

# CV



## Dr. KOTRESH S

*M.Sc., B.Ed., KSET, Ph.D (Physics)*

### Assistant Professor

Department of Physics,  
Dayananda Sagar College of Arts, Science and  
Commerce, SM Hills, Kumaraswamy Layout,  
Bengaluru- 560078, Karnataka State, India.

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## AREA OF RESEARCH :

### Specialization: Condensed Matter Physics (CMP)

Research on nanocomposites is mostly focused on polymer-based nanocomposites (polymer + metal oxides / biopolymers / graphene oxide composites) for electrical, optical, and magnetic studies, as well as for humidity and LPG sensor device fabrication and their applications.

## EDUCATIONAL QUALIFICATION :

- **2021 Ph.D in Physics**, from Visvesvaraya Technological University (VTU), Belagavi, Karnataka state. India
- **KSET 2018 eligibility for Assnt. Professor.**
- **2012 M.Sc (Physics)**
- **2010 B.Ed (Physics and Mathematics).**
- **2008 B.Sc : Physics, Chemistry, Mathematics (PCM).**

## TEACHING AND RESEARCH EXPERIENCES :

Presently employed as an Assistant Professor, Dayananda Sagar College of Arts, Science and Commerce, KM Layout, Bengaluru.

5 years full time research experience (Ph.D)

3 years M.Sc., teaching experience at Bangalore University

4 months-Visiting faculty as an Assistant Professor at Dept. of Physics, Dayananda Sagar University, Bengaluru.

## PROFESSIONAL MEMBERSHIP :

- Life time member of Nanoscience & Nanotechnology Society, India (Membership No: NN103)
- Life time member of Nano and Molecular Society (NMS), Farah, Mathura (U.P) India.

## CITATION REPORT:

<https://scholar.google.com/citations?user=vXVpP7UAAAAJ&hl=en>

Citation indices	All	Since 2021
Citation	527	303
h- index	12	12
i10- index	13	13

## PUBLICATIONS :

Sl.No	Title	Author	Journals/Publisher details	Year	Volume	Page no	ISSN
01	Synthesis and Characterization of ZnO Nanoparticles for Photocatalytic Degradation of Organic Dyes	Santhosh TCM, Shiva Reddy GV, Kotresh Savanur, Padmavathy N.	International Journal of Environmental Sciences (IF: 0.17)	2025	11	23	2229-7359
02	Preparation of n-p heterojunction polyaniline-vanadium pentoxide composite for the moisture detection	Kotresh Savanur, Aashis. S. Roy, Ameena Parveen, K. Keshavamurthy, C. Vidya, K.C. Sajjan	Journal of Electronic Materials (Springer) Impact factor:2.2	2025	54	3675-3684	0361-5235
03	Low concentration Sm <sup>3+</sup> ions loaded zinc sodium borate glasses for solid state lighting devices	K. Keshavamurthy, C Vidya, T Uthayakumar, V Hegde, C.M. Joseph, P. Aruna, A.P. Chowdhury, S. Chinnam, K. Gurushantha, C. Devaraja, Kotresh Savanur, S Malini, B.N. Swetha	Elsevier: Optical materials (IF: 3.8)	2024	148	114829	0925-3467
04	Fabrication of low cost p-n heterostructure room temperature LPG sensing properties of Polyaniline-Copper ferrite composite	<b>S Kotresh,</b> Aashish S Roy, Ameena Parveen, Nacer Badi, A. Murali	J Mater Sci: Mater Electron (Springer). Impact factor: 2.8	2023	34	218	0957-4522
05	Synthesis, characterization and AC Studies on Magnesium ferrite/Oxide (MgFe <sub>2</sub> O <sub>4</sub> - Nb <sub>2</sub> O <sub>5</sub> ) nanocomposite at room temperature	<b>S Kotresh,</b> Aashish S Roy, A. Murali, Ameena Parveen, N Anilkumar, H G Rajprakash, Nacer Badi	J Mater Sci: Mater Electron (Springer). Impact factor: 2.8	2022	33	12976-12983	0957-4522
06	Optimised polyaniline-cadmium ferrite nanocomposite: synthesis, characterization and alternating current response	<b>S. Kotresh,</b> Y.T. Ravikiran, S.C.Vijayakumari, Ch.V.V. Ramana, A.S. Anu and K.M. Batoo	Polymer Bulletin (Springer) Impact factor: 2	2017	75	2475-2490	1436-2449
07	Solution based-spin cast processed LPG sensor at room temperature	<b>S. Kotresh,</b> Y.T. Ravikiran, S.C.Vijayakumari, Ch.V.V. Ramana and K.M. Batoo	Sensors and Actuators A: Physical (Elsevier) Impact factor: 2.9	2017	263	687-692	0924-4247

08	Humidity sensing performance of spin coated polyaniline-carboxymethyl cellulose composite at room temperature	<b>S. Kotresh,</b> Y.T. Ravikiran H.G. Raj Prakash, CH.V.V. Ramana S.C.Vijayakumar and S. Thomas	Cellulose (Springer) Impact factor: 4.2	2016	23	3177-3186	0969-0239
09	Interfacial p-n heterojunction of polyaniline-nickel ferrite nanocomposite as room temperature liquefied petroleum gas sensor.	<b>S. Kotresh,</b> Y.T. Ravikiran, S.C.Vijayakumari and S. Thomas	Composite Interfaces (Taylor and francies) Impact factor:1.08	2017	24	549-561	0927-6440
10	Polyaniline-cadmium ferrite nanostructured composite for room-temperature liquefied petroleum gas sensing.	<b>S. Kotresh,</b> Y.T. Ravikiran, S.K. Tiwari and S.C. Vijaya Kumari	Journal of Electronic Materials (Springer) Impact factor:2.2	2017	46	5240-5247	0361-5235
11	Solution-based spin cast processed polypyrrole/niobium pentoxide nanocomposite as room temperature liquefied petroleum gas sensor	<b>S. Kotresh,</b> Y.T. Ravikiran, S.C. Vijaya Kumari, T. Chandrasekha, CH.V.V.Ramana and S. Thomas	Materials and Manufacturing Processes (Taylor and francies) Impact factor:2.23	2016	13	1976-1982	1042-6914
12	Liquid petroleum gas sensing performance of polyaniline-carboxymethyl cellulose composite at room temperature	Y.T. Ravikiran, <b>S. Kotresh,</b> S.C.Vijayakumari and S. Thomas	Current Applied Physics (Elsevier) Impact factor:1.971	2014	14	960-964	1567-1739
13	Polyaniline-niobium pentoxide composite as humidity sensor at room temperature	<b>S. Kotresh,</b> Y.T. Ravikiran, S.C.Vijayakumari, H.G. Raj Prakash, and S. Thomas	Advanced Materials letters (VBRI Press) Impact factor:1.46	2015	6	641-645	0976-3961
14	Polyaniline-Titanium dioxide composite as humidity sensor at room temperature	<b>S. Kotresh,</b> Y.T. Ravikiran, H.G. Raj Prakash and S.C.Vijayakumari	Nanosystems: Physics, Chemistry, Mathematics Impact factor: 0.7	2016	7	732-739	2305-7971
15	AC conductivity studies of P-toluenesulfonic acid doped polyaniline-sodium alginate composites	Y.T. Ravikiran, <b>S. Kotresh,</b> S.C.Vijayakumari, K.C. Sajjan, B.S. Khened and S. Thomas	Cellulose Chemistry and Technology Impact factor: 0.833	2015	49	21-28	0576-9787

16	Study of alternating current conduction mechanism in polypyrrole-magnesium ferrite hybrid nanocomposite through correlated barrier model.	R. Megha, <b>S. Kotresh,</b> Y.T. Ravikiran, CHVV. Ramana S.C.Vijaya Kumari, and S.Thomas	Composite Interfaces (Taylor and francies) Impact factor:1.01	2017	24	55-68	0927-6440
17	Carboxymethyl cellulose: an efficient material in enhancing alternating current conductivity of HCl doped polyaniline	R. Megha, Y.T. Ravikiran, <b>S. Kotresh,</b> S.C.Vijaya Kumari, H.G. Raj Prakash and S.Thomas	Cellulose (Springer) Impact factor: 4.2	2018	25	1147-1158	0969-0239

## PRESENTATIONS :

### Conferences: International/National

Sl. No	Title	Author	Venue of the conferences	Year
01	Polyaniline-Cadmium ferrite: nanostructured composite for resistive type humidity sensor at room temperature	Kotresh Savanur, Aashis.S Roy, K. Keshavamurthy, Anil N, H.G. Rajprakash, Ameena Parveen	Second International Conference on Recent Trends in Applied Physics & Material Science (RAM 2024) Bikaner Technical University, Bikaner -334004 Rajasthan, INDIA.	15-16, November, 2024.
02	AC conductivity studies of P-toluenesulfonic acid doped polyaniline-sodium alginate composites	<b>S. Kotresh,</b> Y.T. Ravikiran, S.C.Vijayakumari, K.C. Sajjan, B.S. Khened and S. Thomas	International Conference on Advanced Polymeric Materials (ICAPM 2013) held at Mahatma Gandhi university, Kottayam, Kerala	11-13, October 2013
03	Polypyrrole-Niobium pentoxide Composite as Liquid Petroleum Gas Sensor at Room Temperature	<b>S. Kotresh,</b> Y.T. Ravikiran, H.G. Raj Prakash, S.C. Vijaya kumari, S. Thomas	Third International Conference on Polymer Processing and Characterization (ICPPC – 2014) held at Mahatma Gandhi university, Kottayam, Kerala	11-13 October 2014
04	Polyaniline -Niobium pentoxide Composite as Liquid Petroleum Gas Sensor at Room Temperature	<b>Kotresh Savanur,</b> Y.T. Ravikiran, H.G. Raj Prakash, S.C. Vijaya kumari,	Second International Conference on Nano structured Materials and Nanocomposites (ICNM 2015) held at Mahatma	19-21, December 2014

		L.P. Babureddy and S. Thomas	Gandhi university, Kottayam, Kerala	
05	Polyaniline-Titanium dioxide composite as humidity sensor at room temperature	<b>S. Kotresh,</b> Y. T. Ravikiran, H. G. Raj Prakash, S. C. Vijaya Kumari, and S. Thomas	Nano Materials and Nanotechnology (NANO 2015), held at K.S. Rangasamy College of Technology, Tiruchengode, Tamilnadu, India.	7-10, December, 2015.
06	Polypyrrole-Titanium dioxide composite as humidity sensor at room temperature	<b>S. Kotresh,</b> Y. T. Ravikiran, H. G. Raj Prakash, S. C. Vijaya Kumari and S. Thomas	Third International Conference on Nano structured Materials and Nanocomposites (ICNM 2015) held at Hindustan College of Science and Technology, Farah, Mathura, Uttara Pradesh, India.	12-14, December 2015.
07	Dielectric Studies of Manganese (II) Sulphate doped Poly(vinyl alcohol) films at room temperature	<b>S. Kotresh,</b> L.P Babureddy, Y.T. Ravikiran, and H.G. Raj Prakash	International conference on smart materials and technologies for emerging electronics-IC-SMTEE-2016 Organized by Sahyadri college of Engineering and Management, Mangaluru Karnataka, India	19 <sup>th</sup> and 20 <sup>th</sup> February, 2016
08	AC electrical and optical studies on copper sulphate doped poly (vinyl alcohol)films at room temperature	T. Chandrashekar, Y.T. Ravikiran, and <b>S. Kotresh</b>	International confernceon smart materials and technologies for emerging electronics-IC-SMTEE-2016 Organized by Sahyadri college of Engineering and Management, Mangaluru Karnataka, India	19 <sup>th</sup> and 20 <sup>th</sup> February, 2016
09	Alternating current conduction studies on polyaniline-titanium dioxide hybrid nanocomposite at room temperature.	R. Megha, <b>S. Kotresh,</b> Y.T. Ravikiran, and S.C. Vijaya Kumari.	International confernceon smart materials and technologies for emerging electronics-IC-SMTEE-2016 Organized by Sahyadri college of Engineering and Management Mangaluru	19 <sup>th</sup> and 20 <sup>th</sup> February, 2016
10	Room temperature AC conduction studies on biodegradable starch-poly (vinyl alcohol) blends	<b>S. Kotresh,</b> H. Kirankumar, T. H. Madhusudana, T. Chandrashekar and Y. T. Ravikiran and H.G. Rajprakash	International Conference on Nanotechnology (ICnano-2015) held at VTU- Centre for PG studies, Muddenahalli, Chikkaballapura, Karnataka, India.	21-23, April 2016
11	Humidity sensing performance of spin coated polyaniline-nickel ferrite hybrid nanocomposite at room temperature	<b>S. Kotresh,</b> L.P. Babu Reddy Y.T. Ravikiran, H. G. Raj Prakash, CH.V.V. Ramana, S.C. Vijayakumari and S. Thomas	Second International conferences on advanced materials for power engineering [ICAMPE 2016] Organized by International and inter university centre for nanoscience and nanotechnology (IIUCNN) Mahatma Gandhi University, Kottayam, Kerala, India.	11-13 November, 2016
12	Study of AC conduction	Y.T. Ravikiran, <b>S. Kotresh,</b>	Second International conferences on advanced	11-13 November, 2016

	mechanism in polypyrrole-magnesium ferrite nanocomposite through CBH model	S.C. Vijayakumari, and S. Thomas	materials for power engineering [ICAMPE 2016] Organized by International and inter university centre for nanoscience and nanotechnology (IIUCNN) Mahatma Gandhi University, Kottayam, Kerala, India.	
13	Humidity sensing performance of spin coated polyaniline-zinc ferrite nanocomposite at room temperature	<b>S. Kotresh</b> , Y.T. Ravikiran, H. G. Raj Prakash, CH.V.V. Ramana, S.C. Vijayakumari and S. Thomas	International Conference on Smart Materials & Applications (ISMA-2016), organized by Department of Physics, Faculty of Engineering & Technology (ITER) SIKSHA 'O' ANUSANDHAN UNIVERSITY, BHUBANESWAR-751030, Odisha, INDIA	15-17 December, 2016
14	“Polyaniline-Cadmium ferrite: nanostructured composite for resistive type humidity sensor at room temperature”	Kotresh Savanur, Aashis. S. Roy, K. Keshavamurthy, Santhosh T C M, Rakesh J, Anil Kumar N, H.G. Rajprakash, Ameena Parveen	International conference on Recent Trends in Applied Physics & Material Science (RAM-2024) Bikaner Technical University, Bikaner, Rajasthan, India.	15-16, November, 2024

## AWARDS :

Sl. No	Title	Author	Venue of the conferences	Year	Awards
01	Polyaniline-niobium pentoxide composite as gas sensor at room temperature	<b>S. Kotresh</b> , L.P. babureddy Y. T. Ravikiran, H. G. Raj Prakash, S. C Vijaya Kumari and S. Thomas	Karnataka Science and Technology Academy (KSTA), Govt. of Karnataka conference on “Science and Society”, held at veerashaiva college, Bellari, Karnataka State.	16 <sup>th</sup> and 17 <sup>th</sup> , January 2015	Awarded <b>First Cash Prize (1<sup>st</sup>)</b> for poster paper presentation
02	Polypyrrole-Titanium dioxide composite as humidity sensor at room temperature	<b>S. Kotresh</b> , Y. T. Ravikiran, H. G. Raj Prakash, S. C. Vijaya Kumari and S. Thomas	Third International Conference on Nano structured Materials and Nanocomposites (ICNM 2015) Hindustan College of Science and Technology, Farah, Mathura, Uttara Pradesh, India.	12-14, December 2015	Awarded <b>Third Cash Prize (3<sup>rd</sup>)</b> for poster paper presentation
03	Spin coated polyaniline-yttrium nanocomposite as resistive type humidity sensor at room temperature	<b>S. Kotresh</b> , L.P. babureddy Y. T. Ravikiran, H. G. Raj Prakash, S. C. Vijaya Kumari and S. Thomas	KSTA National Conference on “Impact of Science and technology on society and economy” jointly organized by Karnataka Science and Technology Academy (KSTA), DST, Govt. of Karnataka and Vijayanagara Sri Krishnadevaraya University,	8-9, March 2017	Awarded <b>Second Cash Prize (2<sup>nd</sup>)</b> for poster paper presentation

			Ballari, Karnataka		
04	Solution based-spin cast processed LPG sensor at room temperature	<b>S. Kotresh,</b> L.P. babureddy Y. T. Ravikiran, H. G. Raj Prakash, S. C. Vijaya Kumari and S. Thomas	International Conference on “Applied Nanotechnology and Nanoscience” (ICANN 2017) organized by Tuljaram Chaturchand College of Arts, Science and commerce, Baramati Post Graduate Department of Physics and Nano and Molecular Society (NMS), India.	7-9, December, 2017	Awarded <b>First Prize (1<sup>st</sup>)</b> for Oral paper presentation
05	Solution based-spin cast processed LPG sensor at room temperature	<b>S. Kotresh,</b> Y. T. Ravikiran, H. G. Raj Prakash, and S. Thomas	4 <sup>th</sup> International Conference on Physics of Materials and Materials Based Device Fabrication (4 <sup>th</sup> ICPM-MDF-2019) organized by Department of Physics, Shivaji University, Kolhapur, India.	January 10-11, 2019	Awarded 3 <sup>rd</sup> Prize for Poster Presentation

### **WORKSHOPS/ SEMINARS PARTICIPATED :**

1. Participated in the sixth DAE-BRNS workshop cum meeting on EXFOR Compilation of Nuclear data organized by the department of physics, Bangalore University, Bangalore in association with Nuclear of atomic energy, Mumbai held at Bangalore University during 20-24, January 2015, Karnataka, India.
2. Participated in the National Workshop on Advances in Instrumental Techniques for nanomaterial characterization Organized by International and inter university centre for nanoscience and nanotechnology (IIUCNN) Mahatma Gandhi University, during March 7<sup>th</sup> and 8<sup>th</sup> .2014, Kottayam, Kerala, India.
3. Participated in the INUP Familiarization workshop on Nanofabrication Technologies, conducted at the centre for Nanoscience and engineering, Indian institute of science, Bangalore, from 28-30, January-2015, Karnataka, India.
4. Participated in the university level workshop on “Physics practicals” organized by the department of PG studies in Physics, government science college (VTU-RRC), Chitradurga-577501, Karnataka.
5. I have attended inter university accelerator center (IUAC-2014) one day programme held at VTU-University campus belgaum, during 18<sup>th</sup>, November, 2014.

### **FACULTY DEVELOPMENT PROGRAMME (FDP): 05**

## **PATENTS: 03**

- 1) **“Solar Panel Energy generation monitoring device”** *From Govt. of India and it was notified on 16<sup>th</sup> Aug 2024.*
- 2) **“Advanced Hybrid Solar Cell and Photoelectric Conversion Element”** *From Govt. of India and it was notified on 5<sup>th</sup> Dec 2025.*
- 3) **“A Method for Generating Electricity by Utilizing Microbial fuel Cell for Wastewater Treatment”** *From Govt. of India and it was notified on 5<sup>th</sup> Dec 2025.*

I presented my research work and was awarded the first cash prize by Scientist Prof. U. R. Rao, former ISRO Chairman, India, at the KSTA Conference on '*Science and Society*', held on 16<sup>th</sup> and 17<sup>th</sup> January 2015 at Veerashaiva College, Ballari, Karnataka.





Awarded the third cash prize for my paper presentation at the Third International Conference on Nanostructured Materials and Nanocomposites (ICNM 2015), held at Hindustan College of Science and Technology, Farah, Mathura, Uttar Pradesh, from December 12–14, 2015.



Awarded **Second Cash Prize** for the research paper entitled '*Spin-coated polyaniline–yttrium oxide nanocomposite as a resistive-type humidity sensor at room temperature*', presented at the KSTA National Conference on '*Impact of Science and Technology on Society and Economy*', jointly organized by the Karnataka Science and Technology Academy (KSTA), DST, Government of Karnataka, and Vijayanagara Sri Krishnadevaraya University, Ballari, held on 8–9 March 2017.



Awarded **First Cash Prize** for oral paper presentation of the research paper entitled '*Solution-based spin-cast processed LPG sensor at room temperature*' at the International Conference on '*Applied Nanotechnology and Nanoscience*' (ICANN 2017), organized by Tuljaram Chaturchand College of Arts, Science and Commerce, jointly organized by the Postgraduate Department of Physics, Baramati, and the Nano and Molecular Society (NMS), Mathura, India.



Awarded **third cash prize** for poster presentation of the paper entitled '*Solution-based spin-cast processed humidity sensor at room temperature*' at the 4th International Conference on *Physics of Materials and Materials-Based Device Fabrication*, organized by the Department of Physics, Shivaji University, Kolhapur, India, held on January 10–11, 2019.

### **PROJECT CARRIED OUT FOR M.SC STUDENTS:**

**Project entitled** "Synthesis, Characterization and AC studies on Magnesium Ferrite/ Niobium oxide ( $\text{MgFe}_2\text{O}_4\text{-Nb}_2\text{O}_5$ ) Nano composite at room temperature" carried out for M.Sc students (2019 batch) at Dept. of Physics, Davangere University, Davangere, Karnataka state.

### **PROJECT CARRIED OUT FOR B.SC STUDENTS:**

Project entitled "Servo Motor as an Actuator for a part of Mechanical Functioning, Paired with Proximity Sensors in a Power Loom and the summary on the Semiconductor Technology and Micro-fabrication carried out for B.Sc students (2024 batch) at Dept. of Physics, Dayananda Sagar College of Arts, Science and Commerce, Bangalore, Karnataka.

**Dr. Kotresh Savanur, KSET, Ph.D.**