Dr. M. R. JAGADEESH, M. Sc., M. Phil., Ph D.

**Associate Professor, Department of Physics** 

Bapuji Institute of Technology, Davanagere-577 004

**Contact Details** 

Mobile Number: 9740776111

E-mail : jmrshyagale@gmail.com

**Address for Communication** 

#5450/A-9, Banashankari Layout, behind Swamy Vivekananda School, Davangere-05

Permanent address

### Shyagale Village and Post, Davangere T & D-577002

Caste/ Category:	Hindu Lingayath	
Date of Birth:	03 Jan 1984	
Age:	40	
Gender:	Male	
Marital Status:	Married	

# **Academic Background**

Sl. No.	Degree	Name of the Institution/ University	Year of Passing
1	Ph. D	Visveswaraya Technological University (VTU) Belagavi	2016
2	M. Sc.	Kuvempu University, Shivamogga	2006
3	B.Sc.	D R M Science College, Davangere	2004



# **Teaching Experience:16 Years**

C1	Name of the one minution / Institute	Designation	Duration	E-m origina o o
Sl	Name of the organization/Institute	Designation	Duration	Experience
1	M M P U College	Lecturer	01-06-2006	1 Year
	Shivamogga		То	
			28-06-2007	
1	G M Institute of Technology	Lecturer	13-08-2007	7 Years
	Davangere		То	
			31-07-2014	
2	G M Institute of Technology	Assistant	01-08-2014	2 Years
	Davangere	Professor	То	
			31-05-2016	
3	Jain Institute of Technology	Associate	01-08-2016	6 Years
	Davangere	Professor	То	
			23-07-2022	
4	Bapuji Institute of Engineering and	Associate	01-08-2022	
	Technology, Davangere	Professor	To till date	

# **Research Experience: 12 Years**

SI ·	Name of the Degree	Торіс	Duration	Research Experienc e
1	Current research work Research Centre, Jain Institute of Technology, Davanagere	Crystal Physics, Nonlinear Optics, Nano Composites	Nov 2016- Till to date	6 Years
2	Ph. D Research	GROWTH AND CHARACTERIZATION OF SOME ORGANIC CRYSTALS FOR NLO APPLICATIONS Guide: Dr. Suresh Kumar H M and Dr. Ananda Kumari R, SIT Tumkur.	Nov 2010- Nov 2016	6 years
3	Research areas	Spectroscopy, Crystal Growth, Nano Composites, Non Linear Optics Linear Optical Properties Thermo-electric Properties Evaluation of structural and Mechanical properties		

# **Publications/Conferences/ Ph. D Guidance Statistics**

S1.	Type of Publications	No of Publications
1	Publications	22 Indexed
2	Papers Presented in conferences/symposia	10 (Proceedings)
3	Number of conferences /workshops attended	15 National and International
4	No of Ph D Guidance	3 (VTU)

# List of Candidates working for their Ph. D

Sl No	Name of the Student	Mode of Guidance	Course	University	Year of Registration & Status
1	Mr. Y A Kulakarni	Guide	Ph D	V. T. U Belagavi	2016 Pre Ph D Colloquium
2	Srivalli N G.	Guide	Ph D	V. T. U Belagavi	2020 Course Work
3	Namitha R L	Guide	Ph D	V. T. U Belagavi	2020 Course Work Completed

## List of significant Papers Presented

Sl.	Title of the Paper	Organizer	
1	Optical and second harmonic generation (SHG) efficiency studies in NLO crystals	Dept. of Atomic Energy	
2	Spectral and SHG studies in some NLO crystals	M S University, Vadodara	
3	Crystal growth and characterization of a semi organic NLO material: L-Alanine Ammonium Bromide	Anna university	
4	Growth, Structural, Spectral, optical and dielectric studies on L-alanine mixed barium nitrate crystals	Bhabha Atomic Research Centre, Mumbai	
5	Growth, spectral, optical, thermal, dielectric and mechanical studies on Urea Potassium Iodide crystal	GSSS Mysore	

6	Growth and characterization of doped adp crystals for	G M Institute of Technology,	
	optoelectronic applications	Davangere	
7	Structural characterization and Rietveld refinement of rare	G M Institute of Technology,	
	earth substituted nano nickel ferrite synthesized by low-	Davangere	
	temperature citrate precursor method		
8	Growth and characterization of some semiorganic crystals	BIET Davangere	
	for optoelectronic applications	C C	
9	Growth and characterization of doped L-alanine	Srinivasa University Manglore	
	nanocrystals		
10	AC conductivity and dielectric properties of $\alpha$ - and	KSTA National Level Conference,	
-	gamma-MnO 2 nanostructures prepared at different	Bangalore	
	temperatures		
11	Growth and characterization of Zic suplhate doped L-	International Conference on Materials	
	alanine crystals for optoelectronic applications and manufacturing technology 2		
		Coimbatore	
12	Influence of Lead ion on the Growth and Characterization	International Conference on Advanced	
12	of L Alanine NLO Crystals	Materials Science and Applications	
	of L'Andrine 1020 Crystals	(ICAMSA) MSRIT, Bengaluru	
		(ICAMOA) MORT, Deligatulu	

### **Invited Talks**

Sl	Details
1	Delivered a Key note address on <b>"Science and Scientific Research Methodology in Sample Preparation"</b> at Sharanabasveshwar College of Science, Kalburgi.
2	Delivered a Lecture on "Geo Physics and importance of Ground Water" Organized by Department of Ground water, Government of Karnataka.
3	Addressed the Jain Polytechnic Students on National Science Day and given a lecture on "Contributions of C V Raman to Mankind"
4	Delivered a lecture on "National Science Day" at Raghavendra Hi Tech P U College-Sharada Academy Davangere
5	Delivered a lecture on "Scientific Temperament" at Siddalingeswara School Avaragere, Davangere
6	Delivered a Key note address on "Use of Technology in Education" at BEMS arts and Science college Byadgi Haveri Dist.
7	Delivered lecture on "Materials Characterization" at Bapuji Institute of Technology, Davangere
8	Given a talk on "Characterization Techniques" for M. Sc Physics students of Davangere University.
9	Delivered invited talk on Importance of Science in Daily life at Kabbala of Channagiri Taluk
10	<b>"Crystal growth and characterization"</b> on 1 <sup>st</sup> Sept 2022 at Department of Physics, Siddaganga Institute of Technology, Tumakuru.

11	"Importance of Digital Learning in higher education" at BESM arts and Commerce college Byadgi on 23 <sup>rd</sup> Jan 2023
12	On Science Day program 2023 at Seetamma college Davangere, Organized by Zilla Panchayath- NRDMS Davangere on 6th march 2023
13	Talk on world environmental day 2023 at Nutana B.Ed college Davangere on 5th June 2023
14	Career Guidance for PU Students at Winners Carrer Academy Davangere 9th April 2023
15	What after P U C? at Raghavendra Hi Tech P U college Davangere 18th May 2023

#### **Patents Published:**

Indian Patent- "Principles of Green Sustainability and Physics as a basis for low-carbon Energy transition" during October 2022

#### **Training Course:**

One-month online Training course on quantum computing using "Indigenous quantum simulator Qsim" during May 2023 organized by IIT Roorkee and C-DAC Hyderabad, Sponsored by Government of India.

Completed Hands-On Training on One Day's Hands On Online Training Workshop On (10th August-2023) On Nanomaterial & Nanodevice Modeling Simulation Using Rescue Software From nano-academic Technologies

#### **Refresher Course:**

Completed online Two - week refresher course in "PHYSICS" from 30<sup>th</sup> August – 13<sup>th</sup> September, 2023 and obtained Grade A+ from Teaching Learning Centre Ramanujan College, University of Delhi in Collaboration with Bhaskaracharya College of Applied Sciences, University of Delhi under the aegis of Ministry Of Education Pandit Madan Mohan Malaviya National Mission On Teachers And Teaching.

#### **Science Magazine Editor**

Nominated as Editorial member for the bimonthly Popular Science magazine in Kannada Vignana Siri (RNI Number: KARKAN28241) in November 2023

#### **Online certification details**

1. Successfully completed "Digital 101 Journey" on 16/01/2023 sponsored by Ministry of Electronics and Information Technology, Govt. Of India in association with NASSCOM and AICTE. Certificate ID: FSP/2023/1/7520495

- **2.** Earned the digital badge on **Quantum Computing** 27/01/2023 sponsored by Ministry of Electronics and Information Technology, Govt. Of India in association with NASSCOM and AICTE.
- 3. Earned the digital badge on Practicing Innovation Design and Thinking 24/01/2023 sponsored by Ministry of Electronics and Information Technology.

### Journal/ Text book Editor/Reviewer

Text book editor for "Futuristic Trends in Physical Sciences" with Series Code IIPV3EBS07 from June 2023

Reviewer for the journal "Case Studies in Thermal Engineering" from June 2023 Series Q-1

### **Funded Seminar:**

Received the Seminar grant for the topic "Quantum Computation" form Indian National Academy of Sciences on 24<sup>th</sup> August 2023

### **Members of Professional Bodies**

- 1. Indian Association for Physics Teachers [Life member]
- 2. Karnataka Rajya Vignana Parishad (KRVP) [Life member]
- 3. ISTE-Life membership
- 4. Institution of Scholars Life member
- 5. Karnataka State Scientific Research Council
- 6. Karnataka Science and Technology Academy
- 7. Indian LASER Association
- 8. National Council for Teacher Scientist (NCTS)
- 9. Indian Association for Crystal Growth
- 10. Karnataka Association for Advancement in Science (KAAS)
- 11. Member of the Education Research and Development Association (ERDA)
- 12. Karnataka Physics Teachers Association

### **Text Book Written**

Title:    Crystal    growth      and Characterization    Image: Characterization    Image: Characterization	Publisher: Lambert Academic Publishing 2019	Published ISBN-978-613-8-32039-5
---	--	-------------------------------------

### Ph.D. Doctoral Committee: Subject external domain expert

- 1. UBDTCE, DVG
- 2. Sri Siddhartha Deemed to be University, Tumakurur
- 3. Acharya Institute of Technology, Banglore
- 4. PESITM, Shivamogga
- 5. SJBIT Banglore

6. Adichunchanagiri Institute of Technology, Chikkamagalur

### **Research Collaboration with other Institutes**

INTERNATIONAL			
Dr. Mabkhoot A.	Empty Quarter Research Unit,	Crystallography and NLO	
Alsaiari	Najran University, Saudi Arabia	Properties of materials	
Dr. Moustafa A.	Suez Canal University, Ismailia,	Crystallography and NLO	
Rizk	Egypt	Properties of materials	
Dr. A. Alhadhrami	Taif University, Saudi Arabia.	Crystallography and NLO	
		Properties of materials	
	NATIONAL		
Dr. Suresh Kumar H M	Siddaganga Institute of Technology	Nano composites and Crystal Physics	
Dr. Arun M	National Institute of Technology Surathkal	Synthesis and structural Studies of Novel organic derivatives	
Dr. Nagaraj T M	Sri Siddartha Deemed to be University Tumkuru	Nano Composites and applications	
Dr. Shivakumara S	<b>Reva University Banglore</b>	Polymer Nano structures and their applications	
Dr. Vasantha Kumar M S	Acharya Institute of Technology, Banglore	Low temperature Physics	

### **List of Significant Publications**

- 1. Jagadeesh M. R, Suresh Kumar H. M. R. Ananda Kumari Crystal growth and haracterization of a new NLO crystal: Urea 2- furoic acid' Optik- International journal of Light and Electron Optics Elsevier Publication 126 (23), 4014-4018, 2015
- Jagadeesh M. R, Suresh Kumar H. M. R. Ananda Kumari Growth and Characterization of NLO crystal - L-Leucine Phthalic acid Potassium Iodide' Materials Science Poland-Springer Publications 33, 529-536, 2015
- **3.** Jagadeesh M. R, Suresh Kumar H. M. R. Ananda Kumari, Crystal growth and characterization of a semi organic NLO material: L-Phenylalanine Cadmium Chloride Canadian Journal of Physics 93(11): 1296-1301, 2015
- 4. Jagadeesh M.R, Suresh Kumar H. M. R. Ananda Kumari, Growth and characterization of mercuric chloride doped urea single crystals' Materials Research Innovations, Taylor and Francis Publications 21 (6), 391-395, 2017
- Jagadeesh M.R, Suresh Kumar H. M. R. Ananda Kumari Growth and characterization of an organic NLO crystal: L-alanine-2-furoic acid' Applied Science Research, 6 (4): 188-197, 2014
- 6. A Alhadhrami, M R Jagadeesh, B M Prasanna and M R Hareeshkumar, Growth and characterization of nonlinear optical crystal: Ammonium Iodate doped L-Alanine, Physica Scripta (Q2-IOP Science Publishers), 2021, 96. 125810. https://doi.org/10.1088/1402-4896/ac2187/meta
- 7. M R Hareeshkumar, M R Jagadeesh, G J Shankaramurthy and B M Prasanna, Growth, Nonlinear Optical, Electrical, Mechanical and Dielectric Properties of Zinc Sulphate Doped L-Alanine Single Crystal for Optoelectronic Applications, IOP Conference Series: Materials Science and Engineering, (IOP Science Publishers) 2021,1166, 012035.
- Suresh Kumar H.M., Jagadeesh M. R Growth, characterization and the effect of γ-irradiation on linear and nonlinear optical properties of L-Alanine Ammonium Bromide: a new semiorganic crystal Materials Research Innovations, Taylor and Francis Publications 1-9, 2017 http://dx.doi.org/10.1080/14328917.2017.1323990
- **9**. Arun M. Islor, **Jagadeesh M. R.**, H. M. Suresh Kumar "Structure Reports on N1-(4-Methylphenyl)piperidine-1,4- Dicarboxamide" Acta Crystallographica E68(12), 03452-03452
- 10. Kulakarni, Y.A., Jagadeesh M R "Frequency dependence of AC conductivity and dielectric properties evaluation in-situ prepared polyaniline/manganese dioxide composite" Mater Sci: Mater Electron 31 (1), 7226–7231
- 11. B. M. Praveen, B.M. Prasanna, N. M. Mallikarjuna, M. R. Jagadeesh, D. Rashmi, "Investigation of anticorrosive behavior of novel tert-butyl 4-[(4-methyl phenyl) carbonyl] piperazine-1-carboxylate for carbon steel in 1M HCl, Heliyon, (Q1-Elsevier), Volume 7, Issue 2, 2021, e06090, ISSN 2405-8440, https://doi.org/10.1016/j.heliyon.2021.e06090

- **12.** M. R. Hareeshkumar, G. J. Shankaramurthy, A. Alhadhrami **M. R. Jagadeesh**, B. M. Prasanna Growth, physiochemical and NLO properties study of novel L-alanine tri-sodium citrate single crystal. Physica Scripta (Q2-IOP Science Publishers)Vol 46, 2021.
- 13. B. Suresh Kumara, H. M. Suresh Kumar M. R. Jagadeesh Co-60 -irradiation effect on linear, nonlinear optical and electrical properties of a semiorganic L-alanine barium nitrate (LABN) crystal Materials Research Innovations, 2017 Taylor & Francis Grouphttp://dx.doi.org/10.1080/14328917.2017.1323990 2017
- 14. Yankappa A Kulakarni, M R Jagadeesh, Sahebagouda Jambaladinni, HM SureshKumar, MS Vasanthkumar, S Shivakumara, AC conductivity and dielectric properties of nanostructured amorphous manganese dioxide and polypyrrole/manganese dioxide composite, Journal of Materials Science: Materials in Electronics volume 32, pages3352–3360 (2021)
- **15.** B. M. Prasanna, Narayana Hebbar P. Shivakeshava Kumar **M. R. Jagadeesh** B. M. Praveen Experimental and theoretical studies on inhibition effect of the praziquantel on mild steel corrosion in 1M HCL, Journal of Bio- and Tribo-Corrosion https://doi.org/10.1007/s40735-018-0137-0
- 16. M. R. Hareeshkumar., G. J. Shankaramurthy, A. Alhadhrami, M R Jagadeesh, Growth, Characterization and NLO Property Study of Doped L-Alanine Crystal. Iran J Sci Technol Trans Sci (2021) (Q2 -Springer Nature), https://doi.org/10.1007/s40995-021-01160-x
- 17. B S Kumar, M R Jagadeesh, S Tilak, HMS Kumar L-Ornithine Monohydrochloride Doped Zinc Tris-Thiourea Sulphate SingleCrystals for NLO Applications Silicon, 1-11 <u>https://doi.org/10.1007/s12633-020-00681-1</u>
- M. M. Mohamed, B. M. Prasanna, Narayana Hebbar, Raiedahah Alsaiari, G. Banuprakash
  M. R. Jagadeesh, Moustafa A. Rizk Corrosion Inhibitive Action of Tenofovir Disproxil Fumarate (TDF) on Low Carbon Steel in 1M HCl,
- B S Kumar, M R Jagadeesh, HMS Kumar L-ornithine monohydrochloride and L- citrulline Doped Zinc Tris-Thiourea Sulphate Single Crystals for Photonic applications Indian Journal of Physics volume 96, pages2293–2301 (2022) <u>https://doi.org/10.1007/s12648-021-02145-7</u>
- 20. Yankappa A Kulakarni, Jagadeesh M. R, Suresh Kumar H M, Vasanthkumar M., S.Shivakumara AC conductivity and dielectric studies of amorphous manganese oxide and manganese oxide/polymer nancomposites, Journal of Materials Science: Materials in Electronics volume 34, Article number: 176 (2023)
- 21. B. S Sail, V Naik, B M Prasanna, Naushad Ahmad, Mohammad R K, M R Jagadeesh, Ravi C, Synthesis, Characterization And Pharmacological Studies Of Cobalt (II), Nickel (II) And Copper (II) Complexes Of Thiazole Schiff Bases, Journal of Molecular Structure, Volume 1288, September 2023, pp 135748, Elsevier publications.
- B. Suresh Kumar, M. R. Jagadeesh, and H. M. Suresh Kumar, Growth and characterization of L-ornithine monohydrochloride single crystal doped with Co<sup>2+</sup> and Mn<sup>2+</sup> ions for NLO applications, J Mater Sci: Mater Electron (2022) 33:26706–26716,

- **23.** B S Kumar, **M R Jagadeesh**, HMS Kumar L-Ornithine Monohydrochloride (LOMHC) doped Potassium Dihydrogen Phosphate (KDP) and Ammonium Dihydrogen Phosphate (ADP) Single Crystals for NLO Applications
- 24. Yankappa A Kulakarni, Jagadeesh M. R, Suresh Kumar H M , Vasanthkumar M., S.Shivakumara AC conductivity and dielectric properties of  $\alpha$  and gamma-MnO 2 nanostructures prepared at different temperatures (Communicated)

#### Name of training / workshop/Seminar **Organizers** Year 'Frontier Areas of Physics' 2005 Department of Physics, Kuvempu University, Funded by UGC 'Recent trends in Electronic Instrumentation' April 2006 Dept. of Electronics, Kuvempu University. 'Einstein Contributions to Mankind' 2007 SJM College, Chitradurga, Karnataka. DAE-BRNS Symposium on atomic, molecular 2009 Board of Research in Nuclear sciences, Dept. of Atomic Energy, Government and optical physics of India Nuclear Energy for 21<sup>st</sup> Century at 2010 SDMCET, Dharwad Research Methodologies and LATEX' 2011 VTU e-learning centre at Mysore Preparation, characterization of Crystalline 2012 DRDO/Anna University Materials and their Applications Optical Engineering', (IEEE approved) 2012 VTU, Belagavi Plagiarism Awareness Program VTU, Belagavi 2015 **Basic Rietveld Refinement** 2017 SIT Tumkur 10 Attended workshop on New Model Curriculum as 2018 SCEM, Mangaluru per Outcome based Education (OBE) on 19th may 12 International Conference on Nanotechnology 2019 Srinivas University Mangalore "International Webinar on Materials Science" 12 2020 National College, Jayanagar, Bangalore on 28-05-2020. 13 "SMART MATERIALS SENSOR AND 2020 SSN College of Engineering, Kalavakkam, Chennai. ENERGY DEVICES (SMSED – 2020)"

### **Major Conferences attended**

14	"IPR and Patent Drafting"	2020	St. Peter's Institute of Higher
			Education and Research
15	Outcome based education Software	2020	Vmedulife solutions banglore
16	Two dimensional Materials	2021	Cambridge Institute of Technology
17	Recent Advances in Nanoscience and	2021	KSTA Sponsored National Level
	Nanotechnology		Conference
18	Trends of research to unravel science and	2020	Acharya Intitute of Technology,
	technologt-2020		Banglore
19	Attended 3 days FDP on Quantum Computing	2023	Bangalore Institute of Technology
20	Interface of IPR in academics and	2023	Bapuji Institute of Engineering and
	Entrepreneurship		Technology, Davangere
21	Best Practices of NEP-2020 in higher Education	2023	Bapuji Institute of Engineering and
	Institutions		Technology, Davangere
22	Completed one week FDP on "Outcome Based Education for Effective Learning and		
	Teaching" organized by Association of Indian Universities from 19th – 27th July 2023.		

23 Attended 3 days FDP on Quantum Computing from 2nd Feb to 4th Feb 2023at Bangalore Institute of Technology

### **Researcher Profiles / Id's**

Scopus author ID	57213259340		
ORCiD	0000-0002-8960-4067		
Web of Science Id	AGE-3682-2022		
Google Scholar profile URL:	https://scholar.google.com/citations?user=PaJgEyoAAAAJ&hl=en& authuser=1		
Research Gate Profile URL: Research Gate Score:	https://www.researchgate.net/profile/Jagadeesh_Medikere 13.75		
Linkedin_id	https://www.linkedin.com/in/dr-jagadeesh-m-r-06374115/		

Dr. Jagadeesh M R