



**Name** : Dr. D.PATHINETTAM PADIYAN

**Designation** : Professor

**Department** : Physics

### **Educational Qualification:**

- Ph.D (1988) in Physics from Madurai Kamaraj University, India
- Certificate course in computer programming (1984), Annamalai University, India
- M.Sc (1980) in Physics from Annamalai University, India
- B.Sc (1977) in Physics from VHNSN College, India

### **Academic Affiliation:**

- Professor of Physics, Manonmaniam Sundaranar University, Tirunelveli, Dec 2000 till date
- Reader, Department of Physics, Manonmaniam Sundaranar University, Tirunelveli, Dec 1992 to Dec 2000
- Lecturer, Department of Physics, VHNSN College, Virudunagar, Aug 1987 to Dec 1992

### **Professional Affiliation:**

- Coordinator, Internet centre and office automation, Dec 2008 onwards.
- Dean (campus), Manonmaniam Sundaranar University in the year 2008.
- Member of Syndicate in Manonmaniam Sundaranar University, Jan 2002- Dec 2004.
- Professor in charge, Library, Manonmaniam Sundaranar University, Aug 2005- Sep 2006.

### **Area of Research:**

- Nanomaterials, Titania nanotube array, hydrogen generation.
- Semiconducting thin films, Polymer films with heteropolyanions – gas sensors.
- Crystal growth, Lattice defects, Solid solutions, Photoconductivity.
- EPR – single crystal and polycrystalline – organo metallic complexes.

### **Research Projects:**

1. DST (1995-1998) - Rs 8.75 lakhs
2. AICTE (1999-2001) - Rs 7.60 lakhs
3. UGC (2005-2007) – Rs 12.00 lakhs
4. DAE-BRNS (2007-2010) – Rs 11.18 lakhs
5. IUAC (2007-2010) – Rs 2.61 lakhs
6. UGC (2010-2013) – Rs 9.27 lakhs

## Research Publications:

1. Research Papers Published in Refereed International Journals: 40

Five Papers based on Most Recent / Significance:

1. Intercalation of polyoxomolybdate in polyaniline matrix: Enhancement in AC impedance and gas sensing properties  
P. Chithra lekha, S. Subramanian, Junsin Yi, S. Dhanuskodi, D. Pathinettam Padiyan  
Materials Chemistry and Physics 122 (2010) 431–438 (Impact factor: 1.657)
2. Sensing properties of polyoxomolybdate doped polyaniline nanomaterials for oxidising and reducing volatile organic compounds  
P. Chithra lekha, M. Balaji, S. Subramanian, D. Pathinettam Padiyan  
Current Applied Physics 10 (2010) 457–467. (Impact factor: 1.526)
3. High-energy ion induced physical and surface modifications in antimony sulphide thin films  
S. Subramanian, M. Balaji, P. Chithra Lekha, K. Asokan, D. Kanjilal, Indra Sulania, Jai Prakash, D. Pathinettam Padiyan.  
Current Applied Physics 10 (2010) 1112–1116. (Impact factor: 1.526)
4. Influence of polyaniline doping concentration in  $(\text{Bi}_{0.5}\text{Sb}_{0.5})_2\text{S}_3$  thin polycrystalline films on structural, electrical and optical properties  
S. Subramanian, P. Chithra lekha, D. Pathinettam Padiyan  
Journal of Non-Crystalline Solids 356 (2010) 1173–1179 (Impact factor: 1.252)
5. Electrodeposition of Polyaniline thin films doped with dodeca tungstophosphoric acid: Effect on annealing and vapor sensing  
P.Chithra Lekha, E. Subramanian and D. Pathinettam Padiyan  
Sensors and Actuators B 122 (2007) 274-281. (Impact factor: 2.646)

## I. Books and Monographs:

1. Advances in Physics (Editor)  
Manonmaniam Sundaranar University Publication (2006)

## II. Chapters in Books (Edited Volume):

1. Characterization of copper ferrite thin films prepared using rf magnetron sputtering  
M. Balaji and D. Pathinettam Padiyan  
The 10th Tamil Science Association seminar proceedings (2010) (p. 94)  
(ISBN No.–938062717-3)

**Awards:**

Best paper award for the paper “Formation and characterization of titania nanotubes” presented at the “International conference on recent emerging technologies in renewable energy” held at Centre for International Affairs, Anna University, Chennai during Aug. 18-21, 2010.

Best paper award for the paper “AC Impedence analysis of nanoscale polyaniline Poly (vinyl pyrrolidone) blends” presented at the International conference on advancement of nanoscience and nanotechnology, March 1 – 3, 2010 held at Alagapa University, Karaikudi.

Best paper award for the paper “Transformation of spinel to inverse spinel copper ferrite prepared by co-Precipitation technique” presented at the “National Conference on Materials: Nano to Macro dimensionality and their varied Applications held at Department of Chemistry, Manonmaniam Sundaranar University, Tirunelveli during 28-29 January 2010.

“Materials Research Society of India Prize” for the Best Poster Paper entitled “Influence of electron beam irradiation on cationic migration and structural morphology of  $\text{CuCoFe}_2\text{O}_4$  nanoparticles” during the 20<sup>th</sup> AGM of MRSI held on 10<sup>th</sup> February 2009 at Saha Institute of Nuclear Physics, Kolkata.

Received “Academic Excellence Award” for the year 2008 from Manonmaniam Sundaranar University, Tirunelveli

**Others:**

- Visit Abroad – Italy, Singapore, Malaysia
- Seminar/workshop organized – Five

**Declaration**

I hereby declare that, the information provided by is true to the best of my knowledge.

(Head of the Department)

(Signature of the Faculty)