## **FACULTY PROFILE**

## Gowtham G K

Assistant Professor Dept. of Studies in Physics

Qualification	: M.Sc. Physics
Areas of Specialization	: Solid State Physics
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## Vision

- Encouraging students to communicate, to think, to question, to doubt, to make mistakes and to learn from those mistakes.
- To focus on research ideas that plays a major role in improving day to day lifestyle of an individual.
- To bridge the gap between research and its practical applications by minimizing its various limiting factors.

Educational Qualifications				
Sl. No.	Degree	Specialization/ Subjects	University	Year of Award/ Passing
			University of Mysore	
1	Ph.D.,	Nonlinear Optics	Dr. H. Somashekarappa (Guide) Prof. R Somashekar (Co-Guide)	Pursuing
2	NET/SLET	NET/JRF SLET	CSIR-NET-JRF SLET: University of Mysore	2015
3	PG	Physics	University of Mysore	2013
4	UG	PMCs	University of Mysore	2011

Professional Details (Academic/Research Experience)					
Sl. No.	Designation	Institution/University	UG/PG	From	То
1	Assistant Professor	Davangere University	PG	24/05/2019	Till date
2	CSIR-NET-SRF	University of Mysore	-NA-	01/01/2018	23/05/2019
3	CSIR-NET-JRF	University of Mysore	-NA-	01/01/2016	31/12/2017

Areas of Research Interest:	
1.	Optically active Polymer Composites
2.	Nanoparticles : Laser Ablation
3.	Mathematical models on Physical Parameters. (Stochastic Analysis, Functional Data Analysis)

Research Publications:		
a) International Journals		
1.	<b>Gowtham, G. K</b> ., Somashekarappa, H., Bharath, K., & Somashekar, R. (2021). Measure of polymer performance based on correlated physical parameters. <i>Journal of Applied Polymer Science</i> , <i>138</i> (29), 50705.	
2.	Kurrey, N. K., <b>Gowtham, G. K</b> ., & Somshekar, R. (2019). Laser-ablation-synthesized nanoparticles and animal cell lines studies. <i>Journal of biosciences</i> , <i>44</i> (6), 1-8.	
3.	Madhuri, S. R., Namitha, N. S., Urs, M. K., <b>Gowtham, G. K</b> ., Urs, T. G., & Somashekar, R. ( <b>2018</b> ). Modelling of X-ray patterns using Fourier transforms: application to nanomaterials. <i>Indian Journal of Physics</i> , <i>92</i> (12), 1525-1532.	
4.	Hegde, D. V., Bhavanishankar, M. C., <b>Kariyappa, G. G</b> ., Urs, T. G., Basavaraju, N. M., Dasaiah, M., & Rudrappa, S. ( <b>2018</b> ). Studies on physical properties of wine palm and Roselle natural fibers. <i>Journal of Natural Fibers</i> , 1-11.	
5.	Urs, T. G., <b>Gowtham, G. K</b> ., Nandaprakash, M. B., Mahadevaiah, D., Sangappa, Y., & Somashekar, R. ( <b>2017</b> ). Determination of force constant and refractive index of a semiconducting polymer composite using UV/visible spectroscopy: a new approach. <i>Indian Journal of Physics</i> , <i>91</i> (1), 53-56.	
6.	<b>Gowtham, G. K</b> ., Hegde, V. N., Meshk, S., Sukrutha, S. K., & Somashekar, R. ( <b>2015</b> ). Synthesis and characterization of carbon soot particles doped HPMC polymer composites. <i>Journal of Research Updates in Polymer Science</i> , <i>4</i> (2), 62.	
b) In	b) International Conference	
1.	<ul> <li>G. K. Gowtham, Thejas G. Urs, H. Somashekarappa, R. Somashekar: Structural dependence of nonlinear optical properties in ADP: PVA/PVP polymer composites. IUCr'17 Hyderabad, India; 12/2017, DOI:10.1107/S2053273317086338</li> </ul>	
2.	<b>G. K. Gowtham</b> , Thejas G. Urs, D. Mahadevaiah, K. Byrappa, R. Somashekar: <i>Imaging of crystallite shapes in various silk forms using PXRD</i> . IUCr'17 Hyderabad, India; 12/2017, DOI:10.1107/S2053273317086399	
3.	Thejas Gopal Krishne Urs, G. K. Gowtham, R. Somashekar, H. Somashekarappa: Structure-property relation in HPMC:CoCl 2 polymer composites using functional data analysis. IUCr'17 Hyderabad, India; 12/2017, DOI:10.1107/S2053273317086351	
c) National Conference		
1.	<b>Gowtham, G. K.</b> , Thejas Urs, G., Somashekarappa, H., & Somashekar, R. (2020, November). Preparation and crystal structure of carbon soot: A new approach. In <i>American Institute of Physics Conference Series</i> (Vol. 2265, No. 1, p. 030164).	
2.	<b>Gowtham, G. K</b> ., Somashekarappa, H., Raman Namboodiri, C. K., & Somashekar, R. ( <b>2018, April</b> ). Setting up Z-scan experiment to study nonlinear optical properties of polymer composites: Characterization of ADP	

	doped PVA/PVP polymer films. In AIP Conference Proceedings (Vol. 1942, No. 1, p. 060024). AIP Publishing.
	Hemalatha, K., Mahadevaiah, Gowtham, G. K., Urs, G. T., Somashekarappa, H., & Somashekar, R. (2016,
3.	May). Microstructural and electrical properties of PVA/PVP polymer blend films doped with cupric sulphate.
	In AIP Conference Proceedings (Vol. 1731, No. 1, p. 070007). AIP Publishing.

**Conference/ Workshops/Trainings attended/organized:** 

International/National Conferences:

- 1. 64<sup>th</sup> DAE Solid State Physics Symposium (18–22 December 2019, IIT Jodhpur, Rajasthan, India)
- 2. 10<sup>th</sup> International Conference on Materials for Advanced Technologies (ICMAT): 2019
- 3. 62<sup>nd</sup> DAE Solid State Physics Symposium (26–30 December 2017, BAARC Mumbai, India)
- 4. 24th Congress & General Assembly of the International Union of Crystallography (IUCr): 2017
- 5. International Conference on Advanced Materials and Technology ICMAT 2016
- 6. 60th DAE Solid State Physics Symposium 2015 (21–25 December 2015, Amity University, Uttar Pradesh, India)
- 7. International Conference on Direct Digital Manufacturing and Polymers (ICDDMAP): 2015

Workshops/Seminars/Symposium Attended:

- 1. UGC sponsored Refresher Course in Physics, Sambalpur University from 16<sup>th</sup> Sept 2021 to 29<sup>th</sup> Sept
- 2. 4-week Orientation program for Faculty in Universities of Higher education from June 26<sup>th</sup> July 24<sup>th</sup>, 2020.
- 3. 24th Congress & General Assembly of the International Union of Crystallography (IUCr) X-ray absorption spectroscopy workshop.
- 4. "Quantum Mechanics Basics to Advanced" organized by Regional Institute of Education (NCERT) Mysore, 28-30 Jan 2016.

## **Seminars organized:**

- 1. National webinar on 'Smartness of smart materials' on 09th September, 2021.
- 2. National webinar on 'Particle Accelerators: Current and Future Application' on 19<sup>th</sup> July, 2021.
- 3. National webinar on 'White Dwarfs, Neutron Stars and Black Holes' on 13<sup>th</sup> July, 2021.

- 4. National webinar on 'Studies on Conducting Polymer Nanocomposites and its Applications' on 08<sup>th</sup> July, 2021.
- 5. National webinar on 'The Ubiquitous Gallium Nitride Nanostructures' on 07<sup>th</sup> July, 2021.
- 6. National webinar on 'Exploring Biomaterials for Energy and Environmental Applications' on 30<sup>th</sup> June, 2021.
- 7. National webinar on 'Ultrafast Optics' on 29<sup>th</sup> June, 2021.
- 8. National webinar on 'Arduino Microcontroller, Coding, I/O Interfacing and Circuit Simulation' on 27<sup>th</sup> June, 2021.
- 9. National webinar on 'Sensors' on 16<sup>th</sup> June, 2021
- 10. 'Celebration of National Science day and Inauguration of Physics forum SPECTRUM' in association with IQAC, Davangere University on 23<sup>rd</sup> March, 2021.
- 11. International webinar on 'ICT Initiatives and Flipped Learning' on 28th August, 2020.
- 12. National webinar Short term course on 'Basic Electronics' during 06 12 July, 2020.
- 13. National webinar on 'Raman Effect and its applications' on 25<sup>th</sup> June, 2020.
- 14. National webinar on 'Super Capacitors' and 'Flexible OLEDs The Future of lighting and Display Technology' on 18<sup>th</sup> and 20<sup>th</sup> June, 2020.
- 15. National webinar on 'Biological effects of ionizing radiation, and 'Biological bases of radiation protection, on 12<sup>th</sup> and 17<sup>th</sup> June, 2020.
- 16. 'Celebration of National Science day' in association with IQAC, Davangere University on 28<sup>th</sup> February, 2020.

Workshops Organised:

- 1. One Day workshop on PEO's, PO's and CO's in Outcome based education environment on 15-12-2020.
- 2. One day workshop for college teachers on FRONTIERS OF PHYSICAL SCIENCES at Davangere University on 03-02-2020.

Achievements/Awards / Abroad visit / Professional Membership

- 1. 10<sup>th</sup> International Conference on Materials for Advanced Technologies (ICMAT): 2019 held from 23<sup>rd</sup> – 28<sup>th</sup> June 2019.
- 2. IUCr Best Poster Award 2017

Personal Details		
Gender	Male	
Date of Birth	07/05/1991	
	Address for Communication	
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