



1. Name : D. Sastikumar
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6. **Field(s) of Specialization** :  
Fiber Optic Sensors and  
Laser Materials Processing

#### 7. **Employment Profile**

Job Title	Employer	From	To
Professor	NIT, Tiruchy	April 2007	Till Date
Assistant Professor	NIT, Tiruchy	Oct. 1998	April 2007
Lecturer	NIT, Tiruchy	Aug.1991	Oct.1998

#### 8. **Academic Qualifications :**

Examination	Board / University	Year	Division/ Grade	Subjects
Ph.D.	Anna University	1991	-	Dye Lasers
M.Phil.	Anna University	1987	First	Physics
M.Sc.	Anna University	1984	First	Materials Science
B.Sc.	Madras University	1982	First	Physics

### 09. Awards, Associateships etc.

Year of Award	Name of the Award	Awarding Organization
2007	Best teacher award	NIT-Tiruchy
2010	Best poster paper award	21 <sup>st</sup> AGM of Materials Research Society of India
2013	Best poster paper award	14 <sup>th</sup> Asia Pacific Conference on Non-Destructive Testing, ISNT.

### 10. R&D Projects

Title of Project	Funding Agency	Duration		Status
		From	To	Ongoing/ Completed
Optical power limiting studies on Ag and Cu nanowire composite glasses	DRDO	2009	2013	Completed
Fund for Improvement of Science & Tech. Infrastructure (FIST) - Project Coordinator	DST	2008	2013	Completed
Design of Fiber Optic Sensors for Measuring Thickness of Thin Transparent Material and Online Monitoring of Refractive Index of Liquids	MHRD	2004	2006	Completed
Laser Surface Alloying of Aluminium Alloy and Stainless Steel with Cr and SiC	CSIR	2002	2005	Completed
Formation of Metal Carbide Composite Layer on Aluminium Alloy by Laser Processing	DST	2003	2005	Completed
Laser Surface Alloying of Aluminium - Silicon Alloy with Silicon Nitride	MHRD	2002	2004	Completed
Design of Thickness and Micro-Displacement Photonic Sensors	MHRD	2001	2003	Completed
Modernization of Non-Destructive Testing Laboratory	MHRD	2000	2002	Completed

## 12. Ph.D. guided

Name of the Ph.D. Scholar	Title of Ph.D. Thesis	Role(Supervisor/ Co-Supervisor)	Year of Award
S.Devendiran	Fiber Optic Gas Sensor Based On Detection Of Light Radiation From The Modified Clad Region	Supervisor	2019 (submitted)
B. Renganathan	Nanocrystalline Metal oxides based fiber optic sensor for ammonia vapor detection	Supervisor	2012
K.Suresh	Micro and Meso scale Piezo excited and sensed resonance sensor with electronics	Co- Supervisor	2012
G.Balaksrishnan	Study on microstructural, optical and high temperature properties of thin films of metal oxides and their nanomultilayers prepared by pulsed laser deposition	Supervisor	2010
K.Srinivasan	Bifurcations, chaos and strange nanochaos in certain nonautonomous non-linear circuits	Supervisor	2009
G.Gobi	Design and development of fiber optic displacement sensors- Applications	Supervisor	2009
A.Viswanathan	Metal-ceramic composite layer formation on Al-Si alloy and AISI 316L stainless steel by high power laser (CO <sub>2</sub> ) processing	Supervisor	2008
M. Jamal Mohamed Jaffar	Laser Surface Modification of Aluminium- Silicon alloy with metals and silicon carbide	Supervisor	2006
R. Jagdheesh	Laser Surface Modification of Austenitic Stainless steel	Supervisor	2005

## 13. Membership of Learned Societies

Type of Membership (Ordinary Member/ Honorary Member / Life Member )	Organization	Membership No. with date
Life Member	Indian Society for Technical Education	LM 21520, 1996
Life Member	Indian Laser Association	Lm 363, 1997
Life Member	Indian Society for Non destructive Testing	LM 8443, 2006
Regular SPIE Member	Internal Society for Photonics engineer, SPIE	476822

**14. Short term courses conducted:**

S. No	Title of Activity	Level (National/ International)	Role	Duration		Venue
				From	To	
1.	Short term courses on Emerging Non Destructive Evaluation (NDE) Methods	National	Coordinator	03.09.2018	08.09.2018	NIT-Tiruchy
2.	Workshop on Optical and Ultrasonic methods in NDE,	National	Coordinator	16.10.2013	20.10.2013	NIT-Tiruchy
3.	Short term course on Post Graduate level physics problems : Understanding and solutions	National	Coordinator	01.06.2012	06.06.2012	NIT-Tiruchy

**15. Patent**

S. No.	Title	Patent Number	National/ International	Date of Patent	Credit points
1.	Clad-modified fiber optic ammonia gas sensor with nanocrystalline titanium dioxide and cerium doped zinc oxide	11569/CHE/2011	National	05.05.2011 (Applied)	(Under Final Processing)

