

**Name** : **Dr. V. Gopala Krishnan**  
**Designation** : Professor  
**Department** : Physics  
**Qualification** : M.Sc., M. Phil., Ph. D.  
**Experience** : Teaching: 15.4 Years    Research: 14 Years  
**Area of Specialization(s)** : Gas sensing Oxide Materials, Photovoltaic, Supercapacitors  
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### Academic Qualifications

Degree	Branch	Institution / University Name	Year of Graduation
Ph. D.	Physics	Government Arts College, Coimbatore	2018
M. Phil.,	Physics	Sri Ramakrishna Mission Vidhyala College of Arts and Science College, Coimbatore	2010
M. Sc.,	Physics	Sri Ramakrishna Mission Vidhyala College of Arts and Science College, Coimbatore	2008
B. Sc.,	Physics	Kongunadu College of Arts and Science College, Coimbatore	2006

### Patent

Title	Status	Year
Automation Tumor Extraction from MR Brain Images Using Hybrid Clustering Algorithm	Published	20/2025 Dated 16/05/2025/46625
Deep Learning Approach for Brain Tumor Detection and Classification using Multistage Convolutional Neural Networks	Published	52/2022 Dated 30/12/2022, 202241074703 A

### Research Guidance

Programme	No. of Scholars	
	Awarded	Pursuing
Ph. D.	-	1
M. Phil.	-	-

## Research Publications (Indexed)

Aparnna M, **V. Gopala Krishnan** et al., Implications of Thermal analysis on  $\text{MgFe}_2\text{O}_4$  nanoparticles for energy storage and environmental detoxification, Inorganic Chemistry Communications, 179, 2025, 114889, 1387-7003. (Indexed in SCOPUS).

Priyadharshini N, **V. Gopala Krishnan** et al., Enhanced photoconductivity in  $\text{SnO}_2$ -ZnS nanocomposites: nano-structural, optical, and electrical investigations, J Nanopart Res, 27-183, 1-16, 2025, 1572-896X. (Indexed in SCOPUS).

R. Dilip, K. Ravikumar, Kamlesh V. Chandekar, Mohd. Shkir, **V. Gopala Krishnan**, Keshav S. Shinde, and I. M. Ashraf, Enhancement of magnetic and dielectrics performance of  $\text{BaFe}_2\text{O}_4$  nanoparticles influenced by tri-sodium citrate as surfactant, J Mater Sci: Mater Electron, 2022, doi.org/10.1007/s10854-022-09142-4. (Indexed in SCOPUS).

S. Deivanayagi, P. Jayamurugan, S. Ashokan, **V. Gopala Krishnan**, Growth of Non-enzymatic Cholesterol Biosensor using  $\text{TiO}_2$  Decorated Graphene Oxide with Bare GCE and PPy-GCE, J. Polym. Mater. Vol. 38, No. 3-4, 2021, 297-309. (Indexed in SCOPUS).

P. Jayamurugan, S. Deivanayagi, S. Ashokan, **V. Gopala Krishnan**, N. V. S. S. Seshagiri Rao, J. Chandrasekaran & Ehab El Sayed Massoud, Impact of  $\text{MnO}_2$  on the optical electrical and antibacterial characteristics of Graphite/Polyaniline Ternary composites, Journal of Materials Science: Materials in Electronics, Issue 9, 2022, DOI: 10.1007/s10854-022-07902-w (Indexed in SCOPUS).

M.Raja, R.Marnadu, M.Balaji, K.Ravikumar, **V. Gopala Krishnan**, MohanrajKumar, Ehab El SayedMassoud, Fabrication and characterization of novel Ga-doped  $\text{WO}_3$  films and n-Ga@ $\text{WO}_3$ /p-Si junction diode for optoelectronic device applications, Inorganic Chemistry Communications 139 (2022) 10929, DOI: 10.1016/j.inoche.2022.109291 (Indexed in SCOPUS).

B. Gokul, P. Matheswaran, M. Pandian, C. Arun Paul, K. Ravikumar, **V. Gopala Krishnan**, Mohd. Shkir, S. AlFaify, Gedi Sreedevi, "Polymorphism induced magnetic transitions in  $\text{Ni}(\text{OH})_2$  nanostructures", Journal of Magnetism and Magnetic Materials 539 (2021) 168364, ISSN: 0304-8853, (Indexed in SCOPUS).

**V. Gopala Krishnan**, P. Elango, K. Ravikumar, R. Marnadu, Omar M. Aldossarye and Mohd Ubaidullah, "Noticeable improvement in the toxic gas-sensing activity of the Zn-doped  $\text{TiO}_2$

films for sensing devices” , New J. Chem., 2021, 45, 10488, ISSN: 1144-0546 (Indexed in SCOPUS).

**V. Gopala Krishnan**, RavikumarN, Dilip R.P. Elango, “Gas Sensing Nature and Characterization of Zr Doped TiO<sub>2</sub> films Prepared by Automated Nebulizer Spray Pyrolysis Technique”, Optik, Vol. 206 pp. 164347, March 2020, ISSN: 0030-4026, (Indexed in SCOPUS).

**V. Gopala Krishnan**, P. Elango, V. Ganesan, “Surface Characterization and Gas sensing Performance of Yttrium Doped TiO<sub>2</sub> nanofilms Prepared by Automated Nebulizer Spray Pyrolysis (ANSP)”, Journal of Materials Science: Materials in Electronics, Vol. 29 No.4, pp. 392 – 401, January 2018, ISSN: 0957-4522, (Indexed in SCOPUS).

**V. Gopala Krishnan**, P. Elango, V. Ganesan, “Role of Molar Concentration in Structural, Optical and Gas Sensing Performance of Anatase Phase TiO<sub>2</sub> Nanofilms: Automated Nebulizer Spray Pyrolysis (ANSP) Technique”, Applied Physics A, Vol.123, Issue.7, pp. 498 (1-9), July 2017, ISSN: 0947 8396, (Indexed in SCOPUS).

**V. Gopala Krishnan**, P. Elango, A. Purushothaman, A. Chandra Bose, “Automated Nebulizer Sprayed Tin Doped Titanium Dioxide (Sn<sub>x</sub>Ti<sub>1-x</sub>O<sub>2</sub>) Anatase Nanofilms Properties, Gas Sensing Performance”, Materials Chemistry and Physics, Vol. 199, pp.113-121, September 2017, ISSN: 0254 0584, (Indexed in SCOPUS).

**V. Gopala Krishnan**, P. Elango, “Influence of Ba Doping Concentration on the Physical Properties and Gas Sensing Performance of ZnO Nanocrystalline Films: Automated Nebulizer Spray Pyrolysis (ANSP) Method”, Optik, Vol. 141, pp. 83- 89, July 2017, ISSN: 0030-4026, (Indexed in SCOPUS)

**V. Gopala Krishnan**, A. Purushothaman, P. Elango, “Effect of Thickness on the Physical Properties and Gas Sensing Application: Anatase Titanium Dioxide Nanofilms by Automated Nebulizer Spray Pyrolysis (ANSP)”, Journal of Materials Science: Materials in Electronics, Vol. 28 Issue. 15, pp. 11473 – 11481, August 2017, ISSN: 0957-4522, (Indexed in SCOPUS).

**Vijayan Gopala Krishnan**, Annadurai Purushothaman, and Palaniappan Elango, A Study of the Physical Properties and Gas-Sensing Performance of TiO<sub>2</sub> Nanofilms: Automated Nebulizer Spray Pyrolysis Method (ANSP), Physica Status Solidi A, Vol.214, Issue.10, pp. 1700020, October 2017, ISSN : 1862-6300, (Indexed in SCOPUS).

**V Gopala Krishnan**, P Elango, M Ragavendar, P Sathish and G Gowrisankar, “Effect of Doping on the Surface Modification of Nebulizer Sprayed  $Ba_xZn_{1-x}O$  Nanocrystalline Thin Films”. Materials Research Express, Vol. 4, Issue.3, pp. 036401 – 036410, March 2017, ISSN: 2053-1591, (Indexed in SCOPUS).

**V. Gopala Krishnan**, P. Elango, V. Ganesan, P. Sathish, “pH Deeds on Structural, Optical, Electrical and Gas Sensing Performance of  $TiO_2$  Nanofilms by Automated Nebulizer Spray Pyrolysis Technique”, Optik, Vol. 127 No.23, pp. 11102 – 11110, December 2016, ISSN: 0030-4026, (Indexed in SCOPUS).

J.Balavijayalakshmia, N.Suriyanarayanan, R.Jayaprakash,**V.Gopala Krishnan**, “Effect of concentration on dielectric properties of Co-Cu ferrite nano particles” Physics Procedia 49 ( 2013) 49 – 57, ISSN: 18753892, (Indexed in SCOPUS).

#### **Books/ Book Chapters Publication**

Cobot Collaboration in the Healthcare Industry, Intelligent Robots and Cobots, Scrivener Publishing LLC, <https://doi.org/10.1002/9781394198252.ch9>, December 2024, ISBN: 9781394198252

#### **DC Member**

1. DC Member to **Ms. Maheshwari.S**, Ph.D. Scholar at Adhiyamann College of Engineering, Hosur, Krishnagiri. Affiliated to Anna University
2. DC Member to **Mr. Ramasamy.R**, Ph.D. Scholar at Adhiyamann College of Engineering, Hosur, Krishnagiri. Affiliated to Anna University
3. DC Member to **Mr. Thirumurugan. R**, Ph.D. Scholar at Sri Eashwar Engineering College, Kinathukadavu, Coimbatore. Affiliated to Anna University

#### **Member in BoS**

1. Sunject Expert, Hindusthan Arts and Science College, Coimbatore, 2024-2026
2. Physics, Dr. N.G.P. Arts and Science College, Coimbatore, 2019 - 2022
3. Medical Physics, Dr. N.G.P. Arts and Science College, Coimbatore, 2019 – 2022

#### **Conference / Seminar/ Workshop organized**

1. Convener, 5 Day virtual National Faculty Development Programme (03-02-2025 to 07-02-2025), Dr. N.G.P. Arts and Science College, Coimbatore.
2. Convener, Smart NextGen Nanomaterials for sustainable Development of Energy and Environment-An Interdisciplinary Approach (ICSSE-2024), Dr. N.G.P. Arts and Science College, Coimbatore.
3. Organizing Member, First National Conference on Recent Trends in Basic and Applied Sciences (March 2-3, 2020), Dr. N.G.P. Arts and Science College, Coimbatore.
4. Organizing Secretary, National Conference on Frontiers in Advanced Physics (NCFAP 2019), Vivekananda College of Arts & Sciences for Women, Tiruchengode, Namakkal, 07 & 08 February -19

#### **Invited Speaker / Session Chair- Conference / Seminar / Workshop**

1. Resource Person in the seminar entitled “Thin Films Fabrication and Applications” on 24.12.2024 @ Department of Physics, Adhiyaman College of Engineering, Hosur, Krishnagiri. Affiliated to Anna University
2. Resource Person, Student institution innovation council Programme, Elango Matriculation Higher Secondary School, Erode, 1<sup>st</sup> August 2024
3. Session Chair, National Conference on Recent Trends in Basic and Applied Sciences, Dr. N.G.P. Arts and Science College, Coimbatore, 2 & 3<sup>rd</sup> March 2020
4. Resource Person, Student Internship Programme, Dr. N.G.P. Arts and Science College, Coimbatore, 25<sup>th</sup> June 2019

#### **Participated - Conference / Seminar / Workshop**

1. Participated in the national seminar on “Novel Materials for Sustainable energy development and Radiation Measurements” Organized by Medical Physics, Dr. N. G.P. Arts and Science College, Coimbatore.
2. Participated in the FDP entitled “Physics in Engineering and Technology” on 12.02.2024 to 16.02.2024, Department of Physics, PSG Institute of Technology and Applied Research, Coimbatore

3. Participated the National Seminar on National Credit Framework: Credit Transfer Policy, on 10 th , February, 2023. Organized by the Institution of Eminence and Human Resource Development Centre, University of Hyderabad.
4. Participated the International Seminar on Advanced Materials for Sustainable development and Energy applications on 17th February 2023. Organized by Department of Physics, SRM Institute of Science and Technology, Ramapuram Campus, Chennai.
5. Participated the One day National workshop on“Beneficial Applications of Radiation Technology and Indian Nuclear Energy Programme” on August 31, 2023, organized by Department of Medical Physics in association with KMCH Institute of Allied Health Science, Coimbatore.
6. Participated in the FDP on “Empowering Education for Innovation – A NEP Perspective” during 30 th June – 04 th July 2023, Organized by Centre for professional Development, Dr. N. G.P. Arts and Science College, Coimbatore.
7. Participated in the One Week Faculty Development Programme on Spectra of Physics II, from 26 th Sep to 1 st Oct 2022. Organized by Department of Physics, PSGR Krishnammal College for Women, Coimbatore.
8. Participated in the AICTE Training And Learning (ATAL) Academy Online Elementary FDP on &quot;Novel Materials: Advances and Application&quot; from 24/09/2021 to 28/09/2021 at National Institute of Technology Raipur.
9. Participated the Two day International virtual workshop on astrophotography, on 24- 25, September, 2021, Organized by PG & Research Department of Physics, The New College (Autonomous), Chennai.

**Membership in Professional Bodies**

<b>Name of the Professional Body</b>	<b>Nature of membership</b>	<b>Duration</b>
Indian Association of Physics Teachers	Annual Member	2024-2025
Indian Association for Crystal Growth (IACG)	Life Member	Life Time
All India Council For Technical Skill Development	Life Member	Life Time

**Awards / Honors**

<b>Awards / Honors</b>	<b>Agency / Institute</b>	<b>Year of Award</b>
Best Teacher	Dr. N.G.P. Arts and Science College, Coimbatore	2020