



**Dr. C. BALALAKSHMI**

**Assistant Professor**

**Contact**

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**Academic Qualifications**

Degree	Institution	Year	Branch	Class
UG	Madurai Kamaraj University	2000	Zoology	II
PG	Alagappa University	2002	Oceanography	I
M.Phil	Alagappa University	2003	Oceanography	I
Ph.D	Alagappa University	2012	Oceanography	I

## Teaching Experience

Total Teaching Experience

**9:Years**

Position	Institution	Duration
Assistant Professor	Alagappa University, Karaikudi	January - 30-2016 to till date
Teaching Assistant	Alagappa University, Karaikudi	August 2013 to April 2014, and December 2015 to January 2016

## Research Experience

Total Research Experience : **18 Years**

Position	Institution / University	Duration
Assistant Professor , Research Scholar	Alagappa University	2016 to 2024  2003 to 2012

## Academic and Additional Responsibilities

S.No	Position	University Bodies	Period	
			From	To
1)	Program officer for National Service Scheme, Department Coordinator, Alagappa University	Program officer for National Service Scheme, Alagappa University (NSS)	14 Feb 2023 onwards	Till Date
2)	Deputy Warden in Science Campus Women Hostel , Alagappa University	Deputy Warden in Science Campus Women Hostel , Alagappa University	26 September 2018	December 2023

S.No	Position	Period	
		From	To
1.	Department Research Advisory Committee Member, Alagappa University	2016	Till Date
2.	Department Purchase Committee Member, Alagappa University	2016	Till Date
3.	Department Board of Studies Committee Member, Alagappa University	2016	Till Date
4.	Department Coordinator for Remedial Coaching class, Alagappa University	2016	Till Date
5.	Department Coordinator for Village Placement Program Alagappa University	2017	Till Date
6.	Department (ALUFA) EC Member, Alagappa University	2021	Till Date
7.	Department Placement Cell Coordinator Alagappa University	2021	Till Date
8.	Department Cultural Committee Coordinator Alagappa University	2020	Till Date
9.	Alagu fest event Committee Coordinator Alagappa University	2019	2019
10.	Department Doctoral Committee Member Alagappa University	2016	Till Date
11.	Department Student Welfare and Career Counselling Member , Alagappa University	2017	Till Date

### Areas of Research

**Nano Marine Biotechnology**  
**Bio Nano Materials**  
**Nano Green Biology**  
**Nano Medical Bio Technology**  
**Nano Anti Coating**  
**Nano Food Packaging Application**

### Patents Filed

S.No	Title	Patent Design No.
1.	Digital Actophotometer to Determine Effect of Drugs on Central Nervous System (Indian Patent) Granted	402709-001
2.	Franz Diffusion Cell for Permeation Studies of Transdermal Dosage Forms (Indian Patent) Granted	400702-001
3.	Diabetic Foot socks For Diabetic Neuropathy (Indian Patent) Granted	400862-001
4.	Differential Scanning Calorimeters (DSC) For the Measurement of Melting Point of Organic compounds (Indian Patent) Granted	402420-001
5.	Portable Medical Device for Detection of Ulcerative Colitis (Indian Patent) Granted	400751-001
6.	Non-Invasive Brain Scanning Device for Neuro Defects Identification (Indian Patent) Granted	401071-001
7.	AI Enabled Soxhlet Apparatus for Extraction of Herbal Drugs (Indian Patent) Granted	400700-001
8.	Programmable Infusion Pump to Deliver Liposomal Therapeutics (Indian Patent) Granted	403791001
9.	Microwave Based Equipment Synthesis of Chemical Compounds (Indian Patent) Granted	403492-001
10.	Rotating Cylinder Types Dissolution Testing Apparatus for Gastro Retentive Drug (Indian Patent) Granted	410286-001
11.	Portable Nanoparticle Cytotoxicity Tester for Cancer (UK Patent) Granted	6319466
12.	Medical Device for Development of Biodegradable Polymeric Nano Capsules (UK Patent) Granted	6325255
13.	Nanoparticle Composite For Enhanced Paclitaxel Delivery in Cancer Treatment (German Patent) Granted	Urkunde-No: 202024102017,IPC-A61K31/337
14.	Composition of Solid Lipid Nanoparticle of Glicazide For Anti diabetic Treatment (German Patent) Granted	Urkunde-No: 202024100936,IPC-A61K31/64

### Research Supervision/Guidance

Program of Study		Completed	Ongoing
Research	Ph.D	-	<b>4</b>
	M.Phil	<b>6</b>	-

Project	PG	25	3
	UG/ Others	-	-

### Publications

International		National		Others
Journals	Conferences	Journals	Conferences	Books/Chapters/Monographs/Manuals
14	65	6	30	7 Book Chapters 7 Edited Books

Cumulative Impact Factor (asperJCR)	:	48.977
h-index	:	7
i10 index	:	4
Total Citations	:	237

### External Examiner

Viva voice Examiner	:	External Examiner for Ph.D Thesis Evaluation at VIT Vellore
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### Funded Research Projects

#### Ongoing Projects:

S.No	Agency	Period		ProjectTitle	Budget (Rs.In lakhs)
		From	To		
1	RUSA 2.0 Theme Based Research Project Grant Allocation	2022	Till date	Advanced Nanomaterials & Sustainable Energy and Sensor Applications	6.00L

## Completed Projects

S.No	Agency	Period		Project Title	Budget (Rs.In lakhs)
		From	To		
1	AURF Start Up Research Grant	March-2017	September-2017	Eco-Friendly Synthesis of Silver Nanoparticles and Co-Formulated Detergents to control the Microbial Growth	0.35
2	RUSA 2.0 Theme Based Research Project Grant Allocation	2019	2021	Advanced Nanomaterials & Sustainable Energy and Sensor Applications	4.00L

## Distinctive Achievements / Awards

1.	The Prestigious “Adarsh Vidya Saraswati Rashtriya Puraskar” National Award for Global Management Council on 2 <sup>nd</sup> Day of October, 2017, Gujarat.
2.	Global Economic Progress & Research Association (GEPRA) New Delhi, “National Citizenship Gold Medal Award” “Individual Achievements and National Development” on 01 <sup>st</sup> May 2018 at Bangalore.
3.	Biography of the Year 2017 , Memento with Certificate to Honour of Excellence Meritorious Achievements, Rifacimento International , New Delhi
4.	International Women of the Year Award. Certificate of Achievement. This Certificate is proudly presented for Honorable Achievement for Outstanding Achievements & Distinguished Services to the Nation, 24 <sup>th</sup> February 2019. Friendship forum , New Delhi, 25 <sup>th</sup> February, 2019
5.	Acharya Vidya Ratan Award, Certificate of Achievement 2019, This Certificate is proudly presented for Outstanding and extra-ordinary Achievements in chosen fields of activity and Services rendered to promote greater friendship and India-International Co-operation, New Delhi, 24 <sup>th</sup> February 2019.
6.	Indira Gandhi National Award, for Teaching & Research Excellence for outstanding individual Achievements & Distinguished services to the National, Seminar on Economic Growth and National Unity, Friendship forum , New Delhi, 25 <sup>th</sup> February, 2019
7.	Innovative Scientific Research (Nanoscience and Technology) Dedicated Academician Award, Innovative Scientific Research Professional Malaysia In Science, Engineering, Business Management Applications & Medical Technology, Issued at Kuala Lumpur, Mara , Malaysia, 20 <sup>th</sup> -21 <sup>st</sup> October 2018
8.	Dronacharya Award, 28, July, 2019, Indian institute of Global Brotherhood, New Delhi.

9.	Life Dedicated service award, 28, July, 2019, Indian institute of Global Brotherhood, New Delhi.
10.	Nelson Mandela international Award, 28, July, 2019, greater friendship and India-International Co-operation, New Delhi.
11.	Marvel Women of India Award, Friendship forum , New Delhi, 2019.
12.	Dr. A.P.J Abdul Kalam Rastriya Puraskar Award, for Global Management Council, Ahmedabad, 2021, Gujarat
13.	India's Most Admirable Women Achievers Award, for outstanding and Extra Ordinary achievement in chosen Educational fields of activity and Services, Friendship Forum, New Delhi, 2021
14.	India's most dynamic achievers Educationist Award for Outstanding contribution for the progress of the Nation and Worldwide, Friendship Forum, New Delhi, 2021
15.	Golden World Achievers Education Award, in the field of Educational Excellence, Friendship Forum, New Delhi, 2022
16.	Most outstanding Education service Award, greater friendship and India-International Co-operation, New Delhi.
17.	Star of Asia International Award 2019 for outstanding and extra ordinary achievements and chosen field of activity and services, New Delhi
18.	Educationist Award for her outstanding achievements and distinguished services to the Nation and chosen field of activity and services Indian Institute of Global Brotherhood, New Delhi, 2022
19.	Prestigious Global Women Achievers of World Award 2023 in Recognition of exceptional calibre and outstanding Performance in Science field , Friendship forum , New Delhi
20.	Dr.Sarvepalli Radhakrishnan Rastriya Puraskar National Award 1June 2023, Glacier Journal Research Foundation , Global Management Council, Ahmedabad, Gujarat.
21.	India's Most intellectual Personality Award for outstanding and extra – ordinary achievements in Education field of activity and services ,2021, New Delhi.

#### Number of Seminars / Conferences /Workshops/ Events organized:

Position	Programme	Duration	Institution
<b>Organizing Secretary</b>	Parents Teachers, Alumni meet Organizing Secretary, (Nanoscience and Technology)	2017 onwards	Department of Nanoscience and Technology, Alagappa University
<b>Organizing Secretary</b>	World Standards Day (WSD) Nanoscience and Technology	09/02/2017 to 10/02/2017	Department of Nanoscience and Technology, Alagappa University
<b>Organizing Secretary</b>	Nano Materials for specialized Applications (NMSA-2017)	9 <sup>th</sup> February-2017	Department of Nanoscience and Technology, Alagappa University
<b>Organizing Secretary</b>	Advanced Nano materials (ICAN-2018)	26 <sup>th</sup> and 27 <sup>th</sup> February-2018	Department of Nanoscience and Technology, Alagappa University

<b>Organizing Secretary</b>	Two days International Conference on Applied Nanoscience and Nanotechnology (ICANN- 2019)	18 <sup>th</sup> & 19 <sup>th</sup> March, 2019	Department of Nanoscience and Technology, Alagappa University
<b>Co-Organizing Secretary</b>	Three days International Virtual Conference on Advanced Nanomaterials for Energy and Environmental Applications (ICANEE-2020)	16 <sup>th</sup> to 18 <sup>th</sup> September, 2020	Department of Nanoscience and Technology, Alagappa University
<b>Co-Organizing Secretary</b>	Three days International Conference on Advanced Nanomaterials for Energy and Environmental Applications (ICANEE-2023)	9 <sup>th</sup> to 11 <sup>th</sup> March, 2023	Department of Nanoscience and Technology, Alagappa University

## Events Participated

### Number of Conferences/Seminars/Workshops

Number of Conference presented: 65

Number of Conferences Participated : 25

Number of Virtual Conference : 65

Number of Seminars: 5

Number of Workshops : 12

Number of FDP : 25

## Overseas Exposure/Visits

International Conference on Innovative Scientific Research Strategies (ICISRS 2018) Innovative Scientific Research Professional Malaysia in Science, Engineering, Business Management Applications and Medical Technology on 20-21 October 2018. Issued at Kuala Lumpur, Mara, Malaysia.

<b>International Conference</b>	<b>Malaysia</b>
<b>Industrial Visit</b>	<b>Singapore</b>

## Membership

### Professional Bodies

Sl.NO.	Title
1.	Life Member: Member of the Indian Science Congress Association at Kolkata on 15/03/2016
2.	Editorial Member in Global Management Council- Glacier Journal Research Foundation on 02/10/2017 at Ahmedabad, Gujarat
3.	Member of the Association in Global Economic Progress and Research Association on 01/04/2018 to 30/03/2019 at New Delhi
4.	Editorial Board Member in Innovative Scientific research Professional Malaysia on 20/10/2018 to 21/10/2018
5.	Elected as FELLOW – The Membership Title FIESRP of the society of Innovative Educationalist and Scientific Research Professional, Chennai on 20/10/2018 at Malaysia
6.	Membership in Asia's Who's Who, Asian Biographies, Rifacimento International, New Delhi.

## Advisory Board

Year/Period	Name of the BoS /Administrative Committee / Academic Committee	Role
2016 to till date	Department Research Advisory committee Member Alagappa University	Member
2017 to till date	Department Purchase committee Member Alagappa University	Member
2017 to till date	Department Board of Studies committee Member Alagappa University	Member
2023 to till date	Program officer for National Service Scheme, Alagappa University (NSS)	Member
2017 to till date	Department Doctoral Committee Member Alagappa University	Member

## List of Research Articles / Recent Publications

S. No	Authors/Titleofthepaper/Journal	Impact Factor
1.	New records of Pen Shells ( Bivalvia, Pinnidae) from seagrass beds of palk Bay area in Tamilnadu –Seaweed Res.Utiln,32 (1&2):185-188,2010	0.22
2.	New Distribution of <i>Siratus Virgineus ponderosus</i> (Sowerby, 1879) Family Muricidae, in Mandapam Coast, India ,World Journal of Zoology 6 (4):331-333,2011	
3.	Using Sem Studies on the Radular Morphology of <i>Chicoreus</i> Species (Gastropods: Muricidae) collected from Palk Bay in Tamilnadu-Ecology and Fisheries, Vol.4(2):73-78,2011	
4.	Four New Distributional Records of Bivalves species of <i>Pectinidae</i> family from Mandapam area South East Coast of India-proc.ICBAT.pp.17-20, 2011	
5.	Preliminary Photochemical screenings of Marine alga <i>Ulva Fasciata</i> and its growth performance , biochemical composition on Indian major carp <i>Cirrhinus mrigala</i> fingerlings, Journal of Advanced Applied Scientific Research – ISSN : 2454-3225, JOAASR-Vol-1-10-May -2017.	1.073
6.	Green synthesis of gold nanoparticles using a cheap <i>Sphaeranthus indicus</i> extract: Impact on plant cells and the aquatic crustacean <i>Artemia nauplii</i> , Journal of Photochemistry & Photobiology, B: Biology 173(2017)598-605, June 2017	6.252
7.	Electrical and optical properties of copper tartrate crystal, International journal of Advanced Research in science and engineering Vol.No.6, Issue No.03, March-2017, ISSN(O)2319-8354, ISSN (P)2319-8346,	6.1
8.	Green synthesis of Silver Nanoparticles Using <i>Sphaeranthus indicus</i> leaf extract and their antibacterial activity, International Journal of Engineering and Technology Science and Research, IJETSR, ISSN2394-3386 Volume 4, Issue 8, August 2017	2.120
9.	Single Step Fabrication of Chitosan Nanocrystals Using <i>Penaeus semisulcatus</i> : Potential as New Insecticides, Antimicrobials and Plant Growth Promoters, Journal of Cluster Science , Volume- 29, Issue 2, PP 375-384, [https://doi.org/10.1007/s10876-018-1342-1, Received: 15 December 2017 , Springer Science+Business Media, LLC, part of Springer Nature 2018	3.061
10.	Journal of science and Technology investigation -ISSN: 2456-8082 V. Sabitha et.al JOSTI-Vol-1-9-April-2018:1-11Checklist of Ants (Hymenoptera: Formicidae) of Silent Valley National Park, Western Ghats, Kerala, India	1.173
11.	Development of chitosan/agar-silver nanoparticles-coated paper for antibacterial application,Journal of Green Processing and Synthesis, 1-January-2020, ISSN: 2191-9550,Volume- 9,Issue 1,PP 751-759	2.83
12.	Optimization of aqueous- assisted extraction of polysaccharides from pumpkin ( <i>Cucurbita moschata Duch</i> ) and their biological activities, Saudi Journal of Biological Sciences, 20-July-2021, ISSN: 1319562X	4.219
13.	<i>Gloriosa superba L</i> : A critical Review of Recent Advances, Abasyn Journal of Life Sciences, 2020, ISSN: 2616-9754, Volume 3, Issue 1, PP: 46-55	2.078
14.	Superficial Preparation of Biocompatibe Carbon Quantum Dots for Antimicrobial Applications, Journal of Materials today Proceedings, 2018, ISSN: 22147853	1.24
15.	Facile synthesis of gold and platinum doped titanium oxide nanoparticles for antibacterial and photocatalytic activity: A photodynamic approach , photodiagnosis andphotodynamictherapy,Volume33(2021)102148. https://doi.org/10.1016/j.pdpdt.2020.102148	3.3

16.	Anti-cancer activity of <i>C. cainito</i> leaves explained using its compounds docked with p53, ISSN 0973-2063 (online) 0973-8894 , Bioinformation 18(10): 870-875 (2022) ©Biomedical,Informatics,(2022)Volume18(10,October,31,2022,DOI:10.6026/97320630018870	6.317
17.	Preparation of N, S-doped blue emission carbon dots for dual-mode glucose detection with live cell applications, <i>Chem. Pap.</i> (2023). <a href="https://doi.org/10.1007/s11696-023-02769-5">https://doi.org/10.1007/s11696-023-02769-5</a> , Chemical Papers, Springer	2.146
18.	Fabrication of Neodymium (Nd), Cadmium (Cd) and Nd:Cd doped hybrid copper oxide nano composites: Evaluation of their antibacterial activity and cytotoxicity against human L132 cell line <i>Ceramics International</i> 49 (2023) 29933–29947, Accepted 25 June 2023, Volume 49, Issue 18, 15 September 2023, Pages 29933-29947, <a href="https://doi.org/10.1016/j.ceramint.2023.06.251">https://doi.org/10.1016/j.ceramint.2023.06.251</a>	5.532
19.	Effect of Bioenriched blood worm ( <i>Chironomus transvaalensis</i> ) with sea weed ( <i>kappaphycus alvarezii</i> ) diet on growth performance digestive enzymes, immunological assays and challenge study against <i>Aeromonas hydrophila</i> in Tilapia, <i>Oreochromis mossambicus</i> (Peters1852), <i>Human Daxue Xuebao/Journal of Hunan University Natural Sciences</i> ISSN: 1674-2974 / CN 43-1061/N Vol 60/ issues : 11/2023.	0.316
20.	Solubility and Dissolution Enhancement of Ramipril by Nanocrystallization, <i>International Journal of Zoological Investigations</i> , Vol. 9, No. 2, 1365-1380 (2023) ISSN:2452-3055.Received:4 <sup>th</sup> ,December,2023;Accepted:26 <sup>th</sup> ,December,2023; Publishedonline:30 <sup>th</sup> ,December,2023 <a href="https://doi.org/10.33745/ijzi.2023.v09i02.153">https://doi.org/10.33745/ijzi.2023.v09i02.153</a>	
21.	Rheumatoid Arthritis Chronopharmacological Symptom Synchronization with Colon-Targeted Delivery of Drug, ISSN: 24543055, Received: 28 <sup>th</sup> June, 2024, Accepted:27 <sup>th</sup> July,2024,Published,online:3 <sup>rd</sup> August,2024, <a href="https://doi.org/10.33745/ijzi.2024.v10i02.033">https://doi.org/10.33745/ijzi.2024.v10i02.033</a> <i>International Journal of Zoological Investigations</i> ,Vol. 10, No. 2, 348-00 (2024) <i>volume 10 issue2 2024</i>	
22.	Development and Evaluation of A Nose-To-Brain Drug-Loaded Microemulsion, IS24543055 Received: 2 nd February, 2024; Accepted: 14 th March, 2024; Published online: 20 th March, 2024 <a href="https://doi.org/10.33745/ijzi.2024.v10i01.052">https://doi.org/10.33745/ijzi.2024.v10i01.052</a> <i>volume 10 issue1 2024 International Journal of Zoological Investigations</i> Vol. 10, No. 1, 475-481 (2024)	

### Resource persons in various capacities

<b>National Conferences :</b>	National Conference on Advanced Materials for Sustainable Energy and Sensors (NCAMSES-2019) Organized by the Department of Physics, Alagappa University, Karaikudi during 20 <sup>th</sup> -22 <sup>nd</sup> March 2019. Chaired the Session
<b>International Conferences :</b>	International Conference on Innovative Scientific Research Strategies (ICISRS 2018) Innovative Scientific Research Professional Malaysia In Science, Engineering, Business Management Applications & Medical Technology, Issued at Kuala Lumpur, Mara , Malaysia, 20-21 October 2018. Chaired the Session

	<p>Two days International Conference on Applied Nanoscience &amp; Nanotechnology (ICANN- 2019) Conducted by Department of Nanoscience and technology, Alagappa University, Karaikudi, Tamilnadu, India, during 18<sup>th</sup> &amp; 19<sup>th</sup> March, 2019, chaired the Session</p> <p>Three days International Conference on “International Conference on multidisciplinary research” Organised by Sharnbasva University on 22<sup>nd</sup> to 24<sup>th</sup> November 2022, Kalaburagi, Karnataka. Chaired the Session</p>
<b>Invited Lectures :</b>	<p>Invited speaker in the PG Department of Zoology and Department of Botany, Arulmigu Palaniandavar Arts and Science College for Women, Palani on 4<sup>th</sup> February 2019.</p> <p>Invited speaker in the Sreevee College of Arts and Science, Thadikombu, Dindugal, 5<sup>th</sup> February 2019,</p> <p>Invited speaker in the National Conference organized by Special Centre for Nanoscience, Jawaharlal Nehru University &amp; National Institute of Immunology, New Delhi 19 – 21 December 2019</p> <p>Special lecture delivered on Innovative Scientific Research Professional Malaysia In Science, Engineering, Business Management Applications &amp; Medical Technology, Issued at Kuala Lumpur, Mara , Malaysia, on 20-21 October 2018, Hon. Editorial Board Member-Consulting Editor, The society of Innovative Educationalist &amp; Scientific Research Professional (Chennai), Educational membership Fellow FIESRP</p> <p>Invited speaker in the Chemistry Department, Dr.Zakir Husain College, Ilayangudi, and Inaugurate “Prof. H.Abbas Ali Chemistry Association and delivered the inaugural address on 25 September 2023</p> <p>Special lecture delivered in“National Seminar on Modern Enhancement of Life Science”Syed Ammal Arts and Science College, Ramanathapuram , 8<sup>th</sup> September 2023.</p> <p>Special lecture delivered in Innovation and Modern Enhancement on Nanoscience and Technology” 7 February 2023, Umaiyal Ramanathan College for Women, Karaikudi.</p>

Dr. BALALAKSHMI

