

Name : Dr. M. R. Ananthan
Designation : Associate Professor
Department : Physics
Qualification : M.Sc., Ph.D, (Post Doc)
Experience : Teaching: 6.11 Years Research :16 years



Area of Specialization(s): CIGSSe, CZTS based thin film solar cells and materials, Surface and interfaces of thin films, TCO films, metal nanoparticles embedded TCO matrix, CBD and Ion beam techniques.

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Academic Qualifications

Degree	Branch	Institution / University Name	Year of Graduation
Ph.D.	Physics	IIT Madras	2009
M.Sc.,	Physics	V.H.N.S.N. College, Virudhu Nagar	2001
B. Sc.,	Physics	V.H.N.S.N. College, Virudhu Nagar	1999

Additional Qualifications

Diploma / Vocational / Certification	Area of Specialization	Institution / University / Agency Name	Year
Post Doctorate	CIGSSe Solar Cells	University of Johannesburg	2010-2012

Research Publications (Indexed)

International

1. Sen.P, Durgesh, M. R. Ananthan,Laha, Ranjit and S. Kasiviswanathan, **Electrical conduction in gold nanoparticles embedded indium oxide films: A crossover from metallic to insulating behavior"**, Journal of Physics: Condensed Matter, Vol. 31, p.505702, 2019.(IOP Science)
2. M.R. Ananthan, P. Malar, Thomas Osipowicz, Shika Varma and S. Kasiviswanathan,**Growth and characterization of Au nanoparticles embedded In₂O₃ composite films**, Thin Solid Films, Vol.622, pp 78–83, 2017.(Sciencedirect)

3. M.R. Ananthan, P. Malar, Thomas Osipowicz and S. Kasiviswanathan, **Studies on interface between In_2O_3 and CuInTe_2 Thin films**, Appl. Surf. Sci., Vol 418, pp 388-392, 2017.(Scimedirect)
4. M. R. Ananthan and Mahalakshmi ,**Review on CZTS based solar cells**, Adv. Nat. and Appl. Sci., Vol.8,72-75, 2014. (indexed in SCOPUS)(Google Scholar)
5. M.R. Ananthan and S. Kasiviswanathan,**Growth and Characterization of CuInTe_2 thin films**,Sol. Energy Mater. Sol. Cells Vol.93, pp. 188-192, 2009.(Scimedirect)
- 6.M.R. Ananthan,Bhaskar Chandra Mohanty and S. Kasiviswanathan,**Micro-Raman Spectroscopy Studies of Bulk and Thin Films of CuInTe_2** ,Semicond. Sci. Technol. Vol. 24, p. 075019, 2009.(IOP Science)

Presentations in Conference

International

1. **Localized surface plasmon resonance of gold nano-clusters embedded in In_2O_3 thin films**, International Conference on Nano Science and Technology (ICONSAT-2006), IIT Delhi, New Delhi, 16-28-Mar-06.
2. **Micro-Raman Spectroscopy of polycrystalline and amorphous CuInTe_2 thin Films**, Material Research Society (MRS) Spring Meeting - Thin Film Compound Semiconductor Photovoltaics, San Francisco, USA, 13-17-Apr-09.
3. **Novel thin film PV technology-Transition from basic research to commercial mass production**, First Southern African Solar cell conference (SASEC 2012), Stellenbosch, South Africa,21-23-May-12.
4. **Commercial production of CIGSSe by In-Line selenization/Sulfurization of metallic Alloys**, 27th European Photovoltaic Solar Energy Conference and Exhibition 2012, Frankfurt, Germany, 24-28-Sep-12.
5. **Review on CZTS based solar cells**, International,conference on Electrical, Electronics, Instrumentation and Computer communication, Coimbatore, India,Dec 12-13, 2014.
6. **Studies on interface between In_2O_3 and CuInTe_2 Thin films**, Asian Consortium on Computational Materials Science (ACCMS) Theme Meeting, SRM University, Chennai, India on Sep 22-29, 2016.
7. **Growth and studies on CdZnS thin films**, International Virtual Conference on Energy Conversion and Storage (ICECS-2K21), PPG College of Arts and Science, Coimbatore, India, Apr 20 -21,2021.

National

1. **Vacuum Tunneling Spectroscopy Studies of CuInTe₂ Films**, DAE-SSP symposium, Guru Nanak Dev University, Amritsar, Dec 26-30, 2004.
2. **Growth and Raman study of CuInTe₂ thin films**, National Conference on Semiconductor Materials and Technology (NCSMT-2008), GKV University, Haridwar, Oct 14-16, 2008.
3. **Characterization of interface between CuInTe₂ and In₂O₃**, DAE-BRNS symposium, IIT Bombay, Mumbai, Dec 16-20, 2008.

Participation in Seminars

DRDO & ISTE Sponsored National Level Seminar on Advances in Materials Research for Armaments Applications, Dr. Mahalingam College of Engineering and technology, Pollachi, 15- Feb19 to 16-Feb-19.

Participation in Workshop

National Level workshop on “Recent Trends and Opportunities in Physics (Online)” on 10th and 17th April 2021, VIT-AP University, Andhra Pradesh, India.

Participation in Faculty Development Programme

1. Bridge courses in Physics, Anna University, 23rd and 24th June 2014
2. NPTEL Course on “Optical Sensors”, Jan-Feb 2021.
3. Online FDP on “Research Methodology and Pedagogy for Tertiary Education”, Dr. N.G.P. Arts and Science College, Coimbatore, June 15-21, 2021.
4. Online FDP on “Five day IQAC FDP Series-2022”, Sankara College of Science and Commerce, Coimbatore, January 24-29 2022.
5. Online FDP on “Thoughts of Teaching”, IIT Hyderabad, 5th March 2022.

Conference / Seminar / Workshop Organized

1. Organizing Secretary, SCIENCIA FEST (National level), Karpagam College of Engineering, Coimbatore, 28- Feb-15 and 28-Feb-16.
2. Coordinator, Seminar on “Thin Film Solar Cells: Overview of Absorber Materials and Characterization Tools”, Dr. N. G. P. Arts and Science College, Coimbatore, May 29, 2021.
3. Coordinator, Seminar on “Nanostructured Metal oxides for Supercapacitor Applications”, Dr. N.G.P. Arts and Science College, Coimbatore, November 29, 2021.

Member in BoS

1. Board of Studies (Physics), Karpagam College of Engineering, Coimbatore, 2013-2017.

Membership in Professional Bodies

Name of the Professional Body	Nature of membership	Duration
SPIE	Life-time	-

Awards / Honors

Awards / Honors	Agency / Institute	Year of Award
JRF	IIT Madras	2002
Post Doctorate Fellow	University of Johannesburg	2010