



Dr.N.ANANDHAN
Assistant Professor

Contact

Address : Department of Physics
Advanced Materials and Thin film Laboratory
Science Campus
Alagappa University
Karaikudi – 630 003
Tamil Nadu, INDIA

Employee Number : 11503

Contact Phone (Office) : +91 4565 223301 Extn. 305

Contact Phone (Mobile) : +91 -9842699775

Contact e-mail(s) : anandhan_kn@rediffmail.com

Academic Qualifications:

M.Sc.,(Physics) Bharathidasan University, Tiruchirapalli, India, APR-2000.

M. Phil.,(Physics: Specialization: Materials Science), Annamalai University, Chidambaram, India, APR-2002.

Ph.D.,(Physics: Specialization: Materials Science), Annamalai University, Chidambaram, India, Dec-2007.

Teaching Experience: 9 Yrs 6 Months

Assistant Professor (From 10.03.2010 to till date)
Department of Physics
Advanced Materials and Thin film Laboratory
Science Campus
Alagappa University
Karaikudi-3
Sivaganga Dist.

Assistant Professor (From 28.07.2007 to 11.03.2010)
Department of Physics
Faculty of Engineering and Technology

SRM University
SRM Nagar
Kattankulathur
Chennai-603 203.

Research Experience & Interest: 14 Years

- Development of dye sensitized solar cell thin films using chemical solution technique.
- Preparation and characterization of semiconducting thin films by physical vapour deposition for Optoelectronic devices.
- Fabrication and characterization of some stabilized transition metal oxide thin films for energy device applications.
- Preparation and Characterization of nanostructured bioactive thin films for medical implantation.
- Magnetic, Morphological and electrical properties of rare earth doped alkaline earth metals.
- Deposition and characterization of magnetic thin films for storage device applications.

Additional Responsibilities

1. Social Responsibility /Professional Developmental activity:

- Organized Village Placement Programme at Mathur Village, 2010 and Kundrakudi, 2014.
- Interaction with Pre-college Students (Higher Secondary School students) – Resource Person cum Practical in-charge for –DST-INSPIRE Internship Programme 2013, Organised by Department of Industrial Chemistry, Alagappa University, Karaikudi during 6-10th Sep, 2013.

2. Department Developmental activity:

- Department Library in-charge since 12 April 2010 to 03 July 2017.
- Member in DRC for selection of PhD students since 2010.
- Board of studies for PG students since 2010.
- Answer Sheet Evaluation as internal examiner.
- Organized State Level Workshop on Structure solving by Powder X-ray diffraction (SLWSSP-XRD-2011) ,26-27, July 2011.
- Interview/selection committee member for appointing SRF/JRF/Project Fellow Under DST-PURSE programme, 2011.
- In-charge for operating Vibration Sample Magnetometer during June-2013 -May-2015.
- Question Paper Setting for special subjects (M.Sc., M.Phil., Ph.D course work)
- Counselor for II M.Sc., students.
- Industrial/field visit In-charge for M.Sc Physics students 2011-12 and 2015-16.
- Department Research Colloquium in-charge 2010-2012.
- Stake holder in UGC–SAP, UGC-DRS Level-I and Phase -III, Department of Physics.
- Stake holder in DST-FIST, Department of Physics.
- Organized National Science day programme at Department of Physics in 2012.
- Organized Village Placement Programme at 2010 and 2014.
- Organizing Committee member National Workshop on Characterization

- Techniques (NWCT-1, 2012)” 24 & 26, March 2012.
- Organizing Committee member National Workshop on Characterization Techniques (NWCT-2, 2013)” 24 & 26, March 2013.
- Organizing Committee member International Workshop on Advanced Materials-2014 (IWAM- 2014)” 20-21 March 2014.
- University Representative to Conduct the Distance Education Examinations at Various Centers located in India.
- Department Environmental committee co-ordinator since 2016.
- Organizing Committee member National Seminar on Advanced materials Research (AMR 2017) ,19 Jan. 2017.
- Organized Business Oriented Hands-on Training on Analytical Instrumentation (HI-BOAT-2017) ,2-3, March 2017.
- Organizing secretary, A Special Lecture on Non Destructive Tests (NDT) used in Industries on 6th March 2017.
- Organized National Conference on Futuristic Materials (NCFM-2017), 27-28 March 2017.

Areas of Research

Thin film solar cells,
Materials Science of Thin films,
Condensed Matter Physics

Research Supervision / Guidance

Program of Study		Completed	Ongoing
Research	Ph.D.	---	06
	M.Phil.	09	04
Project	PG	24	05
	UG / Others	--	--

Publications

International		National		Others
Journals	Conferences	Journals	Conferences	Books / Chapters / Monographs / Manuals
29	28	02	23	---

Cumulative Impact Factor (as per JCR) : 16.44
h-index : 04
i10 index : 01
Total Citations : 65

Funded Research Projects

Completed Projects

S. No	Agency	Period		Project Title	Budget (Rs. In lakhs)
		From	To		
1	---	---	--	----	---

Ongoing Projects

S. No	Agency	Period		Project Title	Budget (Rs. In lakhs)
		From	To		
1	AURF	Apr-2017	Apr-2019	Fabrication and Characterization of Metalloid Absorber Introduced TiO ₂ Nanorod Thin Films for DSSCs Application.	1.0

Consultancy Projects

S. No	Agency	Period		Project Title	Budget (Rs. In lakhs)
		From	To		
1	--	---	---	----	----

Others -----

Note: Budget must be rounded to two decimal places

Patents

1. ----

Distinctive Achievements / Awards

1. Best paper presentation award from National Conference on Materials for Energy and Environment (NCMEE-2012)organised by Department of Science and Humanities, Chendu College of Engineering and Technology, Zamin Endathur, Maduranthagam, Kanchipuram Dist. 6th April-2012.

Events organized in leading roles

Number of Seminars / Conferences / Workshops / Events organized: 12

1. Organizing cum Website committee Member, International Conference on Nanoscience and Nanotechnology (ICONN-2010), organized by Department of Physics, FEAT, SRM University, Kattankulathur, Chennai during,23-25th Feb-2010.
2. State level Workshop on Structure solving by Powder X-ray diffraction (SLWSSP-XRD 2011), Department of Physics, Alagappa University, Karaikudi during 26-27, July-2011.
3. Organizing Committee Member “International Workshop on Advanced Energy Materials (IWAEM-2012)” organized by the School of Physics, Alagappa University, Karaikudi, India during 9-10, February 2012.
4. Organizing committee Member National Science day programme at Department of Physics in Feb’ 28th, 2012.
5. Organized Village Placement Programme at Mathur Village, 2010 and Kundrakudi, 2014.
6. Organizing Committee member National Workshop on Characterization Techniques (NWCT-1, 2012)” 24 & 26, March 2012.
7. Organizing Committee member National Workshop on Characterization Techniques (NWCT-2, 2013)” 24 & 26, March 2013.
8. Organizing Committee member International Workshop on Advanced Materials- 2014 (IWAM- 2014)” 20-21 March 2014.
9. Organizing Committee member National Seminar on Recent Advancements in Frontier Areas of Materials Science, 23-24, March, 2016.
10. Organizing secretary, Bussiness Oriented Hands-on Training on Analytical Instrumentations, during 2-3 March 2017.
11. Organizing secretary, A Special Lecture on Non Destructive Tests (NDT) used in Industries on 6th March 2017.
12. Organized National Conference on Futuristic Materials (NCFM-2017), 27-28 March 2017.

Events Participated Conferences / Seminars / Workshops (optional): 21

List of Research Work Shops Participated

1. **XIth Research Methodology Workshop** organized under the auspices of Prof. K.S.Sonchalam, Endowment in the Department of Economics, Annamalai University, during Nov.13-17, 2000.
2. **National Workshop on Micro and Nanotechnology –Advances and Implications** held at Sri Chandrasekharendra Saraswathi Viswa Mahavidyalaya University, Kanchipuram on Mar 21st-22nd 2008.
3. **Workshop on Nanostructured Materials**, organized by Department of Nuclear Physics, University of Madras, Guindy Campus, Chennai during Jul.4-5th -2008.
4. **Advanced Level International Workshop on Nanoscience and Technology**, organized by Department of Physics, Anna University , Chennai during Feb23rd -27th -2009.
5. **National Workshop on Emerging Research Trends in thinfilm and Nano Technology**, Conducted by Department of Physics, Government College of Technology, Coimbatore on3rd –Oct-2009.
6. **Second National Workshop on Engineering Materials and Applications** organized by Department of Mechanical Engineering Vinayaga Mission University, Chennai during Dec-2nd - on3rd –Dec-2009.

7. **National Workshop on Scanning Electron Microscope** organized by Centralized Instrumentation and Services Laboratory, Department of Physics Annamalai University, Annamalai Nagar, Chidambaram on 5th Mar-2010.
8. **National Workshop on Electroanalytical Techniques** organized by Department of Industrial Chemistry, Alagappa University in Association with SINSIL INTERNATIONAL In Co-operation and CH Instruments, Inc.USA, Karaikudi, during 11th-13th Oct-2010.
9. **4th INUP (Indian Nanoelectronics User's Programme) Familiarization Workshop" International Winter school on Nano-scale Materials and devices (IWNMD 2010)"** organized by Centre for Nanoscience and Nanotechnology, IIT Bombay and Cambridge University during 13-17th Dec- 2010.
10. **International Workshop on Advanced Energy Materials (IWAEM-2012)** organized by School of Physics, Alagappa University, Karaikudi, during 9th and 10th Feb-2012.
11. **One Day Workshop on Principle & Practice of Advanced EPR Spectroscopy** organized by Central Instrumentation Facility, CSIR- Central Electro Chemical Research Institute (CSIR-CECRI) Karaikudi during 19th March-2012.
12. **National Workshop on Characterization Techniques (NWCT-1,2012)** organized by School of Physics, Alagappa University, Karaikudi, during 24th and 26th Mar-2012.
13. **National Workshop on Expansion and Enrichment of Distance Learning (EEDL-2012)** organized by Directorate of Distance Education, Alagappa University, Karaikudi, during 27th and 28th Mar-2012.
14. **UGC Sponsored National Workshop " Dynamics of Research Methodology (Multi Discipline)"**, organized by UGC-Academic Staff College, Pondicherry University, Puducherry, during Aug 9th to Aug 10th 2012.
15. **National Workshop on Advanced Thin film Techniques (WATT-2012)** organized by Centre for Nanoscience and Technology, Sathyabama University, Jeppiar Nagar, Chennai-119,during 1st -3rd Nov-2012.
16. **Structure and Thermodynamics of Emerging Materials (STEM-2012) " BRNS Theme Meeting on Challenges and Issues in Surface Modification, Thin Films & Coatings"** Organized by Indira Gandhi Centre for Atomic Research , Kalpakkam and Indian Institute of Metals, Kalpakkam during 5-6 Nov-2012.
17. **Workshop on Theoretical Physics**, Organized by Department of Physics, Bharathiar University ,Coimbatore-641 046 during 17-20 Dec-2012.
18. **National Workshop on Materials Chemistry for Future Industrial Development (MATCH FIND-2017)** Organized by Department of Industrial Chemistry, Alagappa University, Karaikudi-3, during 6-7th Jan 2017.
19. **One-day workshop on Advanced Functional Materials (FUNMAT-2017)** with theme on polymers for Electrochemical Applications Organized by SAEST-CSIR-CECRI, Karaikudi on 22nd May, 2017.

List of National / International Conferences Participated

20. State level Seminar on The role of Spectroscopy in the recent trends in Pollution Monitoring , organized by the PG and Research Department of Physics, TBML College, Porayar from Mar 18th- 20th 1999.
21. National Conference on Advanced Functional Materials (NCAF-2008), organized by Department of Physics, SRM University, Chennai, during Feb.15th and 16th -2008.

Other Training Programs

1. Participated and completed Hands-on Training (Thin film coatings techniques and Surface Modification) provided in the 4th INUP (Indian Nanoelectronics User's Programme) Familiarization Workshop" International Winter school on Nano-scale Materials and devices (IWNMD 2010)" organized by Centre for Nanoscience and Nanotechnology, IIT Bombay and Cambridge University during 13-17th Dec- 2010.
2. Participated and completed Hands-on Training programme on Thin film coating & Characterisation Techniques "DC/RF Magnetron sputtering and Thermal Evaporation Technique" organized by Sathyabama University, Chennai during 24-25th Feb 2012.
3. Participated and completed Structure and Thermodynamics of Emerging Materials (STEM-2012) BRNS "Theme Meeting on Challenges and Issues in Surface Modification, Thin films & coating" organized by IGCAR, Kalpakkam and Indian Institute of Metals, Kalpakkam Chapter during 5-6th Nov- 2012.

Overseas Exposure / Visits

1. ---

Membership in

Professional Bodies

1. Life Member: Microscopy and Analysis
2. Life Member: Indian Physics Association
3. Life Member : Solar Energy Society of India (SESI)
4. Life Member : Indian Association of Physics Teachers (IAPT)
5. Member: Indian Science Congress Association.

Editorial Board

1. Proceedings of the National Conference on FUTURISTIC MATERIALS (NCFM-2017).

Advisory Board

1. ---

Academic Bodies (such as Board of Studies etc.,)

1. Member: Board of studies to frame M.Sc (Physics), and M.Phil (Physics), syllabi, Alagappa University.

Others

1. Doctorial Committee Member: Thiruvalluvar University, Vellore.

Invited Reviewer in Referred Journals

1. Advanced Materials Letter
2. Applied Nanoscience
3. Catalysis Today
4. Chinese Optics Letters
5. International Research Journal of Agricultural Science and Soil Science (IRJAS)

6. Journal of Civil Engineering and Construction Technology
7. Journal of Materials Science: Materials in Electronics (JMSE)
8. Journal of Optoelectronics and Advanced Materials
9. Potential Reviewer for reviewing articles (Category K, F. I (Thin films, Superconductivity, magnetism and spintronics)) in 60th DAE Solid State Physics Symposium is hold at Amity University UP, Noida, Uttar Pradesh, India during December 21-25, 2015
10. Results in Physics
11. Solar Energy
12. Spectrochimica Acta Part A
13. Journal of Alloys and Alloy Compounds

Resource persons in various capacities Number of Invited/Special Lectures Delivered: 02

Presented/ invited Lecture and Chairmanship in National/International Conferences/ Natural Science Society etc.,

1. Application of Thin film Technology in Engineering, Two Days National level seminar BRAINY2012, organized by Department of science & Humanities, AVC college of Engineering, Mannanpandal, Mayiladuthurai, Tamil Nadu during 21-22 March 2012.
2. Applications of Mössbauer spectroscopy in Materials Science and Space exploration, Physics Society, Department of Physics, Anandha College, Devakottai, Tamil Nadu, India 11 March-2011.

Others

1. Articles published in Newspapers / Magazines : --
2. Products developed : --
3. No. of PhD Thesis evaluated : --
4. No. of PhD Public Viva Voce Examination conducted : --
5. Sequences submitted in GenBank: ----

** Social Interests and Initiatives / Articles in News papers etc can also be included

Recent Publications

LIST OF PUBLICATIONS IN REFFRED JOURNALS

2017

1. T. Marimuthu, N. Anandhan, R. Thangamuthu, S. Surya, Facile growth of ZnO nanowire arrays and nanoneedle arrays with flower structure on

ZnO-TiO₂ seed layer for DSSC applications, J. Alloys Compd. 693, 1011-1019 (2017). (IF: 3.014)

2. Karupanan Periyanan Ganesan, **Narayanasamy Anandhan**, Venkatraman Dharuman Ponnusamy Sami, Ramaswamy Pannerselvam, Thandapani Marimuthu, Electrochemically modified crystal orientation, surface morphology and optical properties using CTAB on Cu₂O thin films, Results in Physics 7 (2017) 82–86. (IF:1.337).
3. T. Marimuthu, **N. Anandhan**, Effect of Polyvinyl Alcohol on Electrochemically Deposited ZnO Thin Films for DSSC Applications, AIP Conf. Proc. 1832(1) 080014 (2017) (IF: -)
4. T Marimuthu, N Anandhan, Growth and characterization of ZnO nanostructure on TiO₂-ZnO films as a light scattering layer for dye sensitized solar cells Materials Research Bulletin,2017 (<https://doi.org/10.1016/j.materresbull.2017.04.051>) (IF: 2.446)

2016

5. T. Marimuthu, N. Anandhan, R. Thangamuthu, S. Surya, Influence of solution viscosity on hydrothermally grown ZnO thin films for DSSC applications, Superlattices and Microstructures, 98, 332-341(2016). (IF:2.117)
6. T.Marimuthu, **N.Anandhan**, M. Mumoorathi, V.Dharuman, Synthesis and characterization of porous structured ZnO thin film for dye sensitized solar cell applications, AIP Conf. Proc. 1731, 080050 (2016). (IF: -)
7. T.Marimuthu, **N.Anandhan**, Facile synthesis of one dimensional ZnO nanostructures for DSSC applications, AIP Conf. Proc. 1728, 020621 (2016). (IF: -)
8. T.Marimuthu, **N.Anandhan**, R.Thangamuthu, M. Mumoorathi, G.Ravi, Synthesis of ZnO nanowire arrays on ZnO-TiO₂ mixed oxide seed layer for dye sensitized solar cell applications, J. Alloys Compd. 677, 211-218 (2016). (IF: 3.014)
9. S. Dinesh, S. Barathan, V. K. Premkumar, G. Sivakumar, **N. Anandhan**, Hydrothermal synthesis of zinc stannate (Zn₂SnO₄) nanoparticles and its application towards photocatalytic and antibacterial activity, J. Mater. Sci: Mater. Electron. 27(9), 9668–9675 (2016). (IF: 1.798)
10. S. Dinesh, N. Thirugnanam, M. Anandan, S. Barathan , **N. Anandhan**, Effect of activated carbon on electrochemical and photocatalytic performance of hydrothermally synthesized zinc stannate nanoparticles, J. Mater. Sci: Mater. Electron. 26, 1-10 (2016). (IF: 1.798)
11. S. Dinesh, M. Anandan, V.K. Premkumar, S. Barathan, G. Sivakumar, **N. Anandhan**, Photocatalytic and electrochemical performance of hydrothermally synthesized cubic Cd₂SnO₄ nanoparticles, Mater. Sci. Eng. B., 214,37-45 (2016). (IF: 2.331)

2015

12. T.Marimuthu, **N.Anandhan**, Studies on Structural, Morphological and Optical Properties of Electrochemically Synthesized Ce Doped ZnO Thin Films, *J. Chem. Pharmaceutical Sci.* 11 36-38(2015). (IF:-)
13. T.Marimuthu, **N.Anandhan**, T. Mahalingam, R.Thangamuthu, M.Mummoorthi, G.Ravi, S.Rajendran, Effect of P. Murex on the properties of spin coated ZnO Thin Films for Dye Sensitized Solar Cell Application, *J Mater Sci: Mater Electron., J. Mater. Sci: Mater. Electron.* 26, 7577-7587 (2015). (IF: 1.798)
14. Thandapani Marimuthu; **Narayanasamy Anandhan**; Rangasamy Thangamuthu, Muniyasamy Mummoorthi, Somasundram Rajendran, Ganesan Ravi, Surfactant mediated one and two dimensional ZnO nanostructured thin films for dye sensitized solar cell application, *Mater.Res.Exp.*, 2 2015 015502. (IF: 0.968)

2014

15. T.Marimuthu, **N.Anandhan**, G.Ravi , S.Rajendran, Structural, Functional and Optical studies on Ce doped ZnO nanoparticles, *J. Nanosci. Nanotech.*, 2(1) 2014 62-65. ISSN 2279-0381. (IF: 1.5)
16. T.Marimuthu, **N.Anandhan** , M.Mummoorthi, Structural, Morphology and Optical studies on ZnO Thin film prepared by sol-gel technique, *Int.l J of Chem Tech Res.*, 6(3), (2014) 1916-1919. (IF: 0.515)
17. V. Gowthami, M. Meenakshi, **N. Anandhan**, and C. Sanjeeviraja, Preparation of Cu-doped nickel oxide thin films and their properties, *AIP Conference Proceedings* 1591, 884 (2014); doi: 10.1063/1.4872790. (IF: -)
18. R. Murugan, G. Vijayaprasath, T. Mahalingam, **N. Anandhan**, and G. Ravi, Structural and optical properties of Ni added ZnO thin films deposited by sol-gel method, *AIP Conference Proceedings* 1591, 922 (2014); doi: 10.1063/1.4872803. (IF: -)
19. V. Gowthami, M. Meenakshi, **N. Anandhan**, C. Sanjeeviraja, Structural and Optical Properties of Nebulized Nickel Oxide Thin Films, *Adv. Mater. Res.*, 938; 103-107 (2014). DOI: 10.4028/www.scientific.net/AMR.938.103. (IF: 0.23)
20. A. AmaliRoselin, **N. Anandhan**, G. Ravi, M. M.Mummoorthi, T.Marimuthu, Growth and characterization of Sm₂O₃ thin films by spin coating technique, *Int. J. Chem. Tech Res.*, 6(13), 5315-5320 (2014) ISSN: 0974-4290. (IF: 0.515)
21. M.Mummoorthi , **N.Anandhan** , T.Marimuthu , G.Ravi , T. Suganya, An effect of supporting electrolyte based CdO polycrystalline thin film prepared by electrodeposition method, *Int. J. Chem. Tech Res.*, 6(13), 5304-5308 (2014) ISSN: 0974-4290. (IF: 0.515)

22. T.Marimuthu, **N.Anandhan**, S.Rajendran, M.Mummoorthi, M.Vidhya, Studies on pure and Ce doped TiO₂ thin films prepared by sol-gel technique, Int. J. Chem. Tech Res., 6(13), 5309-5314 (2014) ISSN: 0974-4290. (IF: 0.515)

2010

23. R.Nithya, S.Barathan, D.Govindarajan, K.Raghu and **N.Anandhan**,” A Thermal Analysis study on blended Ternary Cement Paste”. Inter.J. Chem., 2(1), 121-127; 2010. (IF: 0.64)
24. K. Thirupathi, S.Barathan, **N. Anandhan** and D. Govindarajan “Dielectric and Spectroscopic studies of a fly ash blended cement paste” Inter. J. Chem., 2(1), 212- 219; 2010. (IF: 0.64)
25. Dielectric and Spectroscopic studies of a fly ash blended cement paste
K. Thirupathi, S.Barathan, **N. Anandhan** and D. Govindarajan, Applied Physics Research, 2(1), 17-23; Feb-2010. (IF: 0.91)

2009

26. Effect of Fly ash and water in hydrated SRPC- A FTIR study,K. Thirupathi, S.Barathan, **N. Anandhan**, G.Sivakumar and D. Govindarajan Applied Physics Research, 1(2), 59-67; Nov-2009. (IF: 0.91)
27. X-Ray diffraction analysis on the effect of silica fume and water in blended cement paste. P.Veluchamy, S.Barathan, G.Sivakumar and **N. Anandhan**, International Journal of Applied Engineering Research, 4(11), 2311-2318 (2009). (IF: 0.36)
28. Mossbauer and Magnetic investigation on OPC blended with Silica fume, S.Barathan, P.Veluchamy, D. Govindarajan **N. Anandhan**, and K. Raghu, Recent Research in Science and Technology 1(3); 142-146 (2009). (IF: 3.2)

2008

29. Superplasticizer admixed Indian Cement paste-A Magnetic Susceptibility study.**N. Anandhan**, S.Barathan, G.Sivakumar D. Govindarajan and B. Gobinath, The paper published in national conferences on” **FRONTIERS OF CHEMISTRY**”orgnized by Department of Chemistry, SRM University, Chennai during Jan 24th and 25th 2008 with ISBN-978-81-7525-930-0. (IF: --)

2006

30. A DC Resistivity study on Temperature dependences of Chemical admixed Indian cement paste, **N. Anandhan**, S.Barathan, G.Sivakumar, D. Govindarajan and K. Raghu, Journal of Current Science., 9(1) 157-168,(2006). (IF: 0.31)

LIST OF PUBLICATIONS IN NATIONAL CONFERENCES

2017

1. Synthesis and characterization of Cobalt and Zinc doped Hydroxyapatite nanopowder by Co-precipitation method, A.Sharmila Devi, **N.Anandhan**, R.Paneerselvam, K.P.ganesan, V.Dharuman
2. Role of Spin coating rate on the structural, Luminescent and Optical properties of Bismuth Titanium Oxide Thin films, A.Amali Roselin, **N.Anandhan**, M.Karthikeyan, V.Dharuman.
3. Luminescence and structural analysis of Cu₂O Thin films synthesised by potentiostatic electrodeposition method, K.P.Ganesan, **N.Anandhan**, R.Paneerselvam.
4. Phase transformation analysis of Nanostructured TiO₂ thin films synthesised by electrodeposition Technique, M.Karthikeyan, **N.Anandhan**, A.Amali Roselin, V.Dharuman.
5. Tuning the structural and optical properties of Copper oxide thin films by different Mn substitution contents, M.Nithya, **N.Anandhan**, K.P.Ganesan, A.Amali Roselin, M.Karthikeyan.
6. Synthesis and structural analysis of Al doped ZnO thin films by Chemical bath deposition method, M.Mohanapriya, **N.Anandhan**, A.Amali Roselin, M.Karthikeyan, R.Paneerselvam, K.P.Ganesan.
7. Alkali Earth metal Doped Bismuth Silicate Ferroelectric thin films, R.Priyadharshini, **N.Anandhan**, A.Amali Roselin, M.Karthikeyan, V.Dharuman.
8. Microstructural analysis of Iron doped Hydroxyapatite nanopowder, R.Paneerselvam, **N.Anandhan**, K.P.Ganesan
9. Effect of HMTA on the electrodeposited ZnO nanostructured thin films for DSSC Application, T.Marimuthu, **N.Anandhan**.
10. Influence of annealing temperature on Structural and Optical Properties of Bismuth silicate thin films, S.Fathimathaslin, A.Amali Roselin, **N.Anandhan**, M.Karthikeyan, V.Dharuman.
11. Structural and Optical studies on Sol-Gel derived titanium dioxide thin films, R.Kaliammal, **N.Anandhan**, A.Amali Roselin, M.Karthikeyan.
(Presented these eleven papers in National Conference on Futuristic Materials (NCFM-2017), Organized by Department of Physics, Alagappa University, Karaikudi on 27-28th Mar- 2017).
12. Electrochemical synthesized different morphologies of zinc oxide thin films on fluorine tin oxide substrate. T.Marimuthu, **N.Anandhan**
13. Influence of coating cycles on optical Parameters of ferroelectric Semiconductor thin films. A. Amali Roselin, **N.Anandhan**, M.Karthikeyan, V.Dharuman.
14. Synthesis and appraisal of zinc substituted Hydroxyapatite nano nanopowder. R.Panneerselvam, **N.Anandhan**, T.Marimuthu, K.P.Ganesan
15. An evaluation of optical and physical properties of Cu₂O thin films prepared by electrodeposition method. K.P.Ganesan, **N.Anandhan**, T.Marimuthu, R.Panneerselvam
16. Growth and Characterization of Chemical bath Deposited Plumbous Oxide Thin films. V.Shanmuga Priya, **N.Anandhan**.

(Presented these five papers in National Seminar on Advanced materials Research

Organized by Department of Physics, Alagappa University, Karaikudi on 19 Jan. 2017).

17. An impact on microstructural, morphological and optical properties of Cu₂O thin films at unique annealing temperature using electrodeposition.

K.P.Ganesan, **N.Anandhan**, R.Panneerselvam, P.Sami

(Presented this paper in International Conference on Materials and Technology-Synthesis, Processing and Applications organized Department of Physics, Sri S. Ramasamy Naidu Memorial College, Sattur, Virudhunagar-626 302, on 9th March 2017).

2016

18. Effect of annealing temperature on structural, morphological, vibrational and optical properties of the ZnO nanowires, T.Marimuthu, **N.Anandhan**.

19. Radio Frequency Magnetron Sputtered Hydroxyapatite Thin films coated at ambient Temperature, R.Panneerselvam, **N.Anandhan**, K.P.Ganesan, T.Marimuthu.

20. Potentiostatically grown Cu₂O Thin film at different annealing Temperature, K.P.Ganesan, **N.Anandhan**, T.Marimuthu, R.Panneerselvam, P.Sami.

(Presented these papers National Conference on Advanced Materials (NCAM-2016) organized by School of Physical Science, St. Joseph's College, Tiruchirapalli, India on 7th Oct-2016)

2014

21. Studies on pure and Ce doped TiO₂ thin films prepared by sol-gel technique, T.Marimuthu, **N.Anandhan**, S.Rajendran, M.Mummoorthi, M.Vidhya,

22. Growth and Characterization of Sm₂O₃ thin films by spin coating technique, A.Amali Roselin, **N. Anandhan**, G. Ravi, M. Mummoorthi, T. Marimuthu.

(Presented these two papers National Conference on Material for Energy Storage and Conversion, organized by Centre for Scientific and Applied Research, PSN College of Engineering and Technology, Tirunelveli, Tamilnadu, during 4-5 September-2014)

2012

23. An Effect of Complexing Agents in CuSnS Thin films at constant bath Temperature. B.Revathi, **N.Anandhan**, G.Sivakumar, S.Barathan, C.Sanjeevi Raja, A.Rafikraja and G.Ravi.

24. Influences of Time intervals during CdS Thin films deposition, A.Rafikraja, **N. Anandhan**, S.Barathan, C.Sanjeevi Raja, G.Sivakumar, B.Revathi, and G.Ravi.

(Presented these two papers in the National Conference on Materials for Energy and Environment (NCMEE-2012), Department of Science and Humanities, Chendu College of Engineering and Technology, Zamin Endathur, Maduranthagam, Kanchipuram Dist. 6th April-2012).

25. Spectroscopic and Microscopic Analysis of Different Cd sourced CdS thin films, **N. Anandhan**, A.Rafikraja, C.Sanjeevi Raja, S.Barathan and G.Sivakumar.

(Presented the paper in the National Conference on Physics of New Materials (NCPNM-2012), Department of Physics, Noorul Islam University, Kumaracoil, Thucklay, Tamil Nadu. 20-21 April-2012).

2008

26. A study on the role of mineral contents in water in silica fume admixed cement paste. **N.Anandhan**, S.Barathan, G.Sivakumar, D.Govindarajan and K.Raghu.
(Presented the paper in the National Conference on Emerging Materials and Technologies for India 2020 held between Jan 24th-25th 2008 at National Institute of Technology, Trichy).
27. Superplasticiser Admixed Indian Cement Paste – A Magnetic Susceptibility Study. **N.Anandhan**, S.Barathan, G.Sivakumar, D.Govindarajan and B.Gobinath
(Presented the paper in the National Conference on “Frontiers of Chemistry-2008” held between Jan 24th-25th 2008 at SRM University, Kattankulathur, Chennai).
28. Magnetic and Mössbauer Spectroscopic Analysis of SF doped OPC Nano-Composite. **N.Anandhan**, P.Veluchamy, S.Barathan, G.Sivakumar and B.Gobinath.
(Presented the paper in the National Seminar on Nano Science and Technology-Challenging Ahead (NSTCA-2008) held on Aug 19th 2008 at Vellamal Engineering College, Chennai).

2006

29. Silica fume admixed cement paste hydration-A magnetic study. **N.Anandhan**, G.Sivakumar, D.Govindarajan, K.Raghu, P.Veluchamy and S.Barathan.
(Presented the paper in National Conference on Recent advances in Materials Science held between Feb.16th-17th 2006 at Periyar University, Salem).
30. Susceptibility study of Sulfonated Naphthalene Formaldehyde admixed cement paste. **N.Anandhan**, S.Barathan, D.Govindarajan, G.Sivakumar and K.Raghu.
(Presented the paper in National Seminar on Advances in Materials Science held between Mar.27th-28th 2006 at Manonmaniam Sundaranar University, Tirunelveli).

2004

31. A Ultraviolet studies of some Chemical admixture cement solutions. K.Raghu, D.Govindarajan, G.Sivakumar, **N.Anandhan** and S.Barathan.
32. Magnetic studies of some Chemical admixed cement paste. **N.Anandhan**, D.Govindarajan, G.Sivakumar, K.Raghu and S.Barathan.
(Presented these two papers in the UGC sponsored National Seminar on Emerging Trends in Molecular Physics held during March 8th-9th 2004 at Annamalai University, Annamalai Nagar).

2003

33. Magnetic Studies of some Admixed cement pastes. **N.Anandhan**, K.Raghu, D.Govindarajan, G.Sivakumar, and S.Barathan.
(Presented the paper in the National Seminar on Chemical Physics, Annamalai University, Annamalai Nagar, March 2003).

LIST OF PUBLICATIONS IN INTERNATIONAL CONFERENCES

2017

1. Preparation and analysis of Thermoelectric thin films at different coating Cycles, A.Amali Roselin, N.Anandhan, R.Priyatharshini, M.Karthikeyan.
2. A case study on sol-gel spin coated Rare earth Doped ZnO thin films, S.Fathima Thaslin, N.Anandhan, N.Anandhan, A.Amali Roselin, M.Karthikeyan

(These two papers presented in the International Conference on FACTs 2017, during July 06-08th, 2017, Organized by Department of Industrial Chemistry, Alagappa University, Karaikudi 630 003, India).

2016

3. Influence of Eosin Blue Dye on Electrochemically Synthesized ZnO Thin Films for DSSC Applications, T.Marimuthu, **N.Anandhan**, R.Thangamuthu, S.Surya.
4. Growth and characterization of chemical bath deposited plumbous oxide thin films” M. Karthikeyan¹, **N.Anandhan**, A.Amali Roselin, V.Shanmugapriya, G.Gopu, V. Dharuman, G. Ravi,
5. Effects of precipitating agents on surface texture and magnetic properties of Dy₂O₃ nanopowder, A.Amali Roselin, **N.Anandhan**, M.Karthikeyan, P.Rajapandi, V. Dharuman, G.Ravi.

(These three papers presented in the International conference on Materials Science & Technology 01-04th Mar-2016, University of Delhi, Delhi 110007, India).

6. Fabrication and electron kinetics analysis of Ce:ZnO/CdS thin film prepared by two step chemical methods for dye sensitized solar cell applications, T.Marimuthu, **N.Anandhan**, (The paper presented in 19th National Convention Electrochemist organized by CECRI, Karaikudi and NIT Tiruchy, Tamilndau during 28&29 March, 2016).
7. Fabrication and Characterization of Copper Sulfide Thin Films for Energy Conversion and Storage Devices, T.Marimuthu, **N.Anandhan**.
8. Effect of CTAB surfactant on crystal orientation, surface morphology and optical properties of electrochemically synthesized Cu₂O thin films. K.P.Ganesan, **N.Anandhan**, R.Panneerselvam, T.Marimuthu, P.Sami.
9. Preparation and Characterization of Nano Hydroxyapatite Powder by Wet Chemical Precipitation Route for Different Concentration, R.Panneerselvam, **N.Anandhan**, T. Marimuthu and K.P.Ganesan.

(These three paper presented in International Conference on Functional Materials organized by Centre for Scientific and Applied Research PSN college of engineering and technology, Tirunelveli, India during 7-10, September 2016).

10. Temperature Dependent Anatase Titanium Dioxide Thin film Prepared by Electrodeposition Technique” M. Karthikeyan, **N.Anandhan**, V.Dharuman, G.Gopu, A. Amali Roselin, S. Viswanathan.
11. Effect of annealing temperature on structural and optical properties of BTO thin films for photocatalytic applications, A.Amali Roselin, **N. Anandhan**, G.Gopu, M. Karthikeyan.
12. Influence of Sm on structural and optical properties of Bi₂S₃ thin films using SILAR method, D.Janani, **N.Anandhan**, V.Dharuman, G.Gopu, M.Karthikeyan, A.Amali Roselin, K.P.Ganesan.
13. The roles of portic solvents on CdS thin films prepared by chemical bath deposition technique, K.Rajeswari, **N.Anandhan**, V. Dharuman, A.Amali Roselin, M.Karthikeyan, G.Gopu.
14. Structural and Morphological properties of polypyrrole doped Sb₂S₃ thin films, J.Umadevi, **N.Anandhan**, V. Dharuman, G.Gopu, M.Karthikeyan , A.Amali Roselin, C.Suganya, P.Rajeswari.
15. A novel Cobalt doped Dy₂O₃ nanoparticles Ssynthesized by co-pprecipitation method C.Suganya, **N.Anandhan**, M.Karthikeyan, V. Dharuman, G.Gopu, A. Amali Roselin, S.Viswanathan, J.Umadevi.
(These six paper presented in the International Conference on FACTs 2016, during March 21-23rd, 2016 Alagappa University, Karaikudi 630 003, India).
16. Effect of Polyvinyl Alcohol on Electrochemically Deposited ZnO Thin Films for DSSC Applications. T. Marimuthu, N. Anandhan. 61th DAE Solid state Physics Symposium, KIIT University, Bhubaneswar, December 26-30, 2016.

2015

17. Studies on structural, morphological and optical properties of electrochemically synthesized Ce doped ZnO thin film, T.Marimuthu, **N.Anandhan**, (Paper presented in the International Conference on Recent Advancements in Materials, organized by Department of Physics, Anna University, BIT Campus, Tiruchy, Tamilnadu, during 16th - 17th Oct -2015).
18. Facile Synthesis of One dimensional ZnO Nanostructures for DSSC Applications, T.Marimuthu, **N.Anandhan**, Paper presented in International Conference on Condensed Matter & Applied Physics, organized by Department of Physics, Govt. Engineering College, Bikaner, Rajasthan, during 30-31st Oct-2015.
19. Synthesis and Characterization of Porous Structured ZnO Thin Film for Dye Sensitized Solar Cell Applications. T.Marimuth, **N.Anandhan**, M.Mummoorthi, V.Dharuman. Paper presented in 60th DAE-Solid State Physics Symposium Department of Atomic Energy, Amity University, Noida, India, during 21-25 Dec-2015.

2014

20. Structural, Morphology and optical Studies on ZnO thin film prepared by sol-gel Technique, T.Marimuthu, **N.Anandhan**, M.Mummoorthi.

(Presented the paper International Conference on Materials and Characterization Techniques-2014 (ICMCT-2014), during 10-12nd Mar-2014, organized by Centre for Crystal Growth, School of Advanced Sciences, VIT University, Vellore, Tamil Nadu).

21. Structural, Functional and Optical Studies on Ce Doped ZnO Nanoparticles. T.Marimuthu, **N.Anandhan**, G.Ravi, S.Rajendran,
(Presented the paper International Conference on Nonoelectronics Science & Technology, organized PG and Research Department of Electronics, Vasavi College, Erode, Tamilnadu, during 14th–15th Feb-2014).

2013

22. The formation of CdZnS thin film and its Charectrization. **N.Anandhan**,S.Senthil Kumar,V.Dharuman, J.Shankara Narayanan, T.Marimuthu, G.Ravi, G.Sivakumar.
(Presented the paper International Conference on Recent Advances in Textile and Electrochemical sciences-2013 (RATES-13) during 21-23rd Mar-2013, organized by Department of Industrial Chemistry, School of Chemical Sciences, Alagappa University, Karaikudi).
23. Structural and optical properties of Ni doped ZnO thin film prepared by sol-gel Method, R.Murugan, G.Vijayaprasath, T.Mahalingam, **N.Anandhan**, G.Ravi.
(Presented the paper 58th DAE Solid State Physics Symposium during 17-21st Dec- 2013, organized by BARC, Thapar University, Patiala).

2012

24. Structural, Morphological and Band gap analysis of electron Beam Evaporated Nickel Oxide Thin films. V.Gowthami, **N.Anandhan** and C.Sanjeeviraja.
(Presented the paper International conference on research in condensed matter Physics (ICCMP–2012),1-3 October 2012,organized by the Department of Theoretical Physics, University of Madras, Chennai Tamil Nadu, India).

2011

25. Electroplated Cadmium Stannous Selenide Alloy Thin Films T.Mahalingam,G.Ravi, S.Dhanasekar,K.Satheesh Kumar and **N.Anandhan**.
(Presented the Paper International conference on Advanced Materials and Applications (ICAMA-2011), Kalasalingam University, Tamil Nadu,India).

2010

26. 4. Electrical conductivity and FTIR Spectroscopic studies on nano sized -silica fume admixed Cement. **N.Anandhan**, G. Sivakumar, B.Shanthi and S. Barathan.

(The paper presented in the International conference on Nanoscience and Nano Technology (ICONN-2010) held on Feb-24th -26th -2010 at SRM University, Chennai, India).

27. Effect of fly ash and different waters on type V cement hydration, K.Tiruppathi, S.Barathan, G.Sivakumar, and **N.Anandhan**.
28. DC Conductivity and Vibrational Spectroscopical analysis of nanosized silica fume admixed cement, **N.Anandhan**, G.Sivakumar, B.Shanthi, and S.Barathan.
(Presented these papers in the International conference on Recent Frontiers in applied Spectroscopy (ICORFAS-2010) held on Sep-22nd and 24th 2010 at Annamalai University, Chidambaram, India).

2009

29. Electrical property of nano sized silica fume (20 nm) admixed cement systems. **N.Anandhan**, G.Sivakumar, P.Veluchamy, B.Gobinath and S.Barathan.
30. Magnetic Susceptibility Study of 20 Nanometric Size Silica fume Admixed Cement Paste, **N.Anandhan**, D.Govindarajan, P.Veluchamy, B.Gobinath and S.Barathan.
31. Determination of Ultrasonic pulse velocity and Elastic Property OPC-SF admixed Cement Mortars, **N. Anandhan**, N.P. Rajamane, J.K. Dattarteya, B.Shanthi and S. Barathan
(Presented these papers in the International conference on Functional Materials for advanced Technology (ICFMAT-2009) held on Jan 29th and 30th 2009 at Vellamal Engineering College, Chennai, India).

Orientation program/special courses participated and Completed hands-on-training

1. Two- day course on **TESTING AND CHARACTERISATION OF MATERIALS** held on DEC-19th and 20th, 2009 at IIT-Madras, Chennai In Association with ASM International Chennai Chapter & Kalpakam-Chennai HRD Centre of Indian Institute of Metals.
2. 4th INUP familiarization workshop” **WINTER SCHOOL ON NANO-SCALE MATERIALS AND DEVICES (IWNMD 2010)**” held at IIT Bombay in Association with Cambridge University, UK, Mumbai during Dec.13-17, 2010.
3. Participated and completed 108th summer School Orientation Programme at Academic Staff College, Pondicherry University, Puducherry, during 15/06/12 to 05/07/12.
4. Participated and completed the Orientation Programme to the newly recruited Teachers of the University, Organized by Curriculum Development Cell, Alagappa University, Karaikudi, during 24/08/12 to 31/08/12.
5. Participated and completed the Short term course on Optical and Ultrasonic Methods in NDE, Organized by Department of Physics, National Institute of Technology, Tiruchirappalli-15, during 16/10/13 to 20/10/13.

6. Participated and completed Refresher Course in Physics at Academic Staff College, Bharadhidasan University, Tiruchirapalli, during 15/06/12 to 05/07/12.
7. Participated and completed 69th Refresher Course in Experimental Physics at Indian Academy of Sciences, Jalahali, Banglaru during 14/04/15 to 29/04/15.