# Sri Sai Ram Engineering College Department Of Humanities And Sciences

Name : Dr. B.THANUJA					
Designation:	Associate Professor				
Qualification :	M.Sc., M.Phil., B.Ed., (Hindi) Ph.D.				
Area of Specialization :	CHEMISTRY				
Experience:	Teaching: UG: 13 Years 10 Months PGT: 5 years Industry: Nil				
No. of workshop / Seminar/FDP attended/organised:	14/6/2/1				
Publication:	Journal National: 02 International: 15  Conference National: 08 International: 12				
Research Guidance :	UG students				
General:	*Team lead: Health club  *Life Member: Association of chemistry Teachers (1394)  *Doctorate committee Member at Vels University  *Research Supervisor at Anna university(24.07.13)  *As Reviewer:  *CHEMPHYS-D-13-00199  *JNMN-12-39  *IJPAP1134-1719  *IJTK-8428  *Acted as a  *Resource person in Science competition Vivekananda Vidyalaya Junior college  *Board Member for Syllabus review committee at Vels University  *Board Member for Result analysis committee at Vels University  *NSS co-coordinator at Vels University (2010-2013)				

**Educational Qualification:** 

Categor y	Name of the Degree	Specializa tion	Year of Passing	Name of the College	Name of the University	% of Marks / Grades obtaine d	Class obtai ned
UG	B.Sc.	General Chemistry	1993	SDNB Vaishnav College	Madras University	66.27%	I
PG	M.Sc.	General Chemistry	2005	Annamalai University	Madras University	62.18%	I
	M.Phil.	General Chemistry	2009	Bharathidasa n University	Bharathidasa n University	72.2%	I
Ph.D.	Ph.D	Chemistry	Complete d 2013	Vels University	Vels University		

**Academic Experience** 

	Designation	Joining Date	Relieving	Experience		
Name of the College			Date	Year	Month	Day
				S	S	S
Vels University	Assistant Professor	02.07.2009	22.08.2013	4	1	23
Sri Sai Ram Engineering College	Assistant Professor	23.08.2013	31.05.2019	5	7	8
Sri Sai Ram Engineering College	Assistant Professor	01.06.2019	TILL DATE	2	9	30
	12	18	1			

## **JOURNAL PUBLICATION - INTERNATIONAL AND NATIONAL**

- 1. S.Sumathi, Charles Christopher Kanagam, **B.Thanuja** 'Synthesis, Characterisation, Anti-Cancer Activity and Docking Studies of 4-(4-(dimethylamino) phenyl)-1,3,6-triphenylpiperidin-2-one' . 2022, Vol : 15, issue : 8.
- B.Thanuja, Charles Kanagam, In Vivo Anticonvulsant activity of 2-Semicarbazano-1-hydroxy,1-[2-Chlorophenyl]-2-[4'MethoxyPhenyl] Ethane, (IJPSR) 12(11) 6481-6487(ESCI &WOS) doi: 10.13040/IJPSR.0975-8232.11(12).6481-87.
- 3. **B.Thanuja**, Charles Kanagam, Solvent effect of dioxan, ethonol, chlorofrom, methanol, acetonitrile on the spectral characteristics of 2 chloro 4 methoxy benzoin, Adv. Materials. App, 3, 2019, 1-5
- 4. **B.Thanuja**, Charles Kanagam, Asian journal of pharmaceutical and clinical research, Synthesis, Characterization of Antimicrobial Activity of 22'dichlorohydrobenzoin. 12(11) 2018,328-338.

- 5. K.Selvarani, R.Mahalakshmi, **B.Thanuja**, Structural, non-linear optical and dielectric properties of LPA Hcl-manganese sulphate and cadmium chloride cocrystals. Materials science-poland 3(1) 2018p 7-13
- 6. G.K.Ayyadurai, V.Ramamurthy, **B.Thanuja**, Some physics-chemical of soil and water of keezhathottsm Mangroove, Tamilnadu, India, International journal of chemical concepts, 2017, 03(02)208-217.
- 7. **B. Thanuja**, G. K. Ayyadurai and Charles C. Kanagam, Comparative studies of anti-inflammatory activity in Vivo and in Silico studies of 4-methoxy benzoin and benzoin, Der Pharma Chemica, 2017, 9(24):15-20.
- 8. G. K. Ayyadurai **B.Thanuja**, and Charles C. Kanagam, , Synthesis, characterization and solvent effect on the optical properties of novel zinc doped chalcone organic crystals 1,3 bis (2-methyl benzal)acetone, Der Pharma Chemica, 2017, 9(23):59-63.
- 9. **B. Thanuja**, G. K. Ayyadurai and Charles C. Kanagam, Synthesis, characterization and solvent effect on the optical properties of 2-semicarbazono-1-hydroxy, 1-(2-chlorophenyl)-2-(4'-methoxyphenyl) ethanol single crystal., Der Pharma Chemica, 2016, 8(12):135-142
- 10. S. Usha, Charles C Kanagam, **B.Thanuja**, Study of Molecular Interactions of Binary Mixture of Mandelic Acid in Different Solvents Using Ultrasonic, *AASCIT Journal of Chemistry.*, 2015; 2(3): 55-60 57.
- 11. **B. Thanuja**, Charles Kanagam Synthesis, characterization in vivo and in silico studies of antidepressant activity of 2-chloro-4'methoxy benzoin, *Current Chemical Biology.*,2014,8,17-26.
- 12. **B.Thanuja**, Charles Kanakam, Synthesis, characterization and solvent effect on the Fluorescence spectra of Benzoin, *Journal of Energy and Chemical Engineering*., Jan 2014,vol 2(1) PP 51-58.
- 13. **B.Thanuja**, Charles Kanagam, G.Nithya, Indian *journal of Physics*, Study of molecular interactions in binary mixtures of 2-chloro-4'methoxy benzoin with various solvents through ultrasonic speed measurements. 87(12)2013,1225-1231.(I.F 1.5).
- 14. G. Nithya, **B. Thanuja**, Charles C. Kanagam *Ultrasonics Sonochemistry.*, 20 (2013) 265–270 242 (I.F 4.5).
- 15. **B.Thanuja**, Nithya. G, Charles Kanagam, *Ultrason.*, 19 (2012) 1213–1220. (I.F:4.35).
- 16. **B.Thanuja**, Nithya. G, Charles Kanagam, *Photonics letters of Poland.*, vol. 4 (1), 41-43 (2012) I.F:1.35.
- 17. G. Nithya, **B. Thanuja**, G. Chakkaravarthi and Charles C. Kanagam*ActaCryst.*, (2011). E67, 1535 (I.F 0.5).
- 18. **Thanuja** B, Kanagam C, Sreedevi S: Studies on intermolecular interaction on binary mixtures of methyl orange-water system: excess molar functions of ultrasonic parameters at different concentrations and at different temperatures. Ultrason Sonochem., Nov;18(6): (2011)1274-8 (I.F 4.5)

- 1. International Virtual Conference on CHEMICAL RESEARCH FOR SUSTAINABLE DEVELOPMENT (ICCRSD-2021) on 24th & 25th September 2021, Anti-oxidant activity of benzoin phenyl hydrzone and benzoin hydroxylamine biomaterials, SRM INSTITUTE OF SCIENCE AND TECHNOLOGY RAMAPURAM CAMPUS, CHENNAI-89, 24th and 25th September, 2021.
- 2. 2nd International Symposium on "Modeling of Crystal Growth Processes and Devices" impact of substitutents and solvent effects, SSN, Chennai, 5/07/2021 to 8/7/20
- 3. Presented paper at International conference on Recent Trends Materials Applications, Presented a Paper on Synthesis, characterization and solvent effect on the fluorescence spectra of 4-methoxy  $\alpha,\beta$  unsaturated hydroxy ketone' organized by The New College on 21st January 2020.(PP -02)
- 4. Presented Paper at Recent Advance in Organic Medicinal and Biological Chemistry, International Virtual Conference on RAOMBC-2020, VIT, Chennai, 8.07.2020-09.07.2020
- 5. International Virtual Conference INNOVATIVE RESEARCH IN CHEMICAL SCIENCES (IRCS-2020) Effect of Substituents and functional groups, SRM Institute of Science and Technology, Ramapuram, 29.06.2020-30.06.2020
- 6. Participated at Virtual Conference on "Materials for Energy Harvesting and Catalysis,TIFR,IISER,Kolkatta,01.05.2020-03.05.2020
- 7. Presented paper in the International Conference on Recent Trends in Applied Science and Technology on the title 'Hydroxyl ketone-biological and NLO properties' in Tamil at SSN college from 19/09/2019 to 21/09/2019
- 8. Presented a Paper on 'Comparative studies on benzoin phenylhydrazone and hydroxylamine biomaterials' at SSN College on 21/03/2019 and 22/03/2019 (first place for best Oral Presentation).
- 9. Presented a Paper on Antimicrobial activity of new synthesized 22'dichlorohydrobenzoin at VEC at 2<sup>nd</sup> National Conference on 09/02/2019.
- 10. Presented a Paper on, "Synthesis, Characterization and *in vivo* and *in silico*studies of benzoin and its derivatives at 22<sup>nd</sup> National Seminar on Crystal Growth and its application at Scared Heart College, Tiupathur, 29<sup>th</sup>-31 at January 29<sup>th</sup>-31<sup>st</sup>, 2018. (OP 31)
- 11. Presented a Paper on, "Synthesis, Characterization of antimicrobial activity of 22' dichlorohydrobenzoin", in Indian Science Congress on, Jan 3-7, 2017.(pp-14).
- 12. Presented a Paper on, "Synthesis, Characterization and solvent effect at VEC 3<sup>rd</sup> National Seminar on the concepts of Green Chemistry on 27<sup>th</sup> March 2017.
- 13. Photocatayltic Degradation of Benzoin in pollution abatement. Paper presentation in the International Seminar on New Frontiers and challenges in Environmental Sciences held on Febraury,11<sup>th</sup> and 12<sup>th</sup> ,2016 organized by Marudupandiyar college, Thanjavur.
- 14. Comparative studies of anti depressant and anti inflammatory activity in vivo and in silico studies of benzoins and substituted benzoins at VEC, 2<sup>nd</sup> National Seminar on 'The concept of Green Chemistry' on 18<sup>th</sup> April, 2015.

- 15. Synthesis, characterization, in Vivo and silico studies of antidepressant activity and anti inflammatory studies of substituted benzoins, **15**<sup>th</sup> **Tetrahedron symposium**, **Asia Edition**, Challenges in bio organic and organic medicinal chemistry, **Singapore Expo between October 28-31, 2014**.
- 16. Regional Science Congress **INDIAN SCIENCE CONGRESS ASSOCIATION** held from Dec 12th Dec 13th Dec 2013, SRM University. Synthesis and nonlinear optical absorption properties of 2-chloro-4'methoxy benzoin compounds
- 17. Synthesis, characterization, anti inflammatory and docking studies of substituted benzoins, "International Conference on Advances in Civil Engineering and Chemistry of Innovative Materials" at SRM University, Ramapuram Campus being hosted on 13th and 14th march 2014.(0-38).
- 18. Presented a paper on, Synthesis, characterization and solvent effect on the optical properties of 2-semicarbazono-1-hydroxy, 1-(2-chlorophenyl)-2-(4'-methoxyphenyl) ethanol single crystal in DST,DRDO,CSIR & BRNS Sponsored 17th national seminar on Crystal growth centre, Anna university on Jan 9-11,2013. (P-36) 243.
- 19. Presented a Paper on, "ultrasonic studies of intermolecular interactions in binary mixtures of 2-chloro-4'-methoxy benzoin with various solvents: excess molar functions of ultrasonic parameters at different concentrations and at different solvents in **Indian science congress** on, Jan 3-7, 2013.(P-12).
- 20. Presented a Paper on, "Synthesis and crystal structure of 4-methoxy benzoin", in **Indian Science Congress** on, Jan 3-7, 2012.(0-10).
- 21. Presented a Poster on, **International Conference** on Emerging Trends in Bio-Engineering, Mch 28 & 29, 2011 organized by the Department of Bio Engineering, **Bharath University**, **Selaiyur**, Chennai.(P-12).
- 22. Presented a Paper on, "National Conference on AICTE sponsored National level Technical conference on advances in Chemical Engineering (Chemcore 2011), April 7 & 8, 2011, organized by the Department of Chemical Engineering, **MVJ college of Engineering, Bangalore** 560 067.
- 23. Presented a Paper on, "Synthesis and crystal structure of new 2'-chloro -4-methoxy benzoin", National Conference on New Renaissance in Chemical Research (NCNRCR-2011), March 4, 2011, organized by the Department of Chemistry, **SRM University**, Ramapuram, Chennai 89. (**Best oral Presentation award**).
- 24. National Conference on crystal growth science and Technology, Department of Physics, **Anna University**, 18<sup>th</sup> and 19<sup>th</sup> October 2010.

### **WORKSHOPS: ATTENDED**

1. Indian Nanoelectronics Users' Programme - Idea to Innovation, INUP - i2i Familiarization Workshop on Nanofabrication Technologies, held at IIT Bombay during January 19-21, 2022. Dr. Ashwin Tulapurkar, Professor, Dept. of Electrical Engineering, Indian Institute of Technology, Bombay.

- 2. DST-SERB Sponsored National Workshop on "Nanomechanical and Tribological Characterization of Materials", organized by Centre for Nanoscience and Nanotechnology, Sathyabama Institute of Science and Technology, Chennai, during March 4-5, 2022.
- 3. National STTP AICTE sponsored on Comprehensive Village development, Indo Global college, Punjab, 20/09/21 to 25/09/21
- 4. International FDP on Application on advanced technology in chemical sciences, Eswari Engineering College,31/08/21 to 04/09/2021
- 5. Emerging trends in nanomaterials on electronics and optoelectronic devices(AICTE sponsored), Swarnadhara Engineering College,17/05/2021 to 21/05/2021
- 6. In silico drug discovery and design methods and applications, Baptala Pharmacy college, Andhrapradhesh, 01/3/2021 to 06/03/2021
- 7. ATAL FDP on Personal Effectiveness, Birla Institute of Technology, 05.01.2021 to 9.01.2021.
- 8. ATAL FDP on Novel materials, SRM IST UNIVERSITY,9.11.2020 to 13.11.2020
- 9. ATAL FDP on Recent Trends in Advanced Materials and Applications, National Institute of Engineering, Mysuru, 19.10.2020 to 23.10.2020
- 10. ATAL FDP on Sensors Technology, Dr. Ambedekar Institute of Technology, 21.09.2020 to 25.09.2020
- 11. ATAL FDP on Augument and Reality at Sri Sairam Engineering College, 27.05.2020-29.05.2020
- 12. Completed Refresher course in Chemistry organized by A.V.C college of Engineering from 08.03.2021 to 13.03.2021.
- 13. STTP on Nanomaterials for manipulating clean energy and environmental applications conducted by Dr.Mahalingam College of Engineering and technology from 2.11.2020 to 7.11.2020.
- 14. Completed UHV on the theme of Inculating Universal Human Values in Techanical Education organized by AICTE from 14.12.2020 to 18.12.2020.
- 15. FDP on Remarkable Structural, Magnetic and Microwave Adsorption Properties of Rare Earth-Doped Mn-Cu Ferrites. & In-situ characterization of Materials at Elevated Temperatures" at Kristu Jayanthu College, Bengaluru, 04.05.2020
- 16. Webinar on International Day of Light, IEEE photonics Society, IIT Guhawati, 16.05.2020
- 17. Webinar on Remote Sensing in Crop Monitoring and Assessment". IIRS, ISRO, May 19th-June 9th, 2020.
- 18. FDP on Recent trend in COVID-19: DIAGNOSIS AND MANAGEMENT" organized by Vels University, June 4th,2020
- 19. Recent Trends in Advanced Materials and Applications organized by National Institute of Engineering, Mysuru, 19/10/2020 to 23/10/2020
- 20. TNSCST sponsored one-day workshop on Molecular Docking on 19<sup>th</sup> September 2018 at D G Vaishnav college.
- 21. DRDO sponsored workshop on Li-ion batteries at SSN college on 18/05/2018

- 22. One day National Workshop on advanced functional materials (FUNMAT 2017) at CSIR-Central Electrochemical Research Institute, Karaikudi on May 22<sup>nd</sup>,2017.
- 23. National Workshop on "Advancements in Chemical Sciences" organized by Department of Chemistry, Sri SAIRAM INSTITUTE OF TECHNOLOGY, 18<sup>th</sup> July, 2016.
- 24. One day National Workshop on Smart materials-applications and characterizations, organized by CCG, Department of physics, VIT-Vellore, 27<sup>th</sup> April, 2016.
- 25. INUP Hands-on Training Workshop on Nano fabrications Technologies, held at IIT Bombay, August 17-21<sup>st</sup>, 2015.
- 26. Two week ISTE workshop on environmental studies conducted by IIT Bombay under the National Mission on Education through ICT (MHRD. Govt. of India) 2-12<sup>th</sup>June, 2015.
- 27. INUP familiarization workshop on nanofabrication Technologies, IIT Mumbai, May 27-29th, 2015.
- 28. National Seminar on the concepts of Green Chemistry, Valliammai Engineering College, 16<sup>th</sup> November, 2013
- 29. CSIR sponsored National Seminar on Recent Trends in Laser Spectroscopy and its Applications at Sri Sairam Engineering College on 17<sup>th</sup> October, 2013.
- 30. Nuclear Magnetic Resonance (NMR) Spectroscopy, IIT, Madras, 8<sup>th</sup>-12<sup>th</sup> March, 2012.
- 31. ISTE Workshop Askash for Education-National Mission on Education ICT(MHRD),10<sup>th</sup> and 11<sup>th</sup> November 2012, organized by IIT, Bombay.
- 32. Introduction to Research Methodologies, IIT, Bombay, 25<sup>th</sup> June 4<sup>th</sup> July, 2012. National Mission on Education ICT (MHRD).
- 33. National Seminar on insight into recent trends in chemical research, A.M.Jain college, 16<sup>th</sup> December, 2011.

## **Organized Programme**

 Organized National Workshop on X-ray analysis of materials and application, Vels University, 29th-30th April, 2011.

### **Invited Talk**

- Invited Talk on application of Chemistry on Engineering Chemistry, Annai Veilankanni's College of Engineering, Chennai on Nov.1, 2021.
- Judge for Toycathon2021, Jan 2021 to Sep 2021.
- Consistant Mentor for ATL Tinkerpreneur Jan 2021 to Sept 2021
- Invited Talk on Growth, Characterization, Solvent Effect of Substituted Alpha Hydroxy
  - Ketones", Dept of Chemistry, MGR University, 09/07/2021
- Keynote speaker at ICWMR 2021, Indo -Euro Colloboration in the topic Empowering rural Women on March 8<sup>th</sup> 9,2021.

- Technical talk on Sept 16<sup>th</sup>,2020 in the topic Environment and Agriculture at FDP, Annai Veilankanni's College of Engineering, Chennai
- Technical talk on Nov 3<sup>rd</sup>, 2017 in the topic Material science and Technology at FDP,
  - o EGS Pillay group of Institutions, Nagapattinam

## **PROJECT: SUBMITTED**

- Project entitled; Restoring minerals in RO submitted to UBA
- Project entitled 'Solutions for an effective and sustainable faecal sludge management to increase productivity of soil and contribute to double the farmers income submitted to DST-TDT on 31/11/2020
- Project entitled' Bioplastic Degrading into Fertilizers by Eradicating Plastic Waste submitted to DST-TDT on 31/11/2020
- Project entitled: "Enhancing the Yield of Limonene from Citrus sinensis fruit peels: An effective strategy for wealth creation and solid waste management submitted to DST-TARE, Submitted on 15/03/2020
- Project entitled: Degradable of bioplastic into reusable fertilizer to NASF(submitted)
- Green Environment using treated Water in Poonthandalam Village School to UBA( Submitted)

### **PATENT: SUBMITTED**

TITLE: A SYSTEM AND METHOD OF DISPOSING DOMESTIC WASTE

**APPLICATION NO**: E-2/2620/2019-CHE/201941033595

• **REFERENCE NO**: 26955

## **Project Guided**

Balaji R III year IT

Title: Conveyor Belt with Sanitizing and won Prize at SaiHach Fest 2020 held at Sri

Sairam Enigneering College on 30/10/2020 and 31/10/2020

Surender I Year Mech

Title: Automatic Vehicle Speed controller

Exhibited at Sacred Heart College Tirupattur, Feb 26th 2020

#### **AWARDS**

IGEN Green action award 2021

IGEN best organizer award for youth contest and green actions 2022

## **ONLINE COURSES**

- 1. Introduction to IOT, Simply Learn
- 2. Creativity, Innovation, and Change, COURSERA
- 3. The 3D Printing Revolution, COURSERA
- 4. Quantum Mechanics, COURSERA
- 5. Biohacking Your Brain's Health, COURSERA
- 6. The Sustainable Development Goals A global, transdisciplinary vision for the future, COURSERA
- 7. Safety in the Utility Industry, COURSERA
- 8. Biohacking Your Brain's Health, COURSERA
- 9. Python for Beginners
- 10. Introduction to Molecular Spectroscopy
- 11. Waste water treatment, NPTEL
- 12. NMR Spectroscopy, NPTEL