

**NAME** : L. CAROLINE SUGIRTHAM  
**POSITION** : ASSOCIATE PROFESSOR  
**FACULTY OF** : PHYSICS  
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**LANGUAGES PROFICIENCY**

**READ** : TAMIL & ENGLISH  
**WRITE** : TAMIL & ENGLISH  
**SPEAK** : TAMIL & ENGLISH

**1. QUALIFICATION**

S. No.	DEGREE / DIPLOMA / CERTIFICATE	DISCIPLINE	NAME OF THE INSTITUTION	YEAR OF PASSING
1.	UG	PHYSICS	ST. MARY'S COLLEGE, TUTICORIN	1985
2.	PG	PHYSICS	THE AMERICAN COLLEGE, MADURAI	1987
3.	M.PHIL.	PHYSICS	MADURAI KAMARAJ UNIVERSITY	2006
4.	PGDCA	COMPUTER SCIENCE	ALAGAPPA UNIVERSITY, KARAUKUDI	1992
5	PH.D.	PHYSICS	MADURAI KAMARAJ UNIVERSITY	2015

**2. TEACHING EXPERIENCE**

S. No.	INSTITUTION	FROM – TO
1.	DEPARTMENT OF PHYSICS, FATIMA COLLEGE (AUTONOMOUS), MADURAI	1987 - TILL DATE

**3. POSITION HELD IN FATIMA**

S. No.	NAME OF THE POSITION	DURATION
1.	VALUE EDUCATION COORDINATOR	1997 - 1999
2.	COLLEGE –CIA COORDINATOR	1999 - 2002
3.	DISCIPLINE COMMITTEE COORDINATOR	2004 - 2006
4.	COLLEGE TIME TABLE COORDINATOR	2007 - 2009
5.	COLLEGE MAGAZINE COORDINATOR	2010 - 2012
6.	IQAC MEMBER (EXTENDED COMMITTEE MEMBER)	2010 - 2012

**4. POSITION HELD OUTSIDE**

S. No.	NAME OF THE POSITION	NAME OF THE INSTITUTION	DURATION
1.	MEMBER BOARD OF EXAMINER	THE AMERICAN COLLEGE, MADURAI	1995 – 2010

2.	MEMBER BOARD OF EXAMINER – THEORY AND PRACTICAL'S	MADURAI KAMARAJ UNIVERSITY, MADURAI	2000 – TILL DATE
3.	MEMBER BOARD OF EXAMINER	GOVT. COLLEGE OF ARTS & SCIENCE, COIMBATORE	2003 – 2006
4.	MEMBER BOARD OF EXAMINER	BISHOP HEBER COLLEGE, TRICHY	2008 – TILL DATE
5.	MEMBER BOARD OF EXAMINER	ST. XAVIER'S COLLEGE, PALAYAMKOTTAI	2009 – TILL DATE

## 5. AREAS OF SPECIALIZATION

### ➤ SOLID STATE PHYSICS

## 6. ORIENTATION/REFRESHER/TRAINING PROGRAMMES/FDP ATTENDED

S. No.	PROGRAMMES	THEME	ORGANIZED BY	DATE
1.	REFRESHER COURSE	QUANTUM MECHANICS	MADRAS UNIVERSITY	1994
2.	ORIENTATION COURSE	-	MADURAI KAMARAJ UNIVERSITY	1996
3.	REFRESHER COURSE	TECHNIQUES IN PHYSICS OF THE SOLIDS	MADURAI KAMARAJ UNIVERSITY	2000
4.	REFRESHER COURSE	ENERGY SCIENCE	GANDHIGRAM UNIVERSITY	2002
5.	FACULTY DEVELOPMENT PROGRAMME	-	AIACHE, NEW DELHI	Nov. 20 - 22,

## 7. NATIONAL/INTERNATIONAL SEMINAR, WORKSHOP, CONFERENCE & SYMPOSIUM

S. No.	PROGRAMMES	SPONSORED BY	ORGANIZED BY	DATE	PARTICIPATED / PRESENTED	TITLE OF THE PAPER
1.	NATIONAL SEMINAR ON "RECENT DEVELOPMENTS IN PHYSICS"	INDIAN ACADEMY OF SCIENCES	DEPT. OF PHYSICS, GOVT. ARTS COLLEGE, MELUR	MAR. 12 - 14, 2011	PARTICIPATED	-
2.	NATIONAL SEMINAR ON "NEW MATERIALS RESEARCH & NANOTECHNOLOGY"	UGC, DST, BRNS & CSIR SUPPORTED BY TNSCST, GOVT. OF TAMIL NADU	DEPT. OF PHYSICS, GOVT. ARTS COLLEGE, UDHAGAMANDALAM	SEPT. 2012	PRESENTED & OBTAINED "BEST PAPER AWARD"	ELECTRICAL FIELD INDUCED SPATIAL DEPENDENT EFFECTIVE MASS FOR DONOR BINDING ENERGIES IN A QUANTUM WELL

## 8. ARTICLES PUBLISHED IN JOURNALS/BOOKS

S. No.	JOURNAL/BOOK NAME	ARTICLE TITLE	MONTH/YEAR	VOL. NO.	ISS. NO.	PAGE NO.	ISBN/ ISSN	PUBLISHER
1.	INTERNATIONAL JOURNAL OF NANO SCIENCE	MAGNETIC STUDIES OF METAL-INSULATOR TRANSITION IN A QUANTUM WELL SYSTEM DOI: <a href="https://doi.org/10.1142/S0219581X08005341">https://doi.org/10.1142/S0219581X08005341</a>	2008	7	04N 05	207 - 213	0219-581X (PRINT) 1793-5350 (ONLINE)	WORLD SCIENTIFIC, USA

2.	JOURNAL OF COMPUTATIONAL AND THEORETICAL NANOSCIENCE	SPATIAL DEPENDENT EFFECTIVE MASS FOR DONOR BINDING ENERGIES IN A QUANTUM WELL IN THE INFLUENCES OF AN ELECTRIC FIELD DOI: <a href="https://doi.org/10.1166/jctn.2009.1021">10.1166/jctn.2009.1021</a>	JAN. 2009	6	1	157 - 161	1546-1955	AMERICAN SCIENTIFIC PUBLISHERS, USA
3.	ELIXIR INTERNATIONAL JOURNAL - SEMICONDUCTOR MATERIALS	EFFECTS OF ELECTRIC FIELD AND POSITION DEPENDENT EFFECTIVE MASS ON HYDROGENIC IMPURITY IN GAAS QUANTUM WELL	2012	50	-	1052 3- 1052 4	2229-712X	ELIXIR PUBLISHERS
4.	QUANTUM MATTER	PRESSURE INDUCED HYDROGENIC DONOR (ACCEPTOR) IMPURITY STATES IN A GAAS/GA <sub>1-x</sub> AL <sub>x</sub> AS QUANTUM WELL DOI: <a href="https://doi.org/10.1166/qm.2013.1052">https://doi.org/10.1166/qm.2013.1052</a>	2013	2	3	229 - 233	2164-7615 (PRINT) 2164-7623 (ONLINE)	AMERICAN SCIENTIFIC PUBLISHERS, USA
5.	JOURNAL OF NANOMATERIALS	EFFECTS OF POLARON AND QUANTUM CONFINEMENT ON THE NONLINEAR OPTICAL PROPERTIES IN A GAAS/GA <sub>1-x</sub> AL <sub>x</sub> AS QUANTUM WELL WIRE DOI: <a href="http://dx.doi.org/10.1155/2014/823065">http://dx.doi.org/10.1155/2014/823065</a> Article ID: 823065	2013	2014	-	6 PAGES	1687-4110	HINDAWI PUBLISHERS
6.	PHASE TRANSITIONS – A MULTINATIONAL JOURNAL	ELECTRIC FIELD-INDUCED NONLINEAR OPTICAL PROPERTIES OF A HYDROGENIC IMPURITY IN A GAAS/GA <sub>1-x</sub> AL <sub>x</sub> AS QUANTUM DOT: EFFECTS OF SPIN ORBIT INTERACTIONS DOI: <a href="https://doi.org/10.1080/01411594.2014.984709">10.1080/01411594.2014.984709</a>	JAN. 2015	88	4	407 - 420	0141-1594 (PRINT) 1029-0338 (ONLINE)	TAYLOR & FRANCIS
7.	JOURNAL OF ADVANCED PHYSICS	COMBINED EFFECTS OF MAGNETIC AND ELECTRIC FIELDS ON A HYDROGENIC IMPURITY BINDING ENERGY IN A GAAS/GA <sub>1-x</sub> AL <sub>x</sub> AS QUANTUM DISC DOI: <a href="https://doi.org/10.1166/jap.2014.1142">10.1166/jap.2014.1142</a>	DEC. 2014	3	4	271 - 277	2168-1996 (PRINT); 2168-2003 (ONLINE)	AMERICAN SCIENTIFIC PUBLISHERS
8.	PHYSICA B: CONDENSED MATTER	EFFECTS OF TEMPERATURE ON BINDING ENERGY AND NONLINEAR OPTICAL PROPERTIES OF A HYDROGENIC DONOR IN A GAAS/GA <sub>0.8</sub> AL <sub>0.2</sub> AS PILLBOX SURROUNDED IN A GA <sub>0.6</sub> AL <sub>0.4</sub> AS MATERIAL DOI: <a href="https://doi.org/10.1016/j.physb.2014.09.035">10.1016/j.physb.2014.09.035</a>	JAN. 2015	457	-	126 - 131	0921-4526	ELSEVIER
9.	ASSOCIATION OF INDIAN UNIVERSITIES – UNIVERSITY NEWS	A DEEP DIVE INTO AN AUTONOMOUS COLLEGE	FEB. 2015	7	-	16 - 22	-	-

## 9. ACHIEVEMENTS

S. No.	NAME OF THE AWARD	AWARDS RECEIVED FOR	SPONSORS / SOURCE	YEAR
1.	BEST PAPER AWARD	BEST PAPER PRESENTATION IN NATIONAL SEMINAR	DEPT. OF PHYSICS, GOVT. ARTS COLLEGE, UDHAGAMANDALAM	SEPT. 2012

## 10. PROJECT UNDERTAKEN

S. No.	TITLE OF PROJECT	PRINCIPAL INVESTIGATOR	SPONSORED BY	YEAR	SANCTIONED AMOUNT
1.	SYNTHESIS OF NANO SIZE CATHODE MATERIALS FOR LITHIUM CELL	MAJOR PROJECT	DST	2006 - 2009	₹ 1000000