

General Information

- a) Name : **Dr. S. PRAKASH, M.Sc., M.Phil., Ph.D.**
b) Designation : **ASSISTANT PROFESSOR**
c) Department : **PHYSICS**



Academic Profile :

- Ph.D From Madurai Kamaraj University, Madurai, 2012
- M.Phil(Physics) from Ayya Nadar Janaki Ammal College, Sivakasi, April 2003
- M.Sc(Physics) from VHNSN College, Virudhunagar, April 2001
- B.Sc(Physics) from VHNSN College, Virudhunagar, April 1999

Present Positions

- Dean of Internal Examination in our College
- NSS Nodal Officer Virudhunagar District
- NSS Programme officer, Unit No. 164

Teaching Experience

Courses Taught	Name of University / College / Institution	Duration	
		Years	Months
U.G (B.Sc.,)	V.H.N.S.N. College, Virudhunagar	18	9
P.G (M.Sc.,)	V.H.N.S.N. College, Virudhunagar	18	9

Awards Received

- Best NSS Programme officer - 2017 award from PEARL Foundation, Madurai.
- Best Teacher of 2020 award from Idhayam-G Fortune School, Virudhunagar
- “Staff of the Year – 2020” Gold Medal award received from the college.
- **ASIA PRIDE AWARD – 2021** received from International Humanity Mission Organisation

Membership in bodies within college

- **Member, Planning and evaluation committee**, VHNSN college (Autonomous), Virudhunagar
- **Member, Examination committee**, VHNSN college (Autonomous), Virudhunagar
- **Member, Students Welfare committee**, VHNSN college (Autonomous), Virudhunagar
- **Member, Examination committee**, VHNSN college (Autonomous), Virudhunagar

- **Member, Extra curricular activities committee, VHNSN college (Autonomous), Virudhunagar**
- **Member, Anti-Ragging committee, VHNSN college (Autonomous), Virudhunagar**
- **Member, Sports committee, VHNSN college (Autonomous), Virudhunagar**
- **Member, Calendar committee, VHNSN college (Autonomous), Virudhunagar**

Research Experience

- Years of Experience : 18 years 9 months
- Ph.D Under guidance – Part time - 2; Full time - 1
- M.Phil: Guided – 18

Major/Minor Research Projects Carried out

1. Served as **Principal Investigator** in the UGC Minor Project “Development of highly efficient nanoparticles based biosolar cell” (sanctioned Rs 1,30,000/-).
2. Served as **Co-investigator** in the UGC minor project “Dynamics-Function correlation studies on drug resistant mutant proteins in computer aided drug design for HIV and Cancer Therapy” (sanctioned Rs 35,000/-).
3. Served as **Co-investigator** in the UGC major project “Force Field parameterization of Oxidized Aminoacids for studying the structure/Dynamics of Oxidatively Modified protein: Implication in Apoptosis” (sanctioned Rs 4,36,000/-).

M.Phil. Dissertations.

1. **P. V. Renya (A5812052)** – Theoretical Vibrational Studies on Thiols, 2006.
2. **T. R. K. Priya Darzini (A6811595)** – Ab-initio Studies on Isoflavone Derivatives, 2007.
3. **P. Sandhiya (12SMPH006)** – Ab-initio Studies on Chalcone Derivatives, 2013.
4. **Manohara Babu (12SMPH008)** – Preparation and Characterizations of $\text{Co}_3\text{O}_4/\text{C}$ Composites for Supercapacitor Applications, 2013.
5. **K. G. Sivashanthini (13SMPH009)** – Preparation and Characterization of Ag-Cu Alloy Thin Films on different temperatures, 2014.
6. **G. Subathra (14SMPH006)** – Fabrication And Characterisation Of $\text{TiO}_2/\text{Cutspc}/\text{Ptcd}/\text{Zn}$ Multilayer Thin Film Solar Cell, 2015.
7. **M. Thiruppavai (14SMPH011)** – A Studies On Structural, Optical And Electrical Properties Of $\text{TiO}_2/\text{Cutspc}/\text{Tcnq}/\text{Zn}$ Thin Film Solar Cell, 2015.

8. **S. Jeyanthi** (15SMPH003) – Geometrical and Vibrational study of Caffeic acid Phenethyl Ester Derivatives, 2016.
9. **C. Muneeshwari** (15SMPH008) – Ab-initio Studies on Red Grape-Reservatol, 2016.
10. **T. Seethai @ Abirami (15SMPH010)** – Geometrical and Spectral study of Gallic acid Derivatives, 2016.
11. **R. Anitha** (16SMPH003) – Optical & Morphological studies of Copper Oxide nanoparticles synthesized by precipitation method using neem gum, 2017.
12. **V. Pavithra (16SMPH011)** – Synthesis of CuO Nanoparticles Using Pterocarpus Marsupium Resin by Precipitation Method and its Characterization study, 2017.
13. **M. Vijayalakshmi (16SMPH014)** – AB-Initio studies on anticancer flavones derivatives Apigenin, Luteolin, Acacetin, Wogonin, 2017.
14. **S. Dinesh (16SMPH016)** – Fabrication of silk sericin and CuO based bionanocomposite films and its studies on optical properties, photocatalytic application, 2017.
15. **S. Veeralakshmi (16SMPH018)** – Extraction of silk sericin from cocoon and studies on ZnO-Sericin nanoparticles, 2017.
16. **B. Lilly Bala (17SMPH002)** – Fabrication and Characterization studies on ZnO/PTCDA, ZnO/CNT Electrochemical Phenol Sensor, 2018.
17. **S. Nirmala Devi (18SMPH001)** – Structural Optical and Electrical Properties of Gamma Irradiated CuO and PTDCDA Thin films, 2019.
18. **A.P. Vetri Selvi (B8811111)** – Structural, Morphological and Optical characterization of Cadmium Sulphide thin films at different substrate temperature using sputtering deposition technique, 2020

Research Papers Published

1. S. Sivaprakash, **S. Prakash**, S. Mohan and Sujin P. Jose, “Quantum chemical studies and spectroscopic investigations on 2-amino-3-methyl-5-nitropyridine by density functional theory”, Heliyon 5(2019) e02149 (**Impact Factor 1.65**).
2. S. Sivaprakash, **S. Prakash**, S. Mohan and Sujin P. Jose, “Molecular structure, vibrational analysis (IR and Raman) and quantum chemical investigations of 1-aminoisoquinoline”, Journal of Molecular Structure 1149(2017) 835-845 (**Impact Factor 1.753**).

3. **S. Prakash**, S. Rajesh, C. Karunakaran and V. Vasu, "Electrochemical incorporation of hemin in ZnO-PPy nanocomposite on Pt electrode as NO_x sensor", **RSC-Analyst** 137 (2012) 5874-5880 (**Impact Factor 4.23**).
4. S. Rajasingh, **S. Prakash**, G. Muneeswaran, S. Rajesh, K. Muthukumar, V. Vasu and C. Karunakaran, Molecular dynamics simulation studies on structural and conformational changes in tyrosine-67 nitrated cytochrome c. *Molecular simulation* 38, 6 (2012) 459-467 (**Impact factor 1.35**).
5. **S. Prakash**, S. Rajesh, S.K. Singh, K. Bhargava, G. Ilavazhagan, V. Vasu, and C. Karunakaran. Copper nanoparticles entrapped in SWCNT-PPy nanocomposite on Pt electrode as NO_x electrochemical sensor, *Talanta* 85 (2011) 964-969 (**Impact factor 3.7**).
6. **S. Prakash**, S. Rajesh, S.K. Singh, K. Bhargava, G. Ilavazhagan, V. Vasu, and C. Karunakaran. Electrochemical incorporation of manganese(III)tetrakis(1-methyl-4-pyridyl)porphyrin in ZnO-PPy nanocomposite on Pt electrode as NO_x sensor. *Sensor Lett.* 9 (2011) 1623-1628 (**Impact factor 1.6**).
7. S.Rajasingh, **S. Prakash**, V. Vasu, C. Karunakaran, Conformational flexibility decreased due to Y67F and F82H mutations in Cytochrome c: Molecular dynamics simulation studies. *Journal of Molecular Graphics and Modelling* 28 (2009) 270-277 (**Impact factor 2.3**).
8. **S. Prakash**, S. Rajasingh, S. Rajesh "Ab initio study of 7-methoxyl-4'-hydroxyisoflavone", *Asian Journal of Spectroscopy* 13 (2009) 39-40.
9. D.Esther Umarani, **S.Prakash**, S.Natarajan, M.Alagar "Infrared spectral studies of DL-Methioninium maleate", *Asian Journal of Spectroscopy* 11(2007) 173-174.
10. P.Shenbagarajan, **S.Prakash**, S.Natarajan, M.Alagar "FTIR spectra of DL-Valinium maleate", *Asian Journal of Spectroscopy* 8(2005) 55-59.
11. **S.Prakash**, S.Natarajan, M.Alagar "Infrared spectra of bis(DL-Serinium)oxalate dehydrate", *Asian Journal of Spectroscopy* 8(2004) 87-90.
12. **S.Prakash**, S.Natarajan, M.Alagar "Infrared spectra of L-Phenylalaninium maleate and L-Alaninium maleate", *Asian Journal of Spectroscopy* 7(2003) 143-149.

Paper presented in conference

1. **“Designing of silk sericin and CuO based bionanocomposite films at different concentrations”** TEQIP Sponsored International conference on advances in Biological chemical & Physical Sciences at Anna University-BIT Campus, Tiruchirappalli on 13-15th March 2017.
2. **“Green Synthesis of copper oxide nanoparticles using Pterocarpus Marsupium resin (Vengai)”** TEQIP Sponsored International conference on advances in Biological chemical & Physical Sciences at Anna University-BIT Campus, Tiruchirappalli on 13-15th March 2017.
3. **“Green Synthesis of Nano Copper Oxide particles from Azadirachta Indica Plant Gum and their characterization”** TEQIP Sponsored International conference on advances in Biological chemical & Physical Sciences at Anna University-BIT Campus, Tiruchirappalli on 13-15th March 2017.
4. **“Synthesis and Characterization of Zinc Oxide doped sericin nanoparticles using precipitation method”** TEQIP Sponsored International conference on advances in Biological chemical & Physical Sciences at Anna University-BIT Campus, Tiruchirappalli on 13-15th March 2017.
5. **“Fabrication and Characterization of TiO₂/CuTsPc/PTCDA/Zn multilayer thin film solar cell”**, S.Prakash, G.Subthra, M.Thiruppavai, S.Rajasingh and N.Prithivikumaran and N.Jeyakumaran, *International Conference on Nanomaterials for Energy, Environment, Catalysis and Sensors (ICNEECS-15)* at Madurai Kamaraj University, Madurai on 11th & 12th December, 2015.
6. **“Studies on structural and optical properties of FTO/Coumarine/PTCDA/Al thin films”**, S.Prakash, R.Illairajan, M.Thiruppavai, G.Subathra, A.Alfind Paul frit and K.Deepalakshmi, *National Seminar on New Materials and Nanotechnology (NSNMN-2015)* at Heera college of Engineering & Technology, Thiruvananthapuram, Kerala on 16th & 17th January, 2015.
7. **“The annealing effect on physical properties of silver copper alloy thin film”**, K.G.Sivashanthi, A.Alfind Paul Frit, R.Illayarajan, J.Pandiarajan and S.Prakash in *National Conference on Advanced Functional Materials (NCAFM 2014)* at Bharathiyar University, Coimbatore on 30th & 31st January, 2014.

8. Presented the paper **“Transition metal (co, cu and ni) oxides-doped zno-ppy nanocomposite on pt modified electrodes for NOx detection”** in the International conference Macro-and supramolecular architectures and materials (mam-12: nano systems and applications) held Coimbatore on 21-25 Nov 2012.
9. Presented the paper **“Molecular dynamics simulation studies on structural and conformational changes in Tyrosine nitrated horse heart cytochrome C”** in the Annual meeting of the Indian Biophysical Society *IBS-2012* held at Centre of Advanced Study in Crystallography & Biophysics, University of Madras, Chennai on 19-21 Jan 2012.
10. Presented a paper entitled **“Electrochemical Sensor for Simultaneous Measurement of Superoxide Anion Radical and Nitrite Using Superoxide Dismutase Mimetic MnTMPyP on Conducting Polymer Nanocomposite Matrix”** in the International conference NANO-2010 held at K.S.Rangasamy College of Technology, Tiruchengode on 13-16 Dec 2010.
11. Presented a paper in the National level Workshop entitled **“Principal Component Analysis of Saquinavir-Resistant 150V, 154M, V82A, 184V Mutants of HIV-1 Protease: Insights into the Drug Resistant Mechanisms”** in the Department of Physics, Banaras Hindu University, Varanasi on 16th Feb 2010.
12. Presented the paper **“Modeling the inhibition of Epidermal Growth Factor Receptor Tyrosine Kinase by styrylquinoline derivatives: Relevance in Cancer Therapy”** in International conference on “Advances in Neuroscience” of Indian Academy Neuroscience held at Cochin University of Science and Technology, Cochin on 12-14th December 08.
13. Presented the paper (P37) **“Computer aided design of novel styrylquinoline inhibitors for Epidermal growth factor receptor tyrosine kinase in cancer therapy”**, in 36th National seminar on crystallography Jan 22-24, 2007 organized by Dept. of crystallography and Biophysics, University of Madras, Chennai.
14. **“Essential dynamics of Tyr67Phe Mutant cytochrome c:Role of Tyrosine in the active site”**, P146, was presented in 36th National seminar on crystallography Jan 22-24, 2007 organized by Dept. of crystallography and Biophysics, University of Madras, Chennai.

Books Published

1. Computer Programming in C and C++, Paper – VII B.Sc (Physics) Non – Semester for DDE Madurai Kamaraj University, Madurai.
2. Materials and Nano Science, Paper – IX B.Sc (Physics) Non – Semester for DDE Madurai Kamaraj University, Madurai.
3. First Aid

Seminar/Workshop/Course Organized

1. Rajiv Gandhi National Institute of Youth Development **sanctioned an amount of Rs. 92,000/-** to conduct three days training programme on “Youth Engagement in Disaster Risk Reduction” was held from 16/02/2017 to 18/02/2017, under Youth-led Development Outreach Programme (YDP) in Higher Educational Institutions.
2. Kudankulam Nuclear Power Project **sanctioned an amount of Rs. 51,500/-** to conduct a State level seminar on “Nuclear Power - an Environmental Friendly, Clean, Reliable and Safe Electrical Power Source”(23/12/2017).
3. UGC Sponsored State level seminar on “Empowering Youth” (23/01/2016).
4. First Aid Training Programme conducted by Sri Sathya Sai Seva Organization, Rajapalayam (30/01/2016).
5. Disaster Awareness Programme conducted by Sri Sathya Sai Seva Organization, Tamilnadu (06/10/2015, 07/10/2015).
6. UGC Sponsored State level seminar on “Environmental Protection” (01/08/2014).
7. First Aid Training Programme organized by Davao Medical University, Philippines Trust Community College, Vengadampatty, Tamilnadu (17/12/2013).
8. National Seminar on Energy Conservation and Renewable Energy Technology (26/08/2011, 27/08/2011).

9. UGC Sponsored National Conference on Renewable Energy Sources and Technology
(21/01/2010 to 23/01/2010).

Honorable Duties

1. Appointed as observer for the B.Ed/M.Ed degree examinations – May 2017 conducted by Tamilnadu Teachers Education university, Chennai.
2. Appointed as observer for the B.Ed/M.Ed degree examinations – May 2018 conducted by Tamilnadu Teachers Education university, Chennai.
3. Appointed as observer for the B.Ed/M.Ed degree examinations – May 2019 conducted by Tamilnadu Teachers Education university, Chennai.
4. Appointed as observer for the CBSE examinations –2019 conducted by CBSE, Chennai.
5. Appointed as Virudhunagar District NSS Nodal Officer from 2020 by Madurai Kamaraj University.
6. Appointed as Virudhunagar District Nodal Officer – Covid Warriors by government of India.
5. Appointed as Chief Invigilator for Group examination conducted by TNPSC, Chennai.