

Name : Dr. S.Gunasekaran

Designation : Assistant Professor

Department : Physics

Qualification : M.Sc., Ph.D

Experience : Teaching : 2.6 Years Industry : 0 Year Research : 08

Area of Specialization(s) : Materials Science

Email (Official ID) : gunasekaran.s@drngpasc.ac.in



Academic Qualifications

Degree	Branch	Institution / University Name	Year of Graduation
Ph.D.	Physics	PSG College of Arts and Science Coimbatore-14	2021
M.Sc	Physics	St. Joseph college, Tiruchirappalli -01	2016
B.Sc	Physics	PSG College of Arts and Science, Coimbatore -14	2014

Research Publications (Indexed)

International

1. **S. Gunasekaran** , R. Marnadu , D. Thangaraju , J. Chandrasekaran , H.H. Hegazy , H.H. Somaily , A. Durairajan , M.A. Valente , M. Elango , Vasudeva Reddy Minnam Reddy, Development of n-MoO₃@MoS₂/p-Si heterostructure diode using pre-synthesized core@shell nanocomposite for efficient light harvesting detector application, Materials Science in Semiconductor Processing, Elsevier publication Volume 135, Page- 106097, 2021. (SCI Indexed)
2. **S Gunasekaran**, D Thangaraju, R Marnadu, J Chandrasekaran, T Alshahrani, Mohd Shkir, A Durairajan, MPF Graça, M Elango, Fabrication of high-performance SiO₂@ p-CuO/n-

Sicore-shell structure based photosensitive diode for photodetection application, Surfaces and Interfaces, Elsevier publication Volume 20, Page-100622, 2020. (SCOPUS Indexed)

3. **S. Gunasekaran**, D. Thangaraju, R. Marnadu, J. Chandrasekaran, Mohd. Shkir, A. Durairajan, M. A. Valente, M. Elango, Photosensitive activity of fabricated core-shell composite nanostructured p-CuO@CuS/n-Si diode for photodetection applications, Sensors and Actuators A: Physical, Elsevier publication Volume 217, Page-112373, 2021. (SCI Indexed)
4. Fabrication of NiS decorated hollow SnS nano-belts based photodiode for enhanced optoelectronic applications N. Abhiram, D. Thangaraju, R. Marnadu, V. Santhana, J. Chandrasekaran, **S. Gunasekaran**, T. Alshahrani, H. Elhosiny Ali, Mohd. Shkir, N. S. M. P. Latha Devi, Journal of Nanoparticle Research, Springer publication Volume 23, Page-83, 2020. (SCOPUS Indexed)
5. N. Abhiram, D. Thangaraju, R. Marnadu, **S. Gunasekaran**, V. Santhana, J. Chandrasekaran, N. S. M. P. Latha Devi, Mohd. Shkir, S. AlFaify Development of morphology tuned SnS hierarchical structures for enhanced photosensitive photodiode fabrication, Inorganic Chemistry Communications, volume-129, Pages-108623, 2021. (SCI Indexed)
6. T. Sasikala, K. Shanmugasundaram, P. Thirunavukkarasu, J. Chandrasekaran, P. Vivek, R. Marnadu, M. Aslam Manthrammel, **S. Gunasekaran**, Characterization of jet nebulizer spray pyrolysis coated MoS₂ thin films and fabrication of p-Si/n-MoS₂ junction diodes for optoelectronic application, Inorganic Chemistry Communications, Elsevier publication Page -108701, ISSN 1387-7003, 2021. (SCI Indexed)
7. N. Abhiram, D. Thangaraju, R. Marnadu, G. Johnsy Arputhavalli, **S. Gunasekaran**, P. Vetrivelan, N. S. M. P. Latha Devi, Mohd. Shkir, H. Algarni Structural, vibrational, morphological, optical and electrical properties of NiS and fabrication of SnS/NiS nanocomposite for photodetector applications, Inorganic Chemistry Communications, Elsevier publication, Page -108882, 2021. (SCI Indexed)

Book Publications

1. Published a lab manual entitled as ‘ Programming In C ’ , by Raashi Publication Coimbatore , ISBN NO 978-81-961172-9-0

Presentations in Conference

1. Paper presentation in international conference on Frontier in chemical research held at Bishop Heber college, Tiruchirappalli on “Role of core@shell nanostructured p-CuO@CuS/n-Si for detector application. 12 February 2022.

Participation in Conference

1. Participated in national conference on Emerging trends in functional oxides and nanomaterials (ETiFON-2021) organized by department of physics, Saurashtra university Rajkot, Gujarat held on 28-29 October, 2021.
2. Participated in National level conference on ‘Advanced functional materials’ organized by Department of physics, Bharathiar university, Coimbatore held on 23th March, 2017.
3. Participated in International a conference on ‘Advanced materials’ organized by Department of physics, St’ Joseph college, Trichy, 28 January 2016.

Participation in Seminars

1. Participated in CSIR sponsored two days national seminar on state of the art and future perspective of hybrid supercapacitor for greener environment organized by Nehru institute of engineering and technology, Coimbatore held on 07-08 October
2. Participated in a Two - Day National seminar on “Nanomaterials - Current Trends and Future Applications” organized by Department of Chemistry, Saranathan College of Engineering, Trichy on 11- 12 October 2021.
3. Participated in National level webinar on Prospective of thermoelectric materials organized by the department of physics C.Kandaswami Naidu College for Men Chennai held on 11-October 2021

4. Participated in the webinar on “Applications and Perspectives of Chalcogenide Glasses in Electronics and Optoelectronics” organized by Departments of Physics, School of Basic and Applied Sciences, Harcourt Butler Technical University Kanpur, India held on September-28, 2021
5. Participated in national level webinar on Nano porous activated carbon for energy storage and energy conversion held on 13th October 2021 organized by department of physics NMSSVN college Madurai India.
6. Participated in National level webinar on Prospective of thermoelectric materials organized by the department of physics C.Kandaswami Naidu College for Men Chennai held on 11-October 2021
7. Participated in National level webinar on Prospective of thermoelectric materials organized by the department of physics C.Kandaswami Naidu College for Men Chennai held on 11-October 2021
8. Participated in international level webinar on Emerging Materials organized by the department of physics Sethu Institute of Technology on 23-February 2022
9. One day National Seminar on “Novel Materials for Sustainable Energy Development and Radiation Measurements”, Dr. N.G.P. Arts and Science College Coimbatore, 29.02.23

Participation in Workshop

1. Participated in state level workshop on X-Ray diffraction technique organized by Department of Nanoscience and Technology, Sri Ramakrishna Engineering college, Coimbatore held on 25th July, 2019.

Participation in Orientation Programme / Short Term Courses

1. Participated in Short Term Course on Electron Microscopy organized by Post Graduate and Research Department of Physics, Nallamuthu Gounder Mahalingam College, Pollachi from 19-21 June, 2020.
2. Participated in Short Term Course on ‘High Resolution Electron Microscope and Scanning Probe Microscopy’ organized by PSG TECH, Coimbatore held on 23- 24, November, 2017.

Participation in Faculty Development Programme

1.Participated in Faculty Development Programme on ‘Nanofluid and its engineering application (NEFA-2017) and presented “Thermal conductivity of CuO Based Nanofluid ” organized by IIT(BHU), Varanasi held on 06-11, November, 2017.

Conference / Seminar / Workshop Organized

1.Organized a workshop on Materials Science and Cosmology in Dr NGP Arts And Science College in association with Department Of Science, Amritha University, Coimbatore

Invited Speaker / Session Chair- Conference / Seminar / Workshop

1.Invited talk on ‘Global Science For Global Well Being’ organized by Government Polytechnic College ,Coimbatore to celebrate National Science Day, February 28,2023