


**MAR IVANIOS COLLEGE (AUTONOMOUS)****FACULTY PROFILE**

NAME	<b>Dr. Jiji SG</b>		
DEPARTMENT	Department of Physics		
DESIGNATION	Assistant Professor		
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ACADEMIC QUALIFICATIONS (with name of degree awarding University)	<ul style="list-style-type: none"><li>• M.Sc. Physics (University of Kerala)</li><li>• M.Ed. Science Education (University of Kerala)</li><li>• UGC – NET in Education</li><li>• M.Phil. Photonics (University of Kerala)</li><li>• Ph.D. Optoelectronics (University of Kerala)</li><li>• DST-PURSE Postdoctoral Research Fellowship</li></ul>		
TEACHING EXPERIENCE	LEVEL	YEARS OF SERVICE	INSTITUTION
	UG	7 MONTHS	Mar Ivanios College, Trivandrum
	PG	7 MONTHS	Mar Ivanios College, Trivandrum
SPECIALIZATION	Materials Science		
PUBLICATIONS/ PARTICIPATION IN SEMINARS/ CONFERENCES ETC (Please attach a separate detailed list with titles of papers, names of conferences, etc)		INTERNATIONAL	NATIONAL
	NO. OF RESEARCH PAPERS IN JOURNALS	6	
	NO. OF CONFERENCES PARTICIPATED IN	3	12
PROJECTS	NO OF STUDENTS AWARDED PHD:NIL NO. OF STUDENTS WITH SUBMITTED DISSERTATIONS:NIL NO. OF CURRENT STUDENTS:NIL		
DETAILS OF RESEARCH SUPERVISION	NIL		
HONOURS AND AWARDS	2		
POSTS HELD			
ANY OTHER INFORMATION			
PHOTO (Please copy and paste the photograph you would like to have as your profile image)			

### Academic Qualifications

S.No	Degree	Year	Subject	University/Institution
1	B.Sc.	2003	Physics	University of Kerala
2	M.Sc.	2005	Physics	University of Kerala
3	B.Ed.	2006	Physical Science	University of Kerala
4	M.Ed.	2007	Science Education	University of Kerala
5	M.Phil.	2011	Photonics	University of Kerala
6	Ph.D.	2018	Optoelectronics	University of Kerala
7	PDF	2017-2020	Optoelectronics	DST-PURSE PDF
UGC NET in Education –December 2007				

### Work experience

S.No.	Positions held	Name of the Institute	From	To
1.	Teacher	Chinmaya Vidyalaya Kunnumpuram, Trivandrum	01/12/2008	28/02/2009
2.	Technical Assistant	Astronomical Observatory University of Kerala	02/03/2009	31/12/2009
3.	HSST Teacher	Govt.GHSS Manacaud, Trivandrum	01/12/2010	25/01/2011
4.	Guest Lecturer	Mar Ivanios College Thiruvananthapuram	04/07/2017	31/07/2017
5	Assistant Professor	Mar Ivanios College Thiruvananthapuram	03/01/2020	

### Publications (*List of papers published in SCI Journals*)

S.N	Author(s)	Title	Name of Journal	Volume	Page	Year
1.	S.G. Jiji & K.G.Gopchandran	Synthesis of Gold Nanoflowers and their High SERS Performance.	<i>Materials Today: Proceedings</i>	2	928-933	2015
2.	S.G. Jiji & K.G.Gopchandran	Virus shaped gold nanoparticles with tunable near infrared plasmon as SERS substrates	<i>Materials Research Express</i>	2	075005	2015

3.	<b>S.G. Jiji &amp; K.G.Gopchandran</b>	Restructuring hollow Au-Ag nanostructures for improved SERS activity	<i>Materials Research Express,</i>	<b>3</b>	105012	2016
4.	<b>S.G. Jiji &amp; K.G.Gopchandran</b>	Au-Ag hollow nanostructures with tunable SERS properties	<i>Spectrochimica Acta Part A: Molecular and Biomolecular Spectroscopy</i>	<b>171</b>	499–506.	2017
5.	G.Tom , S.Philip, R.Isaac, P.K.Praseetha, <b>S.G. Jiji</b> , & Asha.V.V	Preparation of an efficient and safe polymeric-magnetic nanoparticle delivery system for sorafenib in hepatocellular carcinoma	<i>Life Sciences</i>	<b>206</b>	10–21	2018
6.	<b>S.G. Jiji &amp; K.G.Gopchandran</b>	Shape dependent catalytic activity of unsupported gold nanostructures for the fast reduction of 4-nitroaniline	<i>Colloid and Interface Science Communication s</i>	<b>29</b>	9–16	2019

## PRESENTATIONS IN CONFERENCES/SEMINARS

- [1] Studies on synthesis and characterization of surfactant stabilized colloidal silver nanoparticles ., **Jiji, S. G.** and Gopchandran, K. G., 81<sup>st</sup> Annual section of NASI (National Academy of Science's India) held at University of Kerala, Thiruvananthapuram during 24 - 26<sup>th</sup> November , 2011
- [2] Seed mediated synthesis of gold nanoparticles ., **Jiji, S. G.** and Gopchandran, K. G., National seminar on spectroscopic techniques and its applications for material characterization (NSST-2013) held at Department of Optoelectronics, University of Kerala during 3- 4<sup>th</sup> October, 2013.
- [3] Studies on seed mediated synthesis of gold nanoparticles ., **Jiji, S. G.** and Gopchandran, K. G., The India-Israel meeting on materials science and nanoscience (IIMMN-2013) held at Centre for Nanoscience and Nanotechnology , M.G. University, Kottayam during 31<sup>st</sup> January to 1<sup>st</sup> February, 2013.
- [4] Synthesis of gold nanoflowers and their high SERS performance., **Jiji, S. G.** and Gopchandran, K. G., 5<sup>th</sup> International Conference on Perspectives in Vibrational Spectroscopy (ICOPVS 2014) held at Mascot hotel, Thiruvananthapuram during 08-12<sup>th</sup> July, 2014.

- [5] Highly branched gold nanostructures for improved SERS activity., **Jiji, S. G.** and Gopchandran, K. G., National seminar on New Frontiers in Physics-scope and challenges held at St.Xavier's College, Thumba, Thiruvananthapuram during 28-30<sup>th</sup> October, 2014.
- [6] Synthesis of Star Shaped Gold Nanosubstrates for Surface Enhanced Raman Spectroscopy., **Jiji, S. G.** and Gopchandran, K. G., Second International Conference on Nanostructured Materials and Nanocomposites (ICNM-2014) held at International and Interuniversity center for Nanoscience and Nanotechnology(IUCNN), M.G. University, Kottayam during 19-21<sup>th</sup> December, 2014.
- [7] Spiky Gold Nanostars with near Infra-Red Plasmon as SERS Substrates ., **Jiji, S. G.** and Gopchandran, K. G. National seminar on Advanced materials characterization and techniques (AMCT'15) held at Department of Physics, University of Kerala, Thiruvananthapuram during 27-28<sup>th</sup> March, 2015. (**BEST POSTER AWARD**)
- [8] Gold Nanorods and Dog bones as Catalysts to reduce 4-NA., **Jiji, S. G.** and Gopchandran, K. G. National Conference on Materials Science and Technology (NCMST-2016) held at Indian Institute of Space Science and Technology, Thiruvananthapuram during 12-14<sup>th</sup> July, 2016.
- [9] On the making of hollow Au-Ag SERS substrates **Jiji, S. G.** and Gopchandran, K. G., National Conference on Materials Science and Technology (NCMST-2016), held at Indian Institute of Space Science and Technology, Thiruvananthapuram during 12-14<sup>th</sup> July, 2016
- [10] On the making of Au and Ag based substrates for surface enhanced Raman scattering ., **Jiji, S. G.** and Gopchandran, K. G., Annual technical meeting of Materials Research Society of India (MRSI) Trivandrum chapter (MRSI-2017) held at Department of Biochemistry, University of kerala, Thiruvananthapuram on 27<sup>th</sup> January 2017.
- [11] Green Synthesis of Silver Nanoparticles using "Pimenta dioica" Leaf Broth and its SERS Activity ., Dhanyaprabha K.C., **Jiji S.G** and Gopchandran K.G., Annual Physics Symposium (APS 2017) held at St. Teresa's College, Ernakulam during 2-3<sup>rd</sup> February, 2017.
- [12] Unsupported gold nanorods as efficient catalyst for the reduction of 4-NA., **Jiji, S. G.** and Gopchandran, K. G., The annual National level meet of young scientists working in the field of Hydrogen Energy and related Advanced Materials (HEAM SCIENTIST 2018) held at Department of Chemistry, University of Kerala, Thiruvananthapuram during 05 - 06<sup>th</sup> March 2018.
- [13] Fabrication of efficient Au/Ag alloy SERS substrates by controlled chemical reduction., **Jiji, S. G.** and Gopchandran, K. G., National Seminar on Advanced Materials held at School of Pure and Applied Physics, Mahatma Gandhi University, Kottayam, Sponcered by Department of Science & Technology, Govt. of India during 23-24<sup>th</sup> March 2018.
- [14] Langmuir-Hinshelwood method for the kinetic evaluation of CTAB stabilized gold nano dog bones in the reduction of Para-nitroaniline. **Jiji, S. G.** and

Gopchandran, K. G., .National Conference on Emerging trends in Science, Technology and Application of Electron Microscopy (STAEM 2018) & 5<sup>th</sup> Annual meeting of the Academy of Microscope Science and technology (AMST), India on 19-21<sup>th</sup> December 2018.

- [15] Synthesis and characterization of Orange emitting cuprous oxide nanocubes for optoelectronic applications. **Jiji S G**, Vishnupriya G, and Gopchandran K G., National Conference on Energy and Environment (NCEE-2019) held at Sree Ayyappa College, Eramallikkara, Chengannur, Kerala, India on February 15& 16<sup>th</sup>, 2019.

## **TRAINING/ FIELD WORK/ WORKSHOPS**

1. Attended **Three day Astronomy camp** organized by KSCSTE & Kerala state science and technology Museum from 26-28<sup>th</sup> of March 2010
2. Pre ICORS **International workshop** on *Raman Spectroscopy:Recent Advances, Techniques and Applications*, organized by Keralastate council for Science,Technology and Environment (KSCSTE) in association with Edu-world Foundation held at Mascot Hotel, Trivandrum on 10<sup>th</sup> August 2012.
3. **Workshop** on “Lectures on selected topics in atomic and molecular Physics”, Organized by Department of Physics, IIST Trivandrum on 2<sup>nd</sup> and 3<sup>rd</sup> April 2012
4. **National Colloquium** on *100 years of Crystallography*, Organized by Srinivasa Ramanujan Institute for Basic Sciences (SRIBS), Kottayam under KSCSTE during 7-9 February 2013 at Trivandrum.
5. **Work shop** on *Professional and Research Etiquette* organized jointly by the **School of Technology**, University of Kerala and Office of Undergraduate Research Engagement, Research & Economic Development, **Louisiana State University** , Baton Rouge, Louisiana , United States of America (**USA**), held at University of Kerala, Karyavattom, Trivandrum during 25-29<sup>th</sup> March 2019.
6. **Work shop** on “Nanotechnology and its Applications in medicine” conducted by Industry Institute Partnership cell of the Biomedical Technology Wing, Sree Chitra Tirunal Institute for Medical Sciences & Technology, Trivandrum during July 25-26, 2019.
7. **Two weeks Industrial training on “nextgen optics”** conducted by Regional Telecom Training Centre (RTTC), Trivandrum from 19/08/2019.

## **CONFERENCE PARTICIPATIONS**

1. 97<sup>th</sup> **Indian Science Congress** held at University of Kerala, Thiruvananthapuram on 3-7<sup>th</sup> January 2010.
2. **National Seminar** on Recent Trends in Optoelectronics (NSRT-OPTO-2012) held in the Department of Optoelectronics, University of Kerala during 2-3 July 2012.
3. **Seminar** on Photonic Materials-2014 (PHOTOMAT-2014) organized by Department of Optoelectronics, university of Kerala on 6<sup>th</sup> December 2014.

## WEBINAR ATTENDED

1. PEP Talks Season I, Organized by Postgraduate & Research Department of Physics, St. Paul's College, Kalamassery from 9<sup>th</sup> -14<sup>th</sup> May 2020.
2. National Webinar Series (VIRTUOSA 2020), Organized by IQAC,KSMBD college, Sasthamcotta, Kerala from 14 to 20 May 2020.
3. International Webinar on Raman Spectroscopy” organized by Department of Physics & IQAC of T.K. Madhava Memorial College, Nangiyarkulangara on 1st June 2020.
4. Webinar on Century of quantum mechanics and still going strong, jointly organized by the Maharaja Sayajirao University of Baroda, Gujarat Science Academy, Indian Physics Association (Baroda chapter) & Indian Association of Physics Teachers in association with National Academy of Sciences (Delhi Chapter) held during 15-17 June 2020.
5. International Webinar on “Advances in Functional Materials” Organised by Department of Physics Mar Ivanios College (Autonomous) Trivandrum, Kerala, India 26, 27 & 28, June 2020, 4 PM to 5 PM
6. Webinar on “Nanomaterials for Photocatalytic Applications” conducted on 07-07-2020 Organised by IQAC in association with Department of Chemistry, Fatima Matha National College, Kollam.
7. Webinar on “Quantum Nano Materials” conducted on 08-07-2020 organised by IQAC in association with Department of Physics, Fatima Matha National College, Kollam.

## AWARDS/APPRECIATION

1. Certificate of **Appreciation for the Excellent Services** offered to the four day Residential Training Programme organized at University of Kerala in connection with **INCULCATE 2012-2013**, the science Propagation programme of Govt. of Kerala (22-25 February 2013)
2. Spiky Gold Nanostars with near Infra-Red Plasmon as SERS Substrates ., **Jiji, S. G.** and Gopchandran, K. G. National seminar on Advanced materials characterization and techniques (AMCT'15) held at Department of Physics, University of Kerala, Thiruvananthapuram during 27-28<sup>th</sup> March, 2015. (**BEST POSTER AWARD**)

## ORGANIZING SEMINARS/CONFERENCES/WORKSHOPS & OTHER COLLEGE / UNIVERSITY ACTIVITIES

S.No	Type of Activity	Role Performed
1.	Webinar-International Webinar on “Advances in Functional Materials” Organised by Department of Physics,Mar Ivanios College (Autonomous) Trivandrum, Kerala, India 26, 27 & 28,June 2020, 4 PM to 5 PM	Member of Organizing Committee

