


<b>Name:</b> <b>Dr. T. K. SUBRAMANIAM</b>	<b>Photo</b> 			
<b>Designation:</b>	<b>Professor of Physics</b>			
<b>Qualification:</b>	<b>M.Sc., Ph.D.,</b>			
<b>Area of specialization:</b>	<b>Laser Spectroscopy (Physics)</b>			
<b>Experience:</b>	<b>Industrial Experience</b>		<b>Teaching Experience</b>	
	<b>06 yrs</b>		<i>UG : 28 yrs 5 months; PG : Nil</i>	
<b>Number of workshops / FDP attended:</b>	<b>Number of Workshops</b>		<b>Number of FDPs</b>	
	<b>18</b>		<b>12</b>	
<b>Publications:</b>	<b>Conference</b>		<b>Journal</b>	
	<b>National</b>	<b>International</b>	<b>National</b>	<b>International</b>
	<b>2</b>	<b>1</b>	<b>2</b>	<b>25</b>
<b>Books / Book Chapters</b>	<b>1 ; 1Book Chapter –Oxford University Press</b>			
<b>Patents:</b>	<b>National</b>		<b>International</b>	
	<b>nil</b>		<b>Nil</b>	
<b>Professional Body Membership</b>	<b>IEEE-SENIOR MEMBER (Membership # 98741219)  OPTICS,USA (Customer ID # 1077583)  LIFE MEMBER OF LASSI(LASER AND SPECTROSCOPY SOCIETY OF INDIA}</b>			
<b>Staff Achievements</b>	Continued next page			

## Awards& Honors

Recognized as a supervisor for guiding PhD & M.S (By Research) students of Anna University, Chennai, under the faculty of Humanities & Sciences in the area of 'Laser Spectroscopy'. Research supervisor recognition # 1370686.

Scopus ID # 8358742700

Orcid # 0001-9630-6626-0000

Editor of the "World Research Journal of Spectroscopy"

published by "BioInfo Publications". (ISO 9001:2008 certified; E-ISSN) journal.

Editorial member of the International Journal of Scientific & Engineering Research (IJSER), ISSN 2229-5518.

Editorial member of "Journal of Physics and Optic Sciences", ISSN: 2754-4753.

## Other

Programming in C, C++ and database & algorithms – NIIT, India certified, MS Word, MS Excel, MS PowerPoint, and Net Server.

## RESPONSIBLE POSITIONS Holding/Held :

1. Served as Chief Superintendent of Anna University semester examinations in the college for more than seven years.
2. Served as "Physics "Board Chairman in Anna University "Central Valuation", for five consecutive years for various semesters.
3. ISO 20000:2015, 20000:2018- Coordinator (currently continuing) for the Department of Science & Humanities, Sri Sairam Engineering College, Chennai-600132.
4. NAAC "Captain" for the Criteria 6 in the college (present position). Served as Criteria 6 Head, for the college as NAAC committee member for 3 academic years from 2018-2021.
5. Serving in the Board of Studies as College department member (present position).
6. Served as committee member for college NBA accreditation work for three academic years from 2018-2021.
7. Serving as department committee member of PAC (Program Assessment Committee).
8. Serving as department committee member of DAB (Department Advisory Board).

**Certificate (online) Courses completed**

**“Coursera”** online courses- More than twenty courses completed – (details available on request).

**“NPTEL”** online courses- More than TEN courses completed-Received 4 silver medals in marks (details available on request).

**“EdX-Harvard”** completed online course on “Climate Energy Challenge”.

## Educational Qualifications:

Category	Name of the Degree	Specialization	Year of Passing	Name of the College	Name of the University	% of Marks / Grades obtained	Class obtained
<i>UG</i>	<i>B.Sc.,</i>	<i>Physics</i>	<i>1979</i>	<i>Vivekananda College, Chennai.</i>	<i>Madras University</i>	<i>67.5%</i>	<i>I</i>
<i>PG</i>	<i>M.Sc.,</i>	<i>Physics</i>	<i>1982</i>	<i>University of Roorkee, Roorkee.</i>	<i>University of Roorkee</i>	<i>60%</i>	<i>I</i>
<i>Ph.D.</i>	<i>PhD</i>	<i>Laser Spectroscopy</i>	<i>2004</i>	<i>Banaras Hindu University, Varanasi.</i>	<i>Banaras Hindu University</i>	<i>PhD Degree awarded</i>	<i>PhD Degree awarded</i>

## Academic Experience:

Name of the College	Designation	Joining Date	Relieving Date	Experience		
				Years	Months	Days
<i>Sri Sai Ram Engineering College</i>	<i>Professor</i>	<i>01.01.2009</i>	<i>Till date</i>	<i>15</i>	<i>11</i>	<i>5</i>
<i>Sri Sai Ram Engineering College</i>	<i>Asst. Professor</i>	<i>05.05.2006</i>	<i>31.12.2008</i>	<i>2</i>	<i>7</i>	<i>27</i>
<i>AVIT, Chennai</i>	<i>Asst. Professor</i>	<i>01.02.2006</i>	<i>30.04.2006</i>	<i>-</i>	<i>2</i>	<i>28</i>
<i>Rajalakshmi Engineering College</i>	<i>Senior Lecturer &amp; H.O.D</i>	<i>01.06.2001</i>	<i>31.12.2005</i>	<i>4</i>	<i>6</i>	<i>30</i>
<i>Sri Sankara Arts &amp; Science College</i>	<i>Lecturer</i>	<i>01.06.1998</i>	<i>31.05.2001</i>	<i>2</i>	<i>11</i>	<i>30</i>
<i>Alpha Arts &amp; Science College</i>	<i>Lecturer</i>	<i>01.06.1996</i>	<i>31.05.1998</i>	<i>1</i>	<i>11</i>	<i>30</i>
<b>Total</b>				<b>28</b>	<b>5</b>	<b>-</b>

### **Workshops/Seminars Attended:**

1. *Attended a series of eight lectures on "Innovation" conducted by Ministry of Higher Education, (MHRD), Government of India, through online mode from April to May, 2020.*
2. **"Invited Talk" paper presentation at the 3<sup>rd</sup> International Workshop on Infrared Technologies at Olching, Germany during November 7<sup>th</sup>-8<sup>th</sup>, 2016.**
3. *National Level Workshop on "Revealing the Advances in Material Science"; Venue: SIT, Chennai; Dates: 19<sup>th</sup> and 20<sup>th</sup> July 2016.*

4. *National Level Workshop on “Laser and Photonics “organized by the Dept. of Physics and the Dept.of ECE, in association with IEEE; Venue: Saveetha Engineering College, Chennai; Date: 5th march, 2015.*
5. *International Workshop on “Advances in Photonics and Optical Materials”; Venue: SSN Engineering College, Chennai; Dates: 9<sup>th</sup> to 11<sup>th</sup> February, 2012.*
6. *Workshop on Application of Metal Nano particles, organized by the Dept. of Chemical Engineering, SSN Engineering College, Chennai; Dates: March 11<sup>th</sup>, 2011.*
7. *Annual Photonics Workshop. Organized by International School of Photonics and Centre of Excellence in lasers and Optoelectronic Sciences,(CUSAT),Cochin, Kerala; Dates: 27<sup>th</sup> and 28<sup>th</sup> February, 2005.*
8. *Atomic and Molecular applications using lasers, 2002.*
9. *Workshop on Advanced Laser Spectroscopy, IIT, Kanpur, Date: February 25<sup>th</sup>, 1995. (Poster presentation- Title: Optogalvanic Spectrum of Aluminum”)*
10. *Staff Training College on lasers and its applications, BHU, Varanasi, 1995.*
11. **Guest Lecture arranged:** *Organized a Guest Lecture Series for the SaiHumsa-2014 by inviting Prof.Dr.C.Vijayan, Dept. of Physics, IIT, Chennai-36, on the 28<sup>th</sup> August 2014.*

**FDP/STTP Attended:**

*(Note: Kindly arrange so that the latest Program attended is listed first)*

*FDP courses on NPTEL programs/courses offered/ attended so far : 12 FDP’s.*

1. *FDP program on inculcating “Universal Human Values”, conducted by AICTE from July 26<sup>th</sup> to July 30<sup>th</sup>, 2021.*
2. *FDP program on “Materials Characterization” at Sairam Institute of Technology, during 20<sup>th</sup> and 21<sup>st</sup> July 2017.*
3. *FDP program on “Cloud Computing” organized by the Dept. of Information technology at SEC, Chennai; Date: 5<sup>th</sup> May 2014.*
4. *AICTE sponsored staff development programme on “Recent Development in Computing” organized by Dept. of Computer Science and Engineering, SEC; Venue: SEC, Chennai; April 2010*
5. *Anna University, Chennai, FDP program in Physics, January 17<sup>th</sup>-22<sup>nd</sup>, 2005.*
6. *Anna University, Chennai, FDP program in Physics, 2002.*

**Symposium Attended Conference Attended:**

1. *Participated in one-day webinar on “Awareness Meet on Material Science with Ion Accelerator”, organized by UGC-DAE consortium for scientific research, Kalpakkam, node, India on July 19<sup>th</sup>, 2022.*
2. *Participated and chaired a technical session in the International Conference on Modern Functional Materials (ICFM), June 24 to 25<sup>th</sup>, 2021.*

3. *Convener of one-day seminar on "Implementation of National Education Policy 2020", (NEP 2020), on 19.3.2021, at SSR Hall, SEC campus, Chennai-44.*
4. *Attended a five-day International Conference (online) on "Imaging and Applied Optics Congress" from 22<sup>nd</sup> June to 26<sup>th</sup> June 2020, OSA, USA.*
5. *Attended a five-day International Conference (online) on "Optical Sensors and Sensing Congress" from June 22<sup>nd</sup> to June 26<sup>th</sup> 2020, OSA, USA.*
6. **"Invited Talk" and paper presentation, titled "Laser Technology to Guide Rainfall to a Particular Region", at the 8<sup>th</sup> International Conference on Lasers, Optics and Photonics" during November 15<sup>th</sup>-17<sup>th</sup>, 2017, at Las Vegas, USA.**
7. *International Conference on Mechanical, Materials and Manufacturing systems, ICMMS'16; Venue: SEC, Chennai; dates: February 24<sup>th</sup> and 25<sup>th</sup>, 2016.*
8. *Convener, SAIHUMSA, 20th March, 2014. Venue: SEC, Chennai*
9. *CSIR sponsored one-day National Seminar on Recent Trends in Laser Spectroscopy and its applications, 17<sup>th</sup> October 2013.*
10. *National Conference in Molecular Spectroscopy and its applications, 2011.*
11. *National Conference on Advances in Material Sciences, NCAMS-2008, Organized by Dept. of Physics, Crescent Engineering College, Chennai; Dates: 22<sup>nd</sup> and 23<sup>rd</sup> December 2008.*
12. *National Conference on Recent Advances in Molecular Structure, NCMS-2007, (Co-sponsored by CSIR, TNSCST, NCSTC and ISPA), organized by the Dept. of Physics, AVIT, Paiyanoor, and Chennai; Dates: 19<sup>th</sup> and 20<sup>th</sup> July 2007.*
13. *International Conference in MEMS and SMART applications, Chennai, 2005.*
14. *National Symposium on Atomic, Molecular Structure, Interactions and Laser Spectroscopy, (NSAMSILS-2004), organized by the Dept. of Physics, BHU, Varanasi, India; Dates: March 14<sup>th</sup> and 15<sup>th</sup>, 2004; (Paper Presentation)*
15. *National Laser Symposium, organized by DAE, Govt. of India, at Instruments and Development Establishment, Dehradun, India; Dates: February 10<sup>th</sup> to 14<sup>th</sup>, 1995.*
16. *National Laser Symposium, organized by National Laser Programme, DAE, Govt. of India; Venue: IIT, Chennai; Dates: 17<sup>th</sup>, 18<sup>th</sup> and 19<sup>th</sup> February 1993.*
17. *National Conference in Photonic applications with lasers, Nainital, 1992.*

Completed / Ongoing Projects:       NIL

Patent:                                       NIL

**Journal Publications:****2022****Editors:** *Dr.N.Sivakumar and Dr.T.K.Subramaniam**Proceedings of First International Conference on Modern Functional Materials (ICMFM 2021) ISBN : 978-0-7354-4340-2 ,Volume 2464, Published May 26, 2022***2019**

- 1. Characterization studies for the nanoparticle fullerene and polyvinyl alcohol compound**  
Published: 7 Dec 2019 | Version 1 | DOI: 10.17632/kp9yhwhf6pw.1  
[Mendeley Data]

**2018**

- 2. Journal of Lasers, Optics and Photonics**, "Non-Linear Optical Properties of Nano Particle  $C_{60}$  fullerene using Lasers", Vol.5, Issue 2, June 2018. doi: 10.4172/2469-410X.1000182.
- 3. Journal of Lasers, Optics and Photonics**, "Laser Technology to Guide Rainfall to a Particular Region", in Volume 5, Issue 1 and ISSN: 2469-410X, pp1-2, 2018. doi:1.4173/2469-410X.1000173.

**2016**

- 4. AASCIT Communications**, "Ultra Cold Atoms Using Laser Light", Volume 3, Issue 3, ISSN: 2375-3803, February 2016, pp125-131.
- 5. AASCIT Communications**, "Fiber Bragg Grating for Producing Ultra Short Femto second Pulses for Data Transmission", Volume 2, Issue 6 January, 2016, ISSN: 2375-3803, pp332-335.

**2015**

- 6. International Journal of Wireless Communications Networking and Mobile Computing**, "Erbium Doped Phase Matched Pulses using Fiber Ring Laser usable in Microwave Photonic Applications", Vol.2, No.3, 2015, pp 33-36.
- 7. American Journal of Environmental Engineering and Science**, A Device to Harness the Power of the Tides and Waves off Every Coast 2015; Vol.2 (6): October 2015, ISSN: 2381-1153 (Print), pp74-77.
- 8. AASCIT Communications**, "Dark Matter: An Enigma of Our Universe" Volume 2, Issue 6, September 2015, ISSN: 2375-3803, pp268-270.
- 9. American Journal of Optics and Photonics**, "Erbium Doped Fiber Lasers for Long Distance Communication Using Network of Fiber Optics", Vol. 3(3), August 9, 2015, pp34-37.
- 10. AASCIT Journal of Physics**, "Analysis of Internal Combustion Engines Using Laser Induced Fluorescence Spectroscopy", Vol.1 (4), July 2015, pp288-291.
- 11. AASCIT Journal of Nanoscience**, "Nanoscale Patterning Using UV Light Pulsed Laser", Vol.1 (2) June, 2015, pp26-28.



12. **AASCIT Journal of Environment**, "Roadside Monitoring of Automobile Exhaust Gas Emission Using Tunable Diode Laser Absorption Spectroscopy" Vol. 1(2), April, 2015, pp16-20.
13. **AASCIT Journal of Environment**, "Quantum Cascade Laser in Atmospheric Trace Gas Analysis", Vol.1 (1), April, 2015, pp1-4.
14. **AASCIT Journal of Physics**, "Dielectric Loss Studies and Electronic Properties of Mandelic Acid", Vol.1 (1), March, 2015, pp6-10.

**2014**

15. **SSEC- Tech Journal**,(ISSN 0975-2846)"Heterodyne spectroscopy to study methane, its isotopes and trace gas analysis using near and mid infrared ranging spectro-radiometer", Vol.11,2014, pp 18-22.

**2013**

16. **Procedia-Social and Behavioral Sciences-Science Direct**, "Innovative use of technology for content development and classroom use", Vol.93, 2013, pp 2224-2226.

**2012**

17. **International Journal of Science and Engineering Research, (IJSER), USA**, "Theoretical studies on Chirality of Graphene", Vol.5, 2012.

**2005**

18. **Indian Journal of Physics (B)**, "Opto galvanic transitions in lutetium in the 570-630 nm region", Vol.79, (4), 2005, pp 381-384. [www.iacs.res.in/ijp/ijp\\_april\\_05\\_abstract.pdf](http://www.iacs.res.in/ijp/ijp_april_05_abstract.pdf).

**2003**

19. **Indian Journal of Physics (B)**, "Spectroscopic studies of molecular bands of HgCl: identification of  $B^2\Sigma^+ \leftarrow X^2\Sigma^+$  transition", Vol.77B, (5), 2003 pp 537-543. [www.iacs.res.in/ijp/ijp\\_october\\_03\\_abstract.pdf](http://www.iacs.res.in/ijp/ijp_october_03_abstract.pdf).

**1996**

20. **Advances in Plasma Science and Technology Laser Opto galvanic Studies of Discharge Plasma**, Allied Publishers, 175, 1996.

**1994**

21. **Applied Spectroscopy, USA**, "Opto galvanic spectrum of Aluminium", Vol.48, 1994, pp 160-163. <http://www.opticsinfobase.org/as/abstract.cfm?URI=as-48-1-160> 5.

**1992**

22. **Asian Journal of Physics**, "Laser Opto galvanic spectrum of xenon in the 570-630 nm region", Vol.1, No.3, 1992, 138-142.

**Books / Book Chapters:**

2023: Reviewer of “Engineering Physics” text book published by Oxford University Press, India.

[ISBN -93-5497-949-1]

2017-Author of Book Chapters- “Engineering Physics”- Oxford University Press, New Delhi, India.

[ISBN-0-19-948463-5]

2002: Co-Authored 'Physics for Engineers' (Part of Anna University Syllabus), DD Publications, Chennai, India

**Awards:**

Recognized as a supervisor for guiding PhD & M.S (By Research) students of Anna University, Chennai, under the faculty of Humanities & Sciences in the area of ‘Laser Spectroscopy’. Research supervisor recognition # 1370686.

Scopus ID # 8358742700

Orcid # 0001-9630-6626-0000

Editor of the “World Research Journal of Spectroscopy”

published by “BioInfo Publications”. (ISO 9001:2008 certified; E-ISSN) journal.

Editorial member of the International Journal of Scientific & Engineering Research (IJSER), ISSN 2229-5518.

Editorial member of “Journal of Physics and Optic Sciences”, ISSN: 2754-4753.

Startup: NIL

Webinar: NIL

**Resource Person:**

Acted as a resource person by giving an invited talk on “Laser Scattering Techniques” at Md.Sathak College of Engineering, Chennai, in the year 2017.

**Online Courses:**

“Coursera” online courses- More than twenty two courses completed – (details available on request).

“NPTEL” online courses- More than Twelve courses completed- (details available on request). Obtained four “Silver Medals” for the NPTEL course exams.

“EdX-Harvard” completed online course on “Climate Energy Challenge”.

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