

## EXECUTIVE PROFILE

Chemical engineering professional with leadership experience in R&D, Techno-commercial, Manufacturing and Business roles, with proven track record of evaluating, conceptualizing, innovating, developing, scaling-up, delivering process & business solutions, and business growth. Subject matter expertise in climate change mitigation solutions, biofuels, biochemical engineering, bioprocess engineering, wastewater treatment, design & scale-up of unit operations and processes from concept to commercial scale, in bioprocess applications.



## EDUCATIONAL QUALIFICATIONS

- MS, PhD in Chemical Engineering from Colorado State University, USA, 2005
- BTech in Chemical Engineering from Dr. B. A. Technological University, Lonere, India, 2000

## KEY PROJECTS/ EXTERNAL REPRESENTATIONS

- Conceptualized, developed and designed (process design) the first-of-its-kind (patent-applied) algae-based wastewater treatment solution to mitigate all aqueous effluent streams at site. Saved millions of pounds in CAPEX-OPEX and carbon emissions for the manufacturing site.
- Conceptualized & designed (2012-13), commissioned (2016), demonstrated (2017) and operated (2017-Aug'2018) the world's first integrated, end-to-end, large demonstration plant for biocrude production using marine microalgae produced from CO<sub>2</sub>
- Successfully secured funding as a co-Principal Investigator from RIL in the United States Department of Energy (US DOE) sponsored PACE (Producing Algae for Chemicals & Energy) project in 2015.
- Participated as a co-Principal Investigator from RIL in the US DOE sponsored NAABB (National Alliance for Algae Biofuels & Bio-products) from 2011-2014.
- In 2009, PRAJ contributed heavily towards the preparations of the Indian Prime Minister's Convoy to Copenhagen Summit. Was a key member of the team that conducted, compiled & presented life cycle analyses studies on a few renewable energy options, to the PM's Convoy.
- In 2005, conceptualized, networked, compiled and successfully bid for a proposal for a *Joint Indo-US Centre of Excellence for Bioremediation* at Agharkar Research Institute (ARI). This project was funded by the Indo US Science & Technology Forum (IUSSTF).

## PATENTS

- Ninad Gujarathi + 5 team members at Johnson Matthey Taloja. *Algae-assisted effluent treatment process for wastewater from precious metal refining processes*. (CBR Number: 31306; CBR date: 24-08-2021; filed with Patent Office, Government of India).
- Avinash Sinha, M. Sairam, Ninad Gujarathi, Ashwin Gajra. *A method for separating solid particles from a water body*. Pub. No.: WO/2016/088057 International Application No.: PCT/IB2015/0592895
- Linden and Gujarathi. *Aquatic plant exudates and hairy root cultures for phytoremediation of antibiotics in water and wastewater*. (Provisional US patent applied on 16th March 2005; Attorney Docket No. 100-4P)