


Name of the Teaching Staff	Dr. B. JEBASINGH			
Designation	Associate Professor			
School / Department	SSAMM / Applied Chemistry			
Date of Joining the Institution	16 th July 2012			
Qualification with Class / Grade	UG	PG	Ph.D.	
	Chemistry	Chemistry	Chemistry	
Area of Specialization	Medicinal Organic Chemistry, Nanochemistry			
Research Interests	Molecular Imaging Probes, Theranostic Imaging, Drug Design and Material Design			
Subjects Teaching	Under Graduate		Post Graduate	
	Nanochemistry and Next Gen. Materials Applied Chemistry Organic Chemistry for Forensic Science Nanochemistry in Forensic Science, Chemistry in Everyday Life, Environmental Studies, Forensic Sciences Laboratory, Inorganic Chemistry Laboratory, Engineering Chemistry, Analytical Chemistry for Forensic Science		Medicinal Organic Chemistry, Pericyclic Chemistry and Natural Products, Synthetic Organic Chemistry Lab Research Methodology and IPR Chemical Thermodynamics and Electrochemistry Entrepreneurship and Business Plan, Qualitative Inorganic Analysis Lab, Cheminformatics, HPLC MASS Technology	
Total Experience in Years	Teaching	Industry	Research	
	14	0.5	21*	
Papers Published	National		International	29
Papers Presented in Conference	National	4	International	11
Conferences / Symposia / Seminars / Workshops Participated	National	42	International	10
FDP / STTP / MDP / Summer / Winter School attended	15			
M.Phil. / Ph.D. Guide ship	Field		University	
	Medicinal Organic Chemistry and Nanochemistry		KITS	
Ph.D. Projects Guided	Ph.D.s	03	Project at Master's Level	24
Professional Memberships	ACS, MRS, ESMI, RSC etc			
Consultancy Activities	1) V-Guard Industries India Ltd., Coimbatore, India. 2) Microbiological Laboratories Research and Service (P) Ltd, Cbe, 3) Unilever R&D (P) Ltd, Bangalore 4) Sami Labs (P) Ltd			

	<ol style="list-style-type: none"> 5) Neo Sciences Labs (P) Ltd, Chennai 6) Molecular Imaging Probe Technologies (P) Ltd, 7) Ami BioSciences, Coimbatore 8) KMCH, Coimbatore 9) Chematech-mdt Macrocycles design Technologies, Dijon, France
Awards & Honours	<ol style="list-style-type: none"> 1) Best Research Award from New Science Innovations 2020 Awards 2) Achiever's Award-2016 from Karunya University-Coimbatore, 3) Research Award for Teachers by UGC Delhi (25 Lakhs) National Level Award 4) Fast Track- Young Scientist Awardee from DST Govt. of India with grant Rs 25.05 lakhs 5) Achiever's Award- 2014 from Karunya University-Coimbatore 6) Best Faculty Award–2015 in TN & Kerala Region by Nehru Group of Institutions, Coimbatore 7) CDD Researcher at ICSN-CNRS, Govt. of France, Paris. 8) Postdoc Fellowship: Funds from CIRCMSB, Bari-IT, for Biomedical Research. 9) Indian Young Researcher Award: 2006-2008 – MIUR, IndoItalian collaboration research, Italy. 10) Research Associate: 2005-2006 Defense Research Development Organization, Delhi, India. 11) Senior Research Fellow: 2002-2004 Defense Research Development Organization, Delhi, India. 12) Junior Research Fellow: 1998-2001 Council of Scientific and Industrial Research – India.
Grants Fetched	<ol style="list-style-type: none"> 1) MoES, Govt. of India, Rs.118 Lakhs 2024 2) DST-FIST for the Department Rs.138 Lakhs, 2023. 3) V-Guard Industries India Ltd., Consultancy Grant Rs. 7.08 Lakhs, 4) DST-DPRP Industry Collaboration Project Rs 98.95 Lakhs, 2017-2020. 5) UGC – DAE Consortium Research, IGCAR, Kalpakkam Node – 07.32 Lakhs, 2017-2020. 6) Research Award 2012-2014 for Teachers by UGC Delhi (25 Lakhs) National Level Award 7) Fast Track- Young Scientist Awardee from DST Govt. of India with grant Rs 25.05 lakhs 8) Karunya Seed Money Grant Rs. 25,000 /- 9) Postdoc Fellowship: 2008-09 Funds from CIRCMSB, Bari-IT, Euro: 27,458. 10) Short Term Grant from Telethon S. p. a., Rome, Italy, Euro 8000 in 2008. 11) Kao Corporation Japan 2006-2007 – in Collaboration with Universita di Torino, Italy – Euro 33,564.
Interaction with Professional Institutions	<ol style="list-style-type: none"> 1) CeNSE, IISc Bangalore, India 2) BRAC-BRNS, DAE, Chempur, Mumbai, 3) C-MET, MeitY, Pune 4) University of Buffallo, State University of New York, USA 5) Universita di Torino, Italy 6) Universita de Bourgogne, Dijon, France. 7) ICSN-CNRS, Govt. of Franch, Paris France. 8) Dept of Chemistry and Chemical Biology, Boston University, USA 9) University of Arizona, USA 10) Karlsruhe Institute of Technology, Germany 11) National University of Singapore, Singapore 12) Oklahoma University, USA 13) IISER, Tirupathi, India.
Educational Details	<p>B.Sc. – Chemistry, Rajapalayam Rajus College/M. K. University M.Sc. – Chemistry, Bishop Heber College/Bharathidasan University M.Phil. – Ph.D. – Chemistry, Loyola College/University of Madras</p>
Experience	<p>PDF's and Work Experience year wise till present May 2017- till now Associate Professor, Department of Chemistry, S&H, Karunya University, Coimbatore, Tamilnadu, INDIA. July 2012- April 2017</p>

	<p>Assistant Professor SG, Department of Chemistry, S&H, Karunya University, Coimbatore, Tamilnadu, INDIA.</p> <p>Jan 2012-June 2012 Postdoctoral Fellow, ICMUB, University of Bourgogne, DIJON, France Nov' 2010-Dec'2011 CDD Researcher in ICSN-CNRS, French Government, Paris, France Oct'2008- Oct'2010, as Postdoctoral Fellow on "Synthesis & Characterization of Molecular Imaging probes-targeted Responsive systems/Enzyme sensitive" in Centre of Molecular Imaging, University of Torino, Via Nizza 52, Torino – 10126, Italy. June 2006 - Sep' 2008, as Indian Young Researcher in "Synthesis & Characterization of Molecular Imaging probes-Metal based novel targeted systems" Department of Chemistry IFM, University of Torino, Via Pietra Guiria 7, Torino, Italy December 2005-May 2006, as Research Scientist (R&D) in Nicholas Piramal India Ltd, R&D-Center, Ennore, Chennai, India. (Step Reduction Schemes) June 2005- Dec 2005, as Full-Time Lecturer in Department of Chemistry (Evening College), Guru Nanak College, for PG Chemistry Organic/Inorganic topics, Chennai, India.</p> <p>2001-2005, as Senior Research Fellow in the DRDO project entitled as "Synthesis and Relaxivity Studies of Gadolinium(III) complexes of Biomacromolecule Appended Polyazapolycooxylate Macrocycles" and "Synthesis and Spectroscopic, Photochemical, and Electrochemical Studies of Photochemical Supramolecular Assemblies as Light Harvesting Antennas" in Department of Chemistry, Loyola College, Chennai, India. 1998-2001, as Junior Research Fellow in the CSIR project entitled as "Synthesis and Relaxivity Studies of Dinuclear Gadolinium(III) complexes of ADP-conjugated Polyazapolycooxylate Macrocycles as Contrast Enhancing Agent in Magnetic Resonance Imaging" in Department of Chemistry, Loyola College, Chennai, India</p>
Contact Details	<p>Room No: 18 Building : S&H Block (IInd Floor) Mobile : 9952008385 Intercom : 4409 E-mail : jebasinghb@karunya.edu Google Scholar link : Webpage(if any) :</p>
<p><u>Papers Published</u></p> <ol style="list-style-type: none"> 1) Synthesis and Characterization of a Versatile Supramolecular Synthons and its Tetranuclear Ru(II) Complexes, Pitchaikani Raja, Y.; Alexander, V.; Jebasingh, B. Eur. J. Inorg. Chem., 2023, (Under revision). 2) Bioresponsive Macrocyclic Ligand Framework as Smart Generation Probes for Molecular Imaging Applications: Proof and Achievements. Chem. Soc. Rev. 2023 (Under Preparation). 3) Synthesis, Characterisation, and Relaxivity Validations of Gd(III) DO3A Type Complex Using Tri-Followed By Mono-Conjugation Approach. Divya Rajendran, Riya Mallik, Sellamuthu Anbu, Senthil Kumaran, Chandan Mukherjee, Jebasingh Bhagavathsingh* Eur. J. Org. Chem. 2023, Submitted. 4) K.M. Thushara, Mano Ranjana Ponraj, Sneha Mandal, Xihong Peng, Stephan L. Grage, Jeon Woong Kang, Renugopalakrishnan Venkatesan, Velmurugan Thavasi, Arunachala Mada Kannan, Dorian Liepmann, Vijayamohanan K. Pillai, Jebasingh Bhagavathsingh*. Interlayer, Gallery-Engineered Graphene Oxide Using Selective Protection of MonoBocEthylenediamine as Anode for Sodium Ion Batteries. J. Energy Storage 2023, 73, Part D, 109237. Doi: 10.1016/j.est.2023.109237. (IF: 9.4). 5) Dinesh T V, Beutline Malgija, Ephrin Shaji, Zavier Thaliyakuzhy, Jesse Joel Thathapudi, Jeyasankar Alagarmalai, Anna Benedict Balakrishnan, Perumal Samy Ramar, Jannet Vennila James, Jebasingh Bhagavathsingh.* Design of Novel Pyrimidine Based Remdesivir Analogues with Dual Target Specificity for SARS CoV-2: A Computational Approach. Intl. J. Biol. Macromol. 2023, (Accepted). (IF: 8.2). 6) Ramar Perumal Samy, Stephen P. Mackessy, Alagarmalai Jeyasankar, Mano Ranjana Ponraj, Octavio Luiz Franco, Matthew A. Cooper, Matheswaran Kandasamy, Tapan Kumar Mohanta, Jebasingh Bhagavathsingh, Sakthivel Vaiyapuri. Purification of PaTx-II from the venom of Australian King Brown Snake and characterization of its antimicrobial and wound healing activities. Intl. J. Mol. Sci. 2023, (Accepted). (IF: 6.4). 7) L. Sakaya Sheela, B. Anna Benedict, B. Jebasingh, V. Manickam and J. Sumathi. Synthesis, characterization, and applications of lanthanide ortho ferrites. Main Group Chemistry 22 (2023) 227–238. Doi: 10.3233/MGC-220072. 	

- 8) Steffi Joseph Perumpully, Sneha Gautam, Pavankumar Muralkar, B. Jebasingh. Characterization of segregated greywater from rural Indian Households: An instrumental case study. *Total Environment Research Themes* 6 (2023) 100053-100067. <https://doi.org/10.1016/j.totert.2023.100053>.
- 9) N. B. Mercy Eben, Pavankumar Muralkar, Seemantini Nadiger, Mano Ranjana Ponraj, Dhandayutham Saravanan, Manoj Kumar, Hudson Suthakar, Paulmony Tharmaraj, Justus Shakina, Jebasingh Bhagavathsingh. Eco-friendly Di-blocked Copolymers from Vegetable Oils with Enhanced Mechanical Properties as an Alternative Feedstock. *Research in Chemical Intermediates*, 2023 (In Press).
- 10) Synthesis, Characterization and Relaxivity Validations of Gd(III) Complex of DOTATetrahydrazide as MRI Contrast Agent, Divya Rajendran, Judith Elizabeth, Sundar Manoharan, Nagabhusan Vellala, Brahmadathan Kootallur, Jebasingh Bhagavathsingh*. *J. Mol. Struc.* 2022, 1255(5), 132474-132483. <https://doi.org/10.1016/j.molstruc.2022.132474>.
- 11) Newton Balakrishnan Mercy Eben, Pavankumar Muralkar, Mano Ranjana Ponraj, Seemantini Nadiger, Dhandayutham Saravanan, Justus Shakina, Jebasingh Bhagavathsingh. Recycling of Saw Dust as a Filler Reinforced Cotton Seed Oil Resin Amalgamated Polystyrene Composite Material for Sustainable Waste Management Applications. *Mat. Today. Proceedings* 2022, 58(2), 783-788. doi: 10.1016/j.matpr.2022.03.331. (IF: 2.1)
- 12) K. M. Thushara, Mano Ranjana Ponraj, Pavankumar Muralkar, Naveenkumar Subramani. Nandha Gopal Balasubramaniyan. Anna Benedict Balakrishnan, Wilson Kumar, Jebasingh Bhagavathsingh. Design and Synthesis of Imino alcohol Decorated Graphene Oxide Nanosheets as an Electrode Material for Sensor Applications *Mat. Today. Proceedings* 2022, 56(1), 390-394. doi: 10.1016/j.matpr.2022.01.224. (IF: 2.1).
- 13) Copper(II)-Bis-Cyclen Intercalated Graphene Oxide as an Efficient Two-Dimensional Nanocomposite Material for Copper-Catalyzed Azide-Alkyne Cycloaddition Reaction. *Angel Green, S., Sowmya, S., Vijai kanth, V., Jebasingh B. Frontiers in Chemistry*, 2022, 9, 10.3389/fchem.2021.754734. (IF: 5.2)
- 14) Graphene oxide nanosheets functionalized protected amine for tuning of interlayer d-spacing with DFT studies: A versatile material design. Jebasingh Bhagavathsingh, Ramesh, P., Parimala Devi, Abiram, Doondi, K., Nesasudha, K., Visweshwar, S., Philip, A. S., Renugopalakrishnan, V. *MRS Communication*, 2022,12(1), 37-44.

Papers Presented in Conference

- Papers Presented in Conference 1. Presented Paper in National Symposium on Nanoscience and Nanotechnology (NSNST-2018) organized by CeNSE, IISc Bangalore on 20-22nd June 2018.
2. Presented paper in National Conference on Advancement in Pharmaceutical Sciences in Department of Pharmaceutical sciences, Anna University BIT Campus, Trichy on 03-04th February 2017.
3. Poster Paper in international conference “Chennai Chemistry Conference” in CLRI, Chennai, India on February 7-10, 2013.
4. Poster Presentation in International conference “COST ACTION D38”, on “Molecular Imaging Probes Developments” in Lisbon, Portugal on April 27-29, 2008.

Patents

- 1) Site-Specific Curcumin Conjugates of Molecular Imaging Probes for Therapy and Diagnostic (Theranostic) Imaging Applications (2022). Patent Application No.202241025494 A Published Date : 03/06/2022 (Granted).
- 2) A Process of Preparation of Pyruvic Acid Conjugated Macrocycles of Paramagnetic Complexes (2023). Patent Application No. 202341008815. Published Date: 10/02/2023.

Books / Book Chapters

Jebasingh Bhagavathsingh et. al., Ed Book: *Nanovaccinology: Chapter 14-Nanostructured Materials–Enabled Biosensors for Drug Delivery and Medical Diagnosis*, Chapter 14, 2023, pp 245-258. https://doi.org/10.1007/978-3-031-35395-6_14, Springer Nature Publications, Switzerland.

Jebasingh Bhagavathsingh, Mano Ranjana Ponraj Thushara K M., Anna Benedict, Philip Antony. *Synthesis, Characterization, and Applications of Graphene-Based Nanomaterials from a Nano-Biotechnological Perspective*. Chapter 02, **2023**, pp. 23-47 ISBN: 978-23-4567-090-8. CRC Press Publications.

Seemantini Nadiger, **Jebasingh Bhagavathsingh**, Pavankumar Muralakar, Aravindakumar, Eben Mercy Newton Balakrishnan, Arjun Tayade. *Nano-Encapsulation, Nano-Based Formulations of*

Graphene-Based Materials for Plant Growth Fertilizers and Nutrient Enhancers. Chapter 11, **2023**, pp. 78-92 ISBN: 978-23-4567-090-8. CRC Press Publications.

Jebasingh Bhagavathsingh, Pavankumar Muralakar, Seemantini Nadiger, Eben Mercy Newton Balakrishnan, Thushara K M. Role of Nano-Composite(s) Based Upon Graphene/Biopolymer Interface in Healthcare Application : Graphene Nanomaterials in Food, Health & Agriculture Sectors. Chapter 17, **2023**, pp. 208-232 ISBN: 978-23-4567-090-8. CRC Press Publications.

Jebasingh Bhagavathsingh, Mano Ranjana Ponraj Thushara K M., Pavankumar Muralkar, Anna Benedict, Ramesh P. Development of Organic Amines Intercalated Graphene Oxide Nanosheets for Supercapacitor Applications. Book: Recent Trends in Chemistry (Vol.03), **2023**, pp. 423-447 ISBN: 978-93-5834-011-2. Integrated Publications, New Delhi, India.

Research Group Members

- 1) Mrs. Mano Ranjana (2021)
- 2) Mrs. Thushara S M (2021)
- 3) Mr. Xavier Thaliyazky (2021)
- 4) Mr. T.V. Dinesh (2021)
- 5) Ms. Sneha A R (2022)
- 6) Mr. John Kingsley (2023)
- 7) Ms. Ephrin Shaji (2023)

Past Members

- 1) Dr. Angel Green (2016-2021) - DST project
- 2) Dr. Divya Rubavathi (2016-2022) – UGC-DAE-CSR Project
- 3) Mr. Srinivasan (2017-2018) – UGC-DAE-CSR Project
- 4) Dr. P. Ramesh (2014-2018) - UGC Project
- 5) Mr. Dinesh (Project Assistant-2016-2018) –DST project
- 6) Mr. Uma Maheswaran (Project Assistant 2017-2018)- MLRS DST project

