

# CURRICULUM VITAE

**Dr. Shanthi Vunguturi**

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## EDUCATIONAL QUALIFICATIONS

- **Ph.D, Osmania University, India.**  
**Dissertation:** Bioassay, QSAR and docking studies of different novel bioactive compounds, June 2013
- **M.Phil, Annamalai University, India.**  
Inorganic chemistry, 2007
- **M.Sc, Osmania University, India.**  
Inorganic Chemistry, 1999

## RESEARCH EXPERIENCE

### Area of Research Expertise:

- Computational Chemistry, Antioxidant activity, water chemistry, natural products, drug designing
- Analyzing Antibacterial activity and inhibitory activity of Novel Naphthyridine series against Topoisomerase has been dealt in terms of Bioassay and computational studies
- Molecular modeling studies on bioavailability of fluorinated – curcumin and related molecules

Currently working on fluoride levels in water using natural extracts, adsorption techniques, using activated carbon etc., as a part of Post-Doctoral Research.

## TEACHING EXPERIENCE

- Presently working as Associate Professor (OU Ratified) and Head , Department of Chemistry , Muffakham Jah College of Engineering & Technology, Affiliated to Osmania University from 2006 Onwards  
A total of 18 years of teaching experience in Engineering college.

Topics taught: Electro chemistry, battery chemistry, thermodynamics, corrosion science, polymer science, water chemistry, Lubricants, liquid crystals, Green Chemistry , Etc.

- Mentored and provided assistance to 100+ students in various projects related to Spectrophotometry, Colorimetry, Potentiometry, Phmetry, Conductometry, Water analysis , estimation of iron, copper etc.
- Lead inquiry-based lab sessions for students by introducing concepts and experiments on potentiometry, ph metry, conductometry, colorimetry, spectrophotometry

## CONSULTING EXPERIENCE

- Presently Active Member , BOS for 3 Autonomous Engineering Colleges ,Hyderabad
- As lab analyst to analyze spirits for aldehydes , ketones etc ,effluent water treatment by BOD , COD etc in McDowells and company limited for a period of 2 years.

## LIST OF PUBLICATIONS

**Total Publications: 29**

**Publications in 2022 – 23 : 6**

1. “Preparation of Activated Carbon from Rice Husk for CO<sub>2</sub> Adsorption: Isotherm and Artificial Neural Network Modeling”, *MRS Communications* (2022) (A Springer Nature Journal Impact factor: 2.935).
2. “Comparative Study of Adsorption Isotherms on Activated Carbons Synthesized From Rice Husk Towards Carbon Dioxide Adsorption”, *Chemical Papers* (2022) (A Springer Nature Journal Impact factor: 2.146).
3. “The prediction of CO<sub>2</sub> adsorption on rice husk activated carbons via deep learning neural network”, *MRS Communications* (2022) (A Springer Nature Journal Impact factor: 2.935).
4. “Promotional effect of Ce on catalytic performance for the glycerol hydrogenolysis over Ni–Ce/RSAC catalyst”, *Materials Today: Proceedings* (2022), 64(1), 925-930 (An Elsevier Journal).
5. “Assessment of Oxidative Status in Fresh Edible Oils by Colorimetric ferric thiocyanate Method” *International Journal of all research Education and scientific Methods* Vol:11 Issue -2 Feb 2023 Impact Factor : 7.429 ( A UGC Care Journal)

6. “A UV Spectrophotometric Assay of Extended – release brands of etodolac” *Research J.pharm.and Tech* 16 (4): April 2023 (ISSN0974-3618) ( [A Scopus Indexed Journal](#) )

### **BOOK PUBLICATIONS**

- Title : Bioassay ,QSAR and Docking Studies of Novel Bioactive Compounds  
Publisher : LAMBERT Academic publishing  
ISBN : 978-620-2-05535-2
- Engineering Chemistry  
Publisher : Scitech Publications (India) PVT Ltd  
ISBN : 978-93-85983-986

### **TOTAL NUMBER OF CONFERENCE PRESENTATIONS / PARTICIPATIONS: 20**

### **FACULTY DEVELOPMENT PROGRAMS**

- Completed NPTEL 12 weeks FDP on Analytical Chemistry and biochemistry.
- A refresher course in chemistry for chemistry higher education faculty arp-19 conducted by MHRD,Swayam NPTEL .
- A certificate course on GOOD MANUFACTURING PRACTICES in Title 21 of US Code of Federal Regulations, Institute of Food Safety, **CORNELL UNIVERSITY, USA.**
- An Alisons’s Certificate course on Healthy Living..
- Successfully completed an Alison’s Diploma in Communication skills.

**Note: ALISON’s courses are Ireland based in partnership with National Skill Development Corporation of India.**

- Attended and awarded best score in Behavioral Competency Analysis program conducted by Harrison Assessments International Ltd.
- Completed a course on Educational Technology for Engineering Teachers conducted by IIT, Mumbai.
- Participated in 3 weeks UGC sponsored refresher course.
- Underwent training on Bio-analysis of Plasma samples using Shimadzu’s HPLC and applied bio system mass spectrometer at **SANNOVA ANALYTICAL INC, USA.**
- Completed NPTEL 8 weeks FDP on Electrochemical Technology in Pollution control Jan-Apr 2020 .
- FDP on **ADVANCEMENTS IN SCIENCE AND ITS APPLICATIONS IN ENGINEERING** one week 22-26 June 2020 organized by Hyderabad Institute of Technology and Management ,Medchal Hyderabad
- FDP on **LABORATORY AND WORKSHOP LEARNING SKILLS IN CONDUCTING PRACTICAL CLASSES** 15.2.21 – 20.2.2021 organized by JNTUACEA

- FDP on INNOVATION TO ACADEMICIANS 11.5.2021 -16.5.2021 organized by NSTEDB,DST Govt of India New Delhi
- One week online FDP on ROLE OF CHEMISTRY IN ADVANCED ENGINEERING MATERIALS RCAEM 25-29 OCT 2021 VCET Hyderabad
- Completed 5 Days online FDP on the theme INCULCATING UNIVERSAL HUMAN VALUES IN TECH EDUCATION AICTE 8<sup>th</sup> -12<sup>th</sup> Nov 2021
- Presented a poster in an 2 days international conference “Current Trends and Futuristic Challenges in Chemical Sciences”29<sup>th</sup> &30<sup>th</sup> July 2022 “Study of carbon Dioxide Adsorption on Activated and Impregnated Rice Husks” Osmania University
- Presented a research article in an 2 days international conference “Current Trends and Futuristic Challenges in Chemical Sciences”29<sup>th</sup> &30<sup>th</sup> July 2022 “Biocatalyst based performance and emission characteristics of biodiesel produced from residual cooking oil” Osmania University

#### **INVITED TALK**

- Invited to talk on the topic QSAR & Antioxidant activity of Chromones at GLOBAL PHARMATEK, New Jersey, USA.

#### **MEMBERSHIPS**

- Member of ISTE ( Indian Society of Technical Education )
- Member of National Institute of Technical Training and Skill Development(NITTD)
- International journal of Advanced chemical technology
- International journal of modern chemistry

#### **EXTRA CURRICULAR ACTIVITIES**

- **Yoga and Sports**
- **Cooking**
- **Music**

The information furnished above is true and to the best of my knowledge.

Shanthi

(Dr. Shanthi Vunguturi)