



**Dr. R. Jothilakshmi, M.Sc., M.Phil, Ph.D, P.G.D.C.A**  
Assistant Professor III  
Velammal College of Engineering and Technology  
Madurai

**Phone:9944126707**  
Mail id: [jothi141@gmail.com](mailto:jothi141@gmail.com)  
[rji@vcet.ac.in](mailto:rji@vcet.ac.in)

### Summary:

Sincere, devoted and planned hard work has helped me in achieving success in academic as well as in other activities. I completed my schooling in **Kendriya Vidyalaya – a CBSE School**. I have a great interest in physics and this made me to peruse my M.Phil and Ph.D Course in physics. **I have done well in my academic and successively achieved first rank in all the semesters of post graduation and M.Phil** (full time basis). I have great interest in Computers and this made me to peruse PGDCA. I have much interest in teaching and this induced me to write **Book's and chapters** in Physics.

### Educational Qualification:

Qualification	Institution	Division	Percentage of Marks
<b>Ph.D</b> Physics 2007-2009 (Full Time)	Madurai Kamaraj University, Madurai-625 021	<b>Awarded on 24/4/2010</b>	
<b>M.Phil.</b> <b>Physics</b> 2005-2006 (Full Time)	Madurai Kamaraj University, Madurai-625 021	<b>First class</b> Distinction	<b>75.00%</b>
<b>M.Sc.</b> <b>Physics</b> 2001 – 2003 (Full Time)	Fatima College, Madurai – 625 018.	<b>First class</b> Distinction	<b>80.96 %</b>
<b>B.Sc.</b> <b>Physics</b> 1998– 2001 (Full Time)	Fatima College, Madurai – 625 018.	<b>First class</b> Distinction	<b>83.90 %</b>
<b>P.G.D.C.A</b> 2001-2002	Madurai Kamaraj University, Madurai-625 021	<b>First Class</b>	<b>69.67%</b>

## Work Experience:

1. Working as **Assistant Professor** in Department of Physics in **Velammal College of Engineering and Technology**, Madurai from 02-08-2023 to till date.
2. Worked as **Professor and Head of Physics Department** in, Vel Tech Deemed University, Avadi, and Chennai from 25-10-2019 to 25-06-2021.
3. Promoted as **Head of Physics Department**, Vel Tech Deemed University, from 10-5-2012. With an additional duty as **Joint Controller of Examiner** from 20-9-2013 to 10-1-2017.
4. Worked as **Associate Professor** in Department of Physics, Vel Tech Deemed University, Avadi, and Chennai from 20-08-2013 to 25-10-2019, Assistant professor in Department of Physics, Vel Tech Deemed University, Avadi, and Chennai from 4-02-2011 to 20-08-13.
5. Worked as **Assistant Professor** in Physics in **The American College** from 23-09-2009 to 31-1-2011.
6. Worked as **Guest Lecturer** in the Department of Physics, **Madurai Kamaraj University, 2007-2009**.
7. Worked as **Guest Lecturer** in the Department of Energy Science, **Madurai Kamaraj University, 2006-2007**.

## Ph.D Thesis:

“**Spectroscopic Studies of Semiconductor Materials**” under the guidance of **Dr.V.Ramakrishnan**, Sr. Professor & Head, Department of Laser studies, Madurai Kamaraj University, Madurai.-21.

## Publications:

1. “**Micro-Raman studies of Li doped and undoped ZnO needle crystals**”. **R. Jothilakshmi**, V.Ramakrishnan, R.Thangavel, J.Kumar, Andrei Sarua and Martin Kuball, J. Raman Spectroscopy, 40, 556, (2009).
2. “**Investigations on n and p-type doped ZnO thin films using micro-Raman**”. **R. Jothilakshmi**, V. Ramakrishnan, G. Srinivasan, J. Kumar, Andrei Sarua and Martin Kuball, Semicond. Sci. Technol.,23, 055019 (2009).
3. “**Raman scattering studies on transition metal irradiated GaN/sapphire films**” **R. Jothilakshmi**, V. Ramakrishnan, P. Puviarasu, J. Kumar, Nanotechnology, 20, 321169, (2009).
4. “**Micro-Raman analysis of 100MeV <sup>28</sup>Si implanted LEC grown GaAs**”. **R. Jothilakshmi**, V. Ramakrishnan, Andrei Sarua and Martin Kuball, J. Raman Spectroscopy,41,356,(2010).

5. **“Micro-Raman analysis of GaAs Schottky barrier solar cell”**. **R. Jothilakshmi**, V. Ramakrishnan, Andrei Sarua and Martin Kuball, *J. Raman Spectroscopy*, 42, 422,(2011).
6. Modified ant colony optimization based approach for edge detection in image, **R.Jothilakshmi** and R.Rajeswari, *International Journal of research and technology*, Vol.3 Issue 3 (2014),ISSN:2278-0181.
7. **Modeling and Simulation of Plasmonic Nanoparticles using Finite-Difference Time-Domain Method: A Review**, R.Rajeswari and **R.Jothilakshmi**, *Materials Science Forum*, Vol.781(2014),pp 33-44.
8. **Quenching of Silver Nanoparticles**, E.Thanikaivelan and **R.Jothilakshmi**, *Materials Science Forum*, Vol.781(2014),pp 135-144.
9. **Phonon spectral studies of high temperature superconductor TmBa2Cu3O7** R.Jothilakshmi, S.Mohan. *Asian journal of physics*, Vol.23,(2014),Page 945-952.
10. **Preparation and characterization of Pure and Lanthanum doped ZnO nanoparticles by solution route**,S.Prabhavathy, and R.Jothilakshmi, *Materials Science Forum*, Vol.807,(2015),Page123-133.
11. **Magnetic nanoparticles as drug carriers: A review**, R.Rajeswari and **R.Jothilakshmi**, *Materials Science Forum*, Vol.807,(2015),Page 1-12
12. **Solvatochromism and Electroabsorption studies of drug carriers**, **R.Jothilakshmi**, R.Rajeswari and E.Thanikaivelan *Materials Science Forum*, Vol.807,(2015),Page 169-176.
13. **Silver Nanoparticles - Trapping and Manipulation**, E.Thanikaivelan, **R. Jothilakshmi** and P. Murugakoothan, *Materials Science Forum*, Vol.832,(2015),Page 123-131.
14. **Trapping and Manipulation of copper nanoparticles in Rayleigh regime** Thanikaivelan, **R. Jothilakshmi** and P. Murugakoothan, *Materials Science Forum*, Vol.832,(2015),Page 132-138.
15. **Predicting Toxicity Of Nanomaterials Using QSAR Methods: A Review**, R.Rajeswari and **R.Jothilakshmi**, *Material Focus*, Vol.5,(2016), Page 335-341.
16. **Green Synthesis of Copper Oxide Nanostructures using Cynodon dactylon and Cyperus rotundus Grass Extracts for Antibacterial Applications**, S.Suresha,\*,R.Ilakiyaa,G.Kalaiyana,S.Thambiduraia,P.Kannanb, K.M.Prabua,N.Suresha, **R.Jothilakshmi**, S.KarthickKumard, M.Kandasamy, *ceramics international* ,Vol.46(2020), Page 12525-12537.

## BOOKS:

1. **“University Physics”**, Narosa Publishing House Pvt. Ltd. ISBN 978-1-8487-269-9. And internationally by Alpha Sciences ISBN 978-1-84265-813-0.2015
2. **“Engineering Physics”** Cengage Learning India Pvt. Ltd. ISBN-13:978-93-866-5066-5, 2018.

3. “**Engineering Materials**”-Pearson publisher, ISBN 978-93-534-3765-7, 2019.
4. “**Physics of Materials**”-Pearson publisher, ISBN 978-93-560-6778-3, 2021.
5. A Chapter published in the book”**Optoelectronics - Materials and Techniques**”, InTech - Open Access Publisher, ISBN: 978-953-307-276-0.2012
6. Editor of:-Potential Development in Dye-sensitized solar cells for renewable energy, Materials Science Forum,Trans Tech Publications Ltd. ISBN-13: 978-3-03785-909-4,2015
7. Editor of:-Multi-Functional Nanomaterials and their Emerging Application, Materials Science Forum,Trans Tech Publications Ltd. ISBN-13:978-3-03835-067-5
8. A Chapter published in the book – “Intelligent Pervasive Computing Systems for Smarter Healthcare”- Image Analysis Using Smart phones for Medical Applications: A Survey Print ISBN:9781119438960 |Online ISBN:9781119439004 |DOI:10.1002/9781119439004,July 2019

### **Conferences attended & Papers Presented:**

1. **International conference on Advanced materials, processing and devices(AMPD-2013)July 15 & 16,2013**
2. Participated in *Nanotechnology for Energy and Environmental Applications-2009* organized by Kalasalingam University on April 9, 2009.
3. Participated in *National Laser Symposium-8*, organized by LASTEC, Delhi on January 7-10, 2009.
4. Participated in *National workshop on NMR spectroscopy - theory and applications* organized by School of Chemistry, Madurai Kamaraj University on March 28 and 29, 2008.
5. Participated in *Annual Photonics Workshop-08*, organized by International School of Photonics on February 26-28, 2008.
6. Participated in *National Laser Symposium-7*, organized by M.S.University of Baroda, Vadodara on 17-20 December 2007.
7. Participated in *Workshop on Catalysts in Environmental Applications* - organized by Dept. of Chemistry, NIT, Trichy on December 2<sup>nd</sup> and 3<sup>rd</sup> 2007.
8. **Participated in the seminar on “Frontiers in Condensed Matter Physics” conducted by School of Physics, Madurai Kamaraj University under the Departmental Research Support by University Grants Commission during 27-28 Feb, 2006.**
9. Participated in a two day seminar on “*Opportunities and National facilities in Condensed Matter Physics*” conducted by School of Physics, Madurai Kamaraj University under the Departmental Research Support by University Grants Commission during 17 –18 March, 2003.
10. Attended a short-term course on ‘*Solid State Physics in one, two and three dimensions*’ organized by Jawaharlal Nehru Center for Advanced Scientific Research at The American College, 2002.
11. Presented a paper ‘**Application of Remote Sensing**’, in Lady Doak College, 2002.

**Achievements:**

*Prize award for Proficiency* in all the semesters in *M.Sc. and M.Phil Physics*.

**Interests and Activities:**

Member of SPRESH Committee, in Vel Tech University.

**Project member in SLP – Solid Waste Management (SWM) in The American College.**

Participated in ten day Special Camping Programme on the theme ‘Youth *for integration and Social Harmony*’ at Chottathatti village conducted by NSS.

Date of Birth - 14/7/1980

**Google Scholar report:**

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Scopus id	Orcid id	Vidwan Id
26657486800	0009-0004-6672-0761	413627