Dr. Sanket J. Joshi, PhD Microbiology
Deputy Director, Oil & Gas Research Center, and
Laboratory Applications Specialist, Oil and Gas Sciences, Central Analytical and Applied Research Unit (ISO 9001:2015),
College of Science, Sultan Qaboos University, Sultanate of Oman
Office : +968-24146806/24142456 FAX : +968-24146810
E-mail: sanketjj@gmail.com; sanket@squ.edu.om

Associate Editor for Microbiotechnology: Frontiers in Microbiology
Associate Editor for Microbial Ecotoxicology: Ecotoxicology (Springer)
Advisory Board Member (2020 - 2021) : 3 Biotech (Springer)
Editorial Board Member: Petroleum Science and Technology (T& F Group, UK)
Academic Editor: PeerJ - Life and Environment
University Profile | *MEOR* | *Google Scholar Profile* | *LinkedIn*

ORCID

EDUCATION:

2004 – 2008	Ph.D. Microbiology, Maharaja Sayajirao University of Baroda, India Dissertation Title: "*Isolation and Characterization of Biosurfactant Producing Microorganisms and Their Possible Role in Microbial Enhanced Oil Recovery (MEOR)"*.
1999 – 2001	MSc Microbiology (66% - First Class), Department of Biosciences**,** Sardar Patel University, Gujarat, India.
1996 – 1999	BSc Microbiology (71% - First Class with distinction, Gold Medal), V.P. and R.P.T.P. Science College, Sardar Patel University, Gujarat, India.

EMPLOYMENT RECORD:

Since October 2018	Deputy Director, Oil & Gas Research Center, Sultan Qaboos University, Oman.
Since April 2013	Laboratory Applications Specialist, Oil and Gas Sciences, Central Analytical and Applied Research Unit (ISO 9001:2015); and PI/Co-PI/Co-investigator-Team member, MEOR Research Group, Sultan Qaboos University, Oman.
September 2009 – April 2013	Postdoctoral Researcher, Microbial Enhanced Oil Recovery (MEOR) research Group, Sultan Qaboos University, Oman.
July 2007 – September 2009	Adhoc Lecturer and Lecturer, Department of Microbiology, NVPAS, Sardar Patel University, India. **Courses taught**: MI – 306 Food and Industrial Microbiology

	MI-307, MI-308 and MI-309 Microbiology Practical.
July 2007 – September 2009	Guest Lecturer, MSc Environmental Science & Technology, Institute for Science & Technology for Advanced Research, (Sardar Patel University, India); Member in 'the Board of Paper setters', and was also appointed as an examiner by the University.
	Courses Taught: Fermentation Technology and Biomethanation and Biogas Production Technology
December 2006 – May 2007	Executive, Micro Lab; Sterling Biotech Ltd., India
September 2004 – December 2008	Ph.D., Maharaja Sayajirao University of Baroda, India.
May 2001 – September 2004	Jr. Scientific Officer, Microbiological R & D Department, Alembic Ltd., India.

RESEARCH INTERESTS:

- **Energy and Environment**:
  - **Petroleum and Environmental Biotechnology**: Microbial enhanced light/heavy oil recovery - *in-situ/ex-situ* MEOR (Biosurfactants, Biopolymers, Biomass, Microbial Permeability Profile Modification); Chemical Enhanced Oil Recovery (nanoparticles, surfactants, polymers, Alkaline:Surfactant:Polymer - ASP); extremophiles for oil pollution bioremediation; Identification (Microbial and Molecular Biology methods), mitigation and control of souring by Sulfate Reducing Bacteria (SRB) and role in H_2S production.
  - **Environmental Bioremediation**: Partially Hydrolyzed Polyacrylamide (HPAM) contaminated oil field produced water, crude oil/PAH, PCBs, industrial sewage/waste water and other hazardous chemicals.
  - **Waste to Energy**: Plastic and tire pyrolysis to oil, Organics to biogas, Microbial Fuel Cell
  - **Biofuels** (Biodiesel and Bioethanol) from waste raw materials
  - **Green Nanoparticles:** Synthesis using plant and microbial byproducts and its applications
- **Industrial Fermentation**:
  - Biosurfactants (lipopeptides – Surfactins, Lichenysins, and Glycolipids – Rhamnolipids and Sophorolipids) and Biopolymers (Schizophyllan and Pullulan)
  - Research and Development for novel microbial (bacterial, actinomycetes, fungal and algal) byproducts/bioactive compounds, and scale-up to industrial level
  - Application of Statistical tools for media, and other parametric process optimization

PUBLICATIONS: Total publications 120 (58 Journal papers; 11 Book chapters; 01 Book; 50 Conference papers); 2109 citations, *h-index* = 24, and *i10-index* = 35 (Google Scholar). I was ranked 34th in SQU among top 500 authors (based on number of citations between 2009-2018, as per SciVal-SCOPUS/Elsevier)

Journal Publications (58):

1. **Joshi S. J.***, S. J. Geetha, Al-Mamari S, Al-Azkawi A. (2018) **Green Synthesis of Silver Nanoparticles Using Pomegranate Peel Extracts and Its Application in Photocatalytic Degradation of Methylene Blue.** Jundishapur Journal of Natural Pharmaceutical Products, 13 (3):e67846. doi: 10.5812/jjnpp.67846.
2. M. Al Mujaini, **S. J. Joshi**, N. Sivakumar, S. N. Al-Bahry (2018) **Potential Application of Crude Oil Degrading Bacteria in Oil Spill and Waste Management**. SPE-190564-MS. https://doi.org/10.2118/190564-MS.
3. Al-Moqbali, W., **Joshi, S. J.**, Al-Bahry, S. N., Al-Wahaibi, Y. M., Elshafie, A. E., Al-Bemani, A. S., Al-Hashmi, A., Soundra Pandian, S. B. (2018) **Biodegradation of Partially Hydrolyzed Polyacrylamide HPAM Using Bacteria Isolated from Omani Oil Fields**. SPE-190477-MS. https://doi.org/10.2118/190477-MS.
4. Al-Ghailani, T., Al-Wahaibi, Y. M., **Joshi, S. J.**, Al-Bahry, S. N., Elshafie, A. E., & Al-Bemani, A. S. (2018) **Alkaline-Biosurfactant-Biopolymer Process and its Potential for Enhancing Oil Recovery in Omani Oil Field**. SPE-190380-MS. https://doi.org/10.2118/190380-MS.
5. B. Shibulal, S. Al-Bahry, Y. Al-Wahaibi, A. E. Elshafie, A. Al-Bemani and **S. J. Joshi**, (2018) **Analysis of bacterial diversity in different heavy oil wells of a reservoir in South Oman with alkaline pH**. *Scientifica, Article ID 9230143, 10 pages.* https://doi.org/10.1155/2018/9230143.
6. Geetha, S. J., I. M. Banat, and **S. J. Joshi***, (2018) **Biosurfactants: Production and Potential applications in Microbial Enhanced Oil Recovery (MEOR)**, *Biocatalysis and Agricultural Biotechnology*, December 14, 23-32. https://doi.org/10.1016/j.bcab.2018.01.010. (**One of the Most Cited Articles in the Journal Biocatalysis and Agricultural Biotechnology**).
7. B. Shibulal, S. Al-Bahry, Y. Al-Wahaibi, A. E. Elshafie, A. Al-Bemani and **S. J. Joshi** (2018) **Microbial Enhanced Heavy Oil Recovery by *Bacillus firmus* BG4 and *Bacillus halodurans* BG5 isolated from heavy oil fields**. *Colloids and Interfaces*, 2(1), 1, http://dx.doi.org/10.3390/colloids2010001.
8. A. Al-Sayegh, Y. Al-Wahaibi, **S. Joshi**, S. Al-Bahry, A. Elshafie, A. Al-Bemani (2017) **Draft Genome Sequence of *Bacillus subtilis* AS2, a Heavy Crude Oil Degrading and Biosurfactant**

Producing Bacteria Isolated from Soil Sample. *Genome Announcements*. https://doi.org/10.1128/genomeA.00969-17.

9. S. Rudyk, P. Spirov, P. Samuel, **S. J. Joshi**, (2017) **Vaporization of Crude Oil by Supercritical SC-CO_2 at Different Temperatures and Pressures: Example from Gorm Field in the Danish North Sea.** *Energy and Fuels, 31* (6), 6274–6283. https://doi.org/10.1021/acs.energyfuels.7b00313.
10. **S. J. Joshi**, R. M. M. Abed, (2017) **Biodegradation of Polyacrylamide and its Derivatives**. *Environmental Processes*, 4(2), 463-476. https://doi.org/10.1007/s40710-017-0224-0.
11. Al-Wahaibi, Y., Al-Hashmi, A.A., **Joshi, S.**, Mosavat, N., Rudyk, S., Al-Khamisi, S., Al-Kharusi, Al-Sulaimani, H. (2017). **Mechanistic Study of Surfactant/Polymer Adsorption and Its Effect on Surface Morphology and Wettability**. SPE-185327-MS. https://doi.org/10.2118/185327-MS.
12. Elshafie, A., **Joshi, S. J.**, Al-Wahaibi, Y. M., Al-Bahry, S. N., Al-Bemani, A. S., Al-Hashmi, A., & Al-Mandhari, M. S. (2017). **Isolation and Characterization of Biopolymer Producing Omani *Aureobasidium pullulans* Strains and Its Potential Applications in Microbial Enhanced Oil Recovery**. SPE-185326-MS. https://doi.org/10.2118/185326-MS.
13. A. Al-Sayegh, Y. Al-Wahaibi, S. Al-Bahry, A. Elshafie, A. Al-Bemani, **S. Joshi**, (2017) **Enhanced oil recovery using biotransformation technique on heavy crude oil**. International Journal of GEOMATE, 13 (36):75 – 79. http://dx.doi.org/10.21660/2017.36.2842.
14. B. Shibulal, S. N Al-Bahry, Y. Al-Wahaibi, A. Elshafie, A. Al-Bemani and **S. J. Joshi**, (2017) **The Potential of Indigenous *Paenibacillus ehimensis* BS1 in Recovering Heavy Crude Oil by Biotransformation to Light Fractions.** *PLoS One, 12(2): e0171432.* http://dx.doi.org/10.1371/journal.pone.0171432.
15. A. Al-Sayegh, Y. Al-Wahaibi, S. Al-Bahry, A. Elshafie, A. Al-Bemani, **S. Joshi**, (2016) **Enhanced oil recovery using biotransformation technique on heavy crude oil**. Second International Conference on Science, Engineering & Environment, Osaka City, Japan, pp: 562-566, ISBN: 978-4-9905958-7-6 C3051.
16. **S.J. Joshi,** Y.M. Al-Wahaibi, S.N. Al-Bahry, A.E. Elshafie, A.S. Al-Bemani, A. Al-Bahri, M. Al-Mandhari**,** (2016) **Production, Partial Characterization and Application of *Bacillus licheniformis* W16 Biosurfactant in Enhancing Oil Recovery**, *Frontiers in Microbiology,7: 1853.* http://dx.doi.org/10.3389/fmicb.2016.01853.
17. **S. J. Joshi**, (2016) **Editorial: Microbial Biotechnology and Environmental Bioremediation: Challenges and Prospects**. *The Open Biotechnology Journal*, 10, 287-288. https://doi.org/10.2174/1874070701610010287.
18. A. Al-Sayegh, Y. Al-Wahaibi, **S. Joshi**, S. Al-Bahry, A. Elshafie, A. Al-Bemani, (2016), **Bioremediation of Heavy Crude Oil contamination**. *The Open Biotechnology Journal*, 10, 301-

311. http://dx.doi.org/10.2174/1874070701610010301.

19. H. Al-Battashi**, S. J. Joshi,** B. Pracejus, A. Al-Ansari, (2016) **The Geomicrobiology of Chromium (VI) Pollution: Microbial Diversity and its Bioremediation Potential.** *The Open Biotechnology Journal*, 10, 379-389. http://dx.doi.org/10.2174/1874070701610010379.
20. S. S. Jha, **S. J. Joshi**, Geetha S. J.**,** (2016) **Lipopeptide production by *Bacillus subtilis* R1 and its possible applications.** *Brazilian Journal of Microbiology*, 47, 955-964. http://dx.doi.org/10.1016/j.bjm.2016.07.006**. (One of the most cited Brazilian Journal of Microbiology articles published since 2016, extracted from Scopus).**
21. **Joshi, S.J.**, Al-Wahaibi, Y.M., Al-Bahry, S., Elshafie, A., Al-Bemani, A.S., Al-Hashmi, A., Samuel, P., Sassi, M., Al-Farsi, H. and Al-Mandhari, M.S., 2016, March. **Production and Application of Schizophyllan in Microbial Enhanced Heavy Oil Recovery**. SPE-179775-MS. http://dx.doi.org/10.2118/179775-MS.
22. S. N. Al-Bahry, Y. M. Al-Wahaibi, B. Al-Hinai, **S. J. Joshi**, A. E. Elshafie, A. S. Al-Bemani, J. Al-Sabahi, (2016) **Potential in heavy oil biodegradation via enrichment of spore forming bacterial consortia**. *Journal of Petroleum Exploration and Production Technology*, 1-13. doi:10.1007/s13202-016-0228-8.
23. Al-Wahaibi Y., Al-Hadrami H., Al-Bahry S., Elshafie A., Al-Bemani A., **Joshi S.** (2016) **Injection of biosurfactant and chemical surfactant following hot water injection to enhance heavy oil recovery.** *Petroleum Science*, 13(1), 100-109. doi:10.1007/s12182-015-0067-0.
24. Al-Wahaibi, Y. M., Shibulal, B. S., Al-Bahry, S. N., Elshafie, A. E., **Joshi, S. J.**, Al-Bemani, A. S. (2016) **Bioremediation Potential of *Bacillus licheniformis* in Heavy Crude Oil Polluted Soil**. International Journal of Advances in Chemical Engineering, & Biological Sciences (IJACEBS) Vol. 3, Issue 1 (2016), 44-45, ISSN 2349-1507; EISSN 2349-1515. http://dx.doi.org/10.15242/IJACEBS.AE0316204.
25. Al-Bahry, S. N., Al-Hashmi, A., **Joshi, S. J.,** Al-Wahaibi, Y. M., Elshafie, A. E., Al-Bemani, A. S. (2016) **Potential of Coastal Water Bacteria for Oil Spill Bioremediation**. International Journal of Advances in Agricultural & Environmental Engineering. (IJAAEE) Vol. 3, Issue 1 (2016), 154-156, ISSN 2349-1523; EISSN 2349-1531. http://dx.doi.org/10.15242/IJAAEE.AE0316205.
26. A.E. Elshafie, **S.J. Joshi**, Y.M. Al-Wahaibi, A.S. Al-Bemani, S.N. Al-Bahry, D. Al-Maqbali, I. Banat, (2015) **Sophorolipids Production by *Candida bombicola* ATCC 22214 and its Possible Application in Microbial Enhanced Oil Recovery.** *Frontiers in Microbiology*, 6:1324. http://dx.doi.org/10.3389/fmicb.2015.01324.
27. A. Al-Sayegh, Y. Al-Wahaibi, S. Al-Bahry, A. Elshafie, A. Al-Bemani**, S. Joshi,** (2015) **Microbial Enhanced Heavy Crude Oil Recovery through Biodegradation**

using Bacterial Isolates from an Omani Oil Field. *Microbial Cell Factories,* 14, 141. http://dx.doi.org/10.1186/s12934-015-0330-5.

28. S.J. Joshi, Geetha S. J., and A. J. Desai**, (**2015**) Characterization and application of biosurfactant produced by *Bacillus licheniformis* R2**, *Applied Biochemistry and Biotechnology,* 177, 346-361. http://dx.doi.org/10.1007/s12010-015-1746-4.

29. A. Mohsenzadeh, Y. Al-Wahaibi, R. Al-Hajri, B. Jibril, **S. Joshi**, B. Pracejus, (2015) **Investigation of formation damage by deep eutectic Solvents as new EOR agents.** *Journal of Petroleum Science and Engineering*, 129, 130-136. https://doi.org/10.1016/j.petrol.2015.02.035.

30. M. Souayeh, Y. Al-Wahaibi, S. Al-Bahry, A. Elshafie, A. Al-Bemani, **S. Joshi**, A. Al-Hashmi, and M. Al-Mandhari (2014) **Optimization of a Low-Concentration Bacillus subtilis Strain Biosurfactant toward Microbial Enhanced Oil Recovery**. *Energy & Fuels*, 28 (9), 5606-5611. https://doi.org/10.1021/ef500954u.

31. Ingale, S., **Joshi, S.J.**, & Gupte, A. (2014) **Production of bioethanol using agricultural waste: banana pseudo stem**. *Brazilian Journal of Microbiology*, 45(3), 885-892. http://dx.doi.org/10.1590/S1517-83822014000300018.

32.M. Souayeh, Y. Al-wahaibi, S. Al-Bahry, A. Elshafie, A. Al-Bemani, **S. Joshi**, A. Al-Hashmi, and M. Al-Mandhari (2014) **Microbial Enhanced Oil Recovery at High Salinities using Biosurfactant at lower concentrations.** SPE- **169676**. http://dx.doi.org/10.2118/169676-MS.

33.Y.M. Al-Wahaibi, S.N. Al-Bahry, A.E. Elshafie, A.S. Al-Bemani, S.J. Joshi, A.K. Al-Bahri, (2014) **Screening of Minimal Salt Media for Biosurfactant Production by *Bacillus* spp**., *World Academy of Science, Engineering and Technology, International Journal of Environmental, Earth Science and Engineering,* Vol:8 No:2, 12-17.

34.S.N. Al-Bahry, Y.M. Al-Wahaibi, A.E. Elshafie, A.S. Al-Bemani, **S.J. Joshi**, (2014) **Isolation of Biosurfactant Producing Spore-Forming Bacteria from Oman: Potential Applications in Bioremediation**, *World Academy of Science, Engineering and Technology, International Journal of Environmental, Earth Science and Engineering*, Vol:8 No:2, 9-11.

35. B. Shibulal, S. Al-Bahry, Y. Al-Wahaibi, A. E. Elshafie, A. Al-Bemani, and **S. Joshi**, (2014) **Microbial enhanced heavy oil recovery by the aid of inhabitant spore-forming bacteria: an insight review**, *The Scientific World Journal,* Vol. 2014, Article ID 309159, 12 pages. http://dx.doi.org/10.1155/2014/309159.

36. S.J. Geetha and **S.J. Joshi**, (2013) **Engineering Rhizobial bioinoculants: A strategy to improve iron nutrition**, *The Scientific World Journal, Vol. 2013,* Article ID 315890, 15 pages. http://dx.doi.org/10.1155/2013/315890.

37. Y. Al-Wahaibi, **S. Joshi**, S. Al-Bahry, A. Elshafie, A. Al-Bemani, (2014) **Biosurfactant production**

by *Bacillus subtilis* B30 and its application in enhancing oil recovery, *Colloids and Surfaces B: Biointerfaces, 114: 324-333.* https://doi.org/10.1016/j.colsurfb.2013.09.022.

38. R. Al-Hattali, H. Al-Sulaimani, Y. Al-Wahaibi, S. Al-Bahry, A. Elshafie, A. Al-Bemani, and **S. J. Joshi**, (2013) **Fractured Carbonate Reservoirs Sweep Efficiency Improvement using Microbial Biomass,** *Journal of Petroleum Science and Engineering,*112: 178 – 184. https://doi.org/10.1016/j.petrol.2013.11.003.

39. S. Joshi* and A. Desai (2013) **Bench-scale production of biosurfactants and its potential in Ex-Situ MEOR application,** *Soil & Sediment Contamination International Journal*, 22(6): 701-715. https://doi.org/10.1080/15320383.2013.756450.

40. Y. Al-Wahaibi, H. Al-Hadrami, S. Al-Bahry, A. Elshafie, A. Al-Bemani, **S. Joshi** (2013) **Residual oil recovery via injection of biosurfactant and chemical surfactant following hot water injection in Middle East heavy oil field,** SPE 165525.

41. S. Joshi, G. Joshi (2013) □□□□□□□□□□ □□□□□□ □□□ □□□□□□□□□□□□□□: □□□□□□□ □□□□□□□□□ **(Petroleum Industry and Biotechnology – Current Status),** V-Vidyanagar**,** ISSN 0976 – 9809, 5: 33 – 35.

42. S. Joshi, H. Suthar, A. Yadav, K. Hingurao, A. Nerurkar. (2013) **Occurrence of biosurfactant producing Bacillus spp. in diverse habitats and possible uses in oil recovery,** *ISRN Biotechnology*, vol. 2013, Article ID 652340, 6 pages**.** https://dx.doi.org/10.5402%2F2013%2F652340.

43. S. Al-Bahry, A. Elshafie, Y. Al-Wahaibi, A. Al-Bemani, **S. J. Joshi**, R. A. Al-Maaini, W. Al-Alawi, Y. Sugai, M. Al-Mandhari (2013) **Microbial consortia in Oman oil fields: a possible use in enhanced oil recovery,** *Journal of Microbiology and Biotechnology*, 23(1): 106-117. http://dx.doi.org/10.4014/jmb.1204.04021.

44. S. Al-Bahry, A. Elshafie, Y. Al-Wahaibi, A. Al-Bemani, **S. J. Joshi**, R. A. Al-Maaini, W. Al-Alawi, M. Al-Mandhari (2013) **Bacterial diversity of Omani oil wells using culture dependent and independent techniques,** *APCBEE Procedia, Elsevier,* 5: 247 – 252. https://doi.org/10.1016/j.apcbee.2013.05.043.

45. S. Al-Bahry, A. Elshafie, Y. Al-Wahaibi, A. Al-Bemani, **S. J. Joshi**, A. Al-Lawati (2013) **Isolation and characterization of biosurfactant/biopolymer producing spore forming bacteria from oil contaminated sites and oil field of Oman,** *APCBEE Procedia, Elsevier,* 5: 242 - 246. https://doi.org/10.1016/j.apcbee.2013.05.042.

46. S. Joshi, S.J. Geetha, S. Yadav and A. Desai (2013) **Optimization of bench-scale production of biosurfactant by *Bacillus licheniformis* R2**, *APCBEE Procedia, Elsevier,* 5: 232 – 236. https://doi.org/10.1016/j.apcbee.2013.05.040.

47. Geetha S.J., **S. Joshi** and S. Kathrotiya (2013) **Isolation and characterization of hydrocarbon degrading bacterial isolate from oil contaminated sites**, *APCBEE Procedia, Elsevier,* 5: 237 – 241. https://doi.org/10.1016/j.apcbee.2013.05.041.

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49. S.N. Al-Bahry, Y. Al-Wahaibi, A. Elshafie, A. Al-Bemani**, S. Joshi,** H. Al-Makhmari and H. Al-Sulaimani, (2013) **Biosurfactant Production by *Bacillus subtilis* B20 using Date Molasses and its Application in Enhanced Oil Recovery**, *International Biodeterioration and Biodegradation,* 81: 141-146. https://doi.org/10.1016/j.ibiod.2012.01.006.

50. Al-Hattali, R, H. Al-Sulaimani, Y. Al-Wahaibi, S.N. Al-Bahry, A. Elshafie, A. Al-Bemani**,** and **S. Joshi** (2012) **Improving sweep efficiency in fractured carbonate reservoirs by microbial biomass**, SPE 154679. https://doi.org/10.2118/154679-MS.

51. Geetha R., M. Patel and **S. Joshi**, (2012) **Isolation and characterization of nodule associated *Exiguobacterium sp.* from the root nodules of *Fenugreek* and their possible role in plant growth promotion,** *International Journal of Microbiology, Volume 2012,* Article ID 693982, 8 pages. http://dx.doi.org/10.1155/2012/693982.

52. H. Al-Sulaimani, Y. Al-Wahaibi, S.N. Al-Bahry, A. Elshafie, A. Al-Bemani**, S. Joshi,** and S. Zaragari (2011) **Optimization and partial characterization of biosurfactant produced by Bacillus species and their potential for enhanced oil recovery.** SPEJ, 16 (3):672-682. https://doi.org/10.2118/129228-PA.

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compound by fermented food isolate *Bacillus subtilis* 20B. *Bioresource technology*, 99: 4603-4608. https://doi.org/10.1016/j.biortech.2007.07.030.

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Book Chapters (11):

59. Elangovan, S., Pandian, S.B.S., Geetha, S. J., **Joshi, S. J.*** (2020) **Biogas: An Effective and Common Energy Tool – Part I**. pp: 65-104, In: Srivastava N., Srivastava M., Mishra P., Gupta V. (Eds): Biofuel Production Technologies: Critical Analysis for Sustainability. Clean Energy Production Technologies. Springer, Singapore. https://doi.org/10.1007/978-981-13-8637-4_3.
60. Geetha S. J., Saif Al-Bahry, Yahya Al-Wahaibi, **Sanket J. Joshi***, (2020) **Recent update on biodiesel production using various substrates and practical execution**. Pp: 123-147. In: Neha Srivastava et al. (Eds): Substrate Analysis for Effective Biofuels Production, Clean Energy Production Technologies. Springer, Singapore. https://doi.org/10.1007/978-981-32-9607-7_5.
61. Pareek, A., Zafar, M., Khan, A.T., Khan, S.A., **Joshi, S. J.** (2019) Chapter 6: **Global Status of Biotechnology: Opportunities for GCC**. pp.: 111-148, In: Joshi, S.J., and Geetha, S.J. (Eds.) Recent Advances in Biotechnology, Nova Science Publishers, Inc. USA. **ISBN**: 978-1-53615-860-1.
62. **Joshi S. J.,** Al-Wahaibi Y., Al-Bahry S. (2019) **Biotransformation of Heavy Crude Oil and Biodegradation of Oil Pollution by Arid Zone Bacterial Strains.** In: Arora P. (Ed) Microbial Metabolism of Xenobiotic Compounds. Microorganisms for Sustainability, vol. 10. Springer, Singapore. https://doi.org/10.1007/978-981-13-7462-3_5.
63. Elangovan S., Pandian S.B.S., S. J. Geetha., **Joshi S. J.** (2019) **Polychlorinated Biphenyls (PCBs): Environmental Fate, Challenges and Bioremediation**. In: Arora P. (Ed) Microbial Metabolism of Xenobiotic Compounds. Microorganisms for Sustainability, vol. 10. Springer, Singapore. https://doi.org/10.1007/978-981-13-7462-3_8.
64. Ingale S., Parnandi V.A., **Joshi S. J.** (2019) **Bioethanol Production Using *Saccharomyces cerevisiae* Immobilized in Calcium Alginate–Magnetite Beads and Application of Response Surface Methodology to Optimize Bioethanol Yield**. Chapter 9, pp: 147-181, *In*: Srivastava et al., (Eds.) Sustainable Approaches for Biofuels Production Technologies. Biofuel and Biorefinery

Technologies, Vol. 7. Springer, Cham, https://doi.org/10.1007/978-3-319-94797-6_9.

65. B.S. Al-Hinai, S.N. Al-Bahry, A, E. Elshafie, Y.M. Al-Wahaibi, A.S. Al-Bemani and **S. J. Joshi**, (2014) **Potential of Microbial Biotechnology in Heavy Oil Enhanced Recovery**, Chapter 46, pp: 495-506, Biotechnology and Conservation of Species from Arid Regions (Volume 2), (Eds.: Farooq et al.), Nova science publishers Inc., USA, **ISBN:** 978-1-63117-869-6.

66. Y.M. Al-Wahaibi, S.N. Al-Bahry, A.E. Elshafie, A.S. Al- Bemani and **S. J. Joshi**, (2014) **Biosurfactant Mediated Microbial Enhanced Oil Recovery and Potential for Application in some Omani Oil Fields**, Chapter 44, pp: 471-488, Biotechnology and Conservation of Species from Arid Regions (Volume 2), (Eds.: Farooq et al.), Nova science publishers Inc., USA, **ISBN:** 978-1-63117-869-6.

67. R. Al-Maini, S.N. Al-Bahry, A.E. Elshafie, Y.M. Al-Wahaibi, A.S. Al-Bemani and **S. J. Joshi**, (2014) **Indigenous Bacterial Consortia from Oil Wells and Their role in In-Situ Microbial Enhance Oil Recovery**, Chapter 43, pp: 455-470, Biotechnology and Conservation of Species from Arid Regions (Volume 2), (Eds.: Farooq et al.), Nova science publishers Inc., USA, **ISBN:** 978-1-63117-869-6.

68. A. Al-Bahri, S. Al-Bahry, A.E. Elshafie, Y.M. Al-Wahaibi, A.S. Al-Bemani and **S. J. Joshi**, (2014) **Application of Molecular Biology Methods in Identifying Biosurfactant Producers from Oil Contaminated Sites**, Chapter 49, pp: 527-540, Biotechnology and Conservation of Species from Arid Regions (Volume 2), (Eds.: Farooq et al.), Nova science publishers Inc., USA, **ISBN:** 978-1-63117-869-6.

69. **S. J. Joshi** and A.J. Desai (2010) Chapter 17: ***Biosurfactants: Role in bioremediation of NAPL & fermentative production***. *Pp: 222-235*. In: Biosurfactants, (Ed. Ramkrishna Sen), Springer and Landes Bioscience publications, USA. https://doi.org/10.1007/978-1-4419-5979-9_17.

****Corresponding Author***

Books (1 Published; Four yet to be publish in 2021):

70. **Sanket J. Joshi,** and Geetha S. J., (**Eds.**), Recent Advances in Biotechnology. Nova Science Publishers Inc., USA, August 2019. **ISBN**: 978-1-53615-860-1.

71. Hemen Sarma, **Sanket Joshi**, Ram Prasad**,** Josef Jampilek (**Eds.**), **Biobased Nanotechnology for Green Application,** Book contract signed with Springer-Nature, Singapore, to be published in 2021.

72. **Sanket Joshi**, Ramkrishna Sen, Atul Sharma, Abdul Salam, (**Eds**.), **Status and Future Challenges for Non-Conventional Energy Sources Volume 1,** Book contract signed with Springer-nature, Singapore, to be published in 2021.

73. **Sanket Joshi**, Ramkrishna Sen, Atul Sharma, Abdul Salam, (**Eds.**), **Status and Future Challenges**

for Non-Conventional Energy Sources Volume 2, Book contract signed with Springer-nature, Singapore, to be published in 2021.

74. **Sanket Joshi**, Arvind Deshmukh, Hemen Sarma, (**Eds**.), **Biotechnology for Sustainable Environment: Opportunity and Challenges,** Book contract signed with Springer-nature, Singapore, to be published in 2021.

Research under Progress:

75. Al-Wahaibi, Y., Al-Bahry, S., Al-Bemani, A., **Joshi, S.J. Oil-field produced water: Bane or Boon**. *To be submitted to Ecotoxicology*, 2020.
76. A. Al-Sayegh, Y. Al-Wahaibi, **S. Joshi**, S. Al-Bahry, A. Elshafie, A. Al-Bemani, **Bacterial Biodiversity of Heavy Crude Oil Soil Samples**. *To be submitted to PeerJ*, 2020.
77. Taher Al-Ghailani; Yahya Al-Wahaibi; **Sanket J Joshi**; Saif Al-Bahry; Abdulkadir Elshafie; Ali Al-Bamani, **Alkaline-Biosurfactant-Biopolymer Flooding for Enhancement of Oil Recovery**, Submitted to Fuel, July 2020.
78. Amita Daverey, Kasturi Dutta, **Sanket J. Joshi** and Achlesh Daverey, **Killing SARS-CoV-2 with Sophorolipid: A multitasking approach to fight against COVID-19**, Submitted to Frontiers in Pharmacology, July 2020.
79. Hemen Sarma; **Sanket J. Joshi**, **Metagenomics Combined with Stable Isotope Probe (SIP) for the Discovery of Novel Dehalogenases Producing Bacteria**, Submitted to Bulletin of Environmental Contamination and Toxicology, June 2020.
80. Rane, A. N., Geetha, S. J., **Joshi, S. J. Biosurfactants: Production and Role in Synthesis of Nanoparticles for Environmental Applications**, Invited book chapter, *in*: Sarma, H., and Prasad, MNV (Eds.), **Biosurfactants for a Sustainable Future: Production and Application in the Environment and Biomedicine**, John Wiley, USA, Submitted in May 2020.
81. Geetha S. J., S. Al-Bahry, Y. Al-Wahaibi, A. E. Elshafie, A. Al-Bemani, **Joshi S. J. Microbial Enhanced Oil Recovery**, Invited book chapter, *in*: Ismail and Van Hamme (Eds.) **Hydrocarbon Biotechnology:** Challenges and Future Trends, Apple Academic Press, USA, Submitted in August 2019.

Supporting Activities to the Scientific Community:

Advisory Board Member (2020 - 2021)	**3 Biotech (Springer)**	Since 2020
Editorial Board Member	**Petroleum Science and Technology (Taylor & Francis Group, UK)**	Since 2020

Associate Editor for Microbial Ecotoxicology	**Ecotoxicology (Springer)**	Since 2020
Associate Editor for Microbiotechnolgy	**Frontiers in Microbiology**	Since 2020
Editor-in-Chief	**International Journal of Microbial Science (IJMS)**	Since 2020
Academic Editor	**PeerJ - the Journal of Life and Environmental Sciences**	Since 2019
Associate Editorial Board Member	**The Open Biotechnology Journal**, Bentham Science Publishers	Since 2018
Guest Associate Editor	**Frontiers in Microbiology:** "Biogeochemical Constraints on Water Contaminants: Microbes, Minerals, and Fluids", and "Recent developments in Biosurfactants".	2016-2020
Guest Editor	**Sustainability**, "Microbial Enhanced Oil Recovery: Advances in Theory and Sustainable Applications".	2018-2019
Lead Guest Editor	**Scientifica,** Hindawi publishers, 'Environmental Biotechnology: Challenges, Applications, and Future Prospects'	2017-2018
Guest Editor	**The Open Biotechnology Journal**, Bentham Science Publishers, 'Microbial Biotechnology and Environmental Bioremediation: Challenges and Prospects'	2015 – 2016
Scientific Project Proposal Reviewer	The Research Council of Oman (TRC), Oman (Reviewed one proposal)	Since 2020
PhD Thesis External Examiner	Amity University Rajasthan, Jaipur, India (Reviewed one PhD thesis)	2020
International Advisory Committee Member	International Conference on Bioprocess for Sustainable Environment and Energy, Organized by Department of Biotechnology and Medical Engineering NIT Rourkela, India.	March 5-7, 2020
Session Chair: Biosurfactant Applications	Biosurfactants-2019, International conference organized by University of Hohenheim, Stuttgart, Germany	25 - 27th September 2019.
International Advisory	International Conference on "Empowering Society with	7-9th

Board Member	Microbial Technology (ICESMT-2019)", organized by/Venue: Tuljaram Chaturchand College of Arts, Science and Commerce, Baramati, India.	February, 2019
Session Chair	International Conference on "Empowering Society with Microbial Technology (ICESMT-2019)", organized by, Tuljaram Chaturchand College of Arts, Science and Commerce, Baramati, India.	7-9th February, 2019
Organizing Committee Member	International Conference On "Microbial Technology for Better Tomorrow", organized by, D A V College, Kathmandu, Nepal**.**	11-12th May 2019
Committee Member, Bioreactor (100L) installation and operation set-up 'SQU team'	College of Applied Sciences, Sur, Ministry of Higher Education, Oman.	2016
Organizing Committee Member	Energy, Materials and Nanotechnology (EMN) Asia Meetings.	2016-2018
Delivered workshop-short course on 'Petroleum Biotechnology' to BS, MS and PhD Petroleum & Chemical engineering students	Enhanced Oil Recovery Research (EOR) center, Shiraz University, Iran	1st Dec-2010 - 31st Jan-2011

Peer Reviewer/d for:

- **Elsevier (*Outstanding reviewer recognition certificates for Elsevier journals - 2017: Journal of Cleaner Production, Journal of Petroleum Science and Engineering, Journal of Biotechnology, Journal of Advanced Research, and International Biodeterioration & Biodegradation*)**
    - Books and Book series proposals
    - Bioresource Technology
    - Journal of Cleaner Production
    - Chemosphere
    - Materials Letters

- International Biodeterioration & Biodegradation
- Journal of Biotechnology
- Journal of King Saud University – Science, Biomedicine & Pharmacotherapy
- Journal of Petroleum Science and Engineering
- Biocatalysis and Agricultural Biotechnology
- Journal of Environmental Sciences
- Process Safety and Environmental Protection
- Journal of Industrial and Engineering Chemistry
- Journal of Molecular Liquids
- Bioresource Technology Reports
- Biochemical Engineering Journal
- Process Biochemistry
- Petroleum
- Fuel
- Biomass and Bioenergy
- Colloids and Surfaces A: Physicochemical and Engineering Aspects
- Science of the Total Environment

- **Springer Nature Publishing Group**:
  - Scientific Reports
  - Environmental Processes
  - Archives of Microbiology
  - World Journal of Microbiology and Biotechnology
  - Folia Microbiologica
  - Current Microbiology
  - 3 Biotech
  - International Microbiology
- **Taylor & Francis**:
  - Synthesis and Reactivity in Inorganic, Metal-Organic, and Nano-Metal Chemistry
  - Petroleum Science and Technology
- **Wiley/American Oil Chemists' Society**:
  - Journal of Surfactants and Detergents
  - Biotechnology and Bioengineering
- **American Chemical Society (ACS) Publications:**

  - Energy & Fuels
  - Journal of Agricultural and Food Chemistry
  - Environmental Science & Technology
- **Royal Society of Chemistry:** RSC Advances
- **Frontiers Media SA**:
  - Frontiers in Microbiology
  - Frontiers in Bioengineering and Biotechnology
- **Bentham Sciences Open Publishers**:
  - The Open Petroleum Engineering Journal
  - Current Biotechnology
- **Hindawi**: International Journal of Microbiology
- **Cell Press Group:** Trends in Biotechnology
- **MDPI, Switzerland:**
  - Molecules
  - Journal of Fungi
  - Sustainability
  - Energy
  - Nanomaterials
- **DE Gruyter, Germany:** International Journal of Chemical Reactor Engineering
- International Journal of Biotechnology and Food Science
- African Journal of Biotechnology
- African Journal of Microbiological Research
- Indian Journal of Pharmaceutical Science

Conference Abstract Papers (Total 50 - As a lead or co-author):

Oral/Invited Presentations:

1. **Joshi S. J.** Studies on biosurfactant produced by oil well isolate *Bacillus* K12-2. The seventh Annual Conference of Society of Science and Environment-17 and 18 September 2005, Organized by M.L.S. university of Udaipur, India, Theme - Science and environment: Challenges beyond 2005.
2. **Joshi S. J.** Production and characterization of biosurfactant by isolate *Bacillus licheniformis* R2. National conference on - New horizons in Fermentation and Food Biotechnology, 21st – 22nd March. 2006, organized by Punjabi University, Patiala, India.
3. **Joshi S. J.** *Invited Talk* in National conference on Environment Science & Technology- 28th – 29th

November 2008, Organized by Bharathidasan University, Tiruchirappalli, India, Title- 'Biosurfactants – Wonder biomolecules of 21st Century'.

4. **Joshi S. J.** Production, Purification and Application of Lichenysin-A by *Bacillus licheniformis* R2. National conference on - frontiers in biological sciences, February, 27-28, 2009, Organized by BRD school of biosciences, Sardar Patel university, Vallabh Vidyanagar, India.
5. S. Al-Bahry, A. Al-Bemani, Y. Al-Wahaibi, A. Elshafie, H. Al-Sulaimani, R. Al-Maaini, W. Al-Alawi, and **S. Joshi**, *Bacillus licheniformis* and *Bacillus subtilis* isolates for MEOR application in Oman. First annual World Congress of Petroleum Microbiology (WCP) 2010, July 25th – 27th, 2010, Dalian, China.
6. **Joshi S. J.** Optimization of bench-scale biosurfactant production by *Bacillus licheniformis* R2. Fourth International Conference on Environmental Science and Development (ICESD 2013), January 19- 20th, 2013, Dubai, UAE.
7. **Joshi S. J.** Biosurfactant mediated microbial enhanced oil recovery and its potential for application in some Omani oil fields. International Symposium of Biotechnology & Conservation of species from arid regions, Organized by SQU, Muscat, Oman, February 10th-12th, 2013.
8. **Joshi S. J.** Biosurfactant production by *Bacillus subtilis* B30 and its potential in enhancing oil recovery. International EOR & Heavy Oil Conference, Organized by Knowledge Expansion, UAE and Ministry of Oil & Gas, Muscat, Oman, March, 4th-6th, 2013.
9. **Joshi S. J.** Biosurfactant: Environmental Applications in Oman. The first symposium of Communication, Information and Applied Biotechnology, "Current Trends and Future Scope", Organized by Sur College of Applied Sciences, Oman, May, 12th and 13th, 2015.
10. A. Al-Sayegh, Y. Al-Wahaibi, S. Al-Bahry, A. Elshafie, A. Al-Bemani, **S. Joshi.** Biodegradation of Heavy Crude Oil – Contaminated Soil Samples. The first symposium of Communication, Information and Applied Biotechnology, "Current Trends and Future Scope", Organized by Sur College of Applied Sciences, Oman, May, 12th and 13th, 2015.
11. **Joshi S.J.** Production and Application of Schizophyllan in Microbial Enhanced Heavy Oil Recovery. SPE EOR Conference at Oil and Gas West Asia, 21-23 March, Muscat, Oman, 20-23 March, 2016.
12. **Joshi S.J.** Oil-Field Produced Wastes: Analysis, Bio-Treatment, and Further Applications. EMN Budapest Meeting, September 9-13, 2016, Budapest, Hungary.
13. Al-Moqbali, W., **Joshi, S. J.**, Al-Bahry, S. N., Al-Wahaibi, Y. M., Elshafie, A. E., Al-Bemani, A. S., Al-Hashmi, A., Soundra Pandian, S. B. Biodegradation of Partially Hydrolyzed Polyacrylamide HPAM Using Bacteria Isolated from Omani Oil Fields. SPE EOR Conference at Oil and Gas West Asia, 26-28 March, Muscat, Oman, 2018, (2018, March 26).
14. Al-Ghailani, T., Al-Wahaibi, Y. M., **Joshi, S. J.**, Al-Bahry, S. N., Elshafie, A. E., & Al-Bemani, A.

S. Alkaline-Biosurfactant-Biopolymer Process and its Potential for Enhancing Oil Recovery in Omani Oil Field. SPE EOR Conference at Oil and Gas West Asia, 26-28 March, Muscat, Oman, 2018, (2018, March 26).

15. M. Al Mujaini, **S. J. Joshi**, N. Sivakumar, S. N. Al-Bahry. Potential Application of Crude Oil Degrading Bacteria in Oil Spill and Waste Management. SPE International Conference and Exhibition on Health, Safety, Security, Environment, and Social Responsibility, 16-18 April, Abu Dhabi, UAE, 2018, (2018, April 2018).
16. **Joshi S. J.**, Al-Bahry S., Al-Wahaibi Y., Elshafie A., Bemani A. Biosurfactants and Biopolymers: Applications and Market Potential. CAS Annual Symposium: Technology and Entrepreneurship in Sustainable Development, 8-9 April 2018, Sur College of Applied Science, Sur, Oman.
17. **Joshi S. J.** *Invited Talk*: Petroleum Industry and Microbiology: Applications, Opportunities and Challenges. International Conference on: Empowering Society with Microbial Technology (ICESMT-2019), Tuljaram Chaturchand College India, Baramati, India, 7-9th February 2019.
18. **Joshi, S. J.** *Guest Speaker/Invited talk*: Petroleum Microbiology: Opportunities and challenges. Guest lecture series, under lead college activities, organized by Department of Microbiology, Yashavantrao Chavan Institute of Science, Satara, India, 8th February 2019.
19. **Joshi S. J.**, Al-Bahry S., Al-Wahaibi Y., Elshafie A., Bemani A., Banat I. M. Biosurfactant Production from Waste Frying Oil and its Utilization in Microbial Enhanced Oil Recovery. The Millennium Biotechnology Pan Arab Conference, April 23-24, 2019, Kingdom of Bahrain.
20. **Joshi S. J.,** Al-Bahry S., Al-Wahaibi Y., Elshafie A., Bemani A. Biosurfactant mediated Microbial Enhanced Oil Recovery: Applications and Challenges. Biosurfactants-2019, International conference organized by University of Hohenheim, Stuttgart, Germany, 25-27th September 2019.
21. **Joshi, S**. J. Plenary Lecture on 'Petroleum Industry and Biotechnology: Opportunities and Challenges', in the "INTERNATIONAL e-CONFERENCE ON FRONTIERS IN INDUSTRIAL BIOTECHNOLOGY" (ICFIBT2020) sponsored by AICTE, New Delhi, organized by the Department of Biotechnology, St. Joseph's College of Engineering, OMR, Chennai during 27th - 29th July, 2020.
22. **Joshi, S.J.** Invited lecture on 'Petroleum Biotechnology: Challenges and Opportunities', in the International webinar, organized by Department of Biotechnology, Hindustan College of Arts and Science, Chennai, India, 7th August, 2020.

Poster Presentations:

23. 46th Annual Conference of Association of Microbiologists of India, 8th-10th Dec. 2005, Department of Microbiology, Osmania University, Hyderabad. **S. Joshi**, Title - '*Biosurfactant production by oil contaminated desert site isolate Bacillus R1 using Agro-industrial waste molasses*'.

24. 3rd BRSI International Conference, 2nd – 4th Nov, 2006, at Sardar Patel University, Vallabh Vidyanagar, Anand, Gujarat. **S. Joshi**, Title - '*Production of Biosurfactant and Antifungal compound by isolate Bacillus subtilis* 20B *obtained from Fermented food*'.
25. 75th Annual Conference of Society of Biological Chemist, 08th-11th December 2006, at Jawaharlal Nehru University, Delhi. Title - '*Statistical screening of medium components by Plackett-Burman design for production of biosurfactant by Bacillus licheniformis K51*'.
26. First annual World Congress of Petroleum Microbiology (WCP) 2010, July 25th – 27th, 2010, Dalian, China. Y. Al-Wahaibi, A. Al-Bemani, S. Al-Bahry, A. Elshafie, R. Al-Maini, W. Al-Alawi, and **S. Joshi**, Title: 'Potential of *Bacilli* species for MEOR in Oman using core-flooding experiments'.
27. Al-Bahry, S.N., Al-Bemani, A., Al-Wahaibi, Y., Elshafie, A., Al-Sulaimani, H., Al-Muaini, R., Al-Alawi, W., **Joshi, S.** (2010). *Bacillus licheniformis* and *B. subtilis* isolates for MEOR application in Oman. *1st Annual World Congress of Petroleum Microbiology (WCP) 2010*. Dalian, China.
28. First annual World Congress of Petroleum Microbiology (WCP) 2010, July 25th – 27th, 2010, Dalian, China. A. Elshafie, Y. Al-Wahaibi, A. Al-Bemani, S. Al-Bahry, Y. Sugai, R. Al-Maaini, W. Al-Alawi, and **S. Joshi**, Title: 'Microbial consortia isolated from Oman oil fields'.
29. Al-Bahry, S.N., Al-Wahaibi, Y., Elshafie, A., Al-Bemani, A., **Joshi, S.,** Al-Sulaimani, H. (2011) Experimental Investigation of Microbial Enhanced Oil Recovery Effectiveness in Omani Oil Field. *International Symposium on Applied and Molecular Biology in Oil System-3,* C.U. ISMOS-3. Calgary, Canada.
30. Al-Wahaibi, Y., Al-Bahry, S.N., Elshafie, A., Al-Bemani, A., Al-Sulaimani, H., **Joshi, S.** (2011). Effects of *Bacillus subtilis* biosurfactant on surface properties, wettability alteration and surfactant adsorption on sandstone rocks. *International Symposium on Applied and Molecular Biology in Oil System-3,* C.U. ISMOS-3. Calgary, Canada.
31. Al-Bahry, S.N., Al-Bemani, A., Al-Wahibi, Y., Elshafie, A., Al-Sulimani, H., Al-Muaini, R., Al-Alawi, W., **Joshi, S.,** Al-Bahry, A., Al-Makhmari, H. (2011). Experimental investigation of MEOR potential in Omani oil fields. *MEOR Technologies and Applications*, Oman Society of Petroleum Engineering.
32. Al-Sulaimani, H., Al-Wahaibi, Y., Al-Bahry, S.N., Elshafie, A., Al-Bimani, A., **Joshi, S.** (2011). Studies of wettability, alteration and adsorption on surfaces and sandstone rocks by biosurfactant produced by *Bacillus subtilis*. *The 1st International Symposium on Colloids and Materials: New Scientific Horizons*, C.A. Materials. Amsterdam, the Netherlands.
33. Al-Sulaimani, H., Al-Wahaibi, Y., Al-Bahry, S.N., Elshafie, A., Al-Bimani, A., **Joshi, S.** (2011). Biosurfactants for enhancing oil recovery-investigation of wettability alteration and mixing with synthetic surfactants. *The 2nd International Congress of Oil Field Chemicals (OFC-2011)*. Chinese

Petroleum Society. Dalian, China.

34. Al-Bahry, S.N., Al-Wahaibi, Y.M., Elshafie, A.E., Al-Bemani, A.S, **Joshi, S.**, Al-Sulaimani, H. (2012). Potential of enhancing oil recovery in Omani oil field via microbial enhanced oil recovery technology. *The Second Edition of the International Congress: Microbial Biotechnology for Development (MICROBIOD 2)*. Marrakech, Morocco.
35. Al-Wahaibi, Y.M., Al-Bahry, S.N., Elshafie, A.E., Al-Bemani, A.S, **Joshi, S.**, Al-Sulaimani, H. (2012). Wettability alteration: Is it a primary mechanism of improving oil recovery by *Bacillus subtilis* biosurfactant? *The Second Edition of the International Congress: Microbial Biotechnology for Development (MICROBIOD 2)*. Marrakech, Morocco.
36. Al-Maaini, R. Al-Bahry, S. Elshafie, A. Al-Wahaibi, Y. Al- Bemani, A. J., **Joshi, S.**, and Al-Alawi, W. (2013). Microbial consortia in Oman oil fields: a possible use in enhanced oil recovery. *International Symposium on Biotechnology and Conservation of Species from Arid Region-ISBCSAR*, Muscat, Oman.
37. Al-Hattali, R. Al-Sulaimani, H. Al-Wahaibi, Y. Al-Bahry, S.N. Elshafie, A.E. Al-Bemani, A. and **Joshi, S.J.** (2013). Fractured carbonate reservoirs sweep efficiency improvement using microbial biomass. *International Symposium on Biotechnology and Conservation of Species from Arid Region-ISBCSAR*, Muscat, Oman.
38. Al-Hinai, B. Al-Bahry, S.N Elshafie, A.E. Al-Wahaibi, Y. Al-Bemani, A. and **Joshi, S. J.** (2013). Potential of thermophilic spore forming bacteria in heavy oil recovery enhancement. *International Symposium on Biotechnology and Conservation of Species from Arid Region-ISBCSAR*, Muscat, Oman.
39. Al-Wahaibi, Y. Al-Hadrami, H. Al-Bahry, S.N. Elshafie, A. E., Al-Bemani, A. and **Joshi, S.J.** (2013). Residual oil recovery via injection of biosurfactant and chemical surfactant following hot water injection in Omani heavy oil field. *International Symposium on Biotechnology and Conservation of Species from Arid Region-ISBCSAR*, Muscat, Oman.
40. Al-Wahaibi, Y., Al-Hadrami, H., Al-Bahry, S., A. Elshafie, A., Al-Bemani, A., **Joshi, S.** (2013). Residual oil recovery via injection of biosurfactant and chemical surfactant following hot water injection in middle east heavy oil field. *SPE Heavy Oil*. Calgary, Canada.
41. Al-Bahry, S.N., Elshafie A.E., Al-Wahaibi, Y.M., Al-Bemani, A., **Joshi, S.J.,** Al-Bahri, A. (2013). Application of molecular biology methods in identifying biosurfactant spore forming producers for oil recovery enhancement. *International Symposium on Applied and Molecular Biology in Oil System-4*. ISMOS-4. Rio de Janeiro, Brazil.
42. Al-Wahaibi, Y.M., Al-Bahry, S.N., Elshafie A.E., Al-Bemani, A.S., **Joshi, S.J.** (2013). The use of microbial enhanced oil recovery techniques to reduce residual oil saturations in carbonate reservoirs.

International Symposium on Applied and Molecular Biology in Oil System-4. ISMOS-4. Rio de Janeiro, Brazil.

43. Elshafie, A.E., Al-Bahry, S.N., Al-Wahaibi, Y.M., Al-Bemani, A.S., **Joshi, S.J.,** Al-Maqbali D. (2013). Sophorolipids production by *Candida bombicola* ATCC 22214 and its possible application in enhancing oil recovery. *International Symposium on Applied and Molecular Biology in Oil System-4.* ISMOS-4. Rio de Janeiro, Brazil.
44. Sassi, M., Al-Wahaibi Y., Al-Bahry S.N., Elshafie A., Al-Bemani A., **Joshi S.** 2013. Biosurfactant based enhanced oil recovery economics. 19th Reservoir Microbiology Forum 2013 (RMF2013), London, UK.
45. S. Al-Bahry, B. Shibulal, Y. Al-Wahaibi, A.K. Elshafie, A. Al-Bemani, **S. Joshi** (2014) Isolation and identification of heavy oil degrading bacteria from Oman and their potential application in bioremediation of oil spills. ULIXES International conference MedRem-2014, 16th – 18th January 2014, Hammamet, Tunisia.
46. Y. Al-Wahaibi, A. Al-Sayegh, S. Al-Bahry, A.K. Elshafie, A. Al-Bemani, **S. Joshi** (2014) Bioremediation of oil-polluted ecosystems in the Sultanate of Oman. ULIXES International conference MedRem-2014, 16th – 18th January 2014, Hammamet, Tunisia.
47. SPE EOR Conference at Oil and Gas West Asia, 21-23 March, Muscat, Oman, 20-23 March, 2016, **S.J. Joshi**, Y.M. Al-Wahaibi, S. Al-Bahry, A. Elshafie, A.S. Al-Bemani, A. Al-Hashmi, P. Samuel, M. Sassi, H. Al-Farsi, Sultan Qaboos University; M.S. Mandhari, Petroleum Development Oman, Title: 'Production and Application of Schizophyllan in Microbial Enhanced Heavy Oil Recovery'.
48. Yahya M. Al-Wahaibi, Biji Shibulal, Saif N. Al-Bahry, Abdulkadir E. Elshafie, **Sanket J. Joshi**, and Ali S. Al-Bemani. Bioremediation Potential of Bacillus licheniformis in Heavy Crude Oil Polluted Soil; International Conference on Civil, Environment and Waste Management (CEWM-16), March 20-21, 2016, Mauritius.
49. Saif N. Al-Bahry, Asmaa Al-Hashmi, **Sanket J. Joshi**, Yahya M. Al-Wahaibi, Abdulkadir E. Elshafie, and Ali S. Al-Bemani. Potential of Coastal Water Bacteria for Oil Spill Bioremediation; International Conference on Civil, Environment and Waste Management (CEWM-16), March 20-21, 2016, Mauritius.
50. Biji Shibulal, Saif N Al-Bahry, Yahya Al-Wahaibi, Abdulkadir Elshafie, Ali Al-Bemani, and **Sanket Joshi**. The Potential of Spore Forming Bacteria in Heavy Oil Spill Cleanup; 5th International Conference on Biological, Chemical and Environmental Sciences (BCES-2016), March 24-25, 2016 London (United Kingdom).
51. A. Al-Sayegh, Y. Al-Wahaibi, S. Al-Bahry, A. Elshafie, A. Al-Bemani, **S. Joshi**. 'Enhanced Oil Recovery using Biotransformation Technique on Heavy Crude Oil'; Second International Conference

on Science, Engineering & Environment, Osaka City, Japan, Nov. 21-23, 2016, ISBN: 978-4-9905958-7-6 C3051.

Scientific talks at National level gatherings and articles in Local newspapers (Oman):

52. Articles about our MEOR research work: Oman Daily, January 7, 2018 and Oman Observer, December 31, 2017, 'A decade of achievements'.
53. Sanket Joshi, Microbial Enhanced Oil Recovery: Relevance to Oman, Sultan Qaboos University Day, Poster, May 2014.
54. Sanket Joshi, 2nd April, 2014, Microbial Enhanced Oil Recovery and its Potential for Applications in some Omani Oil Fields, the 6th Engineering students gathering, at Sultan Qaboos University, Organized by Engineering Society, Sultan Qaboos University, Oman.
55. Articles about our MEOR research work: Oman Observer, 2011, New Oil Recovery Technique, http://www.gulfinthemedia.com/index.php?m=economics&id=579000&lim=&lang=en&tblpost=2011_11.

Workshops/Seminars/Symposiums/Conférences - Participated/Attended:

56. **Workshop on Surfactants: Theory and practice -** 21st - 22nd Dec 2004, conducted by Department of Chemistry, The M. S. University of Baroda, Faculty of science, India.
57. **DST sponsored workshop, Modern Techniques in Molecular Genetics & Microbial Diversity -** 4th - 25th Jan 2005, organized by Department of Microbiology & Biotechnology Centre, The M. S. University of Baroda, Vadodara, India.
58. **Humanity's Heritage: Our Genome and Stem Cells**- SBC sponsored one-day Seminar, 1st Oct, 2006, organized by Department of Microbiology & Biotechnology Centre, The M. S. University of Baroda, Vadodara, India.
59. **New Horizons in Biological Sciences** 23 September 2007, National Seminar Jointly Organized by N. V. Patel College and GSBTM, India.
60. **Drying and Dehydration in Food & Chemical Industries** – **Recent Advances** – 22nd – 23rd Aug, 2008, Symposium Jointly organized by A. D. Patel Institute of Technology and G. H. Patel College of Engineering and Technology, V. V. Nagar, India.
61. **Workshop on Writing and Publishing Scientific Papers –** 17th Feb, 2010, organized by Sultan Qaboos University, Sultanate of Oman.
62. **Workshop on Eppendorf PCR Clinic –** 31st Oct, 2011, Organized by Eppendorf Middle East with Mustafa Sultan Science & Industry Co. LLC, Sultanate of Oman.

63. **Recent technological and applications from the World of Ion Analysis: Metrohm Seminar** - 16th November 2011, organized by Metrohm Middle East FCZ with BIG LLC, Sultanate of Oman.
64. **Technical input, practical and hands on experience on T100 touch screen PCR systems and Imaging, blotting systems and QX100 Digital Droplet PCR –** 10th-11th April 2012, organized by Bio-Rad-USA and Muscat Pharmacy LLC., Sultanate of Oman.
65. **Challenges facing the Oil Industry – Perspective from PDO North Assets –** 13th May, 2012, Organized by Society of Petroleum Engineers and Petroleum development of Oman, Sultanate of Oman.
66. **The 2nd Middle East Oilfield Produced Water Management Conference & Exhibition –** 14th – 15th February, 2017, Grand Hyatt Hotel, Muscat, Oman, organized by Oman Water Society.
67. **Linking Oman's higher education institutions with the public and private sectors** – 7th 10 May 2017, Oman Convention and Exhibition center, Organized by the office of the Deputy Vice Chancellor for Postgraduate Studies and Research, Sultan Qaboos University, Oman.
68. **Joint Workshop between Oman-Korea on Energy Infrastructure Cooperation –** 26th September, 2017, Intercontinental Hotel, Muscat, Oman, Organized by Korea Energy Economics Institute (KEEI), Korea Trade-Investment Promotion Agency (KOTRA), and The Research Council (TRC), Oman.
69. **Frontiers in Marine Biotechnology** – 5th February, 2018, Grand Hyatt Muscat, Organized by Oman Centre for Marine Biotechnology, and Sultan Qaboos university, Oman.
70. **Technology transfer symposium for enhanced oil recovery (EOR) by using polymer and treated water 4** March 2019, Crown Plaza Muscat, organized by Seven Seas Petroleum LLC., Oman.
71. **Produced Water Middle East 2019**, The 3rd annual conference, 23rd-24th October, Sheraton Oman Hotel, Muscat, Oman, organized by Produced Water Society, Middle East.
72. **The 7th Gulf Intelligence Oman Energy Forum 2019,** November 25th, Grand Millennium Muscat, Organized by Gulf Intelligence, UAE, and Ministry of Oil and Gas, Oman.
73. **Emerging and Re-emerging Infectious Diseases**, June 1st, 2020, Webinar organized by Department of Microbiology, Natubhai V. Patel College of Pure and Applied Sciences, CVM University, India.

Completed and on-going Projects (As a Team-member/Leader in Industry and Academics):

Industrial research projects details:

- **Alembic Ltd., India, 2001-2004**. **Work Responsibilities** were: Design experiments for strain

improvement (using physical and chemical mutagenic agents like - UV, EMS and NTG in presence of selection pressure and chemical analogues) fermentation media design and optimization at shake flask level (using statistical designs), down streaming and analysis of the product for following assignments: **Beta - lactam antibiotic (Penicillin), Macrolide antibiotic (Erythromycin), Antidiabetic drug for type II diabetes (Acarbose), and Glycopeptide antibiotic (Vancomycin)**, **New Millennium Indian Technology Leadership Initiative (NMITLI) project sponsored by Council of Scientific & Industrial Research (CSIR), Govt. of India** titled '**Bioconversion of Erythromycin to Clarithromycin'**.

- **Sterling Biotech Ltd., India, (100% EOU), December 2006 - May 2007, Work Responsibilities** were: Culture maintenance, Preparation and maintenance of Working Cell Bank and Master Cell Bank, Seed Preparation for Pilot (10 to 150 L) and Main Fermenter (2 to 160 KL), Standardization of Shake Flask Experiments and Set up of Product at Lab level, testing of antibiotic resistance and resistance to different chemical analogues on **CoQ10** producing culture.

Academic research projects completed/ongoing:

- **The M. S. University of Baroda**, **India**, 'Microbial Enhanced Oil Recovery' project, sponsored by Institute of Reservoir Studies (IRS), Oil and Natural Gas Corporation (ONGC) Ltd., India, 2004-2008. **Work Responsibilities** were: Design and execution of experiments related to Isolation, identification, and preservation of potential microorganisms from diverse habitats; optimization, analysis of routine lab experiments and running and maintenance of all equipment pertaining to MEOR; guided several B.Sc. and M.Sc. students as an intermediate for their Dissertation on - Biosurfactant production and MEOR; writing reports and presentations at meetings; writing and publishing data in manuscripts of international repute.
- **Sultan Qaboos University** (Since 2009), Department of Biology, on ***'Microbial Enhanced Oil Recovery' (Phase I - III completed***), '***Analysis and mitigation of souring of oil wells by SRB***', and '***Mechanistic study of Alkaline:Surfactant:Polymer (ASP) flooding for EOR***' Projects sponsored by Petroleum Development of Oman (PDO) and His Majesty's Project at Sultan Qaboos University, in collaboration with Petroleum and Chemical Engineering department, Sultanate of Oman, as Post-Doctoral Researcher, team member, PI, Co-PI/Co-I.
    - **Work Responsibilities**: In-charge of research lab, training/teaching research students and technicians; writing project proposals, progress reports and publishing data in manuscripts of international repute. Visit oil-fields for routine collection of samples, design and execution of experiments related to identification and preservation of potential biosurfactant/biopolymer producing microorganisms from oil related environments; optimization of production media for

biosurfactant/biopolymer production, analysis of routine lab experiments and running and maintenance of all equipment pertaining to MEOR/SRB Laboratory; intermediate for BSc, MSc and Ph.D. students for their Dissertations on – Microbial products and MEOR.

No.	Title of the Project/My Role	Funding Agency	Research Leader	Total funding Amount	Tenure	Project Status
1.	Microbial Enhanced Oil Recovery (SR/SCI/BIOL/08/01)/ Postdoctoral Researcher	His Majesty Trust Fund, Sultan Qaboos University	Prof. Abdulkadir Elshafie (PI)	90,000 OMR (2,33,736 USD)	2009-2012	Completed
2.	Excellence in Enhanced Oil Recovery: Microbial Enhanced Oil Recovery Phase I & II (CR/SCI/BIOL/07/02)/ Postdoctoral Researcher	Petroleum Development Oman (PDO)	Prof. Saif Al-Bahry (PI)	4,32,603 OMR (11,23,498 USD)	2008-2012	Completed
3.	Mitigation of Souring of oil wells by Sulfate Reducing Bacteria (Phase I) (CR/SCI/BIOL/11/01) /Postdoctoral Researcher	Petroleum Development Oman (PDO)	Prof. Saif Al-Bahry (PI)	10,46,513 USD	2012-2015	Phase I Completed
4.	Microbial Enhanced Oil Recovery Phase III (CR/DVC/OGRC/13/01)/ Team member	Petroleum Development Oman (PDO)	Prof. Saif Al-Bahry (PI)	927,472 USD	2013-2016	Completed
5.	Mechanistic Study of ASP flooding for EOR (CR/DVC/OGRC/15/01)/ Team member	Petroleum Development Oman (PDO)	Dr. Yahya Al-Wahaibi (PI)	232,000 USD	2015-2017	Completed
6.	Assessment of different EOR techniques for Daleel oil fields (CR/DVC/OGRC/17/02)/ Co-investigator	Daleel petroleum LLC, Oman	Prof. Saif Al-Bahry (PI)	41000 OMR (106,489 USD)	2017-2019	Completed
7.	Chemical and Biological Analyses for Biyaq (CR/DVC/OGRC/19/01)/ Co-investigator	Biyaq Oilfield Services LLC	Dr. Yahya Al-Wahaibi (PI)	15450 OMR (40182 USD)	2019-2020	Ongoing
8.	Experimental Investigation of Biosurfactant-Coated Nanoparticles for Enhanced Oil Recovery (RF/DVC/OGRC/19/01)/ Principal Investigator	Deanship of Research Fund, SQU	Dr. Sanket Joshi (PI)	3000 OMR (7802 USD)	2019-2020	Ongoing
9.	Bacterial biodegradation	The	Dr. Sanket	19372	1/9/201	Ongoing

No.	Title of the Project/My Role	Funding Agency	Research Leader	Total funding Amount	Tenure	Project Status
	of Partially Hydrolyzed Polyacrylamide (HPAM) and acrylamide from oil field produced water (RC/RG-DVC/OGRC/18/01)/ Principal Investigator	Research Council (TRC), Oman	Joshi (PI)	OMR (50382 USD)	9 – 28/2/2021	
10.	Bioremediation and removal of crude oil from contaminated sites (RC/RG-DVC/OGRC/18/02)/Co-Investigator	The Research Council (TRC), Oman	Dr. Usman Taura (PI)	19373 OMR (50382 USD)	1/9/2019 – 28/2/2021	Ongoing
11.	Electrochemical assisted anaerobic digestion for power and resource recovery from organic containing wastes (cattle, poultry and municipal sludge) (BFP/RGP/EI/19/039) Co-Investigator	The Research Council (TRC), Oman	Dr. Md. Abdullah Mamun (PI)	19373 OMR (50382 USD)	01/12/2012 – 30/11/2021	Ongoing

Total fund: 3,868,838 USD

• Guided following BSc, MSc, and PhD students **as an intermediate** for their Dissertation on – Petroleum Biotechnology related research projects, in The M. S. University of Baroda, India and at Sultan Qaboos University, Sultanate of Oman:

1. Amitkumar Yadav, *2004-2006*, Studies on diversity of biosurfactant producing *Bacillus* spp. and production of biosurfactant by *Bacillus licheniformis* HS 4-2 for microbial enhanced oil recovery. *M.Sc. Dissertation*, M. S. University of Baroda, India.
2. Durgesh Nandini, *2004-2005*, Secondary screening of bacteria for development of biosurfactant based strategy for tertiary oil recovery, *M.Sc. Dissertation*, M. S. University of Baroda, India.
3. Piyu Sukhwal, *2005*, Screening of Biosurfactant producing halotolerant bacteria for Microbial enhanced oil recovery, *M.Sc. Dissertation*, M. S. University of Baroda, India.
4. Chirag Bharucha, *2005-2006*, Isolation and characterization of biosurfactant producing bacteria and its use for tertiary oil recovery, *M.Sc. Dissertation*, M. S. University of Baroda, India.
5. Sanjay Yadav, *2005-2007*, Optimizing the parameters for scaling up of biosurfactant to 3 liter fermentor by *Bacillus* sp., *M.Sc. Dissertation*, M. S. University of Baroda, India.
6. Sujata Jha, *2005-2007*, Biosurfactant production by *Bacillus* sp.: Optimization of conditions at shake

flask level, *M. Sc. Dissertation*, M. S. University of Baroda, India.

7. Amit Gehlot, *2006*, Study of Molecular Microbiological Techniques & Kinetics of Biosurfactant Production by Bacteria, *B.E. Biotechnology Dissertation*, M. S. University of Baroda, India.
8. Hind Al-Makhmari, *2010*, Microbial enhanced oil recovery by bacillus byproduct using date molasses, Final year project, Biology Department, Sultan Qaboos University.
9. Asma Al-Bahri, *2010*, Potential of biosurfactant produced by Bacillus sp., for MEOR: An optimization study using defined media, Final year project, Biology Department, Sultan Qaboos University.
10. Ahmed Al-Aasmi, Bashir Al-Maqbali, Mohamed Al-Ghammari, Said Al-Jamoudi, Ahmed Al-kindi, *2010*, Isolation of Biosurfactant and Biopolymer Producing Microorganisms from Oman, Summer project, Biology Department, Sultan Qaboos University.
11. Balqees Said Al-Hinai, 2011, The enzyme enhanced heavy oil recovery using Bacillus in Oman, *M.Sc. Dissertation*, Biology Department, Sultan Qaboos University.
12. Rayah Rashid Al-Hattali, 2011, Experimental investigation of enhancing oil Recovery in simulated fractured carbonate rocks by selective plugging of microbial biomass, *M.Sc. Dissertation*, Petroleum and Chemical Engineering Department, Sultan Qaboos University.
13. Amjaad Nasser Al-Shukri, 2012, Potential of *Leuconostoc* bacteria biopolymer for MEOR Applications, Final year project, Biology Department, Sultan Qaboos University.
14. Dua'a Yousif Al-Moqbali, 2013, Production of Sophorolipids from *Candida bombicola* ATCC 22214 and Its Potential Application in Microbial Enhanced Oil Recovery, Final year project, Biology Department, Sultan Qaboos University.
15. Asma Khamis Mohamed Al-Bahri, 2013, Molecular screening and characterization of lichenysin and surfactin genes from enhancing oil recovery *Bacillus* species, *M.Sc. Dissertation*, Biology Department, Sultan Qaboos University.
16. Lesya Pronoza, 2013, Petroleum Biotechnology and marine bioremediation, summer project, From Donetsk National University, Ukraine.
17. Maissa Sassi, 2013, Biosurfactant Based Enhanced Oil Recovery Economics, *M.Sc. Dissertation*, Petroleum and Chemical Engineering Department, Sultan Qaboos University.
18. Wala'a Al-Moqbali, 2014, Production of Schizophyllan from *Schizophyllum commune* and its Potential Use in MEOR, BSc final year project, Biology Department, Sultan Qaboos University.
19. Abeer Al-Saadi, 2014, Microbial Enhanced Oil Recovery (MEOR) using Pullulan isolated from *Aureobasidium Pullulan*, BSc final year project, Biology Department, Sultan Qaboos University.
20. Mohammed Al-Mujaini, 2015, Isolation and characterization of bacteria and their potential application in crude oil biodegradation, BSc final year project, Biology Department, Sultan Qaboos

University.

21. Huriya Ali Al-Hoqani, 2015, Biosurfactant Production from *Candida bombicola* (ATCC22214) Using Waste Cooking Oil and its Applications in Microbial Enhanced Oil Recovery (MEOR), BSc final year project, Biology Department, Sultan Qaboos University.
22. Sara Al-Araimi, 2016, Isolation and characterization of pullulan producing Omani *Aureobasidium pullulans* strains. BSc final year project, Biology Department, Sultan Qaboos University.
23. Asma Al-Hashmi, 2016, Isolation and characterization of coastal-water-bacteria for oil biodegradation, BSc final year project, Biology Department, Sultan Qaboos University.
24. Walaa Al-Maqbali, 2016-17, Biodegradation of Partially Hydrolyzed Polyacrylamide using bacteria isolated from Oil Field, *M.Sc. Dissertation*, Department of Biology, Sultan Qaboos University.
25. Taher Al-Ghailani, 2016-17, Alkaline-Biosurfactant-Biopolymer process and its potential for enhancing oil recovery in Omani oil field, *M.Sc. Dissertation*, Department of Petroleum and Chemical Engineering, College of Engineering, Sultan Qaboos University.
26. Haifa Al-Wahshi, 2017, Crude Oil Removal from Contaminated Sand Using Rhamnolipids Biosurfactant, BSc final year project, Biology Department, Sultan Qaboos University.
27. Asmahan Al-Ghafri, 2017, Crude oil biodegradation by bacterial isolates from soil and aquatic habitats, BSc final year project, Biology Department, Sultan Qaboos University.
28. Noppakod Ariyaphonphiroon, 2nd July – 16th Aug, 2017, The production of pullulan from Aureobasidium strain G7, King Mongkut's University of Technology, Thonburi, Thailand, B. Eng Chemical Engineering.
29. Ronald Gugl, 3rd July – 27th Aug, 2017, Montanuniversität Leoben, Austria, B. Eng Petroleum Engineering.
30. Zahra Azimi Dijvejin, 13th July – 10th Sep, 2017, Tarbiat Modares University, Iran, Master of Petroleum Engineering.
31. Khadija Al-Amri, 2018-2020, Application of Biosurfactant to Improve the Flow Properties of Heavy Crude Oil through Horizontal Pipeline at Low Temperatures, MS Petroleum and Natural Gas Engineering, Department of Petroleum and Chemical Engineering, College of Engineering, Sultan Qaboos University.
32. Atia Sultan Al-Shuhoomi, 2020, Bioethanol Production from Glycerol – A By-product of Biodiesel from Waste Cooking Oil, BSc final year project, Biology Department, Sultan Qaboos University.

PhD Students (<u>as an intermediate supervisor)</u>:

33. Hanaa Al-Sulaimani, 2009-2012, Microbial Enhanced Oil Recovery: Applications for some of the Omani Oil fields, Petroleum and Chemical Engineering Department, College of Engineering, Sultan Qaboos University.

34. Biji Shibulal, 2013 – 2017, Isolation, identification and characterization of potential spore forming bacteria for enhanced heavy oil recovery, Department of Biology, College of Science, Sultan Qaboos University.
35. Abdullah Al-Sayegh, 2013 – 2017, Isolation, Identification and Optimization of Heavy Crude Oil Degrading Bacteria, Petroleum and Chemical Engineering Department, College of Engineering, Sultan Qaboos University.

Achievements & Trainings:

- As in-charge of MEOR research lab, maintaining and managing several high-end equipment: Ion Chromatography (IC - Metrohm), Inductive Coupled Plasma Optical Emission Spectroscopy (ICP-OES – Perkin Elmer), Gas Chromatography with MS and FID detectors (Agilent), CHNS-O analyzer (Perkin Elmer), MALDI-BioTyper (Bruker), Rheometer (Brookfield), Lyophilizer (LabConco), Spinning drop tensiometer (Kruss), Pendant drop tensiometer (Kruss), Spray Drier (Buchi), Anaerobic chambers, core-flood rigs, fermenters (NBS), Gene sequencer (3130XL), Ion Torrent – Personal Genome Machine, and other equipment.
- **Below mentioned papers are among highly cited papers for those journals**:
  - Lipopeptide production by *Bacillus subtilis* R1 and its possible applications, 2016, Brazilian Journal of Microbiology, http://dx.doi.org/10.1016/j.bjm.2016.07.006.
  - Biosurfactants: Production and potential applications in microbial enhanced oil recovery (MEOR), 2018, Biocatalysis and Agricultural Biotechnology, https://doi.org/10.1016/j.bcab.2018.01.010.
- I was 34th among top 500 authors, by Scholarly Output at Sultan Qaboos University over the period 2009 to 2018 (based on number of citations 2009-2018, as per SciVal-SCOPUS/Elsevier).
- Our MEOR research project was selected for University Day, May - 2014 and May - 2015, and I received 'Plaque of Appreciation' from Dean, College of Science, SQU, Oman.
- Certified and well-trained with access for working in 'hydrogen sulfide' (H_2S) contaminated oil fields and other areas, at Knowledge Grid LLC, Polyglot institute, Oman, organized by Petroleum Development Oman and Shell Representative Office, 2013-2016.
- Frequently visiting all governmental (PDO) and private (Occidental) oil fields in Oman, for MEOR project related work and sample collections for SRB related work.
- Ion Chromatography training at Sharjah, U.A.E., for Basic Theory, Instrumentation, Applications, Maintenance and troubleshooting, 20th – 23rd November, 2012, Metröhm Middle east FZC, Sharjah, UAE.
- BioRad Droplet Digital PCR - QX100, for Basic Theory, Instrumentation, and Applications, 22nd – 24th October 2012.

- My Biography have been included in the 2010 Edition of 'Marquis Who's who in the World', U.S.A.
- Received Postdoctoral fellowship from Sultan Qaboos University, Oman and Petroleum Development Oman, during 2009 – 2013.
- Core committee member for 'Teaching, learning and evaluation committee' and ISO 9001:2000, related activities in NVPAS College (2008-2009), for National Assessment and Accreditation Council (NAAC), India.
- Received 'PhD scholarship' from The M. S. University of Baroda, 2004 – 2008.
- Team member for ISO: 9001, ISO: 9002 and ISO: 14001 related documentation and lab activities in Alembic Ltd., India during 2001-2004.
- Awarded first prize in National conference on Frontiers in Biological Sciences, Feb 2009, for best Oral presentation under Food and Fermentation Technology section.
- Awarded second prize in International conference in Nov 2006, for best Poster presentation under Industrial Biotechnology section.
- During Bachelor studies, stood first amongst college, for all the three years and awarded Gold medal in the final year of study (1996-1999).
- Stood second in state level exam conducted by Gujarat Science Academy, during B.Sc. Microbiology.

Membership of Professional Bodies:

- Society of Petroleum Engineers (SPE), USA (2015-18).
- International Association of Colloid and Interface Scientists (IACIS), Netherlands.
- Life member of Microbiologists Society, India.
- Life Member of Biotechnology Research Society of India (BRSI), India.
- Life member of Society of Science & Environment of India (SSEI), India.
- Life Member of Society for Biotechnologists (India).

Acquired Techniques:

- Oil-field sampling for various MEOR projects, certified and trained for working under H_2S exposed high-risk areas in oil wells in Oman.
- Teaching theory and Laboratory practical, at undergraduate as well as graduate level.
- Writing, planning and executing research projects pertaining to Microbial Enhanced Oil Recovery, Enhanced Oil Recovery, Biosynthesis of active biomolecules, and environmental bioremediation.
- Basic Biochemical and Microbiological techniques for isolation and maintenance of cultures, and all routine laboratory instruments.
- Currently handling specialized equipment like: Rheometer DV3TLV (Brookfield, USA), Ion

Chromatography (Metrohm, Switzerland), Pendant Drop Tensiometer (Kruss, Germany), Spinning Drop Tensiometer (Kruss, Germany), Anaerobic chamber (Thermo), Lyophilizer – freeze dryer (Labconco, USA), Spray drier (Buchi, Switzerland), Viscometer (F5 Technology, GMBH), Rotavapor (Buchi, Switzerland), high speed centrifuges, UltraSonicator, Bioreactors, Core-flood apparatus, Conductivity meter and several other laboratory equipment.

- Expertise in working in Class 100000 – 100 areas (As per USP and USFDA), data maintenance and preparation as per ISO, and other Good Lab Practices (GLPs).
- Experience in isolation and maintenance of anaerobic microorganisms and working with anaerobic system: anaerobic chamber and gas pack systems.
- Well versed with DOE (Design of Experiments), optimization of Media components and operating parameters for higher and optimum production using software like Stat-graphics or Stat ease (Design Expert, Version 7.0.02), with 2 level (Plackett-Burman), 3 level (Box-Behnken) or 5 level interactions (CCD) etc.
- Standardization of Laboratory level and Scale up processes up to Bench scale fermentor (New Brunswick Scientific BIOFLO 110 (5.0L) and BIOSTAT B (2.2L) with Latest DCS and software Like SCADA.
- Expertise in the field of biosurfactant and MEOR to Oil field sampling and instruments related to Enhanced oil recovery experiments: Du-Nouy's Surface tensiometer (Kruss), Spinning Drop Tensiometer Model 510 (Temco Inc. USA) and SDT (Kruss, Germany), Pendant Drop Interfacial Tensiometer (Kruss), Sand Pack Columns and Core Flood apparatus.
- Analysis of product using HPTLC (CAMAG), and HPLC using software like SHIMADZU (LC -10 and VP series); WINCHROME etc.
- Lyophilization of cultures and product (2 to 6 L Capacity; Martin-Christ, Thermo, Labconco and others).
- Basic Molecular Biology Techniques: DNA isolation and estimation of purity (Nanodrop), Agarose Gel Electrophoresis, SDS-Polyacrylamide Gel Electrophoresis, 16S rDNA isolation and Amplified Ribosomal DNA Restriction Analysis (ARDRA), PCR amplification, Denaturing Gradient Gel Electrophoresis (DGGE, Bio-Rad), Droplet Digital PCR (QX100, Bio-Rad).

Birth Date & Personal:

13.07.1979: Indian, Male, Married, Two children.

Hobbies:

Travelling and Photography