and Amino Acids Doped TGS Single Crystals for IR Detectors**” - Accepted to be Published in **Journal of Optoelectronics and Advanced Materials (JOAM) – (2013)**, ISSN-1454-4164, **Impact Factor - 0.46 -- in Press.**
38. P. Ramu, **P. M. Anbarasan**, S. Aravindan, R. Ramesh, S. Ponnusamy And C. Muthamizhchelvan, “**Surfactant Free Synthesis of Ag⁺ Additive Added ZnO Nanostructures**” **Asian Journal of Chemistry**; Vol. 25, Supplementary Issue (2013), 0000-0000, **March 2013**, ISSN: 0970-7077, **Impact Factor-0.27 – in Press.**

39. K. Subramani, R. Karnan, M. Sajitha & **P. M. Anbarasan**, “**New and Rare Acylated Flavone Glycosides from the Aerial Parts of Chrozophora Rottleri**” **Journal of Biochemistry** - An Indian Journal (BCAIJ) **ISSN : 0974 – 7427**, Vol. 7, Issue 3 (2013) 102-106,
40. K. M. Prabu and **P. M. Anbarasan**, “**Comparative Analysis of Natural Sample and Synthesis of Silver Nanoparticles (Nps) using Medical Plant Caesalpinia Bonducella Seed**” **Journal of NanoScience and NanoTechnology- An Indian Journal**, Trade Science Inc. **ISSN- 0974 - 7494** –Vol. 7, Issue 4 (2013) 147-155
41. A. Prakasam, D. Sakthi and **P. M. Anbarasan**, “**DFT Studies on The Electronic Structures of 4-Methoxybenzonitrile Dye for Dye-Sensitized Solar Cell**”, **International Letters of Chemistry, Physics and Astronomy**, **ISSN 2299-3843**, 7 (2013) 8-22.
42. A. Prakasam, P. Sakthivel and **P. M. Anbarasan**, “**Quantum Chemical Calculation of 4-Amino-3-Nitrobenzonitrile for Dye Sensitized Solar Cells Applications**” **International - Global Research Analysis**, Volume: 2, Issue : 1, Jan (2013), **ISSN No. 2277 - 8160** , pg. 189-193.
43. **P. M. Anbarasan**, A. Prakasam and P. Sakthivel, “**Molecular Modeling of 2-Ethoxybenzonitrile Dye Sensitizer for Solar Cells using Quantum Chemical Calculations**” **International Journal of Pharmaceutical and Chemical Sciences**, **ISSN: 2277□5005**, Vol. 2 (1) Jan-Mar 2013, Pg. 477-487.
44. M. Geetha, K. Suguna, A. Prakasam, **P. M. Anbarasan**, “**Growth and Characterization of Magnesium in TiO₂ Nanoparticles for Dye Sensitized Solar Cells**” **Nano Science - NanoTechnology: An Indian Journal - Trade Science Inc. (2012) NSNTAIJ**, 7(1), 2013 [36-40] **ISSN : 0974 – 7494**
45. A. Prakasam, L. Arivuselvam and P. Sakthivel and **P. M. Anbarasan**, “**Quantum Chemistry Calculations of 2-(Trifluoromethoxy) Phenylacetonitrile Dye Sensitizer for Solar Cells**” **International Journal of Chemical Science and Technology** (**ISSN: 2248-9797**) Volume 2-Issue3, Oct 2012 pp. 236-243
46. A. Prakasam, P. Sakthivel and **P. M. Anbarasan**, “**DFT and TD-DFT Study on Structure and Optical Properties of 2-Ethylbenzonitrile Dye Sensitizer for Solar Cell Applications**” **International Journal of Pharmaceutical, Chemical and Biological Sciences**, **IJPCBS 2012**, 2(4), 649-661 (**ISSN: 2249-9504**)
47. M. Geetha, K. Suguna and **P. M. Anbarasan**, “**Photoanode Modification in DSSC using Chromium Doped TiO₂ Nanoparticles by Sol-Gel Method**” **Archives of Physics Research**, Scholars Research Library, **ISSN : 0976-0970 CODEN (USA): APRRC7 2012**, 3 (4): 303-308

48. **P. M. Anbarasan**, K. Vasudevan, P. Senthil Kumar, A. Prakasam, M. Geetha and K. Lalithambigai, “**Structural and Spectral Properties of 4-Phenoxyphthalonitrile Dye Sensitizer for Solar Cell Applications**”, **Bulletin of Materials Science (BOMS)**:- ISSN: 0250-4707 (print version) ISSN: 0973-7669 (electronic version) Volume 35, Issue 2 (2012), Page 265-275, [35400061197746.0016](#), Citations: 2; Impact Factor: 0.88

49. V. Ravi, P. Suresh, K. B. Rajesh, Z. Jaroszewicz, **P. M. Anbarasan** and T. V. S. Pillai, “**Generation of Sub Wavelength Longitudinal Magnetic Probe using High Numerical Aperture Lens Axicon and Binary Phase Plate**” **Institute of Physics (IOP) JOURNAL OF OPTICS**, Vol. 14, No. 5 (2012) 055704, pp (1-7) ; doi:10.1088/2040-8978/14/5/055704/ Citations: 6; Impact Factor: 1.765, ISSN 2040-8986 (Online).

50. N. D’Amelio, V. Aroulmoji, A. Toraldo, N. Sundaraganesan and **P. M. Anbarasan**, “**Aggregation Properties and Structural Studies of Anticancer Drug Irinotecan in DMSO Solution Based on NMR Measurements**” **Journal of Molecular Structure - 1013** (2012) 26–35, ISSN: 0166-1280, <http://dx.doi.org/10.1016/j.molstruc.2012.01.012>, Citations: 2; Impact Factor: 1.634

51. K. Lalithambigai, P. Suresh, V. Ravi, K. Prabakaran, Z. Jaroszewicz, K. B. Rajesh, **P. M. Anbarasan** and T. V. S. Pillai, “**Generation of Sub Wavelength Super-Long Dark Channel Using High NA Lens Axicon**” **Optics Letters (Optical Society of America) – Vol. 37, Issue 6, pp. 999-1001 (2012)**; ISSN: 0146-9592 | eISSN: 1539-4794; <http://dx.doi.org/10.1364/OL.37.000999>, Citations: 7; Impact Factor of 3.399

52. G. Therese Anita, R. Mahesh Kumar, K. Lalithambigai, K. B. Rajesh & **P.M. Anbarasan**, “**Effect of Spherical Aberration in Tight Focusing of Azimuthally Polarized Double Ring Shaped Beam**” Publisher; IEEE, Publication date: 2012/12/18, Date of Conference: 18-20 Dec. 2012, Conference name: 2012 IEEE International Conference on **Computational Intelligence & Computing Research (ICCIC)**, Pages: 1-4, Digital Object Identifier : [10.1109/ICCIC.2012.6510307](#); Print ISBN: 978-1-4673-1342-1, NSPEC Accession Number: 13502668.

53. K.B. Rajesh, Zbigniew Jaroszewicz, **P. M. Anbarasan**, T.V.S. Pillai and N. Veerabagu Suresh, “**Extending the Depth of Focus with High NA Lens Axicon**” **Optik - International Journal for Light and Electron Optics**, 122 (2011) pg. 1619– 1621, <http://dx.doi.org/10.1016/j.ijleo.2010.10.012>, ISSN: 0030-4026; Citations: 33; Impact factor: 0.510

54. S. Bhuvaneswari, R. Rengaiyan and **P. M. Anbarasan**, “**Fuzzy Interpretation of Absorption in Solar Cells**” **Journal of Energy Technologies and Policy**, ISSN 2224-3232, Vol.1, No.1 (2011) pp. 43-52, Citations: 3; Impact factor: 5.54

55. P. Senthilkumar and P. M. Anbarasan, “Molecular Modeling of 4-Methylphthalonitrile for Dye Sensitized Solar Cells using Quantum Chemical Calculations” – *Journal of Molecular Modeling* - Springer-Verlag - DOI [10.1007/s00894-010-0704-x](https://doi.org/10.1007/s00894-010-0704-x) – Volume 17, Issue 1 (2011), Page 49, ISSN: 1610-2940 (print version) ISSN: 0948-5023 (electronic version), Citations: 8; Impact factor: 2.336
56. P. M. Anbarasan, A. Prakasam, L. Arivuselvam, K. Suguna, C. Mohanasundaram, P. Sakthivel, “Geometries, Electronic Structures, Polarizabilities and Hyperpolarizabilities studies of 2-Amino-5-Nitrobenzonitrile for Dye-Sensitized Solar Cell” *International Journal of Chemical Science and Technology* (ISSN: 2248-9797) Volume 1-Issue4, October (2011) pp.191-201
57. P. M. Anbarasan, P. Senthilkumar, K. Vasudevan, R. Govindan and V. Aroulmoji, “Geometries, Electronic Structures and Vibrational Spectral Studies of 4-Aminophthalonitrile using Quantum Chemical Calculations for Dye Sensitized Solar Cells” *Indian J. Phys.* Vol 85, No. 10, (2011) pp. 1477-1494, ISSN: 0973-1458 (print version) ISSN: 0974-9845 (electronic version); Citations: 6; Impact Factor: 0.381
58. K. B. Rajesh, N. Veerabagu Suresh, P. M. Anbarasan, K. Gokulakrishnan, G. Mahadevan, “Tight Focusing of Double Ring Shaped Radially Polarized Beam with High NA Lens Axicon” *Optics & Laser Technology*, 43 (2011) pg. 1037–1040, <http://dx.doi.org/10.1016/j.optlastec.2010.11.009> ISSN: 0030-3992, Citations: 33; Impact Factor: 1.515
59. K. B. Rajesh, P. M. Anbarasan, G. Mohan Kumar, T. V. S. Pillai, G. Mahadevan, “All Optical Magnetic Recording using High NA Lens Axicon and A Binary Phase Plate” *Physics Express* | Volume 1 | Issue 1 | February (2011) pg. 39-42. www.simplex-academic-publishers.com, ISSN 2231 - 0002 | EISSN 2231 – 0010, Citations: 2
60. P. M. Anbarasan, P. Senthil Kumar, K. Vasudevan, S. Moorthy Babu and V. Aroulmoji, “DFT and TD-DFT Calculations of Some Metal Free Phthalonitrile Derivatives for Enhancement of the Dye Sensitized Solar Cells” *Acta Physica Polonica* (A), Vol. 119 (2011) A No. 3, pg. 1-10. ISSN: 0587-4246, ACCESSION # 67254620, Citations: 9; Impact Factor: 0.44
61. P. M. Anbarasan, P. Senthil kumar, K. Vasudevan, R. Govindan, A. Prakasam, and M. Geetha, “Geometrical, Electronic Structure, NLO and Spectroscopic Investigations of 4-(Phenylthio)Phthalonitrile Dye Sensitizer for Solar Cells using Quantum Chemical Calculations – *European Journal of Chemistry* 2 (2) (2011) 206-213. ISSN 2153-2249 (Print) / ISSN 2153-2257 (Online) □ 2011 EURJCHEM, DOI:10.5155/eurjchem.2.2.206-213.269, Citations: 3; Impact Factor: 0.640

62. **P. M. Anbarasan**, M. K. Subramanian, P. Senthilkumar, C. Mohanasundaram, V. Ilangoan and N. Sundaraganesan, “**Molecular Modeling of 2-Chloro-5-Nitrotoluene by Quantum Chemical Calculation for Pharmaceutical Application**” **J. Chem. Pharm. Res.**, 2011, 3(1): 597-612 **ISSN No: 0975-7384 CODEN(USA): JCPRC5, Citations: 9.**
63. **P. M. Anbarasan**, M. K. Subramanian, S. Manimegalai, K. Suguna, V. Ilangoan, and N. Sundaraganesan, “**4-Chlorotoluene: Spectral Studies and Quantum Chemical Calculations**” **J. Chem. Pharm. Res.**, (2011) 3(3):123-136, **ISSN No: 0975-7384 CODEN(USA): JCPRC5, Citations: 9.**
64. **P. M. Anbarasan**, P. Senthil kumar, S. Manimegalai, G. Meenakshi, K. Subramani, “**Geometries, Electronic Structure, Polarizability, Hyperpolarizability and Spectral Analysis on Silicon Dihydroxide Substituted Phthalocyanine for Dye Sensitized Solar Cells**” **Journal of Spectroscopy & Dynamics (2011) 1:** 10, www.simplex-academic-publishers.com. **ISSN 2249 - 2704 | EISSN 2249 - 2712**
65. N. Sakthivel and **P. M. Anbarasan**, “**Growth, Structural and Optical Studies of L-Proline Monohydrate**” **Elixir Crystal Growth** 32 F (2011) 2125-2127, **ISSN-2229-712X, Citations: 3.**
66. N. Sakthivel and **P. M. Anbarasan**, “**Crystallization and Characterization of Nonlinear Optical Material: Glycolylurea**” **Recent Research in Science and Technology** (2011) 3(10): 103-105, **ISSN: 2076-5061**
67. N. Sakthivel and **P. M. Anbarasan**, “**Growth, Structural and Optical Studies of L-Proline Hydrate Crystals**” **International Journal of Current Research**, (2011) Vol.3, Issue 11, pg 1-3, **ISSN-0975-833.**
68. K. B. Rajesh, Z. Jaroszewicz, and **P. M. Anbarasan**, “**Improvement of Lens Axicon’s Performance for Longitudinally Polarized Beam Generation by Adding A Dedicated Phase Transmittance**” **OPTICS EXPRESS (Optical Society of America)**, eISSN: 1094-4087 Vol. 18, No. 26, (December 2010) pg. 26799-26805, <http://dx.doi.org/10.1364/OE.18.026799>, **Citations: 33; Impact Factor: 3.587**
69. N. Sakthivel and **P. M. Anbarasan**, “**Growth of Nonlinear Optical Material: 1-Hydroxyurea Hydrate Crystal and its Characterization**” **Asian Journal of Science and Technology** (2010) Vol. 4 pg. 75-80, **ISSN-0776-3376**
70. S. Selvanandan and **P. M. Anbarasan**, “**Power Coupling Efficiency Enhancement in Multimode Step-Index Fiber Using Refractive and Diffractive Microlenses**” Hindawi Publishing Corporation, **International Journal of Optics**, ISSN/EISSN: 16879384 16879392 Article ID 601675, 1- 7 pages (2010) **doi:10.1155/2010/601675, Citations: 2**
71. M. Geetha, P. Senthil kumar, R. Govindan, P. Ramu, L. Arivuselvam and **P. M. Anbarasan**, “**Design of Microlens Focused V-Groove Textured Silicon Solar**

Cell with Different Aspect Ratio using ZEMAX®” **Recent Research in Science and Technology** 2(6): (2010) *pg. 05-08*, **ISSN: 2076-5061**, **Citation: 1**

72. M. Geetha, P. Senthil Kumar, K. Vasudevan, A. Prakasam, G. Meenakshi, **P. M. Anbarasan**, “**Study of Geometrical, Electronic Structure, Spectral and NLO Properties of 3,4-Pyridinedicarbonitrile Dye Sensitizer for Solar Cells Using Quantum Chemical Calculations**”- **Journal of Saudi Chemical Society (Elsevier)**, 14 (2010) *pg. 399–407*. [10.1016/j.jscs.2010.05.002](https://doi.org/10.1016/j.jscs.2010.05.002), **ISSN: 1319-6103**, **Impact Factor: 1.28**; **Citations: 3**
73. P. Senthil kumar, K. Vasudevan, A. Prakasam, M. Geetha and **P. M. Anbarasan**, “**Quantum Chemistry Calculations of 3-Phenoxyphthalonitrile Dye Sensitizer for Solar Cells**” - **Journal of Spectrochimica Acta Part A** (2010) – Volume 77, Issue 1, 15 September (2010), Pages 45-50, [doi:10.1016/j.saa.2010.04.021](https://doi.org/10.1016/j.saa.2010.04.021), **ISSN: 1386-1425**, **Citations: 25**; **Impact factor 1.77**
74. S. Selvanandan and **P. M. Anbarasan**, “**A Modern Interconnect Lens Design using Genetic Algorithm for Laser-Fibre Coupling Applications**” **Atti della Fondazione Giorgio Ronchi**, ANNO LXV, (2010) - N. 1, Page 1-9, **ISSN 0391 2051**.
75. M. K. Subramanian, **P. M. Anbarasan** and S. Manimegalai, “**Molecular Structure, Vibrational Spectroscopic Studies and NBO Analysis of 7-Amino- 4-Trifluoromethylcoumarin**” - **Pramana**, Volume 74, Number 5 (2010) 845-850, **ISSN: 0304-4289 (print version) ISSN: 0973-7111 (electronic version)**, **Citations: 5**; **Impact Factor 0.575**
76. **P. M. Anbarasan**, “**Geometries, Electronic Structures, and Spectral Properties of Some Metal Free Phthalonitrile Derivatives for Enhancement of The Dye Sensitized Solar Cells**” organized by **XXII – ICORS**, in collaboration with Boston University Departments of Physics & Chemistry, The Photonics Center and the College of Arts & Sciences Northeastern University Departments of Physics & Chemistry and the College of Arts & Sciences during **8 - 13, August 2010**, Boston, Massachusetts, **USA, AIP Conf. Proc. -- Volume 1267, Issue 1, pp. 544-545 XXII INTERNATIONAL CONFERENCE ON RAMAN SPECTROSCOPY (ICORS)**; [doi:10.1063/1.3482667](https://doi.org/10.1063/1.3482667).
77. **P. M. Anbarasan** and K. B. Rajesh, “**Generation of Needle of Longitudinal Polarized Non Diffracting Beam using High NA Lens Axicon**” **International Conference LEI-2009, Light at Extreme Intensities**, Scientific opportunities and technological issues of the Extreme Light Infrastructure, 16-21. October, 2009, Brasov, **ROMANIA**. Light at Extreme Intensities: Opportunities and technological Issues of the Extreme Light Infrastructure - LEI 2009, Romania, 2009 (AIP Conference Proceedings) Vol. 1228 -DE-**ISBN:9780735407718**, Page.496 Edited by Dumitras, Dan (EDT) 2010/05, **American Institute of Physics (AIP)**. AIP Conf. Proc. 1228, pp. 338-345; [doi:http://dx.doi.org/10.1063/1.3426072](https://doi.org/http://dx.doi.org/10.1063/1.3426072) (8 pages).

78. **P. M. Anbarasan** and P. Senthil Kumar, “**Dye Sensitized Solar Cells**” **Second International Conference on Hybrid and Organic Photovoltaics (HOPV-2010)** organized by Carsten Deibel (Julius-Maximilians-University of Würzburg, Germany) and Frederik C. Krebs (Risø National Laboratory for Sustainable Energy, Technical University of Denmark) during 23-27, May, 2010 at Grand Hotel, ASSISI, **ITALY**.
79. M. K. Subramanian, **P. M. Anbarasan** and S. Manimegalai, “**DFT Simulations and Vibrational Analysis of FT-IR and FT-Raman Spectra of 2,4-Diamino-6-Hydroxypyrimidine**” **Journal of Spectrochimica Acta Part A** 73 (2009) 642–649, <http://dx.doi.org/10.1016/j.saa.2009.03.006>, ISSN: 1386-1425, **Citations: 6; Impact factor 1.77**
80. M. K. Subramanian, **P. M. Anbarasan** and S. Manimegalai, “**Molecular Structure, NMR and Vibrational Spectral Analysis of 2,4-difluorophenol by *abinitio* HF and Density Functional Theory**” **Journal of Raman Spectroscopy**, (www.interscience.wiley.com) DOI 10.1002/jrs.2315 (2009), Vol. 40, Issue 11, pp. 1657-1663, **ISI Journal Citation Reports © Ranking: 2011: 11/42 (Spectroscopy)**, Online ISSN: 1097-4555, **Citations: 7; Impact Factor: 3.087**
81. K. B. Rajesh and **P. M. Anbarasan**, “**Generation of Sub-Wavelength and Super-Resolution Longitudinally Polarized Non-DIF Fraction Beam using Lens Axicon**” **Chinese Optics Letters**, Vo. 6, No.10 (October 10, 2008) 785 – 787, ISSN: 1671-7694 doi: 10.3788/COL20080610.0785, COL 2011, **Citations: 18; Impact Factor 0.967**
82. K. B. Rajesh, **P. M. Anbarasan** and K. Tamilmaran, “**Nanoscale Resolution Lens Axicon for High Density Optical Recording Using Krypton Ion Laser**” **JP Journal of Solids and Structures**, Vol.2, Issue 2, (2008) 139-149, **Citations: 3; ISSN: 0973-5615**.
83. **P. M. Anbarasan**, G. Meenakshi, K. Jeyapriya, M. K. Subramanian and K. Subramani, “**Growth, Structural and Optical Studies on Organic Single Crystal Imidazole**” – **Indian Journal of Physics**, 82(11), (2008) 1473-1483, ISSN 0973-1458, **Citations: 5; Impact Factor: 0.381**
84. **P. M. Anbarasan**, G. Meenakshi, K. Jayapriya, N. Sakthivel and K. Subramani, “**Studies on Growth, Structural and Optical Properties of Linear Organic Single Crystal Imidazole**” – **International Journal of Chemical Sciences**, 6 (3) (2008) 1463-14790, ISSN: 0972-768 X.
85. P. Kumaresan, S. Moorthy babu and **P. M. Anbarasan**, “**Thermal Dielectric Studies on Pure and Amino Acid (L-Glutamic, L-Histidine, L-Valine) Doped KDP Single Crystals**” **Optical Materials**, Volume 30, Issue 9, May 2008, Pages 1361-1368, <http://dx.doi.org/10.1016/j.optmat.2007.07.002>, ISSN: 0925-3467, **Citations: 13; Impact Factor: 2.023**

86. P. Kumaresan, S. Moorthy babu and **P. M. Anbarasan**, “**Growth and Characterization of Metal Ions and Dye Doped KDP Single Crystals for Laser Applications**” **Materials Research Bulletin**, Volume 43, Issue 7, 1 July 2008, Pages 1716-1723, <http://dx.doi.org/10.1016/j.materresbull.2007.07.018>, ISSN: 0025-5408, Citations: 13; Impact Factor: 2.105
87. P. Kumaresan, S. Moorthy babu and **P. M. Anbarasan**, “**Effect of Irradiation of Swift Heavy Ions on Dyes Doped KDP Crystals for Laser Applications**” **Journal of Crystal Growth**, Volume 310, Issues 7-9, April 2008, Pages 1999-2004, <http://dx.doi.org/10.1016/j.jcrysgr.2007.10.053>, ISSN: 0022-0248, Citations: 9; Impact Factor: 1.726
88. M. K. Subramanian, **P. M. Anbarasan**, V. Ilangoan , N. Sundaraganesan, “**FT-IR, FT-Raman Spectra and DFT Vibrational Analysis of 2-Aminobiphenyl**” **Molecular Simulation**, Volume 34, Issue 3, March 2008 , pages 277 – 287, ISSN 0892-7022, DOI: <http://dx.doi.org/10.1080/08927020701829856>, 2011 (2012 Thomson Reuters, Journal Citation Reports), Citations: 6; Impact Factor: 1.328
89. M. K. Subramanian, **P. M. Anbarasan**, V. Ilangoan , S. Moorthy Babu, “**FT-IR, NIR-FT-Raman and Gas Phase Infrared Spectra Of 3-Aminoacetophenone by Density Functional Theory and Ab-initio Hartree-Fock Calculations**”, **Spectrochimica Acta Part-A** 71 (2008) 59 – 67, DOI:10.1016/j.saa.2007.11.013, ISBN ISSN: 1386-1425, Citations: 9; Impact factor: 1.77
90. R. Rengaiyan, **P. M. Anbarasan**, A. Kalyanasundaram and S. Selvanandan, “**Variable Field Angle Study on Conic Interconnects Lens System for Higher Coupling Efficiency**” **J. Atti della Fond. Giorgio Ronchi, Italy** (ISSN 0391 2051) Vol.63, No.5 (2008) pg. 698 – 706, ISSN 0391 2051
91. K. B. Rajesh, V. Ravi, K. Vasudevan and **P. M. Anbarasan**, “**A Comparative Study on Focal Performance of Fiber Ended Lens and Fiber Ended Axicon for Optical Recording**”, **J. Atti della Fond. Giorgio Ronchi, Italy**, Vol. 63, No.4 (2008) 445 – 456, ISSN 0391 2051
92. **P. M. Anbarasan**, K. B. Rajesh, M. Geetha, S. Selvanandan and S. Moorthy Babu, “**Efficient Light Trapping Scheme of Microlens Focused Beam for Silicon Solar Cells**”, - Presented at **International Conference on Solar Cells, Proceedings of SOLACE-2008**, page Vol. 1, Page No. 195-198, 2008.
93. P. Kumaresan, S. Moorthy babu and **P. M. Anbarasan**, “**Effect of Metal Ion and Amino Acid Doping on the Optical Performance Of KDP Single Crystals**” **Journal of Optoelectronics and Advanced Materials**, Vol. 1, 2 (February 2007) pg. 65-69, ISSN: 1454-4164, Impact Factor: 0.46

94. P. Kumaresan, S. Moorthy babu and **P. M. Anbarasan**, “**Effect of Irradiation of Swift Heavy Ions on Dyes Doped Potassium Dihydrogen Phosphate Crystals for Laser Applications**” **Journal of Optoelectronics and Advanced Materials - Rapid Communications**, Vol.1, 4 (April 2007) pg. 152-157, **ISSN: 1842-6573**, **Citations: 3**; **Impact Factor: 0.304**
95. P. Kumaresan, S. Moorthy babu and **P. M. Anbarasan**, “**Thermal Dielectric Studies on Pure and Amino Acids (L-Glutamic and L-Histidine, L-Valine) doped Potassium Dihydrogen Phosphate Single Crystals**” **Journal of Nonlinear Optical Physics & Materials (JNOPM)**, Volume 16, Number 2, (June 2007) 255–268, **DOI: 10.1142/S0218863507003676**, **Print ISSN: 0218-8635**, **Online ISSN: 1793-6624**, **Citations: 3**; **Impact factor: 0.553**
96. **P. M. Anbarasan**, S. Selvanandan and K. B. Rajesh “**A Novel Study on Coupling Property of Low Aberration with High Throughput Microlens**” **J. Atti della Fond. Giorgio Ronchi, Italy** Vol. 62, No. 2 (2007) P.219- 228, **ISSN 0391 2051**
97. **P. M. Anbarasan**, S. Manimeglai S. Selvanandan and K. B. Rajesh, A. Kalyanasundaram and R. Rengaiyan, “**A Novel Light Trapping Scheme of Microlenses Focused Beam on Silicon Solar Cells**”- **J. Atti della Fond. Giorgio Ronchi, Italy**, Vol. 62, No.3 (2007) P.363-374, **ISSN 0391 2051**
98. **P. M. Anbarasan** B. Shanmugavelu, S. Manimegalai, A. Kalyanasundaram, R. Rengaiyan and S. Selvanandan, “**A Scheme to Improve the Coupling Efficiency Between Laser Diode and Single Mode Fibre Via Hemi Spherically Ended Gif Microlenses**” **J. Atti della Fond. Giorgio Ronchi, Italy**, Vol. 62, No.4,(2007) P.443-454, **ISSN 0391 2051**
99. P. Kumaresan, S. Moorthy Babu, **P. M. Anbarasan** “**Growth and Characterization of Metal Ions and Dye Doped KDP Single Crystals**” **Journal of Optoelectronics and Advanced Materials**, Vol. 9, No. 9, September 2007, pg. 2774 – 2779, **ISSN: 1454-4164**, **Citations: 6**; **Impact Factor: 0.46**
100. P. Kumaresan, S. Moorthy Babu, **P. M. Anbarasan**, “**Optical Studies on Pure and Aminoacids Doped KDP Crystal**” **Journal of Optoelectronics And Advanced Materials** Vol. 9, No. 9, September 2007, P. 2780 – 2786, **ISSN: 1454-4164**, **Citations: 6**; **Impact Factor: 0.46**
101. P. Kumaresan, S. Moorthy Babu, **P. M. Anbarasan** “**Effect of Copper Thiourea Complex on the Performance of KDP Single Crystals**” **Journal of Optoelectronics and Advanced Materials**, Vol. 9, No. 9, September 2007, pg. 2787 – 2791, **ISSN: 1454-4164**, **Citations: 6**; **Impact Factor: 0.46**

102. S. Selvanandan, **P. M. Anbarasan**, A. Kalyanasundaram and R. Rengaiyan, “**Theoretical Study on Focal Performance of Cylindrical Microlens in Dielectric Incidence Space**”, **J. Atti della Fond. Giorgio Ronchi, Italy**, Vol 61, No.6, (2006) Pg. 737-744, **ISSN 0391 2051**
103. S. K. Geetha, R. Perumal, S. Moorthy Babu and **P. M. Anbarasan**, “**Habit Modification and Improvement in Properties of Potassium Hydrogen Phthalate (KAP) Crystals Doped with Metal Ions**”, **Crystal Research Technology**, 41, 3 (2006) 221-224, **DOI: 10.1002/crat.200510563**, **ISSN: 0232-1300**, **Citations: 13**; **Impact Factor: 0.946**
104. P. Kumaresan, S. Moorthy Babu and **P. M. Anbarasan** (2006), ‘**Investigation of Optical Properties of Dyes Doped KDP Crystals**’, **6th DAE-BRNS Laser Symposium**, ISBN No.81-903321-1-2, Vol.4, pp. 94-95
105. P. Kumaresan, S. Moorthy Babu and **P. M. Anbarasan** (2005b), “**Growth and Characterization of Doped KDP Crystals**”, **5th DAE-BRNS Laser Symposium**, ISBN No.81-903321-0-4, Vol.5, pp.189-190.
106. P. Kumaresan, S. Moorthy Babu and **P. M. Anbarasan** (2005a), “**Influence of Dopants (L-Glutamic Acid, L-Histidine and L-Valine) on the Performance of KDP Crystals**”, **4th DAE-BRNS laser symposium**, ISBN No.81-903321-0-3, Vol. 4, pp.521-522.
107. **P. M. Anbarasan** and S. Mohan, “**Theoretical and Experimental study on Coupling Property of Distributed Index Microlenses in Micro Optics**”, **Journal of Optics**, Vol. 33, No. 1, (2004) 37 – 45, **ISSN: 0972-8821 (print version)** **ISSN: 0974-6900 (electronic version)**.
108. N. K. Sharma and **P. M. Anbarasan**, “**Point Contact One Injection Current in Solid Insulators with Traps**”, **Indian Journal of Pure and Applied Physics**, Vol. 43 (2004) 308-310, **ISSN: 0975-1041 (Online)**; **0019-5596 (Print)**; **Impact Factor: 0.763**
109. P. Nallasamy, **P. M. Anbarasan** and S. Mohan, “**Vibrational Spectra and Assignment of Cis- and Trans-1, 4-Polybutadiene**”, **Turkish Journal of Chemistry**, 26 (2002) 105 - 111. **ISSN 1300-0527**, **E-ISSN 1303-6130**, **Citations: 9**; **Impact Factor: 0.943**
110. **P. M. Anbarasan** and S. Mohan, “**Theoretical Aspects of Single Wave Length Oscillation in Semiconductor Laser at High-Speed Pulse Modulation**”, **XXVI National Symposium of the Optical Society of India on Optics and Opto-Electronics**, February 4-6, 2000, REC, Warangal, A.P (2001) pg. 246-249.
111. **P. M. Anbarasan**, James Jebaseelan Samuel and S. Mohan. “**A Novel Study on Coupling Property of Distributed Index Microlenses**” **International Conference Asia**

– **Pacific Telecom – 2000 on Advances in Telecommunications and Information Technology**, December 14-16, 2000 at Vellore Institute of Technology, Vellore. Proceedings of the APT-2000, Page No. 88-94, 2000.

112. **P. M. Anbarasan**, S. Mohan, “**2-D arrayed Distributed-Index Planar Microlens**” ICLMD '99 **International Conference on Laser Materials and Devices** - December 8-10, 1999 at Defence Science Centre, Delhi. Proceedings of the ICMLD '99, Page No. 437-445, 1999, **Allied Publishers Limited**, Delhi. Edited by Dr. Amitav Mallik. DSC, Delhi, **ISBN: 81-7023-993-1**

II. Publications in Refereed Conference/Symposium/Seminar Proceedings & Publications in Non-Refereed Conference/Symposium/Seminar Proceedings:

- 1 K. Suguna, **P. M. Anbarasan**, P. B. Nagabalasubramanian “**Geometries, Electronic Structures, Effect of Extracting Solvents, Vibrational Spectral Studies and Performances of Lawsonia Inermis (2-hydroxy-1,4-naphthoquinone) using Experimental and Quantum Calculations for Dye Sensitized Solar Cells**” **National Conference on Advances in Molecular Spectroscopy** (ANCRAMS-2014) 14th September, 2014 - Organized by Research Scholars of Prof. Dr. S. Mohan, in Association with Department of Physics, Tagore Arts College & K. M. Centre for P.G. Studies, Puducherry, 608 005, Page No-60
- 2 **P.M. Anbarasan** et. al, “**Beam Shaping using Ti-Sa Laser**” in the **State Level Seminar on Laser & Spectroscopy (SLSLS-2014)** organized by the Department of Physics, Morappur Kongu College of Arts & Science, Morappur – 635 305 in collaboration with **Indian SpectroPhysics Association (ISPA)** on 28.08.2014.
- 3 **P.M. Anbarasan** et. al, “**Applications of Ti-Sa Laser**” in the **State Level Seminar on Laser & Spectroscopy (SLSLS-2014)** organized by the Department of Physics, Morappur Kongu College of Arts & Science, Morappur – 635 305 in collaboration with **Indian SpectroPhysics Association (ISPA)** on 28.08.2014.
- 4 K. M. Prabu, **P. M. Anbarasan**, J. Manikandan & C.Vijayakumar, “**Fabrication and Analysis of Dye- Sensitized Solar Cell Using Natural Dye from Clitoral Ternatea**” Proceedings of the **National Conference on Advanced Materials (NCAM-2014)**, 18-19, July, 2014 organised by PG and Research Department of Physics, Sri Vidya Mandir Arts and Science College, Katteri, Uthangarai, Krishnagiri (District), Tamilnadu, India – 636 902, in Collaboration with Indian Spectrophysics Association (ISPA), Chennai - 600 030, CP-42, pg. 85.
- 5 S. Ranjitha, G. Rajarajan, V. Aroulmoji & **P. M. Anbarasan**, “**Optical Properties of Natural Dye Sensitizers for the Applications of Dye Sensitized Solar Cell**” Proceedings of the **National Conference on Advanced Materials (NCAM-2014)**, 18-19, July, 2014 organised by PG and Research Department of Physics, Sri Vidya Mandir Arts and Science College, Katteri, Uthangarai, Krishnagiri (District), Tamilnadu, India –

636 902, in Collaboration with Indian Spectrophysics Association (ISPA), Chennai - 600 030, CP-74, pg.108

- 6 K. M. Prabu, **P. M. Anbarasan**, V. Paneerselvi, P. Praveena & D. Sathy, “**Synthesis and Characterization of Natural Dye-Sensitized Solar Cell (NDSSC) from Portulaca Grandiflora Dye Extract**” Proceedings of the **National Conference on Advanced Materials (NCAM-2014)**, 18-19, July, 2014 organised by PG and Research Department of Physics, Sri Vidya Mandir Arts and Science College, Katteri, Uthangarai, Krishnagiri (District), Tamilnadu, India – 636 902, in Collaboration with Indian Spectrophysics Association (ISPA), Chennai - 600 030, CP-91, pg.122.
- 7 K. M. Prabu, **P. M. Anbarasan**, S. Janarthanan. D. Sithik Basha, S. Gobi & R. Ranjith kumar, “**Photovoltaic Performance Of Natural Dye Sensitized Solar Cell Using Opuntia Prickly Pear**” Proceedings of the **National Conference on Advanced Materials (NCAM-2014)**, 18-19, July, 2014 organised by PG and Research Department of Physics, Sri Vidya Mandir Arts and Science College, Katteri, Uthangarai, Krishnagiri (District), Tamilnadu, India – 636 902, in Collaboration with Indian Spectrophysics Association (ISPA), Chennai - 600 030, CP-119, Pg.146.
- 8 **P. M. Anbarasan** and A. Priyadharsan, “**Structural and Optical Properties of Ce Doped ZnO Thin Film for Solar Cell Applications**”, Proceedings of the **National Conference on Advanced Materials (NCAM-2014)**, 18-19, July, 2014 organised by PG and Research Department of Physics, Sri Vidya Mandir Arts and Science College, Katteri, Uthangarai, Krishnagiri (District), Tamilnadu, India – 636 902, in Collaboration with Indian Spectrophysics Association (ISPA), Chennai - 600 030, CP-122, Pg.155.
- 9 **P. M. Abarasan**, M. Prakasam and P. Senthilkumar, “**DFT and TD-DFT Calculations of Stilbene Derivative Fulleropyrrolidines for Dye Sensitized Solar Cell Applications**” Proceedings of the **National Conference on Advanced Materials (NCAM-2014)**, 18-19, July, 2014 organised by PG and Research Department of Physics, Sri Vidya Mandir Arts and Science College, Katteri, Uthangarai, Krishnagiri (District), Tamilnadu, India – 636 902, in Collaboration with Indian Spectrophysics Association (ISPA), Chennai - 600 030, CP-123, Pg.156.
- 10 K. M. Prabu, **P. M. Anbarasan**, R. Ranjani, S. Gopi & G. Usha, “**Dye-Sensitized Solar Cell using Natural Dye Extracted from Curcuma Longa**” Proceedings of the **National Conference on Advanced Materials (NCAM-2014)**, 18-19, July, 2014 organised by PG and Research Department of Physics, Sri Vidya Mandir Arts and Science College, Katteri, Uthangarai, Krishnagiri (District), Tamilnadu, India – 636 902, in Collaboration with Indian Spectrophysics Association (ISPA), Chennai - 600 030, CP-126, Pg.158.

- 11 **P. M. Anbarasan**, P. Sakthivel, & A. Prakasam, **“Study of geometrical, Electronic Structure, Spectral and NLO Properties of 6-Chloro-2-Nitrobenzonitrile Dye For Efficient Organic Solar Cells”** Proceedings of the **National Conference on Advanced Materials (NCAM-2014)**, 18-19, July, 2014 organised by PG and Research Department of Physics, Sri Vidya Mandir Arts and Science College, Katteri, Uthangarai, Krishnagiri (District), Tamilnadu, India – 636 902, in Collaboration with Indian Spectrophysics Association (ISPA), Chennai - 600 030, CP-151, Pg.180.
- 12 **P. M. Anbarasan**, P. Sakthivel, D. Sakthi & A. Prakasam, **“Electronic Structure and Spectral Properties of 4-Methyl-3-Nitrobenzonitrile Dye for Efficient Organic Solar Cells”** Proceedings of the **National Conference on Advanced Materials (NCAM-2014)**, 18-19, July, 2014 organised by PG and Research Department of Physics, Sri Vidya Mandir Arts and Science College, Katteri, Uthangarai, Krishnagiri (District), Tamilnadu, India – 636 902, in Collaboration with Indian Spectrophysics Association (ISPA), Chennai - 600 030, CP-151, Pg.180.
- 13 **P. M. Anbarasan**, M. Prakasam and P. Senthilkumar, **“DFT And TD-DFT Calculations of Stilbene Substituted Methanofullerene for Dye Sensitized Solar Cell Applications”** in the Proceedings of the **National Conference in Advanced Materials and Its Applications (NCAMA-14)** organized by Engineering Physics Section, Faculty of Engineering and Technology, Annamalai University Annamalainagar - 608 002, Tamil nadu, India, 4th & 5th, April 2014, p. 789, **ISBN-13, 978 - 81- 909240-9-2**.
- 14 K. M. Prabu & **P. M. Anbarasan**, **“Dye Sensitized Solar Cell using Natural Dye Extracted from Hibiscus Sabdariffa Leaves”** in the Proceedings of the **National Conference on Recent Advances in New and Renewable Energy - 2014 (RANRE-2014)**, Organised by Centre for New & Renewable Energy Studies, Periyar University, Salem – 636 011 held on 27th, February, 2013, pg. 19-20.
- 15 C. Indira Priyadharsini, A. Prakasam and **P. M. Anbarasan**, **“Structural, Functional and Optical Properties of Mg Doped SnO₂ by Co-Precipitation Method”** **Seminar on Materials for Advanced Technology (SMAT-2014)** Organized by Department of Physics, Periyar University, Salem – 636011 on 21.2.2014, p.18, SMAT-24.
- 16 M. Prakasam , K.M. Prabu and **P. M. Anbarasan**, **“Dye-Sensitized Solar Cell Using Natural Dye Extracted from Piper Betel Leaves”** **National Conference On Advanced Materials - NCAM- 2014** organised by **Department of Physics and Electronics, PGP College of Arts and Science, Namakkal, Tamiladu**, on February 7, 2014
- 17 K. M. Prabu, **P. M. Anbarasan**, S. Gopi & P. Praveena, **“Dye Sensitized Solar Cell using Natural Dye Extracted from Clitoria Ternatea”** in the Proceedings of the **International Conference on Recent Advances in Physics 2013 (ICRAP-2013)**, held at PG & Research Department of Physics, Sri Vidya Mandir Arts & Science College, Uthangarai- 636902, Krishnagiri, Tamilnadu, in collaboration with Indian SpectroPhysics Association (ISPA), Chennai, during 12-13, August, 2013, pg. 169

- 18 M. Geetha & **P. M. Anbarasan**, “**Ni-TiO₂ Nanoparticles Sensitized with Rhodamine Dye for Improving the DSSC Performance**” in the Proceedings of the **International Conference on Recent Advances in Physics 2013 (ICRAP-2013)**, held at PG & Research Department of Physics, Sri vidya Mandir Arts & Science College, Uthangarai-636902, Krishnagiri, Tamilnadu, in collaboration with Indian SpectroPhysics Association (ISPA), Chennai, during 12-13, August, 2013, pg. 170.
- 19 K. M. Prabu & **P. M. Anbarasan**, “**Dye Sensitized Solar Cell using Natural Dye Extracted from Mulberry Leaves**” in the Proceedings of the **International Conference on Recent Advances in Physics 2013 (ICRAP-2013)**, held at PG & Research Department of Physics, Sri vidya Mandir Arts & Science College, Uthangarai-636902, Krishnagiri, Tamilnadu, in collaboration with Indian SpectroPhysics Association (ISPA), Chennai, during 12-13, August, 2013, pg. 185.
- 20 C. Indira Priyadharsini, A. Prakasam, **L. Arivuselvam** and P. M. Anbarasan, “**Enhanced Photoelectrical Performance Of DSSC by Co-Doped SnO₂ Nanoparticles**” Presented in the **National Conference on Recent Trends in Materials Science** organized by the Department of Physics, Vivekanandha college of Arts and Sciences for women, Elayampalayam, Tiruchengode, Namakkal on February 28th, 2013.
- 21 K. Lalithambigai, **P.M. Anbarasan** & K.B. Rajesh, “**Generation of Nano-scale Transversally Polarized Multiple Focal Spot using Complex Phase Filter**”, **Third National Conference on Multifunctional Nanomaterials and Nanocomposites (NCMNN-2013)** held at Bharathiar University, Coimbatore, Tamilnadu, India on February 25 & 26, 2013.
- 22 P. Ramu, **P. M. Anbarasan**, S. Aravindan, R. Ramesh, S. Ponnusamy And C. Muthamizhchelvan, “**Surfactant Free Synthesis of Ag+ Additive Added ZnO Nanostructures**”, **International Conference on Nanoscience & Nanotechnology**, (ICONN 2013), 18-20 March 2013, SRM University, Kattankulathur, Chennai, India.
- 23 K. Lalithambigai, **P. M. Anbarasan**, K.B. Rajesh, “**Generation of Nano-scale Transversally Polarized Multiple Focal Spot using Complex Phase Filter**” in **Third National conference on Multifunctional Nanomaterials and Nanocomposites (NCMNN-2013-Page.No-76)** held at Bharathiar University, Coimbatore on Feb 25-26, 2013.
- 24 K. Lalithambagai, C. Mohana Sundaram and **P. M. Anbarasan**, “**Generation of Multi Ring focus by Non-diffracting Transversally Polarized beam with Complex Phase Filter**” in the **National conference on Recent Advances in Photonics** (Proceedings of NCRAP-2013-Page.No-89) held at Meenakshi College for women, Chennai on Feb, 8-9th, 2013.
- 25 M. Geetha, S. Shanmugapriya, K. Suguna and **P. M. Anbarasan**, “**Reducing Charge Recombination in DSSC using Ni-Doped Titania Nanoparticles on FTO Substrate**”

International Conference on Biological Inorganic Chemistry, (ICBIC-2013) organized by Department of Chemistry, Periyar university, Salem – 11, during February, 20-23, 2013, pg.222.

- 26 K. M. Prabu, K. Suguna and **P. M. Anbarasan**, “**Comparative Analysis of Natural Sample and Synthesis of Silver Nanoparticles (NPs) using Medical Plant Strychnos Potatorium Seed**”, **International Conference on Biological Inorganic Chemistry**, (ICBIC-2013) organized by Department of Chemistry, Periyar university, Salem – 11, during February, 20-23, 2013, pg.269.
- 27 M. Geetha, S. Shanmugapriya, K. Suguna and **P. M. Anbarasan**, “**The Effects of Doped and Co-Doped TiO₂ Nanocrystalline Anode on the Performance of Dye-Sensitized Solar Cells**” **Second International Conference on Advances in Materials Processing and Characterization** (AMPC-2013) 6 - 8th Feb, 2013 - Organized by Department of Mechanical Engineering, College of Engineering, Guindy, Anna university, Chennai – 600 025, Page No- 1161
- 28 K. Suguna, M. Geetha, and **P. M. Anbarasan**, “**Effect of solvents in natural sensitizers on the performance of dye-sensitized solar cells**” **Second International Conference on Advances in Materials Processing and Characterization** (AMPC-2013) 6 – 8th Feb, 2013 - Organized by Department of Mechanical Engineering, College of Engineering, Guindy, Anna university, Chennai - 600 025, Page No-367
- 29 M. Geetha, S. Shanmugapriya, K. Suguna, **P. M. Anbarasan**, “**The Effects of Doped and Co-Doped TiO₂ Nanocrystalline Anode on the Performance of Dye-Sensitized Solar Cells**” **International Conference on Advances in Materials Processing and Characterization** (AMPC-2013), Anna University, to be held on 6-8 February 2013, Page No-368
- 30 K. M. Prabu, **P. M. Anbarasan**, J. Arumugam & M. Arunprasad, “**Phytochemical analysis of Caesalpinia Bonducella and Identification of Functional Compounds Using GC-MS**”, **National Conference on Recent Advances in Physics** 2012, Organised by Department of Physics, Sri Vidya Mandir Arts & Science College, Uthangarai, in Collaboration with Indian SpectroPhysics Association (ISPA), during 20-21, July, 2012, pg. 39.
- 31 K. M. Prabu, **P. M. Anbarasan**, S. Viswanathan & M. Priya, “**Green Synthesis and Characteristics of Silver Nanoparticle Using Medical Plant Caesalpinia Bonducella Leaf**”, **National Conference on Recent Advances in Physics** 2012, Organised by Department of Physics, Sri Vidya Mandir Arts & Science College, Uthangarai, in Collaboration with Indian SpectroPhysics Association (ISPA), during 20-21, July, 2012, pg. 43.
- 32 K. Suguna, M. Geetha, C. Indra Priyadharsini & **P. M. Anbarasan**, “**Preparation of Dye Sensitized Solar Cells Using Natural Dye with TiO₂ Nanoparticles**”, **National Conference on Recent Advances in Physics** 2012, Organised by Department of Physics,

Sri Vidya Mandir Arts & Science College, Uthangarai, in Collaboration with Indian SpectroPhysics Association (ISPA), during 20-21, July, 2012, pg. 69.

- 33 K. M. Prabu, **P. M. Anbarasan**, & R. Karthikeyan, “**Bio-Synthesis and Characterization of Medical Plant Caesalpinia Bonducella Seed**”, **National Conference on Recent Advances in Physics** 2012, Organised by Department of Physics, Sri Vidya Mandir Arts & Science College, Uthangarai, in Collaboration with Indian SpectroPhysics Association (ISPA), during 20-21, July, 2012, pg. 70.
- 34 K. M. Prabu, **P. M. Anbarasan**, S. Janarthana, N. V. Podhuma & R. Karthikeyan, “**Spectral Characterization of Medical Plant Caesalpinia Bonducella Seeds**”, **National Conference on Recent Advances in Physics** 2012, Organised by Department of Physics, Sri Vidya Mandir Arts & Science College, Uthangarai, in Collaboration with Indian SpectroPhysics Association (ISPA), during 20-21, July, 2012, pg. 78.
- 35 K. M. Prabu, **P. M. Anbarasan**, V. Gokul Kumar & A. Kaviyarasu, “**UV, FTIR, HPLC, TEM and EDX Spectral Characterization of Medical Plant Strychnos Potatorum**”, **National Conference on Recent Advances in Physics** 2012, Organised by Department of Physics, Sri Vidya Mandir Arts & Science College, Uthangarai, in Collaboration with Indian SpectroPhysics Association (ISPA), during 20-21, July, 2012, pg. 78.
- 36 K. M. Prabu, **P. M. Anbarasan**, “**Theoretical Study on Coupling between Laser Diode and Single Mode Fiber via Hemispherically Ended Graded Index**”, **National Conference on Recent Advances in Physics** 2012, Organised by Department of Physics, Sri Vidya Mandir Arts & Science College, Uthangarai, in Collaboration with Indian SpectroPhysics Association (ISPA), during 20-21, July, 2012, pg. 79.
- 37 K. M. Prabu, **P. M. Anbarasan**, K. Lakshmi Narayanan, “**Synthesis and Characterization of Nanopowder Abrus Pecatorius Seed**”, **National Conference on Recent Advances in Physics** 2012, Organised by Department of Physics, Sri Vidya Mandir Arts & Science College, Uthangarai, in Collaboration with Indian SpectroPhysics Association (ISPA), during 20-21, July, 2012, pg. 95.
- 38 M. Geetha, K. Suguna & **P. M. Anbarasan**, “**Photoanode Modification in a DSSC Using Chromium Doped TiO₂ Nanoparticles by Sol-Gel Method**”, **National Conference on Recent Advances in Physics** 2012, Organised by Department of Physics, Sri Vidya Mandir Arts & Science College, Uthangarai, in Collaboration with Indian SpectroPhysics Association (ISPA), during 20-21, July, 2012, pg. 98.
- 39 K. M. Prabu, **P. M. Anbarasan**, P. Saravani, “**UV, FTIR, XRD, SEM and EDX Spectral Characterizations of Medical Plant Casalpinia Bonducella Leaf**”, **National Conference on Recent Advances in Physics** 2012, Organised by Department of Physics, Sri Vidya Mandir Arts & Science College, Uthangarai, in Collaboration with Indian SpectroPhysics Association (ISPA), during 20-21, July, 2012, pg. 110.

- 40 K. Lalithambagai, R. C. Saraswathi, R. Chandraseker, K. B. Rajesh, & **P. M. Anbarasan**, “**Generation of Axially tunable sub wavelength focal hole and focal spot by tight focusing of phase modulated azimuthally polarized double ring shaped beam**” **National Conference on Nanomaterials** organized by Department of Physics, Mother Theresa University, Kodaikanal, Tamilnadu, during 21-23, February, 2012.
- 41 M. Geetha and **P. M. Anbarasan**, “**Contribution of Mg in TiO₂ Nanoparticles for Dye Sensitized Solar Cells**”, **International Conference on Recent Trends in Advanced Materials** (ICRAM-2012) organized by Vellore Institute of Technology University, Vellore, Tamilnadu, India, during 20-22, February, 2012, pg.176.
- 42 A. Prakasam and **P. M. Anbarasan**, “**Quantum Chemistry Calculations of 2-amino-5-nitrobenzonitrile for Nano-dye sensitizer solar cells**”, in the **National Conference on Advanced Nanomaterials** (ANM-2012) organized by Centre for Nanoscience and Nanotechnology, Periyar University, Salem during 6-7, February, 2012.
- 43 K. M. Prabu and **P. M. Anbarasan**, “**Synthesis and Characterization of Nano-Eclipta Prostrata Leaf Extraction for Medical Applications**” in the **National Conference on Advanced Nanomaterials** (ANM-2012) organized by Centre for Nanoscience and Nanotechnology, Periyar University, Salem during 6-7, February, 2012.
- 44 K. Suguna, M. Geetha, C. Indra Priyadharsini and **P. M. Anbarasan**, “**Absorption Spectra Analysis of Murraya Koenigii Dye for DSSC Applications**” in the **National Conference on Advanced Nanomaterials** (ANM-2012) organized by Centre for Nanoscience and Nanotechnology, Periyar University, Salem during 6-7, February, 2012.
- 45 M. Geetha, K. Suguna, S. Shanmugapriya and **P. M. Anbarasan**, “**Enhanced Energy Conversion Efficiency of Pristine and Al-doped TiO₂ Nanoparticles for DSSC Application**”, in the **National Conference on Advanced Nanomaterials** (ANM-2012) organized by Centre for Nanoscience and Nanotechnology, Periyar University, Salem during 6-7, February, 2012.
- 46 K. Lalithambigai, K. Prabakaran, V. Ravi, Z. Jaroszewicz, K. B. Rajesh, **P. M. Anbarasan** and T.V.S. Pillai, “**Generation of Nanoscale Focal Hole with Extended Depth of Focus for Trapping Array of Nanoparticles**” **Frontiers in Optics and Photonics (FOP11)** is thirty-sixth in the series of annual symposia of the Optical Society of India is being organized by the Indian Institute of Technology, Delhi, during 3-5, December, 2011, pg. 180-183.
- 47 K. M. Prabu and **P. M. Anbarasan**, “**Spectral Characterization of Opuntia**” in the **International Conference on Advanced Materials** (ICAM-2011) organized by Department of Physics, PSG College of Technology, Coimbatore-641004, during December, 12-16, 2011, pg.1-4.
- 48 S. Varathan, R. Govindan, M. Geetha and **P. M. Anbarasan**, “**Synthesis and magnetism in Mn-doped ZnO nanoparticles prepared by wet-chemical precipitation method**”

National Conference on Nanoscience and Nanotechnology (NCNN-2011) organized by **National Centre for Nanoscience and Nanotechnology**, University of madras, Chennai-600 025, held during 25-27, August, 2011, PP76, Page No.123.

- 49 V. Arun, R. Govindan, M. Geetha, **P. M. Anbarasan**, “**TiO₂ and Bi-TiO₂ nanomaterials: Structural and optical study**” **National Conference on Nanoscience and Nanotechnology** (NCNN-2011), organized by **National Centre for Nanoscience and Nanotechnology** University of madras, Chennai-600 025, held during 25-27, August, 2011, PP82, Page No.148.
- 50 R. Govindan, M. Geetha, **P. M. Anbarasan**, “**Thermal Stability, Electrical Conductivity of N, Y Codoped TiO₂ Nanoparticles Synthesized by Sol-Gel Route**” **National Conference on Nanoscience and Nanotechnology** (NCNN-2011) organized by **National Centre for Nanoscience and Nanotechnology**, University of madras, Chennai-600 025, held during 25-27, August, 2011, PP56, Page No.122.
- 51 K. Lalithambigai, K. Prabakaran, Z. Jaroszewicz, K. B. Rajesh, **P. M. Anbarasan** & T.V.S. Pillai, “**Generation of Nanoscale Sub Wavelength Super-Long Dark Channel Using High NA Lens Axicon**” **National Conference on Nanoscience and Nanotechnology** (NCNN-2011) organized by **National Centre for Nanoscience and Nanotechnology**, University of madras, Chennai-600 025, held during 25-27, August, 2011, PP34, Page No.100.
- 52 K. M. Prabu, **P. M. Anbarasan** and P. Indumathi, “**Spectral characterization on Betel Nut**” in the **National Conference on Recent Advances in Molecular Physics** organized Department of Physics, Queen Mary’s College, Chennai, in Association with Indian Spectrophysics Association (ISPA) held during 10th & 11th February, 2011, pg. P-23.
- 53 K. B. Rajesh, Zbigniew Jaroszewicz, **P. M. Anbarasan** and N. Veerabagu Suresh “**All - Optical Magnetic Recording using High NA Lens Axicon**” **Photonics 2010 ~ International Conference on Fiber Optics & Photonics** organized by Department of Physics, Indian Institute of Technology Guwahati, India, held during December 11-15, 2010, PSM-108
- 54 S. Mohan and **P. M. Anbarasan**, “**Mode Scrambler for Reducing Node Dependence in Multi-Mode Optical Wave-Guides**”, International Conference on Photonics, Nanotechnology and Computer Applications (**ICOPNAC-2009**), 25th – 28th February, 2009 Organized by Center For Research And Development, PRIST University, Thanjavour, Tamilnadu, India, during 25-28, February, 2009, Vol. II, page 117-118.
- 55 S. Mohan and **P. M. Anbarasan**, “**Bandwidth Modulations due to Harmonic Distortion in Single-Mode Optical Fibres**”, International Conference on Photonics, Nanotechnology and Computer Applications (**ICOPNAC-2009**), Organized by Center For Research And Development, PRIST University, Thanjavour, Tamilnadu, India, 25-28, February, 2009, Vol. II, page. 119-120.

- 56 **P. M. Anbarasan** et al., **National Seminar & Exhibition on Non-Destructive Evaluation**, NDE-2009, December, 10-12, 2009, organized by BHEL and NIT, Tiruchirappalli, India.
- 57 P. Senthilkumar, K. Vasudevan, M. Geetha and **P. M. Anbarasan***, “**Charge Transfer Interaction Study on Linear Organic Single Crystal Imidazole-Iodine Interface for Dye Solar Cells using DFT**” **Meghnad Saha Memorial Symposium on Emerging Trends in Laser & Spectroscopy and Applications** (MMSETLS-09) Organised by Department of Physics (U.G.C. Center of Advanced Study) University of Allahabad, Allahabad- 211 002, U.P, during March, 23-25, 2009.
- 58 P. Senthilkumar, K. Vasudevan, M. Geetha and **P. M. Anbarasan**, “**Interference Distribution of Optical Field Calculation for Multilayered Thin Film Solar Cells**” **Meghnad Saha Memorial Symposium on Emerging Trends in Laser & Spectroscopy and Applications** (MMSETLS-09) Organised by Department of Physics (U.G.C. Center Of Advanced Study) University of Allahabad, Allahabad- 211 002, U.P, during March, 23-25, 2009.
- 59 P. Senthilkumar, K. Vasudevan, M. Geetha and **P. M. Anbarasan**, “**Porosity Effects in the Design of Nanocrystalline Dye Sensitized Solar Cells using Constant and Variable overlap Methods**” **Meghnad Saha Memorial Symposium on Emerging Trends in Laser & Spectroscopy and Applications** (MMSETLS-09) Organised by Department of Physics (U.G.C. Center Of Advanced Study) University of Allahabad, Allahabad- 211 002, U.P, during March, 23-25, 2009.
- 60 P. Senthilkumar, K. Vasudevan, M. Geetha and **P. M. Anbarasan**, “**Stability Study on Different Electrolyte Compositions in Dye Solar Cells**” **Meghnad Saha Memorial Symposium on Emerging Trends in Laser & Spectroscopy and Applications** (MMSETLS-09) Organised by Department of Physics (U.G.C. Center Of Advanced Study) University of Allahabad, Allahabad- 211 002, U.P, during March, 23-25, 2009
- 61 K. B. Rajesh, V. Ravi and **P. M. Anbarasan**, “**Generation of Sub Wavelength and Longitudinal Polarized Non-Diffracting Beam by Tight Focusing of Double Ring Shaped Radially Polarized Beam Through High NA Lens Axicon**” **National Seminar on Photonic Materials** (NSPM-2009), Organised by Department of Optoelectronics, University of Kerela, Thiruvananthapuram, Kerela - 695 581, during February, 26-28, 2009.
- 62 K. B. Rajesh, V. Ravi and **P. M. Anbarasan**, “**Generation of Near Field Optical Virtual Probe using Solid Immersion Axicon (SIAX)**” **National Seminar on Photonic Materials** (NSPM-2009) Organised by Department of Optoelectronics, University of Kerela, Thiruvananthapuram, Kerala - 695 581, during February, 26-28, 2009.
- 63 **P. M. Anbarasan**, D. Deivasagayam and S. Moorthy Babu, “**Growth and Some Characteristics Studies on Nanocrystalline Silicon Thin Films for Solar Cells**”, **Joint ICTP-KFAS Workshop on Nanoscience for Solar Energy Conversion** 27 - 29 October 2008 (Miramare - Trieste, Italy), **The Abdus Salam International Centre for Theoretical Physics - Trieste, ITALY**.
- 64 **P. M. Anbarasan**, S. Manimegalai, M. Geetha, P. Senthilkumar and A. Prakasam, “**A Theoretical Comparative Study on Photo Energy Conversion Efficiency of Metal**

Free Organic Dye Sensitized Solid State Solar Cells”, Recent Advances in Metalloorganic Chemistry (RAMC-2008), Organised by Department of Periyar University, Salem, Tamilnadu, during October, 16-17, 2008.

- 65 **P. M. Anbarasan** and K. B. Rajesh, “**Nano Scale Resolution Enhancement using Uniform Intensity Axicon for Higher Density Optical Recording**” **IEEE International Nanoelectronics Conference 2008, 24-27 March 2008, Shanghai, China**, IEEE & INEC 2008: Paper ID: conf124a799.
- 66 **P. M. Anbarasan**, R. Rengaiyan, A. Kalyanasundaram and S. Selvandanan, “**An Effective Light Trapping Scheme for Silicon Solar Cell with Low Order Aberration and High Throughput Microlenses**” **International Conference on Solar Cells (SOLACE-IC,2008)** Organised by Department of Physics, CUSAT, Cochin, during 21-23, January, 2008
- 67 **P. M. Anbarasan** and K. B. Rajesh, “**High Density Optical Recording using Solid Immersion Axicon**” Organised by **Indian SpectroPhysics Association** (ISPA), Pachaiyappa’s College, Chennai – 600 030, held during 1 & 2, February, 2008.
- 68 **P. M. Anbarasan** and K. B. Rajesh, “**The Role of Evanescent Bessel Beam In High Density Optical Recording**” Organised by **Indian SpectroPhysics Association** (ISPA), Pachaiyappa’s College, Chennai – 600 030, held during 1 & 2, February, 2008.
- 69 **P. M. Anbarasan** and K. B. Rajesh, “**High Density Far Field Optical Recording using Symmetrical Cubic Phase Plate**” Organised by **Indian SpectroPhysics Association** (ISPA), Pachaiyappa’s College, Chennai – 600 030, held during 1 & 2, February, 2008
- 70 R. Rengaiyan, **P. M. Anbarasan**, A. Kalyanasundaram and S. Selvanandan, “**Field Angle Variation Study on Conic Interconnect Lens System for Higher Coupling Efficiency**” Organised by **Indian SpectroPhysics Association** (ISPA), Pachaiyappa’s College, Chennai – 600 030, held during 1 & 2, February, 2008
- 71 A. Kalyanasundaram **P. M. Anbarasan**, R. Rengaiyan and S. Selvanandan, “**Aberration Study on Interconnect Lens System Through Huygens Optical Transfer Function and Contour Wavefront Map**” Organised by **Indian SpectroPhysics Association** (ISPA), Pachaiyappa’s College, Chennai – 600 030, held during 1 & 2, February, 2008
- 72 M. K. Subramanian, **P. M. Anbarasan**, “**FT-IR, NIR-FT-Raman and gas phase infrared Spectra of 3-aminoacetophenone by Density Functional Theory and ab initio Hartree-Fock calculations**” **UGC sponsored National Seminar on Recent Advances in Material Science**” organized by Dept. of Physics, Sri Saradha College for Women (Autonomous), Salem, Tamilnadu, on 10.1.2008
- 73 A. Kalyanasundaram and **P. M. Anbarasan**, “**Power Coupling Efficiency Enhancement in Multi-Mode Step-Index Fiber using Refractive and Diffractive Microlenses**”. pg. 29, in the **National Conference on Recent Trends in Optoelectronics and Laser Technology** (NCOL- 2007), organized by Department of Optoelectronics, University of Kerala, April, 9 – 11, 2007
- 74 P. Senthil Kumar, S. Manimegalai and **P. M. Anbarasan**, “**Effective Light Trapping Scheme for Silicon Solar Cell with Texture Structures Using Tracing Method**”

pg.37, in the **National Conference on Recent Trends in Optoelectronics and Laser Technology** (NCOL- 2007), organized by Department of Optoelectronics, University of Kerala, April, 9 – 11, 2007

- 75 V. Bernard Raja and **P. M. Anbarasan**, “**Photoelectric Transducer Based Automobile Speed Control Device**” pg.41, in the **National Conference on Recent Trends in Optoelectronics and Laser Technology** (NCOL- 2007), organized by Department of Optoelectronics, University of Kerala, April, 9 – 11, 2007
- 76 R. Rengaiyan and **P. M. Anbarasan**, “**A New and Simple Approach to Tolerance Analysis of Null Lens Using Zemax®**” pg.74, in the **National Conference on Recent Trends in Optoelectronics and Laser Technology** (NCOL- 2007), organized by Department of Optoelectronics, University of Kerala, April, 9 – 11, 2007
- 77 S. Selvanandan and **P. M. Anbarasan**, “**Design, Optical Study and Geometric Modulation Transfer Function Computation for Aplanatic Lens**” pg.79, in the **National Conference on Recent Trends in Optoelectronics and Laser Technology** (NCOL- 2007), organized by Department of Optoelectronics, University of Kerala, April, 9 – 11, 2007
- 78 K. B. Rajesh, **P. M. Anbarasan** and V. Ravi, “**Lens Axicons Illuminated by Gaussian Beams for Optical Microlithography**” pg.84, in the **National Conference on Recent Trends in Optoelectronics and Laser Technology** (NCOL- 2007), organized by Department of Optoelectronics, University of Kerala, April, 9 – 11, 2007
- 79 K. B. Rajesh and **P. M. Anbarasan**, “**Bessel Beam Using Annular Rings for Optical Microlithography**” pg.85, in the **National Conference on Recent Trends in Optoelectronics and Laser Technology** (NCOL- 2007), organized by Department of Optoelectronics, University of Kerala, April, 9 – 11, 2007
- 80 **P. M. Anbarasan**, K. Vasudevan, K. B. Rajesh, S. Selvanandan, A. Kalyanasundaram, & R. Rengaiyan “**A Light Trapping Scheme of Microlens to Silicon Solar Cells**”, pg.83 in the **International Conference On XXXII OSI Symposiums** – held at MS University of Baroda –Gujarat during 1-3 Mar. 2007
- 81 K. B. Rajesh and **P. M. Anbarasan**, “**Bessel Beam Analysis Using Annular Rings for Optical Microlithography**” pg. 183-184, in the **International Conference On XXXII OSI Symposiums** – held at MS University of Baroda –Gujarat during 1-3 Mar. 2007
- 82 **P. M. Anbarasan**, S. Selvanandan, K. B. Rajesh, A. Kalyanasundaram and R. Rengaiyan “**Microlenses Focused Beam on Silicon Solar Cells for High Efficient Light Trapping Scheme**” in the **International conference on Photonics - 2006** held at Hyderabad Central University during 13-16 Dec. 2006.
- 83 **P. M. Anbarasan**, S. Selvanandan and K. B. Rajesh, “**A Novel Study on Power Coupling Efficiency Enhancement in Multi-Mode Step-Index Fiber using Refractive and Diffractive Microlenses**”, in the **International conference on Photonics - 2006** held at Hyderabad Central University during 13-16 Dec. 2006.
- 84 **P. M. Anbarasan**, K. B. Rajesh, V. Ravi and K. Vasudevan “**Modeling of PMMA Microlenses Fabricated by Hot Embossing Process using Contact Stress Analysis**” in

the **International Conference on Photonics** - 2006 held at Hyderabad Central University during 13-16 Dec. 2006.

- 85 **P. M. Anbarasan**, K. B. Rajesh and K. Vasudevan “**An Analysis of Hot Embossed Microlens for the Effective Coupling of Single Mode Fiber**” in **International Conference on Materials for Advanced Technologies ICMAT - 2007**- held at Nanyang Technological University, Singapore during 1-6 July 2007
- 86 **P. M. Anbarasan** and K. Vasudevan, “**Light Trapping Scheme for Micromachined Silicon Solar Cells using High Throughput Microlenses**” in **International Conference On Materials for Advanced Technologies ICMAT- 2007**, held at Nanyang Technological University, Singapore during 1-6 July 2007
- 87 S. Selvanandan and **P. M. Anbarasan**, “**Design, Optical Study and Geometric MTF Computation for Aplanatic Lens using ZEMAX**” in **International Conference On Materials for Advanced Technologies ICMAT-2007**, held at Nanyang Technological University, Singapore during 1-6 July 2007
- 88 P. Kumaresan, S. Moorthy Babu and **P. M. Anbarasan**, ‘**Effect of Irradiation of Swift Heavy Ions on Dyes Doped KDP Crystals for Laser Applications**’, **International Conference on Crystal Growth - 15, 12 – 17, August, 2007**, Salt Lake City, Utah, USA.
- 89 **P. M. Anbarasan**, S. Selvanandan, K. B. Rajesh, A. Kalyanasundaram and R. Rengaiyan “**Microlenses Focused Beam on Silicon Solar Cells for High Efficient Light Trapping Scheme**” in the **International Conference on Photonics-2006** held at Hyderabad Central University during 13-16 Dec. 2006.
- 90 **P. M. Anbarasan**, S. Selvanandan and K. B. Rajesh “**A Novel Study on Power Coupling Efficiency Enhancement in Multi-Mode Step-Index Fiber using Refractive and Diffractive Microlenses**”, in the **International Conference on Photonics-2006** held at Hyderabad Central University during 13-16 Dec. 2006.
- 91 **P. M. Anbarasan**, K. B. Rajesh, V. Ravi and K. Vasudevan “**Modeling Of PMMA Microlenses Fabricated by Hot Embossing Process Using Contact Stress Analysis**” in the **International Conference on Photonics-2006** held at Hyderabad Central University during 13-16 Dec. 2006.
- 92 S. Selvanandan, **P. M. Anbarasan**, A. Kalyanasundaram, R. Rengaiyan “**An Investigation on The Focal Performance of Cylindrical Microlenses in Dielectric Incident Space**”, pg. 61, in the **National Conference on Recent Advances in Materials Science** (NCMS-2006) held at Periyar University during Feb-16-17, 2006.
- 93 K. B. Rajesh, **P. M. Anbarasan**, V. Ravi and K. Vasudevan “**Experimental and Theoretical Investigation on the Effect of Various Parameters on the Surface Morphology of the Microlenses under Hot Embossing Process**”, pg. 62, in the **National Conference on Recent Advances in Materials Science** (NCMS-2006) held at Periyar University during Feb-16-17, 2006
- 94 **P. M. Anbarasan** and N. Shakthivel, “**Theoretical Study on Tunable Fresnel Lens Using Polymer Disperse Liquid Crystal**”, pg 153, in the **National Conference on**

Recent Advances in Materials Science (NCMS-2006) held at Periyar University during Feb-16-17, 2006

- 95 **P. M. Anbarasan**, K. Subramani, K. B. Rajesh and S. Mohan “**A Comparative and IR Study of Single and Doped Crystal Of KDP and KAP**”, pg. 154, in the **National Conference on Recent Advances in Materials Science** (NCMS-2006) held at Periyar University during Feb-16-17, 2006,
- 96 K. B. Rajesh and **P. M. Anbarasan** “**Physical Modeling of Microlenses using Free Volume Theory by The Modified LIGA Process**”, pg. 155, in the **National conference on Recent Advances in Materials Science** (NCMS-2006) held at Periyar University during Feb-16-17, 2006
- 97 V. Ravi, K. Vasudevan, K. B. Rajesh and **P. M. Anbarasan** “**Theoretical Study on Optical Performance of Fast Imaging Microlenses Using Ray- Tracing Method**”, pg.175, in the **National Conference on Recent Advances in Materials Science** (NCMS-2006) held at Periyar University during Feb-16-17, 2006
- 98 K. Vasudevan, V. Ravi, K. B. Rajesh and **P. M. Anbarasan** “**Light Trapping Scheme of Microlens Array Focused Beam on Micro Machined Thin Crystalline Silicon Solar Cells**”, pg. 156, in the **National Conference on Recent Advances in Materials Science** (NCMS-2006) held at Periyar University during Feb-16-17, 2006
- 99 R. Rengaiyan, **P. M. Anbarasan**, A. Kalyanasundaram and S. Selvanandan, “**Tapered Microlenses-Ended Fibre for Medical Applications Using Laser-To-Fibre Coupling Theory**”, pg. 66, in the **National Conference on Recent Advances in Materials Science** (NCMS-2006) held at Periyar University during Feb-16-17, 2006
- 100 B. Shanmugavelu and **P. M. Anbarasan**, “**A Novel Study on Electrically Variable Focal Length Microlens,**” pg. 134, in the **National Conference on Recent Advances in Materials Science** (NCMS-2006) held at Periyar University during Feb-16-17, 2006
- 101 P. Kumaresan, S. Moorthy Babu and **P. M. Anbarasan**, “**Optical Properties in Dyes Doped KAP Single Crystals**” in the **International Conference on Crystal Growth**”, 10-15 February 2006, Crystal Growth Centre, Anna University, Chennai, India.
- 102 P. Kumaresan, S. Moorthy Babu and **P. M. Anbarasan**, “**Growth and Characterization of Dyes Doped KAP Crystals**’ in the **Workshop on Crystal Growth Methods**, 8-9 August 2006, SSN Engineering College, Chennai, India.
- 103 P. Kumaresan, S. Moorthy Babu and **P. M. Anbarasan**, “**Effect of Metal Ion and Amino Acid Doping on the Optical Performance of KDP Single Crystals**’, **Romanian Conference on Advanced Materials (ROCAM 2006)**, September 11-14 2006, Bucharest, Romania.
- 104 P. Kumaresan, S. Moorthy Babu and P. M. Anbarasan, “**Optical Properties in Dyes Doped KDP Single Crystals**’, **Sixth DAE-BRNS National Laser symposium (NLS-6)**, 5-8, December 2006, organized by Raja Ramanna Centre for Advanced Technology (RRCAT), Indore, India.

- 105 P. Kumaresan, S. Moorthy Babu and **P. M. Anbarasan** “**Growth and Characterization of Dyes Doped KDP Crystals**”, **National Seminar on Crystal Growth**, 07-11 December 2006, SSN Engineering College, Kelampakkam, Chennai, India.
- 106 **P. M. Anbarasan**, E. James Jebaseelan Samuel and S. Mohan. “**A Novel Study on Coupling Property of Low Aberration with High Throughput Microlens**” **Fifth DAE-BRNS National Laser Symposium (NLS-5)**, December 7-10, 2005 at Vellore Institute of Technology, Vellore, Proceedings of the NLS-2005, Page No.52, 2005.
- 107 D. K. Gupta, G. Meenakshi, C. Thangaduraichy and **P. M. Anbarasan**, “**Molecular Interaction Analysis of Polar Liquids in Non-Polar Solvent Treated with Microwave Frequency**”, **International Conference on Spectrophysics** at Post Graduate & Research Department of Physics, Pachaiyappa’s College, Chennai – 30, (INCONS – 2005) Organised by Indian Spectrophysics Association, during 09 – 12 of February 2005
- 108 P. Kumaresan, S. Moorthy Babu and **P. M. Anbarasan**, “**Performance of Metal Thiourea Complex Doped on KDP Single Crystal**”, **34th National Seminar on Crystallography**, 10-12 January 2005, Gauhati University, Gauhati, India.
- 109 P. Kumaresan, S. Moorthy Babu and **P. M. Anbarasan**, “**Effect of Amino Acids on KDP Single Crystals**”, **DAE-BRNS 4th National Laser Symposium (NLS-4)**, Bhabha Atomic Research Centre (BARC), 10-13 January 2005, Mumbai, India. ISBN: 8177647342 9788177647341, ICLC No. 60971111
- 110 P. Kumaresan, S. Moorthy Babu and **P. M. Anbarasan**, “**Metal Ions Doped KDP Single Crystals**”, **Crystal Growth Conference** 27-29, January 2005, Kongu Engineering College, Perudurai Erode, Tamil Nadu, India.
- 111 P. Kumaresan, S. Moorthy Babu and **P. M. Anbarasan**, “**Optical Properties of Amino Acid Doped KDP Crystals**”, **National Symposium on Crystal Growth and Characterization**, 29-30 September 2005, Department of Physics, Loyola College, Chennai, India.
- 112 P. Kumaresan, S. Moorthy Babu and **P. M. Anbarasan**, “**Optical Performance and Dyes Doped KDP Crystal**”, **3rd Asian Conference on Crystal Growth and Crystal Technology (ACGCT-3)**. Oct. 16-19, 2005, Beijing China
- 113 P. Kumaresan, S. Moorthy Babu and **P. M. Anbarasan**, “**Effect of Dyes Doped KDP Single Crystals**”, **Fifth-DAE NLS-5**, 07-10 December 2005, Vellore Institute of Technology, Vellore, Tamil Nadu, India.
- 114 **P. M. Anbarasan**, G. Meenakshi, G. Bhaskara Raju, K. Subramani and D. K. Gupta, “**Investigation on the Growth Kinetics for Preparing Low Aberration Microlens Using Electro-Epitaxy Technique**”, **National Symposium on Ferro Electrics and Ceramics**, Organised by Department of Physics, Meerut College, during April 08, 2004.
- 115 S. Moorthy Babu, **P. M. Anbarasan**, P. Kumaresan and P. Ramasamy, “**Role of Doped Metal Ion in KDP Single Crystal**”, **International Conference on Crystal Growth (ICCG-2004)**, Grenoble, France, held on 11th – 15th August 2004.

- 116 S. Moorthy Babu, **P. M. Anbarasan**, Geetha Chandrasekaran and P. Ramasamy “**Role of Doped Metal Ion in KAP Single Crystal**”, **International Conference on Crystal Growth (ICCG-2004), Grenoble, France, held on 11th – 15th August 2004.**
- 117 **P. M. Anbarasan**, G. Meenakshi and D. K. Gupta, “**Investigation on the Growth Kinetics for Preparing High Throughput Microlenses using Electro-Epitaxy Technique**”, **UGC Sponsored National Seminar on Modern Trends in Applied Spectroscopy** (NASMTAS – 2004), Organised by Physics section, Faculty of Engineering and Technology, Annamalai University, Chidambaram, during 25th and 26th of March 2004.
- 118 D. K. Gupta, V. Varalakshmi, G. Meenakshi and **P. M. Anbarasan**, “**Dielectric Relaxation Mechanism of Some Polar Molecules in Benzene**”, **National Symposium on Ferro Electrics and Ceramics**, Organised by Department of Physics, Meerut College, during April 08, 2004.
- 119 **P. M. Anbarasan**, K. Subramani and G. Meenakshi, “**A Comparative IR Study on Single and Doped Crystals of KDP And KAP**”, **National Conference on Perspectives in Engineering Optics and Spectroscopy**, Organised by Department of Physics, CCS University, Meerut, during April 05 – 07, 2004.
- 120 D. K. Gupta, G. Meenakshi and **P. M. Anbarasan**, “**Behaviour of Polar Liquids in Different Solvents at Microwave Frequency**”, **National Conference on Perspectives In Engineering Optics And Spectroscopy**, Organised by Department of Physics, CCS University, Meerut, during April 05 – 07, 2004.
- 121 P. Kumaresan, S. Moorthy Babu and **P. M. Anbarasan**, “**Participated in International Workshop on Crystal Growth and Characterization of Technological Important Materials**”, February 24-28, 2004, Crystal Growth Centre, Anna University, Chennai, India.
- 122 P. Kumaresan, S. Moorthy Babu and **P. M. Anbarasan**, “**Effect of Amino Acids and Metal Ions Doped KDP Single Crystals**”, **ICCG-14, 9-13 August 2004, Alpes Congress, Grenoble, France.**
- 123 P. Kumaresan, S. Moorthy Babu and **P. M. Anbarasan**, “**Participated in Indo-Japan Workshop on Crystal Growth and Applications of Advanced Materials for Optoelectronics**”, December 7-10, 2004, Crystal Growth Centre, Anna University, Chennai, India.
- 124 P. Kumaresan, S. Moorthy Babu and **P. M. Anbarasan**, “**Non-Linear Optical Materials-KDP**”, **DAE-BRNS National Laser symposium**, 14-16 November, 2002, Collaboration with University of Kerala, Tiruvananthapuram, organized by Shri Chitra Tirunal Institute for Medical Sciences & Technology, Tiruvananthapuram, India.
- 125 P. Kumaresan, S. Moorthy Babu and **P. M. Anbarasan**, “**Quantum Size Effect Lasers**”, **DAE-BRNS National Laser symposium**, 14-16 November, 2002, Collaboration with University of Kerala, Tiruvananthapuram, organized by Shri Chitra Tirunal Institute for Medical Sciences & Technology, Tiruvananthapuram, India, pg.448.
- 126 P. Kumaresan, S. Moorthy Babu and **P. M. Anbarasan**, “**Epitaxial Growth of II-VI Compounds**”, **DAE-BRNS National Laser symposium**, 14-16 November, 2002,

Collaboration with University of Kerala, Tiruvananthapuram, organized by Shri Chitra Tirunal Institute for Medical Sciences & Technology, Tiruvananthapuram, India, pg. 449.

- 127 **P. M. Anbarasan**, B. Karthikeyan and S. Mohan, “**Theoretical Analysis of Line Width Enhancement Factor of 1.5 μm BIG-DBR-DSM (Bundle-Integrated-Guide Distributed-Bragg-Reflector-Dynamic-Single-Mode) Laser**” **Australasian Conference on Optics and Laser Spectroscopy**, during 3-6, December 2001, Organised by University of Queen Land, Brisbane, Queen Land, Australia, ACOLS-2001.
- 128 **P. M. Anbarasan**, B. Karthikeyan, E. James Jebaseelan and S. Mohan, “**Theoretical Analysis of High Speed Heterojunction npn Transistor using Electron - Wave Diffraction**” **International Conference on Materials for Advanced Technologies, Symposium N: Materials for Optoelectronics and High frequency Electronics Applications**, held 1-6 July 2001, organized by the **Materials Research Society of Singapore, National University of Singapore, Singapore**. Proceedings published in a special issue of Materials Science in Semiconductor Processing (*Elsevier Publication*), ICMAT-2001, Page 433, N, 2001.
- 129 **P. M. Anbarasan**, B. Karthikeyan, K. S. P. Durairaj and S. Mohan, “**Estimation of Permissible Optical Input Power in a Semiconductor Optical Switch/Modulator using Electric Field Induced Refractive Index Variation**”, **International Conference on Materials for Advanced Technologies, Symposium N: Materials for Optoelectronics and High frequency Electronics Applications**, held 1-6 July 2001, organized by the **Materials Research Society of Singapore, National University of Singapore, Singapore**. Proceedings published in a special issue of Materials Science in Semiconductor Processing (*Elsevier Publication*), ICMAT-2001, Page 483, N, 2001.
- 130 **P. M. Anbarasan**, B. Karthikeyan and S. Mohan, “**Estimation of Transfer Function of Mode Coupled Graded – Index Multimode Optical Fibres by Algebraic Methods**” **National Symposium on Photonics and Spectroscopy**, 14-16, March, 2001, Raman School of Physics, Pondicherry University, Pondicherry. Proceedings of NSPS-2001, Page 38, 2001.
- 131 B. Karthikeyan, **P. M. Anbarasan** and S. Mohan, “**A Novel Study on Propagation Properties of the Cylindrical Fibre with Short Coupling Time and Accuracy by Matrix Method**” **National Symposium on Photonics and Spectroscopy**, 14-16, March, 2001, Raman School of Physics, Pondicherry University, Pondicherry. Proceedings of NSPS-2001, Page 40, 2001.
- 132 B. Karthikeyan, **P. M. Anbarasan** and S. Mohan, “**Wave Analysis of Broadband Multimode Optical Fibres with Optimum Refractive Index Distribution by Perturbation Method**” **National Symposium on Photonics and Spectroscopy**, 14-16, March, 2001, Raman School of Physics, Pondicherry University, Pondicherry. Proceedings of NSPS-2001, Page 42, 2001.
- 133 **P. M. Anbarasan** and S. Mohan, “**Theoretical Analysis of Electric-Field-Induced-Refractive Index change in InGaAsP/InP MQW structure using Density Matrix Theory**”, **International Conference on “Lasers and Their Applications” (INCOLA -**

2000), March 1-4, 2000, St. Joseph's College, Trichy. Proceedings of INCOLA - 2000, Page No. 108, P-22, 2000.

- 134 **P. M. Anbarasan** and S. Mohan, “**Theoretical Analysis of Possibility of Subpicosecond Response of Electron Devices using Metal-Insulator Heterostructure**”, **National Conference on Recent Advances in Material Science**, Sep. 29-30, 2000, P.G. Dept. of Applied Physics, Nehru Memorial College, Puthanampatti, Trichy, NCMS-2000, Page 56, 2000.
- 135 **P. M. Anbarasan**, K. Sonamuthu and S. Mohan, “**Raman Scattering Studies on $\text{Bi}_2\text{Sr}_2\text{CaCu}_2\text{O}_8$** ” **II National Conference on Spectro-Physics**, 9-11, Aug. 2000, ISPA and Pachaiyappa's College, Chennai. Proceedings of NCONS - 2000, Page 341 - 351, 2000.
- 136 P. Nallasamy, **P. M. Anbarasan** and S. Mohan, “**Vibrational Spectra and Assignment of Cis- and Trans-1, 4-Polybutadiene**”, **3th Mediterranean Basin Conference on Analytical Chemistry (MBCAC-III)**, Antalya, Turkey – June 4-9, 2000
- 137 **P. M. Anbarasan**, N. Puviarasan and S. Mohan, “**FTR and FTIR study of 5 - Aminoindole and 1 - Aminoindane**”, **International Conference on “Lasers and their Applications”** (INCOLA - 2000), March 1-4, 2000, St. Joseph's College, Trichy. Proceedings of INCOLA - 2000, Page No. 128, P-33, 2000.
- 138 **P. M. Anbarasan**, S. Periandy and S. Mohan, “**Theoretical Aspects of Surface Emitting Room Temperature Injection Laser**” **8th National Laser Symposium** organised under **National Laser Programme of Department of Atomic Energy** at School of Physics, University of Hyderabad, Hyderabad, December 15-17, 1999. Proceedings of the NLS '99, Page No. 253, LSC – 3, 1999.
- 139 **P. M. Anbarasan**, N. Puviarasan and S. Mohan, “**Spontaneous Emission Factor of Injection Lasers**” **8th National Laser Symposium** organised under National Laser Programme of Department of Atomic Energy at School of Physics, University of Hyderabad, Hyderabad, December 15-17, 1999. Proceedings of the NLS '99, Page No. 251, LSC – 2, 1999.
- 140 **P. M. Anbarasan**, V. Arjunan and S. Mohan, “**Modulation Limit of Semiconductor Lasers by some Parametric Modulation Schemes**”, **8th National Laser Symposium organised under National Laser Programme of Department of Atomic Energy** at School of Physics, University of Hyderabad, Hyderabad, December 15-17, 1999. Proceedings of the NLS '99, Page No. 249, LSC – 1, 1999.
- 141 **P. M. Anbarasan**, S. Mohan, “**2-D arrayed Distributed-Index Planar Microlens**” **ICLMD '99 International Conference on Laser Materials and Devices** - December 8-10, 1999 at Defence Science Centre, Delhi. Proceedings of the ICMLD '99, Page No. 437-445, 1999, *Allied Publishers Limited*, Delhi.
- 142 N. Puviarasan, **P. M. Anbarasan**, P. Saravanan and S. Mohan, “**FTIR and FTR Spectral Investigation on 4 - Aminoquinoline and 5 - Aminoquinoline**” **One day Seminar on Recent Trends in Chemical Physics**, 17, April - 1999, Department of Physics, Annamalai University, Chidambaram, Abstract, P-1, 1999.

III. Seminars/Talk/Presentation etc. Delivered at other Institutions on Invitation:

1. **Invited Talk:** Delivered a talk on the topic “**Spectroscopic, Microscopic & nanoscopic Characterization of Materials**” in the **One Day State Level Seminar on Recent Advanced Spectroscopy Methods in Research (RASMR-2014)** organized by the PG & Research Department of Physics, Mahendra Arts & Science College, Kalippatti, Namakkal – 637 501 on 10.10.2014.
2. **Institutional Seminar:** Delivered a special lecture on the topic “**Interaction of Laser with Nanomaterials**” organized by the Department of Physics, Muthayammal Memorial College of Arts & Science College, Kakkaveri (Post), Rasipuram, Namakkal (Dt.) Tamilnadu, during **Physics Association Inauguration function & Guest Lecture Programme** on 11.09.2014.
3. **Key Note Address &** Delivered a Special Lecture on the topic “**Ti-Sa Laser & Its Applications**” in the **State Level Seminar on Laser & Spectroscopy (SLSLS-2014)** organized by the Department of Physics, Morappur Kongu College of Arts & Science, Morappur – 635 305 in collaboration with **Indian SpectroPhysics Association (ISPA)** on 28.08.2014.
4. **Inaugural Address:** Delivered as a Chief Guest in the “**Workshop on Optics**” sponsored by **Tamil Nadu State Council for Science and Technology (TNSCST)** organized by Department of Physics, Chikkanna Government Arts & Science College, Tiruppur, Tamilnadu – 641 602 on 13.08.2014.
5. **Invited Talk:** Delivered a Special Lecture on the topic “**Ti-Sa Laser System for Laser-Matter-Interactions at Extreme Irradiance**” in the **National Conference on Advanced Materials (NCAM-2014)** organized by the PG & Research Department of Physics, Sri Vidya Mandir Arts & Science College, Uthangarai – 636 902 in collaboration with **Indian SpectroPhysics Association (ISPA)** on 18.07.2014.
6. **Invited Talk:** Delivered a Special Lecture on the topic “**Role of Nano-Optics in Efficient Solar Cells**” **UGC Sponsored Programme** organized by the Department of Physics, Kanchi Mamunivar Centre for P.G & Research Studies (Govt, of Puducherry), Airport Road, Lawspet, Puducherry - 605 008 on 24-03-2014
7. **Institutional Seminar:** Delivered a special lecture on the topic “**Nano-Materials for Photonic Applications**” a seminar organized by the Department of Physics, Periyar University, Salem -636 011, Tamilnadu on 19.03.2014
8. **Key Note Address &** delivered on the topic “**Applications of theoretical and simulation methods in Solar cell & Nanotechnology applications in Solar Cell**” in the one day **National Level Seminar on Nanomaterials in Solar Cell Applications**

organized by the Department of Physics, Velalar College of Engineering and Technology, Erode – 638 012, Tamilnadu, held on 14.03.2014.

9. **Key Note Address** & Delivered a talk on the topic “**Recent Developments in Materials Science**” in the **National Level Seminar on Advances in Materials Science** organized by the Department of Physics, ERK of Arts and Science College for Women, Erumiyampatti, Kokkarapatti - 636 905, Dharmapuri District, Tamilnadu held on 22.02.2014.
10. **Invited Talk:** Delivered a Special Lecture on the topic “**Research & Method - How to Write a Research Paper**” for Science Faculty Members at A.V.S Arts and Science College, Salem-636 106, Tamilnadu on 29-10-2013
11. **Institutional Seminar:** Delivered a special lecture on the topic “**Physics and its Applications in day-to-day Life**” organized by the Department of Physics, Kandasamy Kandar College, Paramatti Velur, Namakkal (Dist.), Tamilnadu on 04.09.2013.
12. **Invited Talk:** Delivered a special Lecture on the topic “**Comparison Performance of Silicon and Dye Sensitized Solar Cells**” in the **International Conference on Recent Advances in Physics (ICRAP-2013)** collaboration with **Indian SpectroPhysics Association (ISPA)** organized by the Department of Physics, Sri Vidya Mandir Arts & Science College, Uthangarai – 636 902 on 13.08.2013.
13. **Institutional Seminar:** Delivered a key note address & special lecture on “**Renewable Energy Resources - SOLAR CELLS**” held on 28-02-2013, at the **One day Seminar on Renewable Energy Resources and Celebration of National Science Day** organized by Department of Physics, Pachamuthu College of Arts & Science for Women, Erode, Dharmapuri, Tamilnadu.
14. **Institutional Seminar:** Delivered a Special lecture on “**Renewable Energy Resources - SOLAR CELLS**” held on 14-02-2013, at the **Inauguration of Function of One Day Special Lecture** organized by Department of Physics, Vellalar College of Arts & Science for Women, Erode, Tamilnadu.
15. **Institutional Seminar:** Delivered a Special lecture on “**Recent Trends in Harnessing of Renewable Energy Resources - SOLAR CELLS**” held on 14-09-2012, at the inauguration of function of **One day State level Seminar on Recent Trends in Harnessing of Renewable Energy Resources** organized by Department of Physics, Gonzaga College of Arts & Science for Women, Elathagiri, Krishnagiri, sponsored by TNSCST & NCSTC, Tamilnadu.
16. **Invited Talk:** Delivered a Special lecture on “**Production of High Power TeraWatt Ti-Sa Laser by OPCPA Method and its Applications**” at **Tamil Science Conference organised by Sudhesi Tamil Movement, Karaikudi & Periyar University**, Salem, during 23-25, August, 2012.

17. **Institutional Seminar:** Delivered a lecture on “**Light at Extreme Intensities**” held on 18-08-2012, at the **Inauguration Function of Physics Association** organized by Department of Physics, Karpagam University, Coimbatore, Tamilnadu.
18. **Institutional Seminar:** Delivered a lecture on “**Role of Physics in Engineering**” held on 26-03-2012, at the **Inauguration of function of Science and Humanities Association** organized by Department of Physics, Ganesh College of Engineering, Salem, Tamilnadu.
19. **Invited Talk:** Delivered a lecture on “**Nano optics for Advanced Optical Storage**” held on 14-03-2012, at the **Workshop on Functional Materials** (WFM-2012) organized by Department of Physics, Periyar University, Salem-11, Tamilnadu.
20. **ASPIRE programme for (+1) H. Sc. Student:** Delivered a lecture on “**Physics - Nano-Optics**” held on 10-02-2011, at the **Jayam College of Engineering**, Dharmapuri, Tamilnadu, organized by Department of Science and Technology, Govt. of India.
21. **Institutional Seminar:** Delivered a lecture on “**Nano-optics: Materials, Designs & Applications**” held on 22-12-2011, at the **Inauguration of Function of Physics Association** organized by Department of Physics, KSR College of Arts and Science, Tiruchengode, Tamilnadu.
22. **Institutional Seminar:** Delivered a lecture on “**Nano-optics: Materials, Designs & Applications**” held on 1-10-2011, **One day Seminar Organized by the Einstein Society of Physics** organized by the Department of Physics, ERK of Arts and Science College for Women, Erumianpatti, Kokkarapatti - 636 905, Dharmapuri District, Tamilnadu.
23. **Institutional Seminar:** Delivered a lecture on “**Nano-optics: Materials, Designs & Applications**” held on 12-8-2011, **One Day State Level Seminar on Recent Developments in Advanced Materials and Its Applications**, organized by the Department of Physics, Mahendra Engineering College, Namakkal, Tamilnadu.
24. **Resource person - Refresher course in Physics** – delivered lecture on “**Emerging Trends in Nano-Optics and Modern Spectroscopy**” UGC-Academic Staff College, Bharathiar University, Coimbatore, on 17-06-2011.
25. **Invited Talk:** Delivered a lecture on “**Spectral and morphological studies of nanocrystalline Silicon thin films synthesized by PECVD method for solar cells**” held on 30-01-2010 organised by the Department of Physics and Electronics, K.S.R. College of Arts and Science, Thiruchengodu, Namakkal, Tamilnadu.
26. **Invited Talk:** Delivered a lecture on “**Light at Extreme Intensities – TeWaTi Laser**” held on 27-01-2010, **Workshop on Recent Trends in Physics and Electronics**, Organised by the Department of Physics and Electronics, Salem Sowdeswari College, Salem, Tamilnadu.

27. **Institutional Seminar:** Delivered a lecture on “**Emerging Trends in Nano-Optics and Modern Spectroscopy**”, held on 8.10.2009, during 14-15 hours in Fröhlich room, Department of Optics and Quantum Electronics, University of Szeged, HUNGARY.
28. **Institutional Seminar:** Delivered a lecture on “**Academic Education in India**”, held on 08.10.2009, during 12-14 hours in Fröhlich room, Department of Optics and Quantum Electronics, University of Szeged, HUNGARY.
29. **Invited Talk:** delivered a lecture on “**Generation of Needle of Longitudinal Polarized Non Diffracting Beam using High NA Lens Axicon**” International Conference LEI-2009, Light at Extreme Intensities, Scientific opportunities and technological issues of the Extreme Light Infrastructure, 16-21. October, 2009, Brasov, ROMANIA.
30. **Invited talk:** Delivered a lecture on “**Emerging Trends in Nanooptics and Modern Spectroscopy spotlighting Light Trapping Scheme of Microlenses for Solar Cells**” in the **National Seminar on Modern Optics and Spectroscopy**, held on August 13-14, 2008, Organized by Department of Physics, All Saints’ College, Trivandrum.'
31. **Invited Talk:** Delivered a lecture on “**Some Characteristics Study on Nanostructured Thin Silicon Films for Solar Cells**” in the **National Conference on Emerging Trends in Engineering and Technology spotlighting Nanomaterials, Nanotechnology & Embedded Systems** on 24th & 25th April, 2008 organised by Channabasaveshwara Institute of Technology, Tumkur, Karnataka.
32. **Key Note Address &** Delivered on the topic “ **Recent Trends in Micro Optics**” in the **Seminar organized by the Einstein Society of Physics OPT ‘O’ FEST ’07** at the Department of Physics, Sri Vidya Mandir Arts & Science College, Uthangarai, on 28.9.2007.
33. **Key Note Address &** Delivered a Special Lecture on the topic, “**Optics to Microoptics**”, in the **Science and Humanities celebration day** Organised by Department of Physics, Annai Madha Ammal Sheella Engineering College, Erumapatti, Namakkal on 2.8.2007.
34. **Key Note Address &** Delivered a Special Lecture on the topic “**Recent Trends in Modern Physics**” in the **Seminar organized by the Department of Physics during Science day Celebration**, Govt. Arts College, Salem-7, on 28.2.2007.
35. **Resource Person - Refresher course in Physics – UGC- Academic Staff College, University of Kerala**, delivered lecture on “**Microoptics and Optical Design using ZEMAX software**” during 20-2-2007 to 21-2-2007
36. **Resource Person:** Delivered a a Special Lecture on the topic “**Emerging Trends in Optics**” in the **National Conference on Emerging trends in Physics and Electronics** on 7th and 8th Feb – 2007, Department of Physics and Electronics, P.G.P college of Arts and Science , Namakkal.

37. **Key Note Address** & Delivered a Special Lecture “**Emerging Trends in Nano-Optics**” in **Dr. A. P. J. Abdul Kalam Association Inaugural Function** organized by the Department of Physics, Harur Muthumasi Arts and Science College, Harur on 18.8.2006.
38. **Key Note Address** & Delivered on the topic “**Traditional Physics to Modern Physics**” in the **One Day Seminar** organized by the Department of Physics, Thiruvalluvar Govt. Arts College, Rasipuram on 2.3.2006.
39. **Resource Person - Refresher course in Physics – Academic Staff College**, Bharathidasan University, Tiruchirappalli, delivered lecture on “ **Microlenses in Microoptics**” during 18-1-2006 to 7-2-2006
40. **Resource Person:** Delivered a lecture on “**Macro-Optics to Micro-Optics**” in the **Workshop on Recent Trends in Physical Sciences Research** held at Dept. of Physics, Periyar University, Salem on 29 & 30, August 2005.

IV. Details of Various Workshops Attended: Names of Institutions, Titles Etc.

Sl. No.	Organisation	Period		Title of workshop
		From	To	
1	A.V.C. College, Mannampandal, Mayiladuturai	14-5-1993	7-6-1993 (25 days)	Workshop on Microprocessor and its Applications
2	A.V.C. College, Mannampandal, Mayiladuturai	6-1-1994	8-1-1994 (3 days)	Workshop on PCB Fabrication and its Applications
3	A.V.C. College, Mannampandal, Mayiladuturai	27-1-1995	28-1-1995 (Two days)	Workshop on Recent trends in Crystal Growth
4	Crystal Growth Centre, Anna University, Chennai – 25.	7-12-2004	10-12-2004 (4 days)	Workshop on Crystal Growth and Applications of Advanced Materials for Opto-Electronics
5	Dept. of Physics, Periyar University, Salem-11	29	30-8-2005 (two days)	workshop on Recent Trends in Physical Sciences Research
6	National Institute of Technology, Tiruchirappalli and Collaborated with WRI, BHEL, Trichy	9-1-2007	10-1-2007 (2 days)	Workshop on Laser materials Processing

7	Dept. of Physics, Periyar University, Salem-11	31-3-2008	(one day)	One day workshop on Recent Developments in Nanomaterials Research
8	ICTP, ITALY	27-10-2008	30-10-2008 (4 days)	Workshop on Nanoscience for Solar Energy Conversion
9	Dept. of Physics, Periyar University, Salem-11	12-3-2009	(one day)	Workshop on Recent Developments in Photonic Materials Research
10	Centre for Nanoscience and Nanotechnology Periyar University Salem-11	13-8-2012	14-8-2012 (two days)	National Science Academies' Lecture workshop on 'Modern Trends in Chemistry'

V. Titles of the theses/projects for each degree, students name and the year of the award of the degree.

(a). The following Ph.D Scholars under my guidance:

1. **Dr. R. Rengaiyan**, “A Novel Study on Light Trapping Scheme for Thin Silicon Solar Cells using Microlenses”- (03-12-2008).
2. **Dr. S. Selvanandan**, “A Modern Lens Design and Its Characteristics Study for Free Space Optical Interconnections”- (30-01-2009).
3. **Dr. M. K. Subramanian**, “Spectroscopic Studies of Some Polyatomics” – (09-04-2009).
4. **Dr. K. B. Rajesh**, “A theoretical Study on Sub-wavelength and Super-resolution Non-diffracting Bbeam for High Density Optical Recording”- (29-04-2009).
5. **Dr. A. Kalyanasundaram**, “An Investigation to Enhance the Coupling Efficiency between Laser Diode and Single Mode Fibre via Microlens in Microoptics”- (28-09-2009).
6. **Dr. K. Vasudevan**, “Study of Geometrical, Electronic Structure, Spectral and NLO Properties of Some Phthalonitrile Dye Sensitizers for Solar Cells”- (26-11-2010).
7. **Dr. S. Manimegalai**, “Quantum Chemical Calculations of Some Modified Phthalocyanine Dye Sensitizers for Solar Cell Applications” – (27-04-2012).
8. **Dr. N. Sakthivel**, “Growth, Characterization and Theoretical Investigations on Some Organic Crystals” – (10-12-2012).
9. **Dr. V. Ravi**, “Focus on Engineering with Vector Diffraction Theory for Nanometer Scale Applications” – (11-01-2013).

10. **Dr. A. Prakasam**, “Structural and Electronic study of Some Nitrile Dye Sensitizers for Solar Cell Applications via Density Functional Theory” – (12-04-2013)
11. **Dr. M. Geetha**, “Preparation, Characterization and Photovoltaic Performance of Modified TiO₂ Nanoparticles by Sol-Gel Technique” - Full Time, Rajiv Gandhi Fellow - (16-09-2013).
12. **Dr. P. Senthilkumar**, “Quantum Chemical Investigations of Some Stilbene Derivatives for Dye Sensitized Solar Cell - Full Time, UGC, Project Fellow – (07-03-2014).
13. **Dr. L. Arivuselvam** - Photovoltaic Performance Study on Comparison of Dye Sensitized and V-Grooved Silicon Solar Cells - (26-03-2010) - Thesis submitted on 23-05-2014 – Viva-Voce Examination on 04.09.2014
14. **Ms. K. Lalithambigai** - (02-03-2011) - Full Time, UGC, Non SAP, Fellow - Synopsis “Vectorial Approach on the Investigation of Tightly Focused Azimuthally Polarized Beam for Optical Trapping Applications” Thesis Submitted on 23-05-2014, Viva-voce on February, 2014
15. **Mr. K. M. Prabhu** - Improved Performance of Natural Dye Sensitized Solar Cell Using Modified TiO₂ Nanoparticles By Sol-Gel Technique – Synopsis submitted on 23.05.2014 – Jointed on (12-01-2011) as a Part time Scholar - Thesis Submitted on 12-11-2014
16. **Mrs. K. Suguna** - Theoretical and Experimental Analysis of Solvent Effect in Natural Sensitizer for DSSC Applications - (11-01-2010) – Synopsis submitted on 22-01-2013.
17. **Mr. P. Ramu** - Synthesis of Various Surfactant Assisted Nano-ZnO and Investigations on the Influence of Additives in its Property Modifications - (20-01-2010) - Part time Scholar- Synopsis submitted on 25.09.2014
 - **Mr. C. Mohanasundaram** - (31-01-2011) - Part time Scholar
 - **Mr. P. Sakthivel** - (12-09-2012) - Part time Scholar
 - **Mr. D. Sakthi** - (10-12-2012) - Part time Scholar
 - **Mr. Priyadharshan** - (30-06-2014) – Full time Scholar
 - **Mr. M. Prakasam** - (30-06-2014) – Full time Scholar
 - **Mrs. J. Arulmozhi** - (12-11-2014) – Full time Scholar

(b). The following M. Phil Scholars under my guidance:

S.No	Name	Title	University
1	Mr. L. Leo Seasty (2001)	Spectroscopic studies on high temperature superconductor mixtures Bi ₂ Sr ₂ CaCu ₂ O ₈	Manonmanium Sundaranar University

2	Mr. D. Prakash Babu (2002)	Structural Elucidation of Calcium oxalate monohydrate and calcium phosphate present in urinary calculi by spectroscopic methods	Directorate of Distance education, Annamalai Uni.
3.	Mr. V. Harikrishnan (2003)	Thermal aspect of laser- Based measurement and ultra fast Laser processing of Dielectric materials	Center for Distance Edn. Bharathidasan Uni.
4.	Mr. V. Arun (2004)	A comparative study on Focal performance of fiber ended microlens and Axicon for optical recording application	Center for Distance Edn. Bharathidasan Uni.
5.	Mr. B. Shanmugavelu (2005)	Theoretical study on coupling between laser diode and microlens ended single mode fiber using ABCD matrix method.	Periyar University
6.	Mr. Raja Ratnam (2006)	Generalized beam propagation factor of hard-edged circular apertured diffracted Bessel-Gaussian beams	PRIDE Periyar University
7	Mr. K. Velmurugan (2006)	Direct electron beam writing of kinoform micro-axicon for generation of propagation-invariant beams with long non-diffracting distance	PRIDE Periyar University
8	Mrs. B. Annapoorni (2006)	Desinging uniform intensity Axicons for micro drilling applications	PRIDE Periyar University
9	Mr. A. Prakasam (2006)	Axicon microlens for high resolution optical coherence tomography	PRIDE Periyar University
10	Mrs. S. Amaravathi (2006)	Focal shift and focal switch of Bessel-Gaussian beams passing through a lens system with or without aperture	PRIDE Periyar University
11	Mr. P. Jagadesan (2006)	A theoretical study on axial intensity distribution of axicons	PRIDE Periyar University
12	Mr. L. Arivuselvam (2006)	DOE generating Bessel Beam for optical recording	PRIDE Periyar University
13	Mr. K. Harisankar (2006)	Designing Axicons for microdrilling	PRIDE Periyar University

14	Mr. K. M. Prabhu (2005)	Desiring uniform intensity Axicons for micro drilling applications	PRIDE Periyar University
15	Mr. M. Dharma Poopathy (2006)	Axilenses for optical recording applications	PRIDE Periyar University
16	Mrs. A. Karpagam (2006)	Analysis of free space optical interconnects based on non- diffracting beams	PRIDE Periyar University
17	Mrs. G. Poornima (2006)	Focal shift and focal switch of Bessel-Gaussian beams passing through a lens system with or without aperture	Center for Distance Edn. Bharathidasan Uni.
18	Mrs. S. Meenakshi (2006)	Dynamically reconfigurable optical trap created with a combination of Axicons	Center for D. Edn. Bharathidasan Uni.
19	Mr. K. Uma Maheswaran (2006)	Narrow polymer fibers obtained as a combination of photopolymerization and non- diffracting beams	Directorate of Distance Edn. Annamalai Uni.
20	Mr. C. Mohanasundaram (2006)	Non-diffracting beam for optical recording applications	Periyar University
21	Mr. P. Senthikumar (2006)	Light trapping scheme of high throughput and low aberration Microlens for Silicon Solar cell	Periyar University
22	Mr. N. Thangaraja (2006)	Scanning microscopy with extended depth of focus	PRIDE Periyar University
23	Mr. Mrityunjai Kumar Singh (2007)	Habit Modification Study on Non- linear Single Crystal KDP Doped Dyes for Laser Applications	PRIDE Periyar University
24	Mr. S. V. Satyanarayana (2007)	Molecular Structure, Vibrational Spectroscopic Studies and NBO Analysis of 7-Amino-4- Trifluoromethylcoumarin	PRIDE Periyar University
24	Miss. M. Geetha (2007)	Design, Optical Study and Light Trapping Scheme of Low Order Aberration Microlens for Micromachined Silicon Solar Cells	Periyar University
26	Mr. J. Chandrasekaran (2007)	A Study on Adjustable Generation of High Resolution Near Field Optical Virtual probe Using Diffractive Axicon.	Periyar University

27.	Ms. M. Jothimani (2008)	A study on field distribution behind an Axicon illuminated by an Azimuthally polarized beam.	Periyar University
28.	Ms. K. Lalithambigai (2008)	A Theoretical study on Vectorial field distribution by linearly polarized Gaussian beam passing through an Axicon	Periyar University
29.	Ms. K. Leelavathi (2008)	A study on Vectorial analysis of radially polarized Gaussian beams using an Axicon.	Periyar University
30.	Ms. M. Vasanthi (2008)	A Novel study on Near-field optical recording by Solid Immersion Axicon	Periyar University
31.	Mr. K.Vasudevan (2009)	Charge Transfer Interaction Study on Linear Organic Single Crystal Imidazole-Iodine Interface for Dye Solar Cells using DFT.	Madurai Kamaraj University
32.	Mr. Debkumar Bhadra Shore Point, Bamboo flat South Andaman – 744107 (2009)	DFT Study on Modified Phthalocyanine Derivatives for Efficient Near-IR Sensitization of Nanostructured TiO₂ Electrode in Dye Sensitized Solar Cells	Madurai Kamaraj University
33.	Mr. R. Govindan (2010)	Theoretical Study of 4-(Phenylthio)-1,2-benzenedicarbonitrile Dye for Dye-Sensitized Solar Cells	Periyar University
34.	Mr. G. Karthik (2010)	Theoretical study of Dye Sensitized Solar Cell	Periyar University
35.	Mr. V. Arun (2011)	Preparation and characterization of Co-doped ZnO thin film by Sol-Gel process	Periyar University
36.	Mr. S. Varathan (2011)	Metal doped TiO₂ thin film: Preparation and characterization	Periyar University
37.	Ms. C.Indira Priyadharsini (2012)	Enhanced Photoelectrical Performance of DSSC by Co-doped SnO₂ Nanoparticles	Periyar University
38.	Ms. S. Shanmugapriya (2012)	A comparative Study of Synthetic and Natural Dyes for the Application of DSSC using Co-doped TiO₂ as Photo Anode	Periyar University
39.	Mrs. G. Suguna (2012)	Quantum Chemical Calculations of 4-Amino-3-Nitrobenzonitrile for Solar Cell Applications	Periyar University
40.	Mr. M. Kumaresan (2013)	The Role of Solvent Effects in Natural Sensitizer for DSSC Applications	Periyar University

41.	Mr. C. Rajesh (2013)	Synthesis and Characterization of ZrO₂ Nanoparticles for Solar Cell Applications	Periyar University
42.	Mr. R. Surendiran (2013)	Structural, Optical and Morphological Study on Titanium Dioxide (TiO₂) Nanoparticles for Enhancing Light Absorption	Periyar University
43.	Ms. S. Keerthanadevi (2014)	Investigation of Azimuthally Polarized Beam for Multiple Optical Trapping Applications	Periyar University
44.	Ms. K. S. Kokila (2014)	An Analysis in Structural and Optical Properties of ZnO Nanoparticles by Microwave Method	Periyar University
45.	Mr. M. Prakasam (2014)	DFT and TD-DFT Calculations of Stilbene Substituted Methanofullerene for Dye Sensitized Solar Cell Applications	Periyar University
46.	Mr. A. Arunkumar (2015)	Dye-Sensitized Solar Cell Using Natural Dyes Extracted from Poinsettia-Facts	Periyar University
47.	Mrs. R. Divya Bharathi (2015)	Dye-Sensitized Solar Cell (DSSC)	Periyar University
48.	Mr. D. Nickson Sebastin (2015)	Theoretical Investigations of Stilbene Derivatized Fulleropyrrolidines for Dye Sensitized Solar Cell Applications	Periyar University
49.	Mrs. V. Sangeetha (2015)	Dye-Sensitized Solar Cell (DSSC)	Periyar University

(c). M.Sc. Project:

1. **Mr. N. Thangaraja**, “An Investigation of Effective Coupling of Tapered Lens Single Mode Fibres with Diode Lasers using ABCD Matrix” (2005)
2. **Mr. S. Vijayanath**, “Theoretical Study on Non Diffractive Laser Beam Produced using Annular Rings” (2005)
3. **Miss. B. Manitha**, “A Study on Non Diffractive Beam for Optical Microlithography” (2005)
4. **Miss. S. Revathi**, “Theoretical Study on AC Parameter of Gaas/Ge Solar Cells for Space Applications using Impedance Spectroscopy” (2005)
5. **Miss. R. Radha** “A Comparative Study on Optical Feedback and Reflectivity in Laser – to – Fiber Coupling Techniques (2006)

6. **Mr. P. Velayutham** “A Theoretical Investigation on The Coupling Performance of The Hot Embossed Microlens under Various Embossing Parameters” (2006)
7. **Mr. K. M. Prabhu** “Theoretical Study on Coupling between Laser Diode and Single Mode Fiber Via Hemispherically Ended Graded Index Fiber” (2006)
9. **Mr. B. Ramesh** “A Theoretical Study on Unstable Bessel Beam Resonator” (2006)
10. **Miss. M. Geetha** “Light Trapping Scheme of Silicon Solar Cell using High Throughput Microlens” (2007)
11. **Miss. M. Jothimani**, “Optical Feedback and Reflectivity Study of Laser to Fibre Coupling with Different Techniques” (2007)
12. **Miss. K. Lalithambigai**, “Microfabrication and Drilling using Diffraction-Free Pulsed Laser Beam Generated with Axicon Lens” (2007)
13. **Miss. K. Leelavathi**, “Characteristics of Beam Profile of Gaussian Beam Passing Through an Axicon” (2007)
14. **Mr. S. Suresh**, “Intensity Distribution in Non-Diffracting Beams Propagating in a Nonlinear Medium” (2008)
15. **Miss. M. Vasanthi**, “Generation of Partially Coherent Diffraction-Free Fields with Tunable Geometry” (2008)
16. **Miss. C. Hemambigai**, “A Numerical Study on Sub-Wavelength Super Resolution Non-Diffractive Beam Generated by Lens Axicon” (2009)
17. **Miss. K. Premalatha**, “Numerical Analysis on Diffraction Field Behind an Axicon Using Vector Interference Theory” (2009)
18. **Miss. R. Premalatha**, “An Analysis on Near Field Optical Virtual Probe Generated by Solid Immersion Axicon (SIAX)” (2009)
19. **Miss. U. Banunandhini**, “A Study on the Role of Polarization and Phase in Solid Immersion Lens (SIL) System” (2009)
20. **Ms. M. Nira**, “DFT And TD-DFT Study on Silicon Dioxide Substituted Phthalocyanine for Dye Sensitized Solar Cells” (2010)
21. **Ms. A. Vetriselvi**, “Comparative Analysis of Crystalline Silicon and Amorphous Silicon Solar Cell Models using Spectral Converter Methods” (2010)
22. **Mr. E. Asmath Ragamath**, “Progressive Addition Lens Design, Optimization and Performance Analysis Using ZEMAX” (2010)

23. **Ms. G. Amutha**, “Preparation and characterization of Calcium doped TiO₂ thin films” (2011)
24. **Ms. S. Keerthanadevi**, “Preparation and Structural Characterization of Non-Metal Doped ZnO Thin Films” (2011)
25. **Mr. M. Vasanth**, “Synthesis and Optical Properties of Calcium Doped ZnO Thin Films” (2011)
26. **Mr. M. Karuppaiya**, “Preparation and characterization of Metal incorporated TiO₂ thin films” (2011).
27. **Ms. K. Devi**, “Study of Magnetic Properties of Transition Metal Doped Zinc Oxide Nanopowder by Mechanical Mixing Method” (2012)
28. **Mr. R. Govindaraj**, “Synthesis, Structural, Optical and Thermal Analysis of RE Metal Doped TiO₂ Nanoparticles” (2012)
29. **Mr. M. Ayyanar**, “Preparation and Photoelectrical Studies on S-Doped TiO₂ Nanoparticles for DSSC Application” (2012)
30. **Mr. R. Surendiran**, “Morphological Study of ZnS Nanocrystals with Influence of Capping Agents” (2012)
31. **Ms. S. Poorani**, “Analysis of Structural and Morphological Study of Pure Zirconium using Microwave Method” (2013)
32. **Mr. M. Prakasam**, “Theoretical Study of 2-Ethylbenzonitrile Dye Sensitizer for Solar Cells Using Quantum Chemical Calculations” (2013)
33. **Ms. S. Sathya**, “Influence of Solvent Effects using Natural Sensitizer for Dye Solar Cells” (2013)
34. **Mrs. G. Divya**, “Analysis of Structural and Optical Properties of Natural Sensitizer (Spinacia Oleracea) for High Performance DSSC” (2014)
35. **Mr. M. Gobikrishnan**, “Molecular Modelling of 1,4 Phenylendiacetonitrile (1,4 PAN) Dye Sensitizer for Solar Cells using Quantum Chemical Calculations” (2014)
36. **Ms. R. Karthika**, “Performance Study of Photoanode in DSSC with Cr Doped ZnO Nanoparticles by Precipitation Method” (2014)
37. **Ms. Sathiyavani**, “Structural and Optical Analyses of Natural Sensitizers with Various Solvent Medium” (2014)
38. **Ms. E. Savitha**, “Photocatalytic Activity Study of Yttrium Doped Titanium Dioxide

Nanoparticles By Sol - Gel Method” (2014)

39. **Mr. G. K. Deepakraj (2015) -DSSC**
40. **Ms. R. Kalaiselvi (2015) – Nano-optics**
41. **Ms. G. Usha (2015) – Nano-optics**
42. **Mrs. S. Vennila (2015) - DSSC**

VI. Foreign Visits under Exchange or Any other Programmes:

1. **Attended the Joint ICTP-KFAS Workshop on Nanoscience for Solar Energy Conversion 27 - 29 October 2008 (Miramare - Trieste, Italy), The Abdus Salam International Centre for Theoretical Physics at Trieste, ITALY.**
2. **Indo-Hungarian Educational Exchange Programme to visit during Sep-Nov', 2009, Department of Optics and Quantum Electronics, Szeged University, Szeged, HUNGARY**
3. **International Conference LEI-2009, Light at Extreme Intensities, Scientific opportunities and technological issues of the Extreme Light Infrastructure, 16-21. October, 2009, organised by National Institute for Laser, Plasma and Radiation Physics, Bucharest, Romania and Transilvania University, Brasov, ROMANIA.**

VII. National Fellowships/Awards/Recognitions/Academic Honours/Distinctions Received:

1. **Cash award for best Oral Presentation in NSPEOS, Meerut – 1997**
2. **GATE'87 Passed and Joined M.Tech (Optoelectronics and Optical Communication), Indian Institute of Technology, New Delhi - 16**

VIII. Convener & Co-Convenor/Chairing for the following Conferences:

- 1 **National Symposium on “Photonics and Spectroscopy”, organized by Raman School of Physics, Pondicherry University, Pondicherry. NSPS-2001, 14-16, March 2001**
- 2 **One day State level Seminar on “Laser and its Applications”, Organized by Department of Physics, K.M. Centre for P.G, Studies. Pondicherry, 25th and 26th, December, 2001**
- 3 **Two Days State Level Seminar on “Photonics and its Applications” organized by department of Physics, Kanchi Mamunivar Centre for Post graduate Studies, Lawspet, Pondicherry during, 25th and 28th February, 2003**
- 4 **“Centenary Celebrations of Einstein’s Discoveries” held at Department of Physics, Periyar University, Salem on 28 March 2005.**
- 5 **Workshop on “Recent Trends in Physical Sciences Research” held at Dept. of Physics, Periyar University, Salem on 29, 30 August 2005.**

- 6 National Conference on “Recent Advances in Material Science” held at Periyar University, Salem during 16-17 Feb. 2006
- 7 National Conference on “Recent trends in Vibrational Spectroscopy” (NCVS-2007) held at Department of Physics, Periyar University, Salem during 29-30 January, 2007.
- 8 One day Workshop on “Recent Developments in Nanomaterials Research”, held at Department of Physics, Periyar University, Salem, on 31st March, 2008.
- 9 One day Workshop on Recent Developments in Photonics Materials Research held at Department of Physics, Periyar University, Salem, on 12th March, 2009.
- 10 One day Special Lectures on “50 Years of Lasers” organized by the Centre for Nanoscience and Nanotechnology, Periyar University, Salem, on 15th December, 2010.
- 11 One day “Energy Conservation – Awareness Programme” organized by the Centre for Nanoscience and Nanotechnology, Periyar University, Salem, on 20th December, 2010.
- 12 National Conference on “Advanced Nanomaterials (ANM-2012)” organized by the Centre for Nanoscience and Nanotechnology, Periyar University, Salem, Tamilnadu, during 6-7, February, 2012.
- 13 National workshop on “Electronic Circuit Design and PCB Fabrication” organized by the Centre for Instrumentation and Maintenance Facility (CIMEF), Periyar University, Salem, during 27-28, March, 2012.
- 14 One day Workshop on “Recent Advances in Physics Experiments” (WRAPE-2012) held 28th March, 2012 organised by Department of Physics, Periyar University, Salem, Tamilnadu.
- 15 National Science Academies’ Lecture workshop on ‘Modern Trends in Chemistry’ organised by the Centre for Nanoscience and Nanotechnology, Periyar University, Salem, Tamilnadu, during 13-14, August, 2012.
- 16 National Seminar on “Materials for Advanced Technology” organized by Department of Physics, Periyar University, Salem – 636011, Tamilnadu, held on 21.2.2014.
- 17 National Conference on “Advanced Materials” (NCAM-2014), 18-19, July, 2014 organised by PG and Research Department of Physics, Sri Vidya Mandir Arts and Science College, Katteri, Uthangarai, Krishnagiri (District), Tamilnadu, India – 636 902, in Collaboration with Indian Spectrophysics Association (ISPA), Chennai - 600 030, Tamilnadu, India.

IX. Administrative Positions (with Period) Held in The University or Any Other Place:

(Name of the Institution/ Department)	Designation	Nature of post	Nature of assignment	Period (Give dates)		Length of experience
				From	To	
Periyar University Salem, TN	Reader in Physics	Chairman	P.G Board of Examinations	15-5- 2005	14-06-2005	One Month
Periyar University Salem, TN	Reader in Physics	Chairman	P.G Board of Examinations	21-12-2005	20-01-2006	One Month
Periyar University Salem, TN	Associate Professor	Chairman	P.G Board of Examinations	29-05-2006	30-06-2006	One Month
Periyar University Salem, TN	Associate Professor	Library in-charge	Circulating books to students	17-03-2005	17-3-2012	7 Years
Periyar University Salem, TN	Associate Professor	Coordinator	Periyar University Examinations & Engg. Exams. Conducted	04-05-2008	14-8-2008	3 Months
Periyar University Salem, TN	Professor	Additional Controller of Examinations	Distance Education Examinations	15-4-2009	15-01-2010	9 Months
Periyar University Salem, TN	Professor	Chairman	P.G Board of Examinations	15-1-2010	15-2-2010	One Month

Periyar University Salem, TN	Professor	Coordinator	Centre for Nanoscience & Nanotechnology	01-07-2011	To till date	Three years 4 Months
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X. Orientation and Refresher Courses

1	Academic Staff College Pondicherry University Pondicherry	4-2-1992 2-3-1992 (28 days)	Orientation Course
2	Academic Staff College Pondicherry University Pondicherry	18-10-'96 7-11-1996 (21 days)	Refresher Course
3	Academic Staff College Pondicherry University Pondicherry	11-12-2001 31-12-2001 (21 days)	Refresher Course
4	Academic Staff College Madras University Chennai-25	25-1-2002 14-2-2002 (21 days)	Refresher Course

XI. Classes Taught:

B.Sc., M.Sc., M.Phil., Ph.D., M.Tech (Geo.), B.Sc (Agri.), M.A (Pub. Admn.), Coaching classes for I.A.S (Prelim and Main Exams.) and Coaching for B.E and M.B.B.S (JIPMER) Entrance Examinations Jointly Organized by Directorate of Social Welfare, Govt. of Puducherry, and Pondicherry University, I.A.S (Prelim.) & NET/SLET Coaching classes, Periyar University, Salem, Tamilnadu.

XII. Collaborative Research:

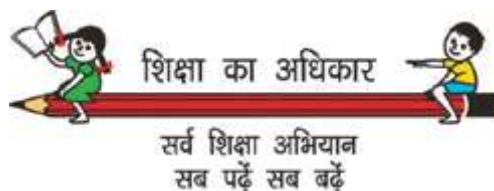
Sl. No	Collaborating Scientists	Collaborating Agency	Status	Remarks
1.	Prof. S. Moorthy Babu	Crystal Growth Centre, Anna University, Chennai-25,	On Going	Six papers Published in the International Journals
2.	Prof. Laura Ronchi Abbozzo	Atti della Fondazoin Giorgio Ronchi, Fondata da vasco Ronchi, Via S.Felice A Ema, 20 50125 FIRENZE, ITALY	On Going	Six papers published in the International of Micro-optica (Italian Journal of Optics)

3.	Dr. V. Aroulmoji, D.Sc	ARCHES Via Giuseppe Leuzzi 18 I- 70013 Castellana Grotte ITALY	On Going	Ten papers published and Submitted Three papers to International Journal
4.	Dr. Osvay Karoly	Department of Optics and Quantum Electronics, University of Szeged, H-6720 Szeged, Do'mte'r 9, HUNGARY	On Going	Research work started and results will be published
5.	Dr. Jaroszewicz, Z	Institute of Applied Optics, Department of Physical Optics, Warsaw, Poland and National Institute of Telecommunications, Warsaw, POLAND	On Going	Six papers published and Submitted Three papers to International Journal
6.	Dr. C. Nithya	DST-INSPIRE Faculty Awardee, CEESAT-Centre for Energy & Environmental Science and Technology, National Institute of Technology, Tiruchirappalli, Tamil Nadu, India	On going	Five papers published and submitted Three papers to International Journal

XIII. Public contributions:

A. Social Service/Activities:

1. Donated ancestor property/home to conduct Sarva Shiksha Abhiyan (SSA) at 72-A, Panduvan Ukkadai, Nalladai – 609 306 (Post), Tranquebar (Taluk), Nagapattinam (District), Tamilnadu.



2. National AIDS awareness Campaign organized by Nehru Yuva Kendra at Pondicherry (Karaikal) on 5th April, 1992 and delivered a talk on “Rural Pupil and their Scientific Thought”.
3. As an Associate N.C.C. Officer, Organised the Blood Donation camp at Sanipeyarchi Thirunallar Temple, Karaikal, Govt. of Pondicherry during 7th, December. 1995

4. Given talks in the All India Radio (FM), Karaikal and Pondicherry:

- a. Group discussion on Thanthai Periyar E. V. Ramasamy (17-9-1993) as a (renaissance) social reformer.
- b. Group discussion on Dr. B. R. Ambedkar (14.4.1995) about his social upliftment.
- c. A talk on “Stars and its evolutions” Science day Celebration (28-2-1997)
- d. A talk on “Sir Albert Einstein and his scientific achievements” (28-2-1999)

B. Periyar University Assignments

Library: As a Library In-charge, subject books are circulated and advised the students to refer in the Department of Physics, Periyar University, Salem. (Total books: 1400 books are available) from the year 2005 to 2012.

1. **Chairman:** P.G. Board of Examinations, Eight Years (2005-2008, 2010-11 & 2013-14). P.U., Salem.
2. **Chairman:** M.Sc (Electronic Sciences) Question Setter’s Committee, Madras University, Chennai – 600 005 from the academic 2010-2011 onwards.
3. **Resource person for BSNL Staff:** - Six months training programme organized by Departments of Commerce, Physics and Tamil, Periyar University, Salem, held during May-2006 to Oct-2006
4. **Inspection Committee Member:** to give permanent affiliation to Govt. Arts College, Dharmapuri. (2006-2007)
5. **Inspection Committee Member:** to give affiliation to the course B.Sc (Electronics and Communication), Vivekanandha College, Thiruchengode, Namakkal. (2005-2007)
6. **Additional Chief Superintendent:** Pride centers at Dharmapuri, Krishnagiri, Tiruppathur, Pondicherry, Hosur, Vellore, Mecheri and Mettur (2005-2007).
7. **Industrial visit to Salem Steel Plant** on 17.3.2007 along with M.Sc students, M.Phil and Ph.D Scholars for learning CRM & HRM and visit to WRI, BHEL, Trichy on 9-1-2007 for Laser materials Processing.
8. **Convenor:** M.Sc (Physics-CBCS) Entrance–cum- Selection Committee for the year 2006-2007 Admission.
9. **Observer:** PRIDE Examinations, Periyar University, Salem-636 011, from 26-11-2007 to 11-12-2007 at JNRM College, Andaman and Nicobar Islands.

10. **Coordinator:** Periyar University Examinations & Engineering Examinations from 4-5-2008 to 14-8-2008
11. **Additional Controller of Examinations (i/c),** Periyar University, Salem from 15-4-2009 to 15-1-2010.
12. **Camp Officer (Revaluation),** Periyar University, Salem, from 27-7-2010 to 1-10-2010
13. **Inspection Committee Member:** to give affiliation to Viswa Bharathi Arts and Science College, Murappur, Dharmapuri Dist. (2011-2012) on 20-12-2010
14. **Camp Officer (PG):** Periyar University, Salem, from 22-11-2010 to 08-03-2011
15. **Camp Officer (PG):** Periyar University, Salem, from 15-04-2011 to 22-8-2011
16. **Inspection Committee Member:** to give permanent affiliation to Vidya Mandir College for Arts and Science, Uthangarai (2011-2012) on 13-12-2011
17. **Inspection Committee Member:** to give permanent affiliation to Sengunthar Arts and Science College, Tiruchengode, Namakkal Dist. (2011-2012) on 14-12-2011
18. **Inspection Committee Member:** to give permanent affiliation to Selvamm Arts and Science College, Namakkal Dist. (2011-2012) on 19-12-2011
19. **Inspection Committee Member:** to give permanent affiliation to Govt. Arts College, Dharmapuri (2011-2012) On 27-01-2012.
20. **Board of Studies Meeting:** to UG Physics at the Department of Physics, Vivekananda College for Women held on 21-02-2012
21. **Inspection Committee Member:** to give M.Sc (Physics) affiliation to KSR College and Arts & Science College, Thiruchengodu, Namakkal Dist. (2011-2012) on 22-05-2012
22. **Inspection Committee Member:** Permission to start M.Sc (Physics) affiliation to A.A.G.A College, Namakkal on 31-07-2012
23. **Inspection Committee Member:** Permission to start M.Sc (Physics) affiliation to A.A.G.A College, Attur on 01-08-2012
24. **Inspection Committee Member:** Permission to start M.Phil (Physics) affiliation to Thiruvalluvar Arts College, Rasipuram on 01-10-2012

25. **Inspection Committee Member:** to give permission to start addition UG course affiliation to Shree Saradha Nikethan Arts and Science College for Women, Dhakshineswaram, Kanavaiputhur, Omalur (Taluk), Salem - 636 354 (2012-2013) on 28-11-2012
26. **Inspection Committee Member:** Permission to start M.Phil (Physics) affiliation to Shree Vidya Mandir College for Arts and Science, Uthangarai on 1-12-2012
27. **Inspection Committee Member:** Permission to start B.Sc (Physics - Additional Course) affiliation to E.R.K Arts and Science for Women, Erumianpatti, Dharmapuri District, Tamilnadu on 10-06-2013
28. **Inspection Committee Member:** Permission to start B.Sc (Physics - Additional Course) affiliation to A.V.S Arts and Science College, Salem-636 106, Tamilnadu on 24-07-2013
29. **Inspection Committee Member:** Addition of 5 students to M.Phil (Physics) Course in addition to 15 students existing at Kandasamy Kandar College, Paramatti Velur, Namakkal, Tamilnadu on 4-09-2013
30. **Inspection Committee Member:** Permission to start B.Sc (Physics - Course) affiliation to Govt. Arts & Science College for Women, Barugur, Krishnagiri (Dt), Tamilnadu on 10 -10-2013
31. **Inspection Committee Member:** Permission to start M.Phil (Physics - Course) affiliation to Arignar Anna Govt. Arts College for Men, Namakkal (Dt), Tamilnadu on 22-11-2013
32. **Inspection Committee Member:** Permission to start M.Phil (Physics - Course) affiliation to Pachaimuthu Arts and Science College for Women, Dharmapuri (Dt), Tamilnadu on 22-02-2014 & 5.4.2014
33. **Academic Council Member:** Academic Council Meeting attended for Modification in the syllabi at Sri Sarada College for Women on 20.03.2014.
34. **Board of Studies Meeting** held at Department of Physics, Selvamm Arts and Science College (Autonomous), Namakkal on 5.6.2014
35. **Inspection Committee Member:** Permission to start M.Phil (Physics - Course) affiliation to Govt. Arts College, Krishnagiri (Dt), Tamilnadu on 28-08-2014.

XIV. Experience in Developing “E-Content” for Courses in Physics Discipline or Any Other Area.

M.Phil (Physics) - Advanced Physics - Paper-II & Paper-III (Laser Physics - Micro optics/ Nano-optics) of Distance Education through intranet of Periyar University & ZEMAX

Optical design through e-content, as a licensed software holder.

XV. Other academic, professional, administrative or any other information to bring to the attention of the Selection Committee:

Co-Curricular activities with other Universities: 1. Annamalai University - Chidambaram, 2. Pondicherry University – Member, PG Board of Studies, 3. Mother Teresa University – Kodaikanal, 4. Bharadhidasan University – Trichy, 5. Vellore Institute of Technology - Vellore, 6. Crystal Growth Centre, Anna University, Chennai-25, 7. M.S. University of Technology, Baroda, Gujarat, 8. Cochin university of Science and Technology, Cochin, 9. Kerala University, Kerala. 10. Member, Board of Studies, K.M.C.P.G.S, Puducherry, 11. Bharathidasan College for Women, Pondicherry, 12. Faculty Selection Committee, Saradha College for Women, Salem, & 13. N.A.S College, Meerut, U.P. 14. Madurai Kamaraj University – Question paper setter committee, 15. K.S.R. Arts and Science College – Member, Board of study and Question paper setting committee, 16. Karpagam University, Coimbatore, 17. Chairman, Question paper setters committee, M.Sc (Electronic Sciences), Madras University & Expert, Faculty Selection Committee, 18. A.V.V.M College, Poondi Pushpam College, Tanjore, Tamilnadu, 19. Bharathiar University, Coimbatore, 20. Lucknow University, 21. Mizoram University, 22. Alagappa University, Karaigudi, 23. Periyar Maniammai University, Vallam, Thanjavur – 613 403, Tamilnadu, 24. Member, College Academic Council, Sri Saradha College for Women, Salem, Manonmaniam Sundaranar University, Tirunelveli.

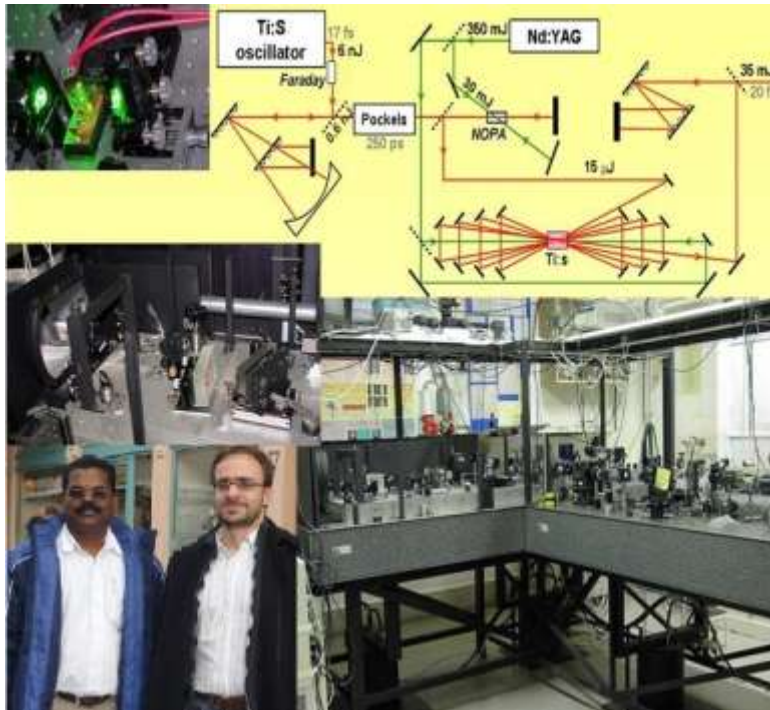
Any other relevant but brief information on academic standing.

Contributions to teaching: Contributions in developing courses, academic programmes, innovative teaching methods, work leading to better teaching, research and management in the Centre & Department. Seminar classes conducted through OHP, Multimedia Power Point (Side Projector) and Intranet teaching in the Periyar University in addition to the normal black board teaching. Industrial visit arranged to impart their (students) knowledge.

I hereby declare that all the information given in this profile is true to the best of my knowledge and belief.

Place: Salem - 11
Date: 2 - 12 - 2014

(P. M. Anbarasan)



Extreme Light Intensity Titanium-Sapphire Laser Laboratory, Department of Optics and Quantum Electronics, Szeged University, Szeged, HUNGARY



The participants in LEI 2009, which took place in the Aula of Transylvania University of Braşov, Romania (Myself - first row 4th from left)

ELI hosts its first major conference

ELI's first international conference, Light at Extreme Intensities or LEI, was held on 16–21 October 2009 at Transylvania University of Braşov, Romania.

The field of lasers with ultrashort pulses and very high intensity ("extreme light") has evolved and matured tremendously in the past few years. ELI's preparatory phase (ELI-PP) has contributed to the progress of the field at an astonishing speed, opening up new research directions and challenging the frontiers of high-field science and ultrafast technologies.

"Ultrashort laser pulses" refers to light pulses with a duration measured in femtoseconds ($1 \text{ fs} = 10^{-15} \text{ s}$, which corresponds to about half a period of red light) or even attoseconds ($1 \text{ as} = 10^{-18} \text{ s}$). This timescale became possible thanks to scientific and technological progress in the generation, amplification and measurement of ultrashort laser pulses (fs) and ultrashort laser-generated pulses (as). ELI, devoted to building the most powerful laser in the world (exawatt class), will be able to address laser-matter interaction in the hitherto unreachable intensity regime, the ultra relativistic regime (10^{24} W/cm^2), where electrons and ions in the laser field exhibit relativistic character.

The purpose of the LEI 2009 conference, intended as the first of a series, was to assemble researchers from Europe and beyond, with the aim of designing both ELI and the future experiments that can be carried out using the facility. The conference topics were:

- high-field physics;
- lasers;
- secondary sources of particles;
- attosecond physics;
- secondary sources of X-rays.

The conference was attended by 180 people from 23 countries. They were scientists, researchers, students and also officials from the EU and from the education



The participants in LEI 2009, which took place in the Aula of Transylvania University of Braşov.

and research ministries of countries in the ELI consortium.

For the opening session we were honoured to be spoken to by Marius Enachescu ("First ELI conference organized in an ELI host country"), Hervé Péro ("Policy developments and challenges at European level in the field of research infrastructures"), Carlo Rizzuto ("A vision for the research infrastructures in the ERA year 2020"), Wolfgang Sandner ("Laserlab Europe") and Gérard Mourou ("High-intensity physics with ELI"). During the 15 sessions held over five days, 13 plenary talks, 22 invited talks and 31 oral talks were presented. The poster session (held simultaneously with a display and tasting of cheese and wines from participating countries) had 47 contributions. Another special session discussed the roles of the ELI sites decided by the consortium on 1 October 2009 (in the Czech Republic, Hungary and Romania).

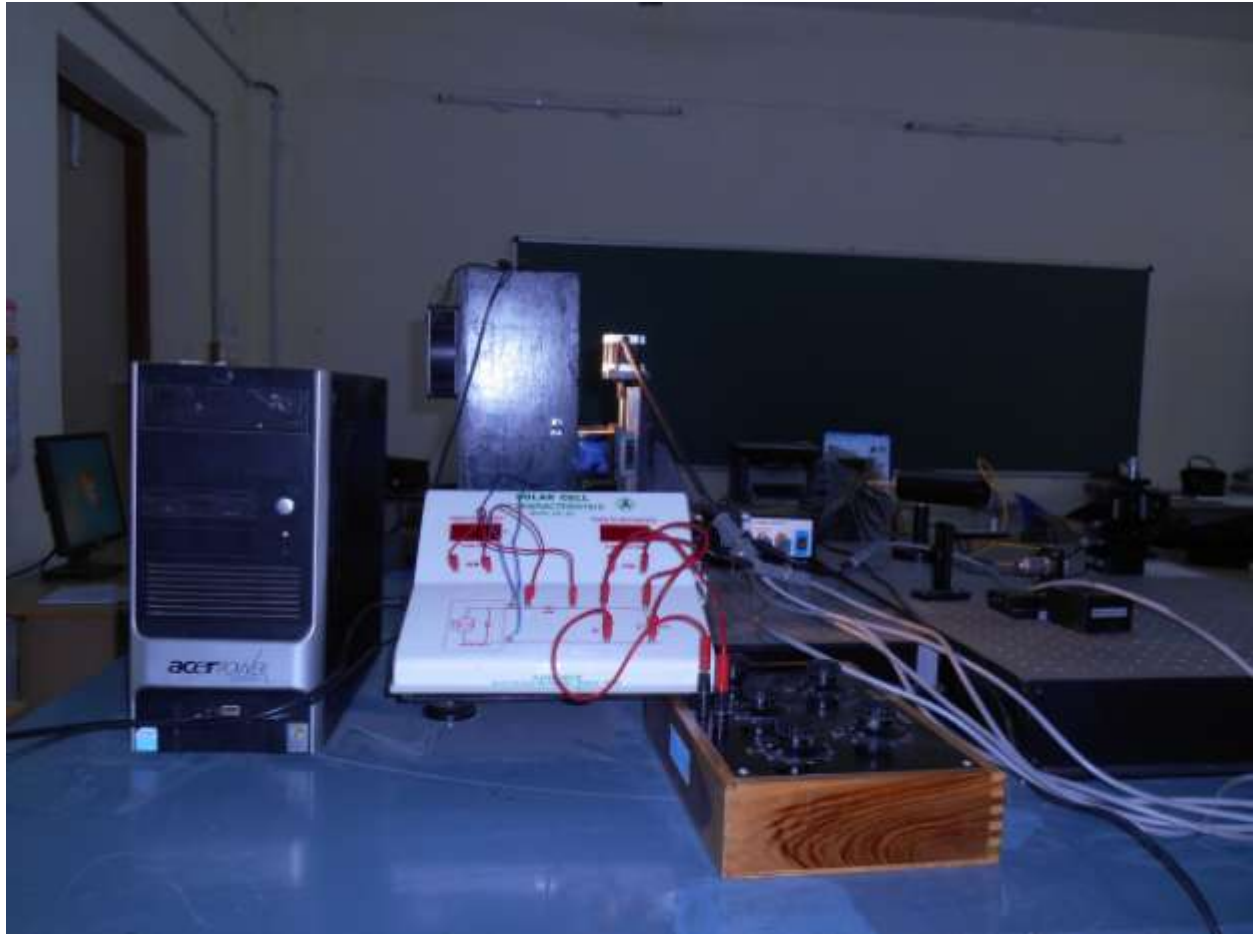
An international jury headed by Prof. Toshiki Tajima selected three scientists to be awarded for the best contributions of young authors (under 35 years) to the conference. The winners were Dr Saumyabrata Banerjee (Rutherford Appleton Laboratory, UK), Dr Samuel Martins (Instituto Superior Técnico, Portugal) and Dr Zsuzsanna Major (Max-Planck-Institut für Quantenoptik, Germany).

A one-day social programme was offered to participants, including visits to Peles and Pelisor royal castles in Sinaia, Dracula Castle in Bran (see illustration on the front cover) and a banquet at Bran Inn.

The 54 papers from the conference will be published soon by the American Institute of Physics as a formal conference proceedings. The next LEI conference will be held in 2011 in the Hungarian town of Szeged.

Prof. Dan C Dumitras, organizing committee

Participants in LEI 2009, which took place in the Aula of Transylvania University of Braşov, Romania (Myself - first row 4th from left)



DSSC & Silicon Solar Cells Testing Method in Laser and Nano-Optics Laboratory, Department of Physics, Periyar University, Salem - 636011.



Myself working in Prof. Dr. Osvay Karoly, Head, Laser Group, Department of Optics and Quantum Electronics, Szeged University, Szeged, HUNGARY Laboratory under Indo-Hungarian Educational Exchange Programme during, Sep-Nov', 2009.