



Academic Profile

PhD in Microbiology (2012-2016) from Department of Microbiology and Biotechnology, Gujarat University, Ahmedabad, Gujarat, India

Thesis Entitled: "Optimization and potential use of algal biomass cultivated on dairy waste"

Master of Science in Biotechnology (2009-2011) from Gujarat University, Ahmedabad, Gujarat, India

Bachelor of Science in Biotechnology (2006-2009) from NVPAS, Sardar Patel Uni., Anand, Gujarat, India

Skills Summary

- Skilled in handling various important records and spreadsheets for documentation
- Excellent written and verbal communicational skills
- Competent in handling the poster content, fact sheets, edited articles, etc.
- Capable of writing and editing the articles and contents for journals and magazines
- Complete knowledge regarding the physical sciences
- Good organizational and time management skills
- Ability to work under pressure to deadlines

Job Experience

Project Manager

Personal SCORE (OpenDG's StartUp Project)

May 2017 - Present

OpenDG, Hyderabad

- Prepared the content for website, social media, email communications, power point presentations etc. and taken active role in documents preparation
- Planned approaches and pitches. Worked with team for proposal development that speaks to the client's needs, concerns, and objectives
- Worked with technical staff and other internal colleagues to meet customer needs. Arranged and participated in internal and external client debriefs
- Attended industry functions, such as association events and conferences, and provide them with feedback and information on market and creative trends
- Wrote several reviews and discussion on Quora Forum, LinkedIn, etc. Assisted several doctors, surgeons, general physicians, scientists, professors and engineers to build their strong online reputation profile
- Handled the reviews and articles of scientific community and their important web contents. Looked after the abstracts, journal articles, reviewed the articles for conferences and summarized the content for building online profile

Research Fellow
Birla Institute of Technology and Science (BITS Pilani)

Sept 2016 - April 2017
Shameerpet, Hyderabad

- Optimization of nitrogenous wastewater treatment technology using green algae
- Standardization of instrumental methods such as Soxhlet method, HPLC and GC based protocols, FTIR method, Spectrophotometric methods for biochemical estimations
- Designed research experiments with statistical methods such as PB and RSM using Design Expert Softwares
- Scale up of the optimized method for wastewater treatment and biochemical estimation from laboratory scale (Photobioreactor) to large scale (Pond cultivation method)
- Prepared and reviewed several abstracts, journal articles, review papers, poster and oral presentations for various national and international conferences
- Prepared and submitted write-ups, half-yearly project reports, research proposals and manuscripts to government and private research funding agencies
- Assisted senior scientists and project experts in revising and editing the major research work
- Supervised important meetings, presentations, and conferences and systematically wrote reports on them

Intern Medical Transcriber
MModal

June 2015 - Jan 2016
Dilsukhnagar, Hyderabad

- Performed tasks of interpreting and transcribing dictation by physicians and other healthcare professionals on therapeutic, clinical course, and diagnosis
- Documented patient care and facilitate delivery of quality healthcare services
- Handled the tasks of maintaining references for medical terminology and procedures
- Edited, revised, and clarified inaccuracies without altering the actual meaning of the medical dictation
- Identified, interpreted, and evaluated discrepancies and inconsistencies in medical dictation
- Assisted the medical transcriptionist in data collection and compilation, proofread the medical reports and distributed the same to authorized department for inclusion in the patients' case files

Ph.D. Research Fellow
Gujarat University

Dec 2012 – March 2017
Ahmedabad, Gujarat

- Project management –
Structured project: phases, sub-projects and work responsibilities; setting milestones and defining deliverables
Planned, tracked and controlled my doctoral project.
Perform various research experiments effectively, collecting and analyzing results statistically.
Identified project risks and develop measures and alternative for their assessment and management.
Characterize project funding agencies and produce half-yearly report to inform them adequately.
- Time management –
Assessed all research protocols and estimated timeline for them. Audited performed work weekly.
Identified priorities and plotted the way to them.
- Human resource management –
Provided Ph.D. Supervisor with timely submissions and desired quality. Met all the work expectations of supervisor and published research article under their guidance.
Worked productively in team and assisted junior as well as senior scientists in revising and editing their major research work along with publication.
Organize national conference and seminar.

- Risk & Stress management –
Manage the stress of writing PhD thesis along with the stress of daily life.
Work efficiently against various stressors related to financial issues, employment, family responsibility, and daily hassles.
- Vendor management –
Scrutinized best vendors supplying chemicals, glassware, and instruments from hundred of different vendors. Worked with vendors, all with different contract terms, pay rates, and points of contact that must be managed accordingly.
Researched and sourced vendors, obtained quotes with pricing, capabilities, turnaround times, and quality of work, negotiated contracts, managed relationships, assigned jobs, evaluated performance, and ensured fulfilled payments.

Research Work

Research Workshop, July 2013: Algal Biofuels and Biomolecules centre, MDSU, Ajmer, India Algal Cultivation and Biofuel Production

PhD Research: Dec 2012 to June 2016 – Gujarat University, Ahmedabad, Gujarat
Optimization and potential use of algal biomass cultivated on dairy waste

Project Fellow: Aug 2011 to Nov 2012 – Department of Biotechnology, Gujarat University
British Petroleum sponsored project; Effect of PGPR on the growth of biofuel crops (*Jatropha curcus*)

M.Sc. Summer training, 2011: Algal culturing techniques, Biochemical analytical methods, Purification and preservation techniques for algae, Instrumentation at NCCUBGA, IARI Pusa, New Delhi, India.

M.Sc. Dissertation Project: Nov 2010 to Apr 2011 – Gujarat University, Ahmedabad, Gujarat Isolation and characterization of Microbial strains capable of azo dye Decolourization

Certificate Course 2009: Genomic isolation and Molecular biology techniques at Zydus Research Centre, Ahmedabad, Gujarat.

B.Sc. Summer Training, 2008: Plant Training for the manufacturing and packaging unit of glucose, starch and its products at Anil Products Limited, Ahmedabad, Gujarat.

Academic Honours

Qualified GATE 2012 in Biotechnology.

Awards in various College and University level Competitions

Journal Publications

Khemka, A. and Saraf, M. (2017) Strategic enhancement of *Desertifilum tharense* MSAK01 on dairy waste water: An integrated approach for remediation and biomass production. Applied Water Science [DOI 10.1007/s13201-017-0525-5]

Khemka, A. and Saraf, M. (2016) Bioremediation and biomass production through mixotrophic cultivation of novel cyanobacteria, *Desertifilum tharense* MSAK01: A statistical study. Research Journal of Biotechnology 11(10):76-85.

Khemka, A. and Saraf, M. (2015) Phycoremediation of dairy wastewater coupled with biomass production using *Leptolyngbya* sp. Journal of Environment Science and Water Resource 4(4).

Khemka, A. and Saraf, M. (2015) Emerging role of co-inoculation of *Pseudomonas* with cyanobacteria for increasing crop productivity. Journal of Indian botanical society 94(1-2): 111-117.



Conferences (Oral and Poster presentation)

Khemka, A. and Saraf, M. (2016), Enhancement of biomass and improvement in lipid production of *Chlorococcum* sp. through statistical optimization and nutrient limitation under heterotrophic conditions in Guwahati City. AMI 2016 “Microbes and Biosphere: What’s New, What’s Next”, Guwahati University, Assam, India 24 - 27 Nov, 2016.

Khemka, A. and Saraf, M. (2016), Phycoremediation of dairy wastewater: A synergistic approach using *Leptolyngbya* sp. for remediation and biomass production in Ahmedabad city. National conference on Microbial Biotechnology; Clustering Research and Industrial Demand, Gujarat University, Ahmedabad, Gujarat, India 20 - 21 Feb, 2016.

Khemka, A. and Saraf, M. (2015), Induction of lipid production in *Desertifilum tharense* MSAK01 and *Leptolyngbya* sp. under nitrogen and/or phosphorus limitation conditions in Lucknow city. ICPEP-5, National Botanical Research Institute, Lucknow, Uttar Pradesh, India 24 -27 Feb, 2015.

Saraf, M. and Khemka, A. (2014) The emerging role of co-inoculation of *Pseudomonas* with cyanobacteria for increasing crop productivity in Mumbai. 37 All India Botanical Conference, Kelkar Education Trust's V G Vaze College, Mulund (East), Mumbai, India 7 - 9 Nov, 2014.

Khemka, A. and Saraf, M. (2014), Optimization of physiochemical parameters for enhancing biomass production of *Desertifilum tharense* MSAK01 on Dairy Waste Water in Coimbatore. AMI-55 Annual conference, Tamil Nadu Agricultural University, Coimbatore, Tamil Nadu, India 12 -14 Nov, 2014

Khemka, A. and Saraf, M. (2014), Biomass production potential of different algal isolates grown on dairy raw waste water in New Delhi. Interational Algal Summit – ‘Algae for sustainable development’, TERI, New Delhi, India 21 -22 Feb, 2012.

Book Chapters & Articles

Khemka, A., Patel, S. and Saraf, M. (2016), Sustainable Cultivation of Microalgae on Waste Water. In: Applied Microbiology: Microbes in Action. Ed. Garg N. Nova Science Publishers, Inc. New York, US, ISBN-978-1-63484-520-5.

Khemka, A. (2016), Phycoremediation to biofuel: Turning “Waste” to “Wealth”. National conference on Microbial Biotechnology; Clustering Research and Industrial Demand, February 20-21, 2016. Gujarat University, Ahmedabad.