

# SHRI SHIVAJI MAHAVIDYALAYA, BARSHI

## List of resource persons in DBT lecture series 2023-24

Name of Guest Speaker	Institute name
Dr. S. L. Gholap	IIT Delhi
Mr. Bidarkar Nishant	Starkenn Technologies Pvt. Ltd.
Dr. Arvind Kumbhar	Shankarrao Mohite Mahavidyalaya Akluj
Dr. Navnath Pawar	Thakur College of Sciene and Commerce Kandivali (E) Mumbai
Dr. Tushar Shrirang Rodage	Baburao Patil College Anagar
Dr. Kashinath Deodhar	DRDO, Pune
Dr Kiran Shinde	University of Toronto, Canada
Dr H R Parbat	Wilson College Mumbai
Dr L A Ghule	R D National College Mumbai
Dr. R.V. Kathare	Karmveer Mamasahab Jagdale Mahavidyalaya, Washi
Dr. Manish Patil	Research and Innovation centre, Kolhapur
Dr Rajnish Kamat	PAH Solapur University Solapur
Dr. Nitin Kadam	Savitribai Phule Pune University Pune
Miss. Pragtai More	Harman Finochem Ltd. Sambhajinagar
Miss. Rasika Rajee	Hershey India Pvt. Ltd. Mumbai



Guest lecture by Dr Kashinath Deodhar (DRDO)



Guest lecture by Dr Arvind Kumbhar (Akluj)

## Shri Shivaji Mahavidyalaya Barshi (Patent, Publications, trainings and students achievements 2023-24)

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Contents lists available at ScienceDirect

Results in Chemistry

journal homepage: [www.sciencedirect.com/journal/results-in-chemistry](http://www.sciencedirect.com/journal/results-in-chemistry)

**Novel terephthalaldehyde bis(thiosemicarbazone) Schiff base ligand and its transition metal complexes as antibacterial Agents: Synthesis, characterization and biological investigations**

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<sup>c</sup> Department of Basic Sciences, College of Chemistry, Al Basrah University, Iraq  
<sup>d</sup> Chemistry Research Laboratory, Department of Chemistry, Shri Shivaji Mahavidyalaya, Barshi (423001) (MS), India  
<sup>e</sup> Scientific Instrument Expert, Scientific Instrumentation Centre, Panchsheel, Ahilyadevi Holkar Solapur University, Solapur-423001 (MS), India  
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**ARTICLE INFO**

**Keywords:**  
 Terephthalaldehyde bis(thiosemicarbazone)  
 Amino acids  
 Antimicrobial and anticancer activity

**ABSTRACT**

The synthesis and structural characterization of mixed ligand metal complexes from terephthalaldehyde bis(thiosemicarbazone) (TPFSC) (L<sub>1</sub>) and alanine (L<sub>2</sub>) by using ultrasonication are reported. The ligand a transition metal complexes were characterized on the basis of their elemental, FT-IR, magnetic moment conductance, mass spectra, and SEM analysis. The mixed ligand complexes are in the ratio 2:1:2 (M:L<sub>1</sub>:L<sub>2</sub>) as found from the elemental analyses and found to have the formulae: [M<sub>2</sub>L<sub>2</sub>(L<sub>1</sub>)<sub>2</sub>(L<sub>2</sub>)<sub>2</sub>·nH<sub>2</sub>O where M = Cu(II), Cd(II), Zn(II) and Zn(II), L<sub>1</sub> = TPFSC and L<sub>2</sub> = alanine. The molar conductance data show that complex non-electrolytes. FT-IR spectra show that the Schiff base is coordinated to the metal ions in a bidentate with N and S donor sites of the terephthalaldehyde bis(thiosemicarbazone) and second ligand alanine coordinated to the metal ions via its N and O of amino acid. The geometrical structure of these complexes is tetrahedral. The antimicrobial activity of the synthesized Schiff base ligand and mixed-ligand metal co have been screened against gram-positive and gram-negative bacteria and two fungi species were tested ligand complexes exhibited significant antibacterial activity against *Escherichia Coliformis*, *Salmonella Enteritidis*, *Staphylococcus aureus*, *Escherichia coli* and the fungi *Aspergillus flavus* and *Aspergillus*. Further, these compounds have been screened for their anticancer activity using Human Breast Cancer (MDA-MB-231).

**NPTEL-AICTE Faculty Development Programme**  
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**B.Sc. III student Miss. Snehal Navale awarded University Gold Medal in Zoology at P.A.H. Solapur University, Solapur**

**JAM 2024**  
 Joint Admission test for Masters

You are logged in with Enrolment ID: M129K40

Welcome! Devayani Vinayak Jadhav

**Application Status**

Enrolment ID: M129K40  
 Applicant Name: Devayani Vinayak Jadhav  
 Status: Your application is found to be in order and has been accepted

Test Paper(s)	Marks Scored out of 100	Cut-Off Marks*			Number of Candidates Appeared in the Test Paper	All India Rank
		GEN	GEN-EWS/OBC-NCL	SC/ST/PwD		
Chemistry (CY)	33.00	25.38	22.84	12.69	14340	1755

### Some Significant Achievements by faculty and students

Dr. V. M. Gurame	Best teacher award by Shri Shivaji Shikshan Prasarak Mandal Barshi for scientific and social work
Ms. Devyani Jadhav	Qualified JAM Exam 2024
Ms. Jayashri Jadkar, Ms. Sanika Gavali, Ms. Rutuja Patil	Awarded with DST, Inspire 2023 scholarship for higher education

## Certificate of Registration for a UK Design

Design number: 6323148

Grant date: 10 November 2023

Registration date: 01 November 2023

This is to certify that,

in pursuance of and subject to the provision of Registered Designs Act 1949, the design of which a representation or specimen is attached, had been registered as of the date of registration shown above in the name of

Dr. Kale Rahul Sudhakar, Dr. Vaghmare Shivaji Devrao, Shahu Sudhir Arjun

in respect of the application of such design to:

Electric Shock Based Fishing Gear

International Design Classification:

Version: 14-2023

Class: 22 ARMS, PYROTECHNIC ARTICLES, ARTICLES FOR HUNTING,

FISHING AND PEST KILLING

Subclass: 05 HUNTING AND FISHING EQUIPMENT



Adam Williams  
Comptroller-General of Patents, Designs and Trade Marks  
Intellectual Property Office

The attention of the Proprietor(s) is drawn to the important notes overleaf.

Intellectual Property Office is an operating name of the Patent Office

[www.ipoffice.gov.uk](http://www.ipoffice.gov.uk)



GOVERNMENT OF INDIA  
MINISTRY OF SCIENCE & TECHNOLOGY  
DEPARTMENT OF SCIENCE & TECHNOLOGY  
Technology Bhavan, New Mehrauli Road, New Delhi - 110016



**DST Inspire SHE letter**

Date: 05/06/2024

Subject: Provisional Offer Letter for Scholarship under INSPIRE-SHE for students of 2023 Batch.  
INSPIRE Scholarship Registration Number: 20230024687

Dear Miss Sanika Balasaheb Gavali,

Please refer to your application submitted under the Scholarship for Higher Education (SHE) component of the Innovation in Science Pursuit for Inspired Research (INSPIRE) scheme of the Department of Science and Technology (DST). It is informed that you have been **provisionally selected** for INSPIRE Scholarship for the year 2023, which is the year of your enrolment in B.Sc. / Int. M.Sc. or Int. M.S Course. The final selection for scholarship shall be subject to your fulfilling the terms and conditions as listed in the **Post-Offer Implementation Guidelines of SHE component**, which are enclosed along with this offer letter.

The total amount of Scholarship is Rs 80,000/- per annum, out of which Rs 60,000/- is the scholarship amount @ Rs. 5000 per month and Rs 20,000/- is Mentorship grant per academic year. The maximum tenure of this Scholarship is five years, or until the completion of M.Sc. / Int. M.Sc. / Int. MS course, whichever is earlier, provided you continue to maintain academic excellence and performance. Please note that a student cannot avail more than one scholarship at any time (inclusive of all sources). Further, on acceptance of the INSPIRE scholarship by a student, switching over to other government scholarship schemes including KVPY, shall not be allowed at any stage without due permission from the DST.

Mentorship of Rs 20000/- grant be paid for carrying out a research project during summer vacation of 6-8 weeks duration during the academic year in research/academic institutions other than host institution under the guidance of a supervisor from that institution.

For availing the scholarship, you have to open a savings bank account in any branch of State Bank of India (SBI) having no transaction limits on cash transfer (Jandhan, Kiosk, Zero Balance Opening Account to similar types of other accounts may please be avoided) in the country. The Scholarship shall be paid directly to your State Bank of India (SBI) bank account through PFMS-DBT mode (Public Financial Management System-Direct Benefit Transfer). The given SBI bank account should be linked with Aadhaar. Please note that joint account or account in Banks other than SBI shall not be accepted.

This is a Provisional Offer of scholarship on the basis of application submitted by you, but for the release of scholarship you have to upload the following documents by logging into your INSPIRE web-portal [www.online-inspire.gov.in](http://www.online-inspire.gov.in) strictly within the prescribed time frame as mentioned below:

## Research Festivals, students seminars, workshops, trainings etc.

### Workshops/seminars/training etc 2023-24

- Workshop on Research, Innovation and Incubation
- Science Exhibition 2024
- NEP School Connect Programs
- Workshops on Awareness on Soil Health, Bio-fertilizers & Biopesticides
- Certificate Course in Soil and Water Analysis
- Certificate Course in Fundamentals of Electrocardiogram
- Certificate Course in Fermentation Technology
- Certificate Course in Vermi-Composting
- Certificate Course in Agricultural Food Products
- Certificate Course in PCB Designing and Prototype Machine Making



Students Participating in Research Festival at Solapur

## Outreach Programs for Farmers (Awareness on Soil Health, Bio-fertilizers & Biopesticides)

- Ampra Biobact Pvt. Ltd. Mundrup, Solapur
- Yash Drakshnagari Farmer Producer Company, Tasgaon
- Chemsol Agro Sciences Bhekarai Nagar, Pune.
- Yash Fertilizer, Tasgaon.
- Matrubhumi Pratishtan Barshi.
- Eco Agro Palus
- Prmesun Multicon Pvt. Ltd. Pandharpur.
- Neha Crop Science, Latur



Outreach program for Farmer at Tasgaon

## Zoo Fest 2023-24



Students participating in International Millet Year Activity



Students representing their scientific models, posters and Rangolis in Zoo fest 2023-24



**Botanical Excursion: Visit at Kas Plateau Satara District**



**Students participating in One plant - one week activity**



**Students doing Experiment individually**