

**Name** : **Dr. C. Selva Kumar**

**Designation** : Professor and Head

**Department** : Physics

**Qualification** : M.Sc., M.Ed., Ph.D.

**Experience:**

**Teaching** : 18.9 Years      **Research** : 11 Years

**Area of Specialization(s)** : Thin films, Nano Technology, Teacher Education

**Email** : [selvakumar@drngpasc.ac.in](mailto:selvakumar@drngpasc.ac.in)

**Academic Qualifications**



Degree	Branch	Institution / University Name	Year of Graduation
Ph. D.	Science and Humanities -Physics	Coimbatore Institute of Technology/ Anna University	2016
M. Ed.	Teacher Education	Sri Ramakrishna Mission Vidyalaya college of Education/Bharathiar University	2004
B.Ed.	Physical Science	Calicut University Teacher Education Centre, Wayanad/Calicut University	2003
M.Sc.	Physics	Government Arts College, Coimbatore/ Bharathiar University	1998
B.Sc.	Physics	Government Arts College, Coimbatore/Bharathiar University	1996

#### Research Guidance

Programme	No. of Scholars	
	Completed	Pursuing
Ph. D. (PT)	-	01

#### Patent Published

Title of Patent	Agency	Status	Date
Smart System and Method For Inventory Management Warehouse	Indian patent Office	Published	11.03.2022

## Research Publications (Indexed)

### *International:*

- C Selvakumar, & T.Venkatachalam, “**Structural and Optical Properties of Cdsnte<sub>2</sub> Thin Films Prepared by Using Closed Space Deposition**”, Elsevier -Material Science in Semiconductor Processing, Vol. 39, pp. 686 - 690, 2015, ISSN: 1369-8001
- C Selvakumar, T.Venkatachalam & E.Ranjithkumar, “**Preparation, Characterization and Ab-Initio Study of CdSnTe<sub>2</sub> Thin Films by Closed Space Sublimation Technique**”, Elsevier-Superlattices and Microstructures, Vol.90, pp.38-44, 2016, ISSN: 0749-6036.
- C Selvakumar, T.Venkatachalam, E.Ranjithkumar & K.Thangavel, “**Study of Cd<sub>1-x</sub>Sn<sub>x</sub>Te Thin Films Prepared by Closed Space Sublimation**”, Journal of Advanced Physics, Vol.6, pp.235-240, 2017, ISSN:2168-1996.
- T.Mahalingam, C Selvakumar, E Ranjithkumar & T Venkatachalam, “**Structural, Optical, Morphological and Thermal Properties of TiO<sub>2</sub>-Al And TiO<sub>2</sub>-Al<sub>2</sub>O<sub>3</sub> Composite Powders by Ball Milling**”, Physics letters A, Vol.381, pp. 1815-1819, ISSN: 0375-9601.
- S. Kamzin, E. Ranjith Kumar, P. Ramadevi & C. Selvakumar. “**The Properties of Mn–CuFe<sub>2</sub>O<sub>4</sub> Spinel Ferrite Nanoparticles Under Various Synthesis Conditions**”, Physics of the Solid State, Vol. 59, No. 9, pp. 1841–1851, 2017, ISSN 1063-7834.

## Presentations in Conference

- **Green Synthesis of Titanium Dioxide (TiO<sub>2</sub>) Nanoparticles using Carica Papaya leaves**, CSIR Sponsored Two day National Conference on Flexible Energy Storage Devices Using Nanomaterials, Hindusthan Institute of Technology, 12-13, Feb-2020
- **Synthesis of TiO<sub>2</sub> Nanoparticles using Cucumis dispaseus**, CSIR Sponsored Two day National Conference on Flexible Energy Storage Devices Using Nanomaterials, Hindusthan Institute of Technology, 12-13, Feb-2020

- **Synthesis of CuO using Auto Combustion Method**, CSIR Sponsored Two day National Conference on Flexible Energy Storage Devices Using Nanomaterials, Hindusthan Institute of Technology, 12-13, Feb-2020
- **Eco Friendly Solar Cooker**, SERB Sponsored National Conference on Advanced materials in Waste management (NCAMWM-2019), Dr.N.G.P.Institute of Technology, Coimbatore – 641048. 8-Feb 2019.
- **Coating and Analysis of  $Cd_xSn_{3-x}Te_3$  Thin films**, National Conference on Advanced Functional materials and their Applications in Engineering (NCAFMAE 2017), Dr N.G.P.Institute of Technology, Coimbatore – 641048. 25-Jan-17.
- **Structural Morphological Dielectric and Mossbauer Study of Manganese Substitute  $CuFe_2O_4$  Nanoparticles**, International Conference on Renewable Energy and Environment (ICREE-2016), Sri Ramakrishna Mission Vidyalaya College of Arts and Science (Autonomous), Coimbatore – 641 020, 15-Dec-16 to 16- Dec-16
- **Deposition of  $Cd_{1-x}Sn_xTe$  thin films by Closed Space Sublimation**, International Conference on Recent Trends in materials Science and Applications (ICRTMSA-2016), Jamal Mohamed College, Tiruchirapalli, 29 -Feb-16.
- **Investigation of  $CdSnTe_2$  Thin Films Prepared by CSD**, International conference on nanomaterials for Frontier Applications, Coimbatore Institute of Technology, Coimbatore, 2-Dec-15 to 4- Dec-15.

## Participation in Conference

### *International:*

- **International Conference on Nano Materials For Frontier Applications and Indo Norwegian Workshop on Advanced Materials for Solar Cell Applications** at Coimbatore Institute of Technology, Coimbatore-14, on 10-Jul-13 to 12-Jul-13.

### **National:**

- **19<sup>th</sup> Tn & P Iste Annual Convention for Faculty Members of Engineering Colleges 2016** , Dr.N.G.P.Institute of Technology on 02-Dec-16 to 03- Dec-16.
- **National Conference on Advanced Functional Materials and their Applications in Engineering-(NCAFMAE 2017)**, Dr.N.G.P.Institute of Technology, Coimbatore-48 on 25-Jan-17.

### Participation in Seminars

- National level seminar on “**Quality Research in Teacher Education**, Sri Ramakrishna Mission Vidyalaya College of Education, Coimbatore from 19-Mar-04 to 21-Mar-04.
  - **National Seminar on Learning Difficulties and Instructional Strategies**, Sri Ramakrishna Mission Vidyalaya College of Education, Coimbatore-20 on 16-Dec-05 to 17-Dec-05.
  - **One-Day Symposium on Value Based Education for Teacher Educators and Teacher**, Karpagam college of Education, Eachnari, Coimbatore on 16-Sep-06.
- 1) **One Day State Level Seminar on Information Communication Technology in Teacher Education**, Dr N.G.P.College of Education, Coimbatore-35 on 17-Dec-06.
  - 2) **UGC Sponsored National Seminar on “Multiple Intelligence and Instructional Technology-The Praxis of Teaching And Learning**, Ramakrishna Mission Vidyalaya College of Education, Coimbatore-20 on 11-Jan-2008 and 12-Jan-08.
  - 3) **One Day State Level Seminar on Total Quality Management in Teacher Education**, Dr N G P College of Education on 14-Dec-08.
  - 4) **CSIR Sponsored One Day National Seminar on Recent Trends and Development in the Emerging Field of New Transparent Conductors and Device Applications**, Kongu Engineering College, Perundurai on 19-Jun-12.

### Participation in Workshop

- **DST-DAAD Sponsored International workshop on Healthy Risk Assessment of Nanoparticles**, Dr.N.G.P.Arts and Science College, 05-07 December, 2018.
- **One Day Pre Conference Workshop at the International Conference on Nano Science and Nano Technology (ICNN)**, Coimbatore Institute of Technology, Coimbatore-14 on 05-Jul-11.
- **One Day National Workshop on Emerging Research Trends in Thin Film and Nanotechnology**, Government College of Technology, Coimbatore -13 on 03-Oct-09.

### Participation in Orientation Programme / Short Term Courses

- **Orientation Programme for Teacher Educators of New College of Education**, Government College of Education for Women, Coimbatore. on 25<sup>th</sup> - 26<sup>th</sup> Jul-2006.
- **Intel Teach Program-Essentials Course-Master Trainer**, Dr N.G.P.College of Education, Coimbatore -35, from 25<sup>th</sup> Feb - 01<sup>st</sup> Mar- 2008.
- **Bridge Courses on Physics**, Anna University, Chennai. on 20<sup>th</sup> Jun - 21<sup>st</sup> Jun-2014.
- **One Week Short Term Course Under Quality Improvement Programme on Advances in New Engineering Materials**, Coimbatore Institute of Technology, Coimbatore. from 23<sup>rd</sup> -29<sup>th</sup> Nov-2015.

### Participation in Faculty Development Programme

- **Seven-day online faculty programme on** Research methodology and pedagogy for tertiary education, Dr. N.G.P. Arts and Science College, Coimbatore, 15-21, June-21.
- **FDP on** Quality initiatives in higher education, Dr. N.G.P. Arts and Science College, Coimbatore, 13-Apr20 to 20-Apr-20.
- **Seven-day faculty programme on** NAAC revised accreditation framework & OBE assessment methodology, Dr. N.G.P. Arts and Science College, Coimbatore, 27-May-19 to 2-June-19.
- **FDP on** Quality initiatives in higher education, Dr. N.G.P. Arts and Science College, Coimbatore, 3- Dec-18 to 9-Dec-18.
- **TEQUIP II Sponsored Faculty Development Program on Computational Material Science and Experimental Techniques**, P.S.G College of Technology, Coimbatore. from 03<sup>rd</sup> -10<sup>th</sup> Aug-2013.
- **FDP Program on Teacher Surpasses: Reinventing Classroom Dynamics Towards Enhancing Learner Autonomy**, Dr.N.G.P.Institute of Technology, Coimbatore. on 22<sup>nd</sup> Jul-2011.
- **One Day Faculty Development Programme**, Dr.N.G.P.Institute of Technology, Coimbatore. on 27<sup>th</sup> Sep-2008.

### Conference / Seminar / Workshop Organized

- Convener, E - Workshop on “Phase Identification of Polycrystalline materials using XRD data in Softwares” at Dr. N.G.P Arts and Science College, Coimbatore on Sep. 25, 2021.
- Convener, E - Workshop on “Introduction to ORIGIN and Basic Plotting” at Dr. N.G.P Arts and Science College, Coimbatore on December 26, 2020.
- Convener, Two-day National Workshop on Nano Characterization and Applications of Biosensor, Dr. N.G.P. Arts and Science College, Coimbatore, 20&21- Feb.-20.
- Convener, Intercollegiate meet “Spectra “ 20” , Department of Physics, Dr.N.G.P.Arts and Science College, 27, Feb – 2020.
- Convener, National Conference on Recent Trends in Basic and Applied Sciences, Dr.N.G.P. Arts and Science College, 02-03, Mar-2020.
- Convener, National Workshop on Nano characterizations and Applications of Biosensor, Dr.N.G.P. Arts and Science College, 20-21, Feb-2020

- Programme Committee Coordinator, INTERNATIONAL WORKSHOP CONFERENCE ON COMPUTER COMMUNICATION AND INFORMATION TECHNOLOGY, Dr. N.G.P. Arts and Science College, Coimbatore, 28-Sep-2016.

**Invited Speaker / Session Chair / Member Organizing Committee - Conference / Seminar / Workshop**

- Judge - Intercollegiate meet “Spectra “ 20” , Department of Physics, Dr.N.G.P.Arts and Science College, 27, Feb – 2020.
- Member-Organizing Committee: Webinar on Detrimental effects of Microplastics on the Environment, Dr.N.G.P.Arts and Science College, 10, June-21. Resource person: Dr M Reema Kumari, Assistant Professor, Department of Botany, Maharani Lxmi Ammanni College for women, Bengaluru
- Member-Organizing Committee: Webinar on Sun and its Activity, Dr.N.G.P.Arts and Science College, 09, June-21. Resource person: Dr A Shanmugaraju, Assistant Professor, Department of Physics, Arul Anandhar College, Madurai.
- Member-Organizing Committee: Webinar on Future Trends and opportunities in Energy Sector, Dr.N.G.P.Arts and Science College, 08, June-21. Resource person: Dr T Elangovan, Assistant Professor, Department of Energy Studies, Periyar University.
- Member-Organizing Committee: Webinar on Surface Enhanced Raman Spectroscopy Basic Principle and Applications, Dr.N.G.P.Arts and Science College, 07, June-21. Resource person: Dr naidu Dhanpal Jayaram, Assistant Professor, Department of Physics, Kalasalingam Academy of Research and Education.
- Member-Organizing Committee: Webinar on Energy and Environment, Dr.N.G.P.Arts and Science College, 07, June-21. Resource person: Dr M Sundararajan, Assistant Professor, Department of Physics, Paavendeer College of arts and Science, Salem.
- Member-Organizing Committee: Webinar on Revisiting Thermodynamics, Dr.N.G.P.Arts and Science College, 05<sup>th</sup>, June-21. Resource person: Dr M Ponmurugan, Assistant Professor, School of Basic and Applied Science, Central University of Tamilnadu.

- Member-Organizing Committee: Webinar on Materials for modern Application, Dr.N.G.P.Arts and Science College, 05<sup>th</sup>, June-21. Resource person: Dr K Sakthipandi, Associate and Dean, Research, SRM Deemed University, Trichy.
- Member-Organizing Committee: Webinar on Optimization of small molecules for therapeutics in drug delivery, Dr.N.G.P.Arts and Science College, 04<sup>th</sup>, June-21. Resource person: Dr Vennila K N, Senior Research Associate, Department of Chemistry, Gandhigram Rural Institute, Dindigul.
- Member-Organizing Committee: Webinar on Nanotechnology in Everyday life, Dr.N.G.P.Arts and Science College, 02<sup>nd</sup>, June-21. Resource person: Dr N Rajamanickam, NIMS Researcher, Research Centre for magnetic and spintronic materials, Japan.
- Member-Organizing Committee: Webinar on Overviews on Carbanaceous Nanocomposites for fuel cell fabrication, Dr.N.G.P.Arts and Science College, on 31<sup>st</sup>, May-21. Resource person: Dr T A Revathy, assistant Profesor, Department of Physics, Velammal Engineering College.
- Member-Organizing Committee: Webinar on Thin film Solar Cells: Ovedrview of absorber materials and Characterization tools, Dr.N.G.P.Arts and Science College, on 29<sup>th</sup>, May-21. Resource person: Dr T Malar, Assistant Profesor, Department of Physics, SRM Research Institute, SRM Institute of Science and Technology, Chennai.
- Member-Organizing Committee: Webinar on Awareness of Device single quality crystals for applications: From small size to large size, Dr.N.G.P.Arts and Science College, on 27<sup>th</sup>, May-21. Resource person: Dr T Muthu Senthil Pandian, Research Scientist, SSN research centre, SSN Institutions Chennai.
- Expert Committee Member - Staff Recruitment-Physics, The N.G.P.School, Coimbatore – 35, 06<sup>th</sup> Jan- 19.
- Event Judge, IYPT-Science Exhibition- The NGP School-August 22-2019.
- Member –Academic Council-Dr.N.G.P.Arts and Science College, Since 2018
- Chairman-Central Valuation-Physics and Medical Physics Board, DR N.G.P.Arts and Science College, Since 2018.

- Chief Guest-, Science Club Inaugural Function, Dr N.G.P.College of Education, Coimbatore. 19<sup>th</sup> Nov-18.
- NBA Coordinator-Science and Humanities, Dr N.G.P.Institute of Technology, Coimbatore. 2016-17.
- Academic Coordinator (Science and Humanities), Dr N.G.P.Institute of Technology, Coimbatore. 2015-17.
- Management Representative-ISO 9001:2008, Dr N.G.P.Institute of Technology, Coimbatore. 2012-13.
- Coordinator-I- Year B.E/B.Tech , Dr N.G.P.Institute of Technology, Coimbatore. 2011-12.
- Deputy Management Representative-ISO 9001:2008, Dr N.G.P.Institute of Technology, Coimbatore-48, 2011-12.
- Coordinator –Annual day, Dr N.G.P.Institute of Technology, Coimbatore – 48, March 2010 and 2011.
- Examination Management System –Coordinator, Dr N.G.P.Institute of Technology, Coimbatore-48, 03<sup>rd</sup> Jun-09 to 04<sup>th</sup> Aug-2011.
- Programme Coordinator (Sastra University B.Ed study centre), Dr.N.G.P.College of Education, Coimbatore-35. 2008.
- Programme Coordinator (Tamilnadu Open University B.Ed study centre), Dr.N.G.P.College of Education, Coimbatore -35, 2007.
- Additional Chief Superintendent, B.Ed Course Regular Examinations ( Tamilnadu Teacher Education University), Dr N.G.P. Arts and Science College, Coimbatore-48, Mar/Apr 2009.
- Chief Superintendent, B.Ed Term End Examinations (Tamilnadu Open University), Dr.N.G.P.College of Education, Coimbatore-35, July/Aug-2007.
- Chief Superintendent, B.Ed Entrance Examinations (TamilNadu Open University), Dr.N.G.P.College of Education, Coimbatore – 35, 28<sup>th</sup> Jan-2007.
- Chief Superintendent, B.Ed Entrance Examinations (TamilNadu Open University), Dr.N.G.P College of Education, Coimbatore, 12<sup>th</sup> Nov-2006.
- Governing Council Member, Dr.N.G.P.College of Education, Coimbatore-35, 2007-08



- Senate Member, Bharathiar University, Coimbatore , 3 years from 23.11.2005

#### **Member in BoS (Board of Studies)**

- Member, Board of Studies, Department of Physics, Dr.N.G.P.arts and Science College, Coimbatore from 28.06.2021 for three years.
- Special Invitee, Board of Physics. Gobi Arts and science College, Gobichettipalayam. 28, June - 21.
- Special Invitee, Board of Physics, Gobi Arts and Science College, Gobichettipalayam, Mar-2020.
- Chairman, Board of Medical Physics , Dr N.G.P Arts and Science College, Coimbatore, Dec-2018, April -2019, Dec-2019.
- Chairman, Board of Physics, Dr N.G.P Arts and Science College, Coimbatore, Since Dec-2018

#### **Membership in Professional Bodies**

<b>Name of the Professional Body</b>	<b>Nature of membership</b>	<b>Duration</b>
The Indian Society for Technical Education (LM 11785)	Life-time	-

#### **Awards / Honors**

<b>Awards / Honors</b>	<b>Agency / Institute</b>	<b>Year of Award</b>
Best Research oriented Department -Physics	Dr.N.G.P.Arts and Science College, Coimbatore	2021-22
Best Department -Physics	Dr.N.G.P.Arts and Science College, Coimbatore	2019-20