

Madhvi Gangani

55, Gayatri So., Tarsadi, Kosamba (R.S),

Ta: Mangrol Dist:-Surat

madhvigangani808@gmail.com

+91-7359538365



CAREER OBJECTIVES

A hard-working, motivated individual with excellent communication skills. Very organised with strong attention to detailed and time management. Energetic, team player who takes pride in quality of work. Looking for an opportunity to begin a new career while contributing to the success of the business.

EXPERIENCE

Junior Project Fellow (GERMI)

1/1/2023-Present

Project Assistant (GERMI)

2020-2022

Project: "Zero CO2 emission mechanism for the development of biogas using bio-agri wastes" under Climate Change Department (CCD), Gujarat (Ongoing)

Responsibility:

- Coordinate with different company and Government body to setup biogas plant like Oil India Limited, Gujarat Municipal Corporation
- Developed the lab scale biogas plant using bio-agri waste and analysis the gas
- Operation of 25 m³ Plant
- Monitoring day to day operation of biogas plant
- Manage the Food waste utilise as raw material for biogas plant
- Operation of DG set to generate electricity from the biogas plant
- Analyse the carbonated water generated during biogas production
- Maintenance of whole setup
- Co-work into different projects, consultancy work

1. Project -1 -Geochemical mapping of ground water (GUJCOST)

(Ongoing)

Analysis of following parameters are established under the prescribed method from APHA, BIS, EPA & WHO.

- pH, Electrical Conductivity, Salinity, TDS and Turbidity analyzed by the help of Water analyzer 371 with its pre-required standard
- Calcium, Sodium, Potassium & Lithium analyzed by Flame photometer
- Chloride, Carbonate, Bicarbonate, Total Alkalinity, Total Hardness and magnesium by help of titrimetric method
- Cu, As, Se, Zn, Hg, Mn, Cr, Fe, Pb & Cd analyzed by Atomic Absorption Spectrophotometer.
- Total Solids analysed by Gravimetric Method

2. Project -2-Geological CO2 sequestration in basalt formation of north western India (CCD, GoG)

(Completed)

- Soaking soil sample and sieving for remove contamination and store for gas chromatography after drying process
- Gas chromatographic analysis: -**
- Light hydrocarbon gases determined (C1, C2, C3, iC4, nC4, iC5, and nC5)

- Soaking, sieving of soil sample
- Powdering of dried sample
- Degasification of Soil sample treated with orthophosphoric acid, removal of CO₂ using KOH
- Collection of desorbed gases through water displacement method in graduated tube fitted with rubber septa
- Calibration of apparatus with standard.
- Injection of desorbed gas in the Agilent Technologies 7890 B Gas Chromatography (GC) equipped with flame ionization detector (FID)

3. Consultancy -1- Crude oil analysis

(Ongoing)

Analysis of **crude oil parameters** by following the ASTM, UOP standards

- Density ,specific gravity, API gravity by hydrometer
- Free water by distillation method
- Paraffin Wax Content of Petroleum Oils and Asphalts
- Sediment in Crude Oil by Membrane Filtration
- Pour point
- Flash point by Pensky-Martens Closed Cup Tester
- Saturates, Aromatics, Resin content by column chromatography
- Asphaltene content
- Oil and Grease content
- Sulphate reducing bacteria determined by microbial techniques of formation water

4. Consultancy -2- GSPL Water monitoring at different station

(Ongoing)

Analysis of **water parameters** are established under the prescribed method from APHA, BIS, EPA & WHO.

- pH, Electrical Conductivity, Salinity, TDS and Turbidity, Dissolved Oxygen analysed by the help of Water analyser 371 with its pre-required standard
- Calcium, Sodium, Potassium & Lithium analysed by Flame photometer
- Chloride, Carbonate, Bicarbonate, Total Alkalinity, Total Hardness and magnesium by help of titrimetric method
- Sulphate, Phosphate ,Fluoride, Nitrate analysed by using UV-VIS spectrophotometer
- Most portable number index analysed using microbial techniques
- Presence and absence of *E. coli* determined using selective media

5. Consultancy -3 – Natural gas analysis

- Compositional analysis like Methane, Ethane, Propane, i-Butane, n-Butane, i-pentane, n-pentane, Hexane+, Carbon dioxide, Nitrogen
- Specific Gravity, Gross Calorific Value ,Net Calorific Value

SKILLS

- **General skills**

Team work, Problem solving, Time management, Leadership

- **Lab skills**

Microbial techniques,

Molecular biology techniques,:

Water analysis,

Crude oil analysis,

Preparing report of analysis

Maintains records, manuals related to instrument

Prepare standard operating procedure

Algae lab maintain

- **Computer skills**

Course on Computer Concepts (CCC)

ACHIEVEMENTS

- Two propane oxidizing bacterial sequences data for 16SrDNA have been submitted to the GenBank database under accession numbers MK789181 and MK784892.
- Three biogas producing bacterial sequences data for 16SrDNA have been submitted to the GenBank database under accession numbers OQ300433, OQ300434, OQ300435.

SEMINAR/WORKSHOP/CONFERENCE/AWARDS:

1. Successfully completed four days training program on “**Laboratory Management System as per ISO/IEC 17025:2017& internal Audit**” organised by GERMI & CFWT.
2. Won the 3rd position in the research poster Presented in the National Conference on “Emerging Paradigm in agricultural microbiology” organised by department of microbiology , Atmiya University, Rajkot ,Gujarat.
3. Attended Webinar on “**Nanobiosensors: the future for diagnosis of disease**” organised by leantouprgrade recognised by DBT & NSDC.
4. Hands on training on “**Basic molecular biology Techniques**” As a Part of KAUSHALYA jointly organised by Gujarat Biotechnology Research Centre and Sankalchand Patel University.
5. Attended Webinar on “Mapping of soil microbial biodiversity for agriculture planning as well as climate change mitigation” on the occasion of World Earth Day.
6. MSA Bio energy Pvt. Ltd training for operation and maintenance of 25 m³/day capacity biogas plant at GERMI, Gandhinagar.
7. Ecotech instruments training on operation of respirable dust sampler Ecotech Model AAS 217BL,PM 2.5 sampler AAS 127 Mini and stack monitoring Kit ESS 100 for sample collection
8. Attended webinar on innovative approaches in writing good scientific papers organised by Ganpat University.
9. Participated in international webinar series on plant tissue culture: current trends and future perspectives organised by department of biotechnology, GSFC University, Gujarat, India.
10. Presented the research paper in the National conference on recent trends in pure and applied sciences (RTPAS-2019) jointly organized with international journal of research and analytical reviews (IJRAR).
11. Attended the 2nd international astrobiology conference on life in the universe organized by Indian astrobiology research Centre.
12. Participated in seminar presentation event organized by GSBTM.
13. Attended in 2 days workshop on “**techniques in molecular biology**” sponsored by Hi-media organized by BMCST, Surat complete training in advanced techniques in molecular biology.
14. Participated in one day seminar on “environmental protection for sustainable development”.

EDUCATION

Secondary education <i>Central Board of Secondary Education (CBSE)</i>	2012
Higher secondary education <i>Central Board of Secondary Education (CBSE)</i>	2014
Bachelor of Science (Biotechnology) <i>Veer Narmad South Gujarat University (VNSGU), Surat</i>	2017
Master of Science in (Biotechnology) <i>Veer Narmad South Gujarat University (VNSGU), Surat</i>	2019

DECLARATION:

I hereby declare that all the above-mentioned information is correct and factual to the best of my knowledge and belief.

Yours faithfully

Madhvi Gangani