


Sri Sai Ram Engineering College

Department Of Humanities And Sciences

<p>Name : Dr. T. K. SUBRAMANIAM</p>	
<p><i>Designation :</i></p>	<p><i>Professor of Physics</i></p>
<p><i>Qualification :</i></p>	<p><i>M.Sc., Ph.D.,</i></p>
<p><i>Area of Specialisation</i></p>	<p><i>Laser Spectroscopy (Physics)</i></p>
<p><i>Experience :</i></p>	<p><i>Teaching : UG : 26 yrs 8 months</i></p> <p style="text-align: center;"><i>PG : Nil</i></p> <p><i>Industry : 06 yrs</i></p>
<p><i>No. of Workshop / Conferences / FDP attended</i></p>	<p><i>16</i></p>
<p><i>Publication :</i></p>	<p><i>Journals</i></p> <p style="text-align: center;"><i>National : 01</i></p> <p style="text-align: center;"><i>International : 21</i></p>

	<p><i>Conference</i></p> <p style="padding-left: 40px;"><i>National</i> : 09</p> <p style="padding-left: 40px;"><i>International</i> : 06</p> <p><i>Workshops</i></p> <p style="padding-left: 40px;"><i>National</i> : 08</p> <p style="padding-left: 40px;"><i>International</i> : 02</p> <p><i>Guest lecture arranged</i> : 01</p> <p><i>Resource person</i></p> <p style="padding-left: 40px;"><i>National</i> : 01</p> <p><i>FDP attended</i></p> <p style="padding-left: 40px;"><i>National</i> : 11</p> <p><i>Journal Editor:</i> 2</p>
<i>Research Guidance :</i>	<i>Nil</i>
<i>General :</i>	<i>Peer-Reviewer_Optica,USA and MDPI,China.</i>

<p><i>Staff Achievements</i></p>	<p>(i) Member of Board of Studies of our college to design, develop and framework of new syllabus for the 'autonomous' institution, beginning from academic year, 2020.</p> <p>(ii) Formerly, faculty member of the IQAC-internal Quality Assurance Cell, of our college.</p> <p>(iii) Formerly, faculty member of the NAAC-National Assessment and Accreditation Council for our college.</p> <p>(iv) Faculty ISO -Coordinator for our department of Humanities and Sciences(H&S)</p> <p>(v) Served as anonymous Peer-Reviewer for Optical Society of America (OSA), USA. And Applied Optics, (OSA) USA.</p> <p>(vi) Achieved centum pass percentage results (100%) for several batches of students beginning from 2007-2020.</p> <p>(vii) Achieved 100% pass percentage for both the sections allotted, for both the semesters for the year 2013-2014, 2020-2021.</p> <ul style="list-style-type: none"> ● Invited talk -paper presentation at the 8th International Conference on Lasers, Optics and Photonics during November 15th-17th, 2017 at Las Vegas, USA. ● Presented a Paper at the Third International Work Shop on Infrared Technologies at Olching, Germany during Nov - 7 & 8, 2016. ● <i>Served as Chief Superintendent of Anna University Exams in the college for more than 8 years continuously.</i> ● Served as Chairman, Physics Board at
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	<p>Anna University Central valuation Centers for more than 7 years continuously.</p> <ul style="list-style-type: none"> ● Gave an Invited Talk on <i>Laser applications in Mechanical Engineering</i> at <i>Mohd. Sathak College of Engineering, Chennai</i>, during the month of <i>January 2017</i>.(Resource person) ● <i>Chaired a Technical Paper presentation session in International Conference ICMFM 2021, at SEC, Chennai during 24th and 25th June.</i> ● <i>Editor of Conference Proceedings in American Institute of Physics (AIP),USA.</i>
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Educational Qualification:

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

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>13</i>	<i>9</i>	<i>3</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 & 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 & 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 & 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>
Total				26	03	28

PUBLICATIONS

Journals:

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 spectroradiometer”, 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.

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.

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.

Conferences/Seminars/Webinars:

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 19th, 2022.

2. *Participated and chaired a technical session in the International Conference on Modern Functional Materials (ICFM), June 24 to 25th, 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 22nd June to 26th June 2020, OSA, USA.*
5. *Attended a five-day International Conference (online) on "Optical Sensors and Sensing Congress" from June 22nd to June 26th 2020, OSA, USA.*
6. **"Invited Talk" and paper presentation, titled "Laser Technology to Guide Rainfall to a Particular Region", at the 8th International Conference on Lasers, Optics and Photonics" during November 15th-17th, 2017, at Las Vegas, USA.**
7. *International Conference on Mechanical, Materials and Manufacturing systems, ICMMMS'16; Venue: SEC, Chennai; dates: February 24th and 25th, 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, 17th 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: 22nd and 23rd 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: 19th and 20th 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 14th and 15th, 2004; (Paper Presentation)*
15. *National Laser Symposium, organized by DAE, Govt. of India, at Instruments and Development Establishment, Dehradun, India; Dates: February 10th to 14th, 1995.*
16. *National Laser Symposium, organized by National Laser Programme, DAE, Govt. of India; Venue: IIT, Chennai; Dates: 17th, 18th and 19th February 1993.*
17. *National Conference in Photonic applications with lasers, Nainital, 1992.*

Workshops:

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 3rd International Workshop on Infrared Technologies at Olching, Germany during November 7th-8th, 2016.**
3. *National Level Workshop on "Revealing the Advances in Material Science"; Venue: SIT, Chennai; Dates: 19th and 20th 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: 9th to 11th February, 2012.*
6. *Workshop on Application of Metal Nano particles, organized by the Dept. of Chemical Engineering, SSN Engineering College, Chennai; Dates: March 11th, 2011.*
7. *Annual Photonics Workshop. Organized by International School of Photonics and Centre of Excellence in lasers and Optoelectronic Sciences,(CUSAT),Cochin, Kerala; Dates: 27th and 28th February, 2005.*
8. *Atomic and Molecular applications using lasers, 2002.*
9. *Workshop on Advanced Laser Spectroscopy, IIT, Kanpur, Date: February 25th, 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 28th August 2014.*

FDP:

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

1. *FDP program on inculcating "Universal Human Values", conducted by AICTE from July 26th to July 30th, 2021.*
2. *FDP program on "Materials Characterization" at Sairam Institute of Technology, during 20th and 21st July 2017.*

3. FDP program on "Cloud Computing" organized by the Dept. of Information technology at SEC, Chennai; Date: 5th 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 17th-22nd, 2005.
6. Anna University, Chennai, FDP program in Physics, 2002.

Coursera-online courses

- Total number of courses studied and certificates issued: 21 courses and 21 certificates obtained.
- Highlight of Coursera Courses: **GOOGLE certified** three-courses continuously on Computer Networking.

EdX -Online courses:

- Completed a course work on "**Climate-Energy Challenge**", conducted by **Harvard University EdX-Online series, USA.**

NPTEL

Fundamentals of Spectroscopy- Certificate issued.

Analytical Chemistry -Silver Category-Certificate issued.

OSA (Optical Society of America), USA sponsored -Short Course.

Attended a one-day short course at BIEC (Bangalore International Exhibition Center), Bangalore on the 23rd September 2014, on the following topics: (i) Nano photonics-design, fabrication and characterization given by Prof.Dr.Joesph.W.Haus, University of Dayton, USA and (ii) Packaging of Optoelectronic Components given by Dr.Andreas Rose, CEO/CTO Photonics Research Corporation, USA.

Peer-Reviewer:

1. JOSA-A, USA (Optical Society of America) (WoS)
2. JOSA-B, USA (Optical Society of America) (WoS)

3. *Applied Optics, USA. (Optical Society of America).(WoS)*

4. *Journal of Photonics, MDPI, China (Web of Science) (WoS)*

Text-Book Published

1. **“Engineering Physics”** (*As per Anna University Regulations 2017 syllabus*) by *D.K.Bhattacharya, Poonam Tandon and T.K.Subramaniam* published under **Oxford University Press, India.**
[ISBN 0-19-948463-5].
 2. **“Engineering Physics”**(*As per Anna University –Regulations 2002 syllabus*), by *Selladurai, L.Sudha and T.K.Subramaniam* by *DD Publications, Chennai, in the year 2002.*
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