

STAFF PROFILE

Name : **Dr. P.Pandi**

Designation : **Assistant Professor**

Date of Entry into Service : **01.09.2012**

E-mail : pandipmc11@gmail.com

Mobile (Optional) : ---

Education : **M.Sc., M.Phil., P.hD.,**

Areas of specialization : **Materials Science and Nanotechnology**

Projects undertaken : **Nil**

Seminars Organized : **Nil**



Seminars, Workshop and Conferences Attended

Title of the Seminar/Conference/ Workshop	Date	Sponsoring Agency	National /State/ International	Organization in which attended
Advanced Nanomaterials for Energy, Environment and Healthcare Applications,	31.08. 2018 and 01.09.2018.	India-UK	International Conference o	Department of Physics, K.S.R. College of Arts and Science for Women, Tiruchengode,
Energy Fest 17 Seminar on Advanced Technologies and Innovation in Energy and Environment	28.03.2017	MKU	-	School of Energy, Environment and Natural Resources, Madurai Kamaraj University, Madurai-21.
Materials Processing and Applications	14.12.2016 to 15.12.2016	DRDO, Govt. of India	International	School of advanced science; VIT university; Vellore.

9 th NABS National Conference on New Biological Researches: Opportunities and Challenges for Sustainable Development	11.08.2016 and 12.08.2016	NABS	National	School of Energy, Environment and Natural Resources, Madurai Kamaraj University, Madurai-21.
One day Workshop and awareness programme on Solar Rooftop Segments	30.05.2016	MKU	-	School of Energy, Environment and Natural Resources, Madurai Kamaraj University, Madurai-21.
National Convention of Electrochemists (NCE-19) on 28-29, March 2016.	28.03.2016 and 29.03.2016	SAEST	National	National Institute of Technology, Tiruchirappalli
Centre for Instrumentation and maintenance facility.	28.03.2016 and 29.03.2016	-	Workshop	Periyar university,salem.
A New Horizon in Materials	11.03.2016	UCG	International	Department of Physics, Sarah Tucker College, Tirunelveli
One day National seminar on Recent Trends in Energy Technologies	14.08.2015	UGC	National	Department of Physics The American College Madurai
Progress in Condensed Matter Physics	07.01.2015	UCG	State	Research Centre and P.G Department of Physics, The Madura College, Madurai
Recent Trends in Chemical Sciences	23.10.2014 and 24.10.2014	UGC-New Delhi	National	Dept of Chemistry; St.Johns college, Anchal , Kollam-Kerala.
Emerging trends in Physics of materials (SETPOM)	10.01.2014	UCG	State	PG and Research Department of Physics, The Madura College, Madurai

Indo-German Conference on Laser Applications and Nanoscience	5-7. December 2013	DKG; KSCSTE; Humboldt Club of Kerala	International	Srinivasa Ramanujam Institute for Baic Sciences; Humboldt Club of Kerala- Trivandram
Nano and Thin film Solar Materials	29.12.2011	UGC	State	P.G and Research Department of Physics, The Madura College, Madurai
Solar Energy Application	24.12.2009	UCG	State	PG and Research Department of Physics, The Madura College, Madurai

Books Published : (1) Under review

Research Publications

Title of the Journal	ISSN No. if any	Volume No. & Page No. if any	Year	International/ National/State
Metal (II) complexes with derived from 3-hydroxy-2-(3-nitrophenyl)-4H-chromen-4-one; synthesis and photocatalytic activity <i>Journal of Materials Science: Materials in Electronics</i>	0957-4522	30 (7)	2019	International
Investigation on oxide multilayer thin film solar cells <i>Journal of Metallurgy and Materials Science</i>	0972-4257	61 (2) 73 - 81	2019	International
Structural, Optical and Morphology Study of oxide Materials <i>Advances in Applied Physics</i>	1314-7617	7 (1) 1 - 7	2019	International
Structural transformation study of TiO ₂ nanoparticles annealing at different temperatures and the photodegradation process of eosin-Y, <i>Phase Transitions</i>	0141 - 1594	91 (4) 406 – 425	2018	International
Investigation on Structural and Optical Properties of Copper TellurideThin Films with different	1793-5350	16 (4) 1 – 4	2017	International

annealing temperature <i>International Journal of Nanoscience</i>				
Synthesis and Characterization of TiO ₂ -NiO and TiO ₂ -WO ₃ nanocomposites <i>Journal of Materials Science: Materials in Electronics</i>	0957-4522	28 (7) 5222-5234	2017	International
Structural, Optical and Antimicrobial activity of Copper and Zinc Hydroxyapatite Nanopowders using Sol-Gel Method <i>Machnics, Materials Science and Engineering.</i>	2412-5954	9 (1) 1 – 6	2017	International
Photocatalytic performance and antimicrobial activities of HAp- TiO ₂ nanocomposite thin film by Sol-Gel metho <i>Surfaces and Interfaces.</i>	2468-0230	6, 247 – 255	2017	International
Synthesis and Study of CdS thin films prepared with different KMnO ₄ activation time <i>Journal of Materials.</i>	2314-4866	3439827, 1-7.	2016	International
Antibacterial activities of HAp-TiO ₂ composites by Sol-Gel dip- coating technique <i>Indian Journal of Research Fountation</i>	2454 - 6577	4: 27 – 35 (2017)	2015	National
Synthesis and Characterization of surface modified RhoB-TiO ₂ <i>International Journal of Current Research.</i>	0975-833X	5 (8), 2179-2182.	2013	International
Synthesis and Characterization of TiO ₂ Nanopowders in Hydrothermal and Sol-Gel Method <i>International Journal of Advancements in research and technology.</i>	2278-7763	2 (4),102- 108.	2013	International
Dye Sensitized Solar cell materials -TiO ₂ with Hesperidin <i>International Journal of innovative research in science, engineering and technology.</i>	2319-8753	2 (7), 3237-3244.	2013	International
Optical properties of (AR) Multilayer thin film for Solar Cell Application	2278-5736	4 (4),1-4.	2013	International

<i>IOSR-Journal of Applied chemistry.</i>				
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Research Activities

Degree	No. Awarded	No. Submitted	No. Guiding
M.Sc.,	07	---	---

Details of Invited Lecture/ Resource Person : Nil

Academic council/Board of Studies Member : Nil

Honours Achieved : Nil

**Service in Extra Curricular Activities
(NSS/NCC/AEEP/YRC/MCCA/Club etc.) : Nil**

Reviewer/editor of a journal : Nil

Details of Orientation and Refresher attended : Nil

Any Other Information:

Paper Presentation : National/International

1. Synthesis, Characterization of Cu – metal complex doped TiO₂ and their photocatalytic studies, Paper presented in National Conference on Solar thermal and Photovoltaic techniques, Department of Solar Energy, School of Energy, Environment and Natural Resources, Madurai Kamaraj University, Madurai-21, 5th and 6th September 2017.
2. Synthesis and Characterization of TiO₂ – NiO and TiO₂ – WO₃ nanocomposites for DSSCs, Paper presented in 9th NABS National Conference on New Biological Researches: Opportunities and Challenges for Sustainable Development, School of Energy, Environment and Natural Resources, Madurai Kamaraj University, Madurai-21, 11th - 12th August 2016.
3. Synthesis and Characterization of TiO₂ –NiO and TiO₂ – WO₃ nanocomposites, paper presented in Nineteenth National convention of Electrochemists, National Institute of Technology, Trichy, March 28th - 29th, 2016.
4. Structural transformation study on TiO₂ nanoparticles annealing at different temperature with photodegradation process of Eosin- Y,paper presented in International conference on A new horizon in Materials, Sarah Tucker College, Tirunelveli, March 11, 2016.

Now-a-days solar cell materials are synthesized by a myriad of techniques. Among them Hydrothermal method and anodization are simple and inexpensive. These techniques are responsible for finding new PV materials that address the issues of sustainable growth and cost effective production of electricity from solar energy.

My research work is mainly focused on Dye Sensitized Solar Cells (DSSCs) based on novel nanocomposites with the following objectives: To synthesize and characterize TiO_2 nanostructures, To synthesize and characterize nanocomposite semiconducting oxides.