

Dr. Sanjivani Vijay Umale

Mobile no: 09158515195

PhD [Chemical Engineering- Institute of Chemical Technology, Mumbai]

Email: sanjivani.umale@gmail.com

Flat No. 15, 3rd floor, Siddhivinayak Empire, Jail Road, Kala Nagar, Nashik Road,
Nashik, Maharashtra 422101

Professional Summary:

I have **1 year** of experience as a deputy manager R& D in Universal Petrochemicals Ltd., Taloja. Also, I have **1.5 years** of experience as a ***Project Assistant in ICT, Mumbai.***

Professional Experience:

❖ **Golden Nexus LLP, Naigaon road, Shinde, Nashik**

Designation :Senior Research Scientist

Duration/Experience :Since November 2024 to January 2025

JobProfile : My work includes:

- Handling team of 3 people, guiding them about the trials carried out in lab related to antistripping. Testing of oxidized bitumen and viscosity grade bitumen. Testing of bituminous paint which include viscosity, non volatile matter content, specific gravity, particle dispersion and drying time. Also have a knowledge of cold mix, rapid setting bitumen emulsion (RS1, RS2) and slow setting bitumen emulsion (SS1). Preparation of final reports of batches carried out in lab.

❖ **Universal Petrochemicals Limited, Taloja MIDC, Navi Mumbai**

Designation :Deputy Manager (R&D)

Duration/Experience :Since June 2019 to June 2020

JobProfile : My work includes:

- Handling team of 4 people, Guiding them about the preparation of lab scale oil lubricants, testing of base oil and oil lubricants (Engine oil, gear oil, hydraulic oil etc.) and compared it with the required specification, After that give permission to production department for preparation of large batches, Handling audits, preparation of final reports of batches carried out in lab.

❖ **ICT [Institute Of Chemical Technology, Mumbai]**

Designation :Project Assistant [Department of Chemical Engineering]

Duration/Experience :Since Jan 2014 to November 2015

JobProfile : I work on the project entitled “Development of anodic material for dye sensitized solar cell” and this work includes:

- Synthesis of different morphology nanomaterials and its application in dye sensitized solar cell
- Testing of solar cell to calculate its efficiency

Educational Qualification:

- ✓ **PhD in Chemical Engineering** at **Institute Of Chemical Technology**, Matunga, Mumbai, Maharashtra in **2018**.
- ✓ **M. Tech. (Chemical Engineering)** at **University Institute of Chemical Technology**, NMU, Jalgaon, Maharashtra in **2013** with **8.3** CGPA.
- ✓ **B.Tech. (Oil and paint)** at **University Department of Chemical Technology**, **S.G.B.A.U. Amravati**, Maharashtra in **2010** with **62.50%**
- ✓ **HSC Amravati**, Maharashtra in **2006** with **69.50%**
- ✓ **SSC Amravati**, Maharashtra in **2004** with **78.40%**

Equipments handled:

- ✓ Oil viscometer bath (100°C and 40 °C), Hydrometer, Potentiometric titrator
- ✓ Pour point apparatus, Flash point apparatus (Automatic/Manual)
- ✓ Drop point apparatus, Cold cranking simulator
- ✓ UV-visible spectrophotometer, Shaking bath Vacuum oven & Muffle furnace
- ✓ BET surface area instrument, X-ray diffractometer, Fourier Transform Infrared Spectrometer (FTIR), Hydrothermal Autoclave Reactor, Centrifuge instrument
- ✓ Spin Coater & Rotary evaporator, Particle size analyzer & Zeta potential analyzer

Area of Effectiveness [Projects and Seminars]: PhD

(Chemical Engineering)

Research topic title: Studies on dye sensitized solar cell and synthesis of silica from rice husk ash

- ✓ Acquire knowledge about the synthesis of anodic materials for dye sensitized solar cell and its application in dye sensitized solar cell.
- ✓ Fabrication and characterization of dye sensitized solar cell
- ✓ Process development for production of silica from rice husk ash and its characterization using XRD, SEM+EDX, BET, FTIR, TGA etc.

Publications:

- ✓ Paper published in **Journal of Materials Research Bulletin (Impact factor = 2.446)** entitled “Photocatalytic degradation of milling yellow dye using sol-gel synthesized CeO₂”.
- ✓ Paper published in **Journal of Advanced powder Technology (Impact factor = 2.659)** entitled “Fabrication, characterization and comparison of DSSC using anatase TiO₂ synthesized by various methods”.
- ✓ Paper published in **Journal of Materials Research Bulletin (Impact factor = 2.446)** entitled “Combustion synthesized CeO₂ as an anodic materials in dye sensitized solar cells”.
- ✓ Paper published in **Journal of Materials Research Bulletin (Impact factor = 2.446)** entitled “Improved efficiency of DSSC using combustion synthesized TiO₂”.
- ✓ Paper published in **Journal of Integrated Ferroelectrics** entitled “Photocatalytic degradation of metanitron using CeO₂ and Fe/CeO₂”.

Master of Chemical Technology (Chemical Engineering)

Project title: Saponite based adsorbents and their application in dye removal (NCL, Pune)

- ✓ Acquired knowledge about the synthesis of saponite based adsorbents and their characterization using N₂ adsorption-desorption method, XRD, IR and SEM. Application of these adsorbents for the removal of methylene blue dye using batch adsorption technique.
- ✓ Seminar: Low cost adsorbents for waste water treatment.

B.Tech. Chemical Technology (Oil & Paint)

Project title: Process intensification of oil refining process and application of value added by-products.

Seminar: Radiation Cure Coating.

Computer Skills

MS-CIT passed with 95 % marks (Ms Word, Ms Excel & Ms Power Point, C, C++, Origin, AutoCAD)

Extracurricular Activities:

- ✓ Participated in ICTARGET-2017 paper presentation on “Synthesis, characterization and application of combustion synthesized ceria in DSSC” organized by VIT University, Vellore, March 2017.
- ✓ Participated in ICTAM-AMF 10 poster presentation on “Photocatalytic degradation of metamitron using Fe-doped CeO₂” organized by Delhi University, Nov. 2016.
- ✓ Participated in ETMN-2015 poster presentation on “Effect of double layered based TiO₂ nanoparticle spheres and TiO₂ nanorods on its application for dye sensitized solar cell” organized by Manipal University, Jaipur, Oct. 2015.
- ✓ Achieved 1st prize in paper presentation on “Saponite based adsorbents and their application in dye removal” National conference on green chemistry and engineering NCGCE-2013 organized by the Department of Chemical Engineering VNIT Nagpur.
- ✓ Participated in CHEMCON-2013 poster presentation on “Saponite based adsorbents and their application in dye removal” organized by Institute of Chemical Technology, Mumbai.
- ✓ Participated in “Young Innovators Choice Competition” held at Institute of Chemical Technology, Mumbai, Jan-2011.
- ✓ Participated in National Science Day-2010 seminar competition organized by SantGadge Baba Amravati University, Amravati.
- ✓ Participated in University and inter University level N.S.S. camp activities as best volunteer March-2008.

Personal Details:

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|--------------------------|--|
| Father's Name | : Mr. Vijay Umale |
| Permanent address | : Pandhari P No 122, Sonal Nagar, Behind Nilam Theater, Jalna-431213, Maharashtra, India |
| Current address | : Flat No. 15, 3 rd floor, Siddhivinayak Empire, Jail Road, Kala Nagar, Nashik Road, Nashik, Maharashtra 422101 |
| Date of birth | : 4 th Jan 1989 |
| Marital status | : Married |
| Spouse name | : Rameshwar Wankhede |
| Languages Known | : English, Hindi & Marathi. |
| PAN Number | : <u>ACNPU4669E</u> |

Strength:

- ✓ Achievement oriented with excellent people management skills and an ability to manage change with ease.
- ✓ Strong communication, interpersonal, learning and organizing skills matched with the ability to manage stress, time and people effectively.

Declaration:

I hereby declare that the information mentioned above is correct to the best of my knowledge and I bear full responsibility of the authenticity of the particulars.

Date :

Place :

Sanjivani Umale

LinkedIn URL: <https://www.linkedin.com/in/sanjivani-umale-1b3a5754/>