

Dr. MIRAL R. THAKKER

Associate Professor & Head of the Department,
 Chemical Engineering Department,
 S. N. Patel Institute of Technology and Research Centre, Umrakh, Surat, Gujarat
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**General Information**

Gender	: Female
Date of Birth	: 13/12/1988
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Address	: B-203, Arihant Heights, Near New Gaurav Path Road, Adajan, Surat

Educational Information

Examination/Degree	Board/Institute	Score (Percent / CGPA)	Year of passing
X (SSC)	G. S. E. Board	88.14 %	2004
XII (HSC)	G. S. E. Board	79.40 %	2006
B. E. (Chemical)	VGEC, Chandkheda	65.88 %	2010
M. E. (Chemical)	VGEC, Chandkheda	8.37 (CPI)	2012
Ph. D. (Chemical Engineering)	SVNIT -Surat	-	July 2013 to Feb-2018

Experience (Annexure I)

Sr. No.	Nature	Years and Months	Tenure	
1.	Teaching Exp.	11 Months	23/07/2012 to 21/06/2013	(Teaching Assistant, CHED, SVNIT, Surat)
2.	Research Exp.	1 Year	23/07/2013 to 15/07/2014	(FIR, SVNIT)
3.	Teaching Exp.	3 Years 3 Months	16/07/2014 to 06/10/2017	(Assistant Professor and Head, CHED, PSE, Surat)
4.	Teaching Exp.	3 Years 4 Months	07/10/2017 to till date	(Associate Professor and Head, CHED, SNPIT&RC, Bardoli) (Currently Working)
	Total	8 Years 6 Months		

Publications and Training (Annexure II and III)

Type	Number of Publication
International Journal	06 (4 SCI, 2 UGC Approved)
International Conference	09
Book Chapter	01
National Conference	03
Training programs attended	38

Area of Interest

Extraction of natural products using various techniques: Conventional and Novel techniques like Hydro-/Steam- Distillation, Solvent Extraction, Microwave Assisted Extraction, Ultrasound Assisted Extraction, Hydrotopic Extraction, Ionic liquid Extraction.

PhD Supervision

Ongoing:

Student: Williams J. Koshy, Year: 2013-2014

Supervisors: Dr. S A Puranik, Dr. Miral R. Thakker

Other Information

Prizes/Awards/Recognitions

1. Certificate of Contribution for guiding Sagar Vyas and Parth Patel (BE Chemical) who secured Third place and received Rs. 3000/- towards research in cleaner production and clean technology by Gujarat Cleaner Production Centre, Government of Gujarat. Year of award: 2020-21
2. Selected in top 35, Out of 650 participants for pre-incubation support in herSTART program of GUSEC IN March - 2019.
3. Secured 1st place (Certificate and 10,000/- cash) towards Research on Cleaner Production and Cleaner Technology under Integration of Research to Industrial Application Program for Interlinking of Academia, Industries and Government, Organized by Gujarat Cleaner Production Centre, on 28th February 2019.
4. Received BHARAT VIKAS AWARD for outstanding performance in the field of steam distillation and solvent extraction by Institute of Self Reliance on 1st December 2018.
5. Recognition certificate for the mentorship of Devesh Sharma and Madhur Vacchani of Pacific School of Engineering for successfully completing the internship under DWSIM Flow sheeting project organized by Chemical Engineering Department of IIT, Bombay.
6. Examiner at UkaTarsadia University level examinations.
7. Member of Academic Advisory Board in Department of Chemical Engineering at CGPIT, UkaTarsadia University.
8. Member of Examiner Appointment Committee at CGPIT, UkaTarsadia University.
9. Member of Board of Studies at CGPIT, UkaTarsadia University.
10. Registered PhD Guide at Gujarat Technological University.
11. DPC review committee member of PhD students at Gujarat Technological University.

Grant Received for the conduction of various programs.

1. Received grant of Rs. 30,000/- to conduct two days workshop on “Utilities of Process Simulators in Chemical Engineering” from Gujarat Council on Science and Technology (GUJCOST) on 01st June 2018.
2. Received grant of Rs. 20,000/- to conduct one day seminar on “Recent Trends in Novel Separation Processes” from Gujarat Council on Science and Technology (GUJCOST) on 01st June 2018.
3. Received grant of Rs. 50,000/- to conduct two days workshop on “Process Simulation, Optimization and Designing using DWSIM and HINT Software” from Gujarat Council on Science and Technology (GUJCOST) on 1st February 2019.
4. Received grant of Rs. 30,000/- to conduct one day workshop on “Market and Research Trends in Membrane Separation Processes” from Gujarat Council on Science and Technology (GUJCOST) 4th November 2019.

Expert Lecture Delivered

1. Delivered an expert lecture on “Predictive Modeling using Artificial Neural Network” on 13/07/2015 to chemical branch students including outside delegates and participants.
2. Delivered an expert lecture on “Key Role of Unit Operations in Chemical Engineering Industries” on 04/01/2020 to Diploma Engineering students of Chemical and Mechanical Engineering (Valia Polytechnic and N. G. Polytechnic) in Refresher Course on HEAT AND MASS TRANSFER OPERATION conducted by Chemical Engineering Department of S. N. Patel Institute of Technology and Research Centre, Umrah.
3. Delivered an expert talk on “Recent Trends in Separation Techniques” in one day national workshop sponsored by GUJCOST on 21st January 2020 at S.N. Patel Institute of Technology and Research Centre, Umrah.
4. Delivered an expert talk on “Novel Extraction Techniques” on 06/02/2020 to third year students of Chemical Engineering at Government Engineering College, Bharuch.
5. Delivered a guest lecture on “Novel Separation Techniques” on 17/02/2020 to second year third year students of Chemical Engineering at Bhagwan Arihant Institute of Technology, Surat.
6. Delivered an expert talk on “Key Role of Unit Operations in Chemical Engineering Industries” on 18/02/2020 to third year students of Diploma Chemical Engineering at Government Polytechnic, Valsad.
7. Delivered an expert talk on “Novel Extraction Techniques” on 29/08/2020 to under graduate and post graduate students of Chemical Engineering at Vishwakarma Government Engineering College, Chandkheda.
8. Delivered an expert talk on “An Introduction to Separation Techniques” on 06/01/2021 to undergraduate students of Chemical Engineering at Government Engineering College, Bharuch.

Membership of Professional Bodies

1. Life member of Indian Institute of Chemical Engineers (IChE).
Membership Number: LAM 58822
2. Life member of Indian Society for Technical Education (ISTE)
Membership Number: LM 119746
3. Life member of ISR Leaders Club
Referral Code: ISRL0000000369

Extra Achievement

- Reviewer of Advances in Science, Technology and Engineering Systems Journal (ASTESJ) (Code: RVENC00028)
- Completed Two degrees of **Reiki method of Professional Healing**.
- 1st runner up in Garba Competition at Pacific School of Engineering, Surat.
- Professional Rangoli Maker.

Software proficiency

Design Expert

References (Annexure IV)

The above information is true to the best of my knowledge.

Miral R. Thakker

Experience

Sr. No.	Company / Institute and Nature of work
1.	<p>Sardar Vallabhbhai National Institute of Technology, Surat(From 23/07/2012 to 21/06/2013)</p> <p>As a Teaching Assistant. Teaching the subjects of Energy Technology, Chemical Engineering Thermodynamics, Mass Transfer Operation, Instrumentation and Process Control in Chemical Engineering Department.</p>
2.	<p>FIR, SVNIT (From 23/07/2013 to 15/07/2014)</p> <p>As a Full Time Institute Research, PhD</p>
3.	<p>Pacific School of Engineering, Surat</p> <p>(a) Assistant Professor and Head of Department (From 16/07/2014 to 06/10/2017)</p> <p>Teaching the subjects of Mass Transfer, Heat Transfer, Fluid Flow Operation, Pollution Control and Safety Management, Petroleum Refining And Petrochemicals in Chemical Engineering Department.</p> <p>Worked in a team as a coordinator/member for various administrative duties either at Institute level or Department level.</p> <ol style="list-style-type: none"> 1. CONVENOR of National Level Technical event “CHEMMOZALE’15”,13/4/2015 2. CONVENOR of National Colloquium on “Hazards and Disasters in Chemical Industries”, 22/6/2015 3. Conducted one day workshop on “Design of Experiments using Taguchi Method and Artificial Neural Network” on 13/07/2015 4. CONVENOR of National Level Technical Event “MINDSPARK’16”, 25-26/3/2016. 5. CONVENOR of Cultural Event “DIAMSPARK’16”, 12/3/2016 6. Core Committee member of Mega Job Fair & Apprenticeship Bharti Mela’16 at Pacific School of Engineering, Surat on 25-26/5/2015 7. Core Committee member of Industrial symposium at Pacific School of Engineering, Surat on 2/7/2016 8. Core Committee member of Industrial meet at Pacific School of Engineering, Surat on 22/7/2016 9. CONVENOR of sponsored series of expert lecture “CHEMFORUM’16” “Recent Trends in Chemical Engineering”, 30/07/2016 10. CONVENOR of Faculty Development Program on “Fearless Life & Personality Development” by Shree. Sanjay Raval, 14/07/2016 11. CONVENOR of State Level Technical Event “MANTHAN’17”, 1-2/3/2017 12. Organized one day work workshop on Process Calculation by Prof. B. I. Bhatt, 21/07/2017. 13. Blood donation camp coordinator 14. Tree plantation ceremony coordinator 15. Organized Matrubhasha day 16. Core committee member of Women development cell 17. Training and Placement Representative 18. SPOC of NPTEL 19. SPOC of Smart India Hackathon’17 20. Industrial visit coordinator 21. GTU innovation council

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22. Design Engineering coordinator
 23. Alumni meet coordinator
 24. International Women's Day coordinator
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4. Sitarambhai Naranji Patel Institute of Technology & Research Centre, Umrah, Bardoli.

(a) Assistant Professor and Head of the Department (From 07/10/2017 to Till date)

Teaching under graduate students of Chemical Engineering the subjects of Mass Transfer, Heat Transfer, Petroleum Refining and Petrochemical, Pollution Control and Safety Management

Teaching the post graduate students the subjects of Research skill and English For research paper Writing in Mechanical, Civil and EC Department

Worked in a team as a coordinator/member for various administrative duties either at Institute level or Department level.

1. Institute NBA Coordinator
 2. Member of Anti ragging Committee
 3. Chair person of Institute Internal Complaints Committee
 4. IChE Coordinator
 5. Member of Cultural Event (Harmony)
 6. Environment Day Celebration
 7. Women's Day Celebration
 8. Tech-fest
 9. Mega Job Fair-2019
 10. Principal's Meet-2019
 11. GTU Establishment Day Celebration and Many more
 12. Xitij 2019 (Zonal Cultural Event) Music Coordinator
 13. Alumni Talk
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List of Publications

International Journal: 06

1. Miral R. Thakker, Jigisha K. Parikh, Meghal A. Desai, “Synergism Ionic Liquid and Ultrasound for Greener Extraction of Geraniol: Optimization using Different Statistical Tools, Comparison and Prediction”, *Chemical Engineering Research and Design*, 134, 2018, 162 – 171 (DOI: 10.1016/j.cherd.2018.04.003) (Impact factor: 2.53)
2. Miral R. Thakker, Jigisha K. Parikh, Meghal A. Desai, “Ultrasound Assisted Hydrotropic Extraction: A Greener Approach for the Isolation of Geraniol from the Leaves of *Cymbopogon martinii*”, *ACS Sustainable Chemistry & Engineering*, 6, 2018, 3215 - 3224 (DOI: 10.1021/acssuschemeng.7b03374) (Impact factor: 6.951).
3. Miral R. Thakker, Jigisha K. Parikh, Meghal A. Desai, “Microwave assisted extraction of essential oil from the leaves of palmarosa: Multi-response optimization and predictive modelling”, *Industrial Crops and Products*, 86, 2016, 311 - 319 (DOI:10.1016/j.indcrop.2016.03.055) (Impact factor: 3.577).
4. Miral R. Thakker, Jigisha K. Parikh, Meghal A. Desai, “Isolation of Essential Oil from the Leaves of *Cymbopogon Martinii* using Hydrodistillation: Effect on Yield of Essential Oil, Yield of Geraniol and Antimicrobial Activity”, *Journal of Essential Oil Bearing Plants*, 19 (8), 2016, 1943 – 1956 (DOI: 10.1080/0972060X.2016.1231087) (Impact factor: 0.493).
5. Miral R. Thakker, A. N. Vaghela, P. H. Rana “Extraction of Tritium from Ceramic Breeder Material”, *Journal of Chemical and Pharmaceutical Research* (ISSN : 0975-7384), 2012, 4(4):2001-2004.
6. Miral Thakker, Prof. Amar vaghela, Prof. Paresh Rana, Dr. CVS Rao, Dr. T .K. Basu & Mitul Abhangi “Conceptual Design of Tritium Extraction System”, *Journal of Scientific Engineering and Technology* (ISSN : 2277-1581) www.ijset.com, Volume No.1, Issue No.3 : 34-35 01 July 2012.

International Conference: 09

1. “Re-refining of Waste Lubricating Oil”
Miral R. Thakker, Kevin Nariya, SCEMCON, Shroff. S. R. Rotary Institute of Technology, Ankleshwar, 17-18 October 2019.
2. “Ultrasound Assisted Extraction of Phytochemicals”
Miral R. Thakker, Devesh Sharma, International Conference on Paradigm shift in Chemical engineering education, processes and technology, Ahmedabad, 16-17 September 2017 (ISBN: 978-93-5281-401-5).
3. “Thermo-Dustbin for Solid Waste Management”
Miral R. Thakker, Devesh Sharma, Madhur Vacchani, Viral Sabhaya, Yogesh Rotliwala, SCHEMCON’17, NIT-Rourkela, 7-8 October 2017.
4. “Extraction of Phytochemicals using Microwave Radiation”
Miral R. Thakker, Kishan Talaviya, Manish Kathiriya, Denish Akbari, Dhruv Kikani, SCHEMCON’17, NIT-Rourkela, 7-8 October 2017.
5. “Removal of Heavy Metals using Biosorption”
Miral R. Thakker, Devesh Sharma, Ronak Shah, International Conference on Innovative Research in Agriculture, Food Science, Forestry, Horticulture, Aquaculture, Animal Science, Biodiversity, Ecological Science and Climate Change, JNU-Delhi, 22 October 2016 (Paper Presentation).
6. “Bio oil from algae: Opportunities and Challenges”
Miral R. Thakker, Sagar Kapadiya, Afro - Asian International Conference on Science,

Engineering & Technology (AAICSET-2015) (ISBN: 9-780993-909238), GEC, Bharuch, during 27-28 March 2015 (Paper Presentation).

7. “Extraction of Phytochemicals using Neoteric Solvents”
Miral R. Thakker, Dr. M. A. Desai, Dr. J. K. Parikh; Agricultural, Forestry, Horticulture, Aquaculture, Animal Sciences, Food Technology, Biodiversity and Climate Change: Sustainable Approaches, JNU, Delhi, during 6-7 December 2014 (Paper Presentation).
8. “Algae Oil: a source of bio diesel”
Miral Thakker, Prof. Mansi Srivastava; International Research conference on innovative strategies in commerce, Management, Engineering, Technology and social sciences, Goa, during 10-11 June 2013 (Paper Presentation).
9. “REDUCTION OF CHEMICAL OXYGEN DEMAND (C.O.D) FROM SPENT ACID”
Miral Thakker, Prof. Mansi Srivastava; proceedings of International Conference on Sustainable Technologies for Energy and Environment in Process Industries and Indo-US Joint International Conference on Energy and Environment, Panjab, during 27-30 December 2012 (CHEMCON-2012).

National Conference: 06

1. “Multi-Response Optimization and Predictive Modelling of Parameters Affecting Microwave Assisted Extraction of Essential oil from the Leaves of Palmarosa”
2. Miral R. Thakker, Jigisha K. Parikh, Meghal A. Desai, Annual Summit on Research and Innovation, SVNIT, Surat, 15th October 2016 (Poster Presentation).
3. “Experimental Techniques for Tritium Breeding Measurement and Designing of Tritium Extraction System”
4. Miral R. Thakker, Amar Vaghela, Paresh Rana, proceedings of National Symposium On Green Chemistry & Technology for Sustainable Development, Vallabh Vidyanagar during 25-26th February 2012 (Paper Presentation).
5. “Extraction of Tritium from ceramic breeder material”
6. Miral R. Thakker, Amar Vaghela, Paresh Rana, proceedings of Global Upcoming in Environment, Science & Technology, PTU, Bathinda, during 13-14th April 2012 (Paper Presentation).

Book Chapter: 01

1. Krishna P. Solanki, Miral R. Thakker, Meghal A. Desai, Jigisha K Parikh, “An insight into extraction of essential oil using sonic waves” in “The Essential Guide to Plant Oils” edited by B. M. Holst, Nova Science Publishers, Inc, USA. July 2020. ISBN: 1536180084

Training Program Attended

Short Term Training Program:

- “Green Concept in Engineering and Chemistry” SVNIT, Surat, 12-16 December 2016.
- “Recent Trends in Chemical Engineering”, SVNIT, Surat, 11-15 July 2016.
- “Design of Experiment for Process Optimization”, SVNIT, Surat, 6-10 June 2016.
- “Design of Experiments and Artificial Neural Network”, SVNIT, Surat, 22-26 June 2015.
- “Safety in Chemical and Petrochemical Industries”, FETR, Bardoli, 19-23 December 2015.
- “Green Chemistry and Engineering towards a Sustainable Future”, SVNIT, Surat, 18-22 November 2013.
- “Recent Trends in Nanomaterial: Synthesis, Characterization and Application”, SVNIT, Surat, 14-18 October 2013.
- “Advances in Waste Water Treatment and Energy Generation”, SVNIT, Surat, 30 September-4 October 2013.
- “Advanced Material, Characterization and Application in Material Science and Technology, SVNIT, Surat, 2-6 September-2013.
- “Environmental Awareness and Protection Technology”, V.V.P. Engineering college, Rajkot, 24-28 June-2013
- “Computational Techniques for Research in Engineering”, Co-Anchor Institute (Chemicals and Petrochemicals) L.D. College of Engineering, Ahmadabad, 18-22 July 2011.

Workshop:

- “Recent Advancements in Electrical Vehicles”, SNPIT, Bardoli, 20-21 January 2020.
- “Process Simulation, Optimization and Designing using DWSIM and HINT Software”, SNPIT, Bardoli, 14- 15 March 2019.
- “Recent Trends in Novel Separation Processes”, SNPIT, Bardoli, 3rd August 2018.
- “Utilities of Process Simulators in Chemical Engineering”, SNPIT, Bardoli, 17-18 July 2018.
- “Unmet Social Needs as Drivers of Innovations”, GTU, Ahmadabad, 22 November 2016.
- “Integrating Projects and design into core engineering courses: Enhancing learning and preparing professionals”, GTU-IUCEE, Ahmedabad, 17th July 2015.
- “ComsolMultiphysics Modeling”, SVNIT, Surat, 6th December 2013.
- “Advances in Material Science and Technology”, SVNIT, Surat, 3-7 June 2013
- “Nanotechnology Applications for Sustainable Development”, SVNIT, Surat, 19-21 April 2013.
- “Six Sigma Statistical and Analytical Tools”, SVNIT, Surat, 22nd March 2013.

Faculty Development Program:

- Attended ATAL FDP (Online) on Green Technology and Sustainability Engineering from 26th - 30th Oct 2020.
- Attended ATAL FDP (Online) on Sustainability Engineering from 9th-13th Sep 2020.
- Attended FDP on Hands on with Creating & Managing Online Teaching tools for Teachers (online) at SNPIT&RC from 28th-30th May 2020.
- Attended FDP on Outcome Based Education Software (Online) on 14th May 2020.
- Attended FDP on Intellectual Property For New India (Online) on 16th May 2020.

- Attended FDP on “Design of Experiments and Artificial Neural Network” under AICTE Training and Learning Academy (ATAL) at Chemical Engineering Department of S. V. National Institute of Technology, Surat from 4th – 8th November 2019.
- Attended GTU-ISTE sponsored FDP on “Deep Learning Using Python” from 17th - 22nd December 2018.
- Attended FDP for “Pedagogical Effectiveness” from 9th February 2018 at Vidhyabharti Trust College of BBA & BCA.
- Attended FDP for “Design Engineering” from 20-22 February 2015 at GTU.
- Attended FDP for “Design Engineering” from 6-8 November 2014 at GTU.
- Attended one Day FDP on “Bridging the teaching - learning gap using latest pedagogy and skills” on 19 July 2014 at Pacific School of Engineering, Surat.

Finishing School:

- Attended Finishing School on “Design of Experiment using the Taguchi Method: An Overview” on 25 April 2015 at SVNIT, Surat.
- Attended Finishing School on “Statistics For Experimenters” on 28-29 March 2014 at SVNIT, Surat.

Seminar:

- Attended seminar on “Leadership-A Benchmark” on 18/07/2016 at SGCCI, Surat.
- Attended seminar on “Opportunities for Entrepreneurs for Setting of Agricultural Industry” on 26/07/2016 at SGCCI, Surat.
- Attended seminar on “Role of Women in Economic Development of India” on 30/08/2016 at SGCCI, Surat.
- Attended A National seminar on “Recent Advances in Urban Environmental engineering” on 26/03/2016 at IE, Surat.

Refresher Course:

- Attended Refresher Course on “Conventional and Advanced Extraction Process” at SRICT, Ankleshwar on 12/08/2016.

SWAYAM ONLINE COURSE

- Completed Three Credit Course (8 weeks) on ACCREDITATION FOR UNDERGRADUATE ENGINEERING PROGRAMMES with 73% in September - 2020.

References

1.	Dr. J. K. Parikh, Professor, Chemical Engineering Department, S. V. National Institute of Technology, Surat. M: 09998007325 Email : jkp@ched.svnit.ac.in
2.	Dr. M. A. Desai, Associate Professor, Chemical Engineering Department, S. V. National Institute of Technology, Surat. M: 09879269709 Email :mad@ched.svnit.ac.in.
3.	Dr. Atul Shah Principal, B. V. Patel Institute of Technology (Diploma Studies), Umrakh M: 7567421337