Name: **Desai Meghal Ashwinkumar**

Date of Birth: 21st December, 1978

Qualification: Ph.D. in Chemical Engineering

Designation: Associate Professor

Address: Chemical Engineering Department
Sardar Vallabhbhai National Institute of Technology
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Education Qualifications:

Degree	Subject	University/Institution	Year
B.E.	Chemical Engineering	South Gujarat University, Surat, Gujarat	2000
M.Tech.	Chemical Engineering	Institute of Technology, Banaras Hindu University, Varanasi, Utter Pradesh	2004
Ph.D.	Chemical Engineering	Sardar Vallabhbhai National Institute of Technology, Surat, Gujarat	2012

Thesis title: Extraction of Essential Oil from *Cymbopogon flexuosus* using Novel Extraction Techniques (Ph.D.)

Dissertation title: Extraction of Limonoid Glucosides from Citrus Peels (M. Tech.)

Experience:

Designation	Name of the Institute	Period
Lecturer	Sarvajanik College of Engineering and Technology, Surat	15/06/2005 – 17/10/2007
Assistant Professor	Sardar Vallabhbhai National Institute of Technology, Surat	18/10/2007 – 27/01/2019
Associate Professor	Sardar Vallabhbhai National Institute of Technology, Surat	Since 28/01/2019

Area of Interest:

- Extraction of natural products using various techniques: Conventional and Novel techniques like Hydro-/Steam- Distillation, Solvent Extraction, Microwave assisted Extraction, Hydrotropic Extraction, Ultrasound assisted Extraction.
- Aggregation behavior of amphiphiles
- Optimization of process parameters using statistical techniques – Design of Experiment

Courses involved with

- PG:
  Core:
  Chemical Engineering Mathematics (2008 – 2012)
  Design of Experiments (2018 – till date)
- UG:
  Core:
  Chemical Engineering Materials (2008, 2009, 2011)
  General Chemical Technology (2009, 2010)
  Mass Transfer Operations (MTO – I: 2014 – till date, MTO – II: 2009 – till date)
  Instrumentation and Process Control (2005 – 2007, 2010)
  Chemical Engineering Plant Design and Economics (2006 – 2008, 2011 – 2017)
  Elective:
  Sustainability and Green Chemistry (2012 – 2018)

M.Tech. Dissertations Supervised

- Completed: 07

  Student: Shaikh Mohsin Mohammad Ismail, Year: 2012-13
  Dissertation Title: Extraction of natural dye from beetroot using novel techniques
  Supervisors: Dr. Jigisha K. Parikh and Dr. Meghal A. Desai

  Student: Sunny Arora, Year: 2013-14
  Dissertation Title: Extraction of butein from *Butea monosperma* using novel techniques
  Supervisor: Dr. Meghal A. Desai

  Student: Sagar Deotale, Year: 2013-14
  Dissertation Title: Solubility estimation of Telmisartan in pure and binary solvents
  Supervisors: Dr. Sanjay R. Patel and Dr. Meghal A. Desai

  Student: Sagar Kapadiya, Year: 2014-15
  Dissertation Title: Novel approach towards extraction of essential oil from clove buds
  Supervisor: Dr. Meghal A. Desai

  Student: Snehal Ghule, Year: 2015-16
  Dissertation Title: Ultrasound assisted extraction of clove bud oil using neoteric solvents
  Supervisor: Dr. Meghal A. Desai

Student: Akshay Bageshwar, Year: 2016-17
Dissertation Title: Extraction of total phenolic content from *Borassus flabeliffer* using solvent extraction
Supervisor: Dr. Meghal A. Desai

Student: Suraj Patel, Year: 2018-19
Dissertation Title: Fractionation of valuable chemicals from industrial waste of turmeric rhizomes
Supervisor: Dr. Meghal A. Desai

- Ongoing: 01

Ph.D. Supervision

- Completed: 01
  Student: Thakker Miral R., Year: 2013-14 (July) Date of Viva-voce: 03/02/2018
  Thesis Title: Studies on extraction of essential oil from Palmarosa using novel techniques
  Supervisors: Dr. Meghal A. Desai and Dr. Jigisha K. Parikh

  Recognition: Dr. Miral Thakker (PhD) secured First place and received Rs. 10,000/- towards research in cleaner production and clean technology by Gujarat Cleaner Production Centre, Government of Gujarat. Date of award: 28/02/2019

- Ongoing: 08
  Student: Chetan Sharma, Year: 2014-15 (July) – Thesis submitted
  Supervisors: Dr. Sanjay R. Patel and Dr. Meghal A. Desai

  Student: Piyush Modi, Year: 2014-15 (December)
  Supervisors: Dr. Meghal A. Desai and Dr. Jigisha K. Parikh

  Student: Krishna Solanki, Year: 2014-15 (December) – Thesis submitted
  Supervisors: Dr. Jigisha K. Parikh and Dr. Meghal A. Desai

  Student: Preeti Jain, Year: 2017-18 (July)
  Supervisors: Dr. Meghal A. Desai and Dr. Sanjay R. Patel

  Student: Priti Ganorkar, Year: 2017-18 (July)
  Supervisors: Dr. Meghal A. Desai and Dr. Girirajsinh C. Jadeja

  Student: Akash Patel, Year: 2018-19 (July)
  Supervisor: Dr. Meghal A. Desai

  Student: Ankur Raval, Year: 2018-19 (July)
  Supervisor: Dr. Meghal A. Desai

  Student: Vishal Thakare, Year: 2018-19 (December)
  Supervisors: Dr. Meghal A. Desai and Dr. Girirajsinh C. Jadeja

Research Project

Sr. No.	Name of the funding agency	Project Title	Year of Sanction of Grant	Amount Sanctioned	Status: Completed/ Ongoing	Investigators
01	Science & Engineering Research Board (SERB), DST	Mango Waste Valorization through Biorefinery Concept: A Sustainable and Greener Approach	2018 (3 years) (25/09/2018 -)	50,60,880/-	Ongoing	**Dr. Meghal A. Desai,** Dr. Giriraj C. Jadeja
02	Council of Scientific and Industrial Research, New Delhi.	Studies on Novel Techniques for Extraction of Essential oil from Patchouli	2013 (3 Years) (1/7/2013 – 30/6/2016)	12,06,940/-	Completed	Dr. Jigisha K. Parikh, **Dr. Meghal A. Desai,** Dr. Giriraj C. Jadeja
02	Institute Research Grant, SVNIT, Surat	Performance assessment of various hydrotropes and optimization of hydrotropic extraction of natural product	2014 (2 Years) (17/2/2014 – 30/6/2016)	10,00,000/-	Completed	Dr. Meghal A. Desai

Course Development Project

Sr. No.	Name of the funding agency	Project Title	Year of Sanction of Grant	Amount Sanctioned	Status: Completed/ Ongoing	Course Developer
01	National Mission Project on Pedagogic Research, MHRD, Govt. of India	Project to develop a course on "Chemical Reaction Engineering – I"	2013	6,15,000/-	Completed	Dr. Jigisha K. Parikh, **Dr. Meghal A. Desai,** Dr. Giriraj C. Jadeja

Publications: (Annexure I)

- International Journal: 19
- National Journal: 04
- International Conference: 16
- National Conference: 08

Journal Reviewer:

- Chemical Engineering Communications, Taylor & Francis
- Chemical Papers, Springer
- Food Science and Nutrition, Wiley
- Industrial Crops and Products, Elsevier
- Journal of Agricultural Science and Technology
- Journal of Cleaner Production, Elsevier
- Journal of The Institution of Engineers (India)-Series E, Springer
- Natural Product Research, Taylor & Francis Group

Project Reviewer:

- External Reviewer, National Fund for Scientific and Technological Development (FONDECYT), Chilean National Commission for Scientific and Technological Research (CONICYT), CHILE

Training Courses Organized:

1. AICTE sponsored STTP on "Energy Conservation and Recycling" at SVNIT, Surat during 07/07/2008 to 11/07/2008.
   Coordinators: Dr. Jigisha K. Parikh, Meghal A. Desai, Dr. A. K. Jana
2. AICTE sponsored STTP on "Advanced Instrumental Methods of Analysis" at SVNIT, Surat during 24/08/2009 to 28/08/2009.
   Coordinators: Dr. Jigisha K. Parikh, Meghal A. Desai, Dr. A. K. Jana
3. TEQIP-II sponsored STTP on "Green Chemistry and Engineering: Towards a Sustainable Future" at SVNIT, Surat during 18/11/2013 to 22/11/2013.
   Coordinators: Dr. Girirajsinh C. Jadeja, Dr. Meghal A. Desai, Dr. Jigisha K. Parikh
4. TEQIP-II sponsored One Day Finishing School on "Design of Experiments using the Taguchi Method: An Overview" on 25/04/2015
   Coordinators: Dr. Meghal A. Desai, Dr. Sanjay R. Patel
5. TEQIP-II sponsored One week STTP on "Design of Experiment and Artificial Neural Network" during 22/06/2015 to 26/06/2015.
   Coordinators: Dr. Meghal A. Desai, Dr. Sanjay R. Patel
6. TEQIP-II sponsored Three days STTP on "Effective Teaching Learning" during 08/09/2015 to 10/09/2015.
   Coordinators: Dr. Meghal A. Desai, Dr. Jigisha K. Parikh
7. TEQIP-II sponsored One week STTP on "Design of Experiment for Process Optimization" during 06/06/2016 to 10/06/2016.
   Coordinators: Dr. Meghal A. Desai, Dr. Sanjay R. Patel
8. TEQIP-II sponsored One week STTP on "Recent Trends in Chemical Engineering" during 11/07/2016 to 15/07/2016.
   Coordinators: Dr. Meghal A. Desai, Dr. Sanjay R. Patel, Dr. V. N. Lad, Dr. G. C. Jadeja, Dr. Z. V. P. Murthy
9. QIP sponsored One week STC on "Green Concepts in Engineering and Chemistry" during 12/12/2016 to 16/12/2016.
   Coordinators: Dr. Meghal A. Desai, Dr. Sanjay R. Patel, Dr. Girirajsinh C. Jadeja

Summit/ Conference/etc. organized:

1. TEQIP-II sponsored "Annual Summit on Research and Innovation" on 15/10/2016 Coordinator: Dr. Meghal A. Desai

Expert Lectures Delivered:

Abroad: (01)

1. "Extraction of essential oil from clove buds using microwave assisted extraction (MAE): A grey based Taguchi method approach" delivered at Environmental Engineering Research Seminar Series 2019, School of Civil & Environmental Engineering, Faculty of Engineering & Information Technology, University of Technology Sydney, Australia. (26/05/2019)

At other institutes: (14)

2. "Stability in Control System" delivered at R. N. G. Patel Institute of Technology, Bardoli. (09/10/2019)

3. "Principles of green chemistry & engineering: A concept towards sustainability" delivered at One day Seminar on "Recent Trends in Novel Separation Techniques" S. N. Patel Institute of Technology and Research Centre, Umrakh, Bardoli. (03/08/2018)

4. "Outcome based Education" delivered at MMMUT, Gorakhpur. (24-25/03/2018)

5. "Introduction and Procedure for Multi-response Optimization using Taguchi and Grey Relational Analysis" delivered at STTP on "Innovations and Research in Mechanical Engineering", Dr. Babassaheb Ambedkar College of Engineering and Research, Nagpur. (12/04/2017)

6. "Introduction to Quality by Design and Design of Experiment" delivered at STTP on "Innovations and Research in Mechanical Engineering", Dr. Babassaheb Ambedkar College of Engineering and Research, Nagpur. (11/04/2017)

7. "Hydrotropic Extraction" delivered at One day Refresher Course on "Conventional and Advanced Extraction Processes". Shroff S. R. Rotary Institute of Chemical Technology, Vataria. (12/08/2016)

8. "Design of Experiments" delivered at STTP on "Optimization: Theory and Engineering Practice", Vishwakarma Government Engineering College, Chandkheda, Gandhinagar. (18/12/2015)

9. "Design of Experiment and Taguchi Method: Basics" delivered at One Day Workshop on "Design of Experiments using the Taguchi Method and Artificial Neural Network", Pacific School of Engineering, Palsana, Surat. (13/07/2015)

10. "Sustainability and Green Chemistry & Engineering" delivered at Summer School-cum-Workshop on "Water and Wastewater Treatment", MCIIE, IIT (BHU), Varanasi. (30/05/2015)

11. "Supercritical Fluid Extraction" delivered at Novel Separation Techniques, Sarvajanik College of Engineering and Technology, Surat. (13/10/2011)

12. "Evaporation" delivered at LTTP on "Industrial Chemical Technology", Faculty of Engineering Technology and Research, Bardoli. (13/11/2010)

13. "Introduction to Chemical Engineering" delivered at LTTP on "Industrial Chemical Technology", Faculty of Engineering Technology and Research, Bardoli. (03/10/2010)

14. "Overview of Heat Transfer Operation and Heat Exchanger Design" delivered for motivating the students at N. G. Patel Polytechnic, Bardoli. (21/03/2014)

15. "Overview of Chemical Reaction Engineering" delivered for motivating the students at N. G. Patel Polytechnic, Bardoli. (13/10/2012)

At SVNIT: (13)

16. "Microwave Assisted Processes" delivered at QIP sponsored STC on "Green Concepts in Engineering and Chemistry", SVNIT, Surat. (16/12/2016)

17. "Principles of Green Chemistry and Engineering: A Concept towards Sustainability" delivered at STTP on delivered at TEQIP-II "Recent Trends in Chemical Engineering" SVNIT, Surat. (11/07/2016)

18. "Microwave Assisted Processes" delivered at TEQIP-II STTP on "Recent Trends in Chemical Engineering" SVNIT, Surat. (15/07/2016)

19. "Quality by Design" delivered at TEQIP-II sponsored One week STTP on "Design of Experiment for Process Optimization", SVNIT, Surat. (06/06/2016)

20. "Multi-response Optimization by the Taguchi Method and Grey Relational Analysis" delivered at TEQIP-II sponsored One week STTP on "Design of Experiment for Process Optimization", SVNIT, Surat. (10/06/2016)

21. "Case Study: Parametric Optimization using Taguchi Method and Grey Relational Analysis and Predictive Modelling using ANN" delivered at TEQIP-II sponsored One week STTP on "Design of Experiment for Process Optimization", SVNIT, Surat. (10/06/2016)

22. "Pinch Technology" delivered at delivered at TEQIP-II STTP on "Carbon Neutral Energy Sources", SVNIT, Surat. (12/05/2016)

23. "Mixed Level Taguchi Method and Factorial Design using Mixture" delivered at TEQIP-II sponsored One week STTP on "Design of Experiment and Artificial Neural Network", SVNIT, Surat. (24/06/2015)

24. "Multi-response Optimization using the Taguchi Method" delivered at TEQIP-II sponsored One week STTP on "Design of Experiment and Artificial Neural Network", SVNIT, Surat. (24/062015)

25. "Quality by Design" delivered at TEQIP-II sponsored One week STTP on "Design of Experiment and Artificial Neural Network", SVNIT, Surat. (23/06/2015)

26. "Design of Experiment and Taguchi Method: Basics" delivered at TEQIP-II sponsored One Day Finishing School on "Design of Experiments using the Taguchi Method: An Overview", SVNIT, Surat. (25/04/2015)

27. "Reactive Distillation as a Process Intensification Tool" delivered at TEQIP-II sponsored STTP on "Green Chemistry and Engineering: Towards a Sustainable Future" at SVNIT, Surat. (During 18-22/11/2013)

28. "Extractions using Microwave Radiation and Hydrotropes" delivered at TEQIP-II sponsored STTP on "Green Chemistry and Engineering: Towards a Sustainable Future" at SVNIT, Surat. (During 18-22/11/2013)

Award/Prize/Certificate:

- MHRD scholarship for M.Tech. through GATE exam, 2002-2004.
- BHU medal for standing first in M.Tech. (Chemical Engineering), 2004.
- Certificate of Contribution for guiding Dr. Miral Thakker (PhD) who secured First place and received Rs. 10,000/- towards research in cleaner production and clean technology by Gujarat Cleaner Production Centre, Government of Gujarat. Date of award: 28/02/2019

Professional Institute Affiliation:

Life Fellow, International Congress of Chemistry and Environment, Bhopal, India

FW/M-5036

Life Member, Indian Institute of Chemical Engineers, Kolkata, India

LM-46893

Senior Member, AIChE, USA

9901581761

Member, Institute of Engineers (India), Kolkata, India

M-160555-5

Professional Member, American Society for Quality, USA

96256050

Administrative Duties, etc.:

- Work/ed in a team as a coordinator/ member for various administrative duties either at Institute level or Department level
    - Accreditation by Nation Board of Accreditation for PG and UG
        - Preparation of the report (SAR), Filling the online form, Interaction with the expert team during visit for PG accreditation. In this regard, also attended workshops (2nd World Summit on Accreditation organized by NBA during 8-10 March, 2014 at New Delhi and Outcome Based Education during December, 2013 at SVNIT)
    - Chemical Engineering Society
    - DRISHTI- The innovation club
    - Institute central store
    - S. V. P. School
    - Research park and incubation centre
    - Training and placement
    - Exam disciplinary actions
    - UG exam
    - Time table committee (At Department level as well as Institute level)
    - Physical stock verification
    - Students' grievances committee
    - Services to community and tribal development
    - Industry alumni feedback
    - Convocation committee
    - Students Council Election

- Examiner/ paper setter at University level examinations
- Member, Interview committee for the selection of Assistant Professors at other institutes
- Expert/ Jury/ Judge at various technical events of other institutes

ANNEXURE I

PAPER PUBLICATIONS:

- **Papers published in International Journal: 19**

1. **Meghal A. Desai**, Jigisha Parikh, "Extraction of natural products using microwave as a heat source: A review", Separation and Purification Reviews, 39:1–32, December 2010. (DOI: 10.1080/15422111003662320)
2. Jigisha Parikh, **Meghal A. Desai**, Hydrodistillation of essential oil from *Cymbopogon flexuosus*, International Journal of Food Engineering, 7, No. 1. (DOI: 10.2202/1556-3758.2067, January 2011)
3. **Meghal A. Desai**, Jigisha K. Parikh, "Hydrotropic extraction of citral from *Cymbopogon flexuosus* (Steud.) Wats." Industrial & Engineering Chemistry Research, 51, 3750−3757, January 2012. (DOI: 10.1021/ie202025b)
4. **Meghal A. Desai**, Jigisha Parikh, "Microwave assisted extraction of essential oil from *Cymbopogon flexuosus* (Steud.) Wats.: A parametric and comparative study", Separation Science and Technology, 47:1963–1970, August 2012. (DOI: 10.1080/01496395.2012.659785)
5. Kiran Pawar, **Meghal A. Desai**, Jigisha Parikh, "Minimum hydrotrope concentration behavior of aqueous solution of sodium salicylate in presence of additives", Journal of Dispersion Science and Technology, 33: 1746-1751, December 2012. (DOI: 10.1080/01932691.2011.629532)
6. Kiran Pawar, **Meghal A. Desai**, Jigisha Parikh, "Parametric, optimization and thermodynamic studies on the influence of electrolytes on sodium salicylate in aqueous solution", Tenside Surfactants Detergents, 50: 289-296, July/August 2013. (Doc. No. TS110262)
7. Jigisha Parikh, Jitendra Rathore, Darshak Bhatt, **Meghal Desai**, "Clouding behaviour and thermodynamic study of nonionic surfactants in presence of additives", Journal of Dispersion Science and Technology, 34: 1392-1398, September 2013. (DOI:10.1080/01932691.2012.749183)
8. **Meghal A. Desai**, Jigisha Parikh, Achyut K. De, "Modelling and optimization studies on extraction of lemongrass oil from *Cymbopogon flexuosus* (Steud.) Wats.", Chemical Engineering Research and Design, 92: 793-893, May 2014. (DOI: 10.1016/j.cherd.2013.08.011)
9. **Meghal A. Desai**, Jigisha Parikh, "Extraction of essential oil from leaves of lemongrass using microwave radiation: Optimization, comparative, kinetic, and biological studies", ACS-Sustainable Chemistry and Engineering, 3: 421-431, March 2015. (DOI: 10.1021/sc500562a)
10. 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: 311-319, August 2016. (DOI:10.1016/j.indcrop.2016.03.055)

11. Sagar M. Kapadiya, Jigisha K. Parikh, **Meghal A. Desai**, "A greener approach towards isolating clove oil from buds of *Syzygium aromaticum* using microwave radiation", Industrial Crops and Products, 112: 626-632, February 2018. (DOI: 10.1016/j.indcrop.2017.12.060)
12. Chetan Sharma, **Meghal A. Desai**, Sanjaykumar R. Patel, "Ultrasound-assisted anti-solvent crystallization of telmisartan using dimethyl sulfoxide as organic solvent", Crystal Research Technology, 53, 1800001 (1 - 9), February 2018. (DOI: 10.1002/crat.201800001)
13. 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 and Engineering, 6: 3215-3224, March 2018. (DOI: 10.1021/acssuschemeng.7b03374)
14. Miral R. Thakker, Jigisha K. Parikh, **Meghal A. Desai,** "Synergism between ionic liquid and ultrasound for greener extraction of geraniol: optimization using different statistical tools, comparison and prediction", Chemical Engineering Research and Design, 134: 162-171, June 2018. (DOI: 10.1016/j.cherd.2018.04.003)
15. Krishna P. Solanki, **Meghal A Desai**, Jigisha K Parikh, "Sono hydrodistillation for isolation of citronella oil: A symbiotic effect of sonication and hydrodistillation towards energy efficiency and environment friendliness" Ultrasonics Sonochemistry, 49: 145-153 December 2018. (DOI: 10.1016/j.ultsonch.2018.07.038)
16. Chetan Sharma, **Meghal A. Desai**, Sanjaykumar R. Patel, "Effect of surfactants and polymers on morphology and particle size of telmisartan in ultrasound assisted anti-solvent crystallization" Chemical Papers, 73: 1685–1694, July 2019. (DOI: 10.1007/s11696-019-00720-1)
17. Krishna P. Solanki, **Meghal A Desai**, Jigisha K Parikh, "Improved hydrodistillation process using amphiphilic compounds for extraction of essential oil from java citronella grass", Accepted. (DOI: 10.1007/s11696-019-00861-3)
18. Chetan Sharma, **Meghal A. Desai**, Sanjaykumar R. Patel, "Anti-solvent sonocrystallization for nano-range particle size of telmisartan through Taguchi and Box–Behnken design", Accepted. (DOI: 10.1007/s11696-019-00886-8)
19. Piyush I. Modi, Jigisha K. Parikh, **Meghal A. Desai,** "Sonohydrodistillation: Innovative approach for isolation of essential oil from the bark of cinnamon" Industrial Crops and Products, 42, December 2019. (DOI: 10.1016/j.indcrop.2019.111838)

- **<u>Papers published in National Journal: 04</u>**

1. **Meghal A. Desai**, P K Mishra, "Limonoid glucosides in Indian lemon (*Citrus limon*) seeds", The Icfai University Journal of Chemical Engineering, 1:73-78, September 2009.
2. Dhiren P. Prajapati, **Meghal A. Desai**, Jigisha Parikh, "Fractional factorial design for optimization of extraction of essential oil from *Cymbopogon winterianus* by hydrodistillation", Research Journal of Chemistry and Environment, 15: 903-908, June 2011.
3. 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: 1943-1956, December 2016. (DOI: dx.doi.org/10.1080/0972060X.2016.1231087)

4. Krunal A. Shah, Darshak R. Bhatt, **Meghal A. Desai**, Girirajsinh C. Jadeja, Jigisha K. Parikh "Extraction of essential oil from patchouli leaves using hydrodistillation: parametric studies and optimization", Indian Journal of Chemical Technology, 24: 405-410, July 2017.

- **<u>Papers published/presented in International Conference/Seminar: 16</u>**

1. **Meghal A. Desai**, Jigisha Parikh; Thermodynamic study for aggregation behavior of hydrotropic solution; International Conference on Chemical Engineering ; World Congress of Science Engineering & Technology; Amsterdam, The Netherlands; September 2009 (57:227-229).
2. **Meghal A. Desai**, P K Mishra; Identification of limonoid glucosides in Indian orange (*Citrus sinensis*) peels; International Conference on Challenges in Biochemical Engineering and Food Technology; Annamalai University; October 2009.
3. **Meghal A. Desai**, Jigisha Parikh; Supercritical fluid extraction of natural materials; International Conference on Challenges in Biochemical Engineering and Food Technology; Annamalai University; October 2009.
4. Paresh K. Patel, Himanshu Desai, Sidhdharth Barve, **Meghal A. Desai**; Processing of re-refined oil: a step towards waste minimization; International Conference on Separation Processes ; Banaras Hindu University, Varanasi ; October 2009.
5. Himanshu Desai, Rakesh Jain. **Meghal A. Desai**; Nanofluids: a new concept to enhance heat transfer; International Conference on Advances in Mechanical Engineering; Sardar Vallabhbhai National Institute of Technology, Surat; January 2010.
6. Kiran Pawar, **Meghal A. Desai**, Jigisha Parikh; Study of mixed micelle formation and the interaction of nonionic surfactant with ionic surfactants; International Conference on Recent Advances in Chemical Engineering and Technology, Kochi; March 2011.
7. **Meghal A. Desai**, Jigisha K. Parikh; Extraction of essential oil from the leaves of lemongrass using novel extraction techniques; 6th International Conference on Green and Sustainable Chemistry; Nottingham, UK; August 2013.
8. Sagar V. Deotale, Sanjaykumar R. Patel, **Meghal A. Desai**; Solubility and bioavailability of poorly soluble drugs using novel approaches : a review; International Conference on Materials and Characterization Techniques; Centre of Crystal Growth, School of Advance Sciences, VIT University, Vellore, Tamil Nadu, India; March, 2014.
9. Sagar Kapadiya**, Meghal A. Desai**; Solar drying of natural and food products: a review; International Conference on Agriculture, Forestry, Horticulture, Aquaculture, Animal Sciences, Food Technology, Biodiversity and Climate Change Sustainable Approaches (AFHAFBC-2014), Krishi Sanskriti, New Delhi, India; August, 2014.
10. Miral R. Thakker, **Meghal A. Desai**, Jigisha K. Parikh; Extraction of phytochemicals using neoteric solvents; World Congress on "Agriculture, Forestry, Horticulture, Aquaculture, Animal Sciences, Food Technology, Biodiversity and Climate Change: Sustainable Approaches (AFHAFBC-2014), Krishi Sanskriti, New Delhi, India; December, 2014.

11. Sagar Kapadiya**, Meghal A. Desai**; Recent advancement in predictive modelling for phytochemical extraction using artificial neural network; Afro - Asian International Conference on Science, Engineering & Technology, Bharuch, India, 2015.
12. Sagar Kapadiya**, Meghal A. Desai**; Isolation of essential oil from buds of *Syzygium aromaticum* using hydrodistillation: Multi-response optimization and predictive modeling; 6th International Conference on Recent Trends in Science, Engineering and Management, Chandigarh, India, 2017.
13. Chetan Sharma, **Meghal A. Desai**, Sanjaykumar R. Patel, Effect of surfactants and polymers on particle size and morphology of telmisartan in anti-solvent crystallization, International Conference of Nanotechnology Applications: Chemical, Energy and Environment, Surat, India, 2017.
14. Sunny Arora, **Meghal A. Desai**; Extraction of natural colorant from the flowers of Flame of Forest using ultrasound; 20th International Conference on Applied Chemistry and Chemical Engineering (WASET); Bangkok, Thailand; February 2018.
15. G. C. Jadeja, **Meghal A. Desai**, D. R. Bhatt, J. K. Parikh; Green extraction of patchoulol from patchouli leaves using ultrasound-assisted ionic liquids; 20th International Conference on Applied Chemistry and Chemical Engineering (WASET); Bangkok, Thailand; February 2018.
16. Priti Ganorkar, Girirajsinh Jadeja, **Meghal Desai**; Waste Valorization of Water Hyacinth; 1st International Conference on Energy and Environment – Global Challenges; NIT Calicut; Kerala; March 2018.

- **<u>Papers published/presented in National Conference/Seminar: 08</u>**