

Curriculum Vitae

Name : Dr. Utkarsh Maheshwari

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Career Summary:

- Teaching experience of 11 years at graduate and postgraduate level of Chemical and Petroleum Engineering curriculum
- Working as Associate Professor, Department of Chemical Engineering at Dr. D. Y. Patil Institute of Engineering, Management & Research, Akurdi, Pune since 1st August 2020
- Worked as Assistant Professor, Department of Chemical Engineering at Dr. D. Y. Patil Institute of Engineering, Management & Research, Akurdi, Pune since 21st November 2016 till 31st July 2020.
- Headed the Department of Chemical Engineering at Dr. D. Y. Patil Institute of Engineering, Management & Research, Akurdi, Pune since 1st December 2016 to 8th April 2018
- Doctorate (Ph.D.): Removal of Metal Ions from Wastewater using Adsorption- Experimental and Theoretical Studies; Masters (M.E.) in Chemical Engineering; Bachelors (B.Tech.) in Petrochemical Engineering
- Research interests: Wastewater treatment, Petrochemical and Biochemical engineering, Modeling, Simulation & Optimization, Residue up-gradation, Enhanced oil recovery, Alternate energy sources
- Analytical equipments used: Atomic Absorption Spectrophotometer, UV-VIS Spectrophotometer, Volume Trace Analyzer, FTIR Spectrophotometer and others

- Technical and Management Consultant for a thermoplastic paint manufacturing company for a duration of November 2015 - November 2016
- **Member of 11 International associations and reviewer for 15 journals** of International repute.
- Published **1 Book Chapter, 11 journal papers** and **77 conference proceeding** papers individually and collectively with project students

Educational Qualifications:

Degree	University/Institute	Year	Subject	Class
Ph.D.*	BITS, Pilani	2015	Heavy Metal Removal	-
M.E	BITS, Pilani	2009	Chemical Engineering	I st
B.E.	Z.H.College of Engineering and Technology, Aligarh	2007	Petrochemical Engineering	I st

* Field of research: Removal of heavy metals using adsorption

Certification Courses

- Completed in total **70** courses with **3** specializations (Design of Experiments, Energy and Photography) from **23 universities** worldwide and Google cloud and Coursera Project Network
- Certification on "*Enhancing Soft Skills and Personality*" through NPTEL organized by IIT Kanpur in 2019 with Elite tag and Silver Medal
- Certification on "*Effective Engineering Teaching in Practice*" through NPTEL organized by IIT Madras in 2019 with Elite tag
- Certification on "*Introduction to Research*" through NPTEL organized by IIT Madras in 2018 with Elite tag
- Certification on "*Outcome Based Pedagogic Principles for Effective Teaching*" through NPTEL organized by IIT Kharagpur in 2018 with Elite tag
- Certification on "*Waste to Energy Conversion*" through NPTEL organized by IIT Roorkee in 2018 with Elite tag
- Diploma in "*Adobe Lightroom*" in 2017 from Shaw Academy, Practical Professional Online Education, London
- Foundation Diploma in Photography in 2015 from Shaw Academy, Practical Professional Online Education, London
- "Basic Photography Foundation" course in 2014 from indianinstituteofphotography.com
- Proficiency in Languages (French) in 2005 from the Aligarh Muslim University

Quality Improvement Programs (QIP)/Faculty Development Programme(FDP)/ShortTerm Training Programme (STTP)

- Completed one week workshop on "Refresher Course in Chemical Engineering and Technology" 2019 at Padmabhooshan Vasanthaodada Patil Institute of Technology (PVPIT), Budhgaon, Sangli during 18th June-22nd June 2019
- Completed 8 weeks International MOOCs Faculty Development Program on "Creating open source cloud based Gnomio Moodle of your own subject for OBE" under UKIERI, an UK-India Education and Research Initiative from 15th April to 10th June 2019
- Completed 6 days ISTE-AICTE approved Short Term Training Program (STTP) on "Advances in Wastewater Treatment" organized by Department of Chemical Engineering, Dr. D. Y. Patil Institute of Engineering, Management and Research, Pune from 28th May to 2nd June 2018
- Completed a 2 week AICTE approved FDP on "Pedagogy for Online and Blended Teaching-Learning Process" conducted by IIT Bombay from 3rd to 30th May 2018
- Completed a 2 week AICTE approved FDP on "Foundation Program in ICT for Education" conducted by IIT Bombay 8th March to 12th April 2018
- Participated in State Level Entrepreneurial Leadership Summit on "Entrepreneurial Leadership" organized by Dr. D. Y. Patil Institute of MCA under the Quality Improvement Program of SPPU from 9th to 10th February 2018
- Completed a 5 days ISTE-AICTE approved FDP on "Application of Separation Techniques in Chemical Engineering" organized by Department of Chemical Engineering, Dr. D. Y. Patil Institute of Engineering, Management and Research, Pune from 11th to 15th December 2017
- Completed a 5 days ISTE-AICTE approved FDP on "Utilization of Computers in Chemical Engineering" organized by Department of Chemical Engineering, Dr. D. Y. Patil Institute of Engineering, Management and Research, Pune from 6th to 10th June 2017
- Completed a 5 days QIP on First Course on Computational Fluid Dynamics at Indian Institute of Technology, Bombay from 29th May to June 2, 2017.

Project Titles

PhD Thesis

Removal of Metal Ions from Wastewater using Adsorption: Experimental and Theoretical Studies

M.E

Study of Pressure Swing Adsorption Process for the Production of Hydrogen.

B.Tech.

Techno-Economic Feasibility Study on the Manufacture of Polypropylene from Propylene

Teaching Experience: (≈ 11 yrs)

- Presently working as Assistant Professor, Department of Chemical Engineering, D. Y. Patil Institute of Engineering, Management & Research, Akurdi, Pune from November 21st 2016 (≈ 4+ yrs)
- Worked as Lecturer, Department of Chemical Engineering, Birla Institute of Technology and Science (BITS)-Pilani from 22nd October 2009 to 17th July 2016 (≈ 6 yrs 9 mnths)

Academic and Administrative Responsibilities

- **Executive Member**, Pune Regional Center, Indian Institute of Chemical Engineering (IChE) for the year 2020-21
- **Executive Member**, Pune Regional Center, Indian Institute of Chemical Engineering (IChE) for the year 2019-20
- **Academic Coordinator (Institute level)**, Dr. D. Y. Patil Institute of Engineering, Management & Research, Akurdi, Pune for 2019-20
- **Academic Coordinator**, Department of Chemical Engineering at Dr. D. Y. Patil Institute of Engineering, Management & Research, Akurdi, Pune for 2018-19
- **Coordinator**, Short Term Training Program on "Advances in Wastewater Treatment" organized" by Department of Chemical Engineering, Dr. D. Y. Patil Institute of Engineering, Management and Research, Pune from 28th May to 2nd June 2018
- **Head**, Department of Chemical Engineering at Dr. D. Y. Patil Institute of Engineering, Management & Research, Akurdi, Pune from 1st December 2016 to 8th April 2018
- **Executive Member**, Pune Regional Center, Indian Institute of Chemical Engineering (IChE) for the year 2017-18
- **Practice School (PS-1) Instructor** for Homi Bhabha Centre for Science Education, Mumbai, Atomic Energy Regulatory Board, Mumbai and Valve-Tech Industries, Mumbai for May 23rd to 16th July 2016
- **Honorary Joint Regional Secretary**, Pilani Regional Center, Indian Institute of Chemical Engineering (IChE) for the year 2015-16
- **Honorary Regional Treasurer**, Pilani Regional Center, Indian Institute of Chemical Engineering (IChE) for the year 2014-15
- **Coordinator**, Pune centre for BITSAT-2014 for 15th to 28th May 2014
- **Executive Committee Member** of Pilani Regional Center, Indian Institute of Chemical Engineering (IChE) for the year 2013-14
- **Organizing Committee Member** of the workshop, Workshop on Analytical Instruments for Chemical and Environmental Engineers (WAICEE-2013), organized by IChE Pilani Regional Center & Department of Chemical Engineering, BITS-Pilani, Pilani Campus (Rajasthan) during 22nd to 23rd March 2013
- **Coordinator**, Hospitality, Website Management, Media Management and Publicity Management, WAICEE - 2013, BITS, Pilani, 22nd to 23rd March 2013
- **Executive Committee Member** of IChE, Pilani Regional Center for the year 2012-13
- **Organizing Committee Member** of the conference, Students' Chemical Engineering Congress "SCHEMCON-2012" organized by BITS-Pilani, Rajasthan during 21st to 22nd September 2012

- **Coordinator**, Technical Event Management, Website Management, Media Management and Publicity Management, SCHEMCON - 2012, BITS, Pilani, 21st to 22nd September 2012
- **Organizing Committee Member** for Technological Advancements in Chemical and Environmental Engineering (TACEE) organized by Department of Chemical Engineering, BITS-Pilani, Pilani, India from 23rd to 24th March 2012

Consultancy Experience: 1 year

- Worked as a Technical Consultant to "Amitek Infra Pvt. Ltd.", Jaipur from November 2015 to November 2016

Courses Taught

Separation process II/ Selected Chemical Engineering Operations; Thermodynamics; Petroleum Reservoir Engineering; Petroleum Downstream Processing; Petroleum Refinery Engineering; Chemical Engineering Thermodynamics; Environmental Pollution Control; Kinetics and Reactor Design; Process Plant Safety & Environment; Chemical Engineering Thermodynamics; Fertilizer Technology; Energy Management; Process Design Principles I, Transport Phenomena, Process Dynamics and Control

Softwares Familiar with

Aspen Plus, Unisim, Fluent, Microsoft Office, Matlab, Lightroom, Adobe Illustrator, Adobe Photoshop

Industrial Experience

- Visit to the Water Treatment Plant at Harduaganj Thermal Power Station, Aligarh, U.P. on 12th July 2015
- Visit to Indian Oil Corporation Ltd Research & Development Center, Faridabad on 17th October 2013
- Visit to Indian Oil Corporation Ltd Refinery, Panipat on 17th September 2011
- Visit to Indian Oil Corporation Ltd Refinery, Panipat as a part of 6th Summer School Programme on “ Petroleum Refining & Petrochemicals” held at Indian Oil Institute of Petroleum Management, Gurgaon organized by Petrotech society, New Delhi in collaboration with Indian Oil Corporation Ltd-R&D and IIPM from 6th to 10th June 2011
- Six months industrial training as a part of Practice school in British Oxygen Company, Kolkata from January 2009 to June 2009. The projects handled are:
 - Cryogenic Nitrogen plant for Hindustan Petroleum Corporation Limited, Mumbai for a duration of 2 months (From 9th April 2009 to 8th June 2009)
 - Hydrogen PSA project for Bongaigaon Refineries and Petrochemical Limited, Assam for a duration of 3 months (9th January 2009 to 8th April 2009)

As the company is an EPC firm, my work was to co-ordinate between the vendors and timely deliver of the vessels and other accessories for completion of the project on time.

During my Cryogenic projects, I was also involved in the account settlement of the projects.

- One month industrial training in Polypropylene plant of Reliance Industries Limited at Hazira Complex in June 2006.

I have done my internship in the Polypropylene section of the Reliance Industries Limited, Hazria section. There I had learned the process and the various operations involved in the production of polymers.

Research interest:

Removal of Pollutants Using Adsorption; Environmental Engineering; Petrochemical Technology; Residue Upgradation; Refining; Enhanced Oil Recovery; Modeling and Simulation; Optimization

Funded Research Project:

Title : Recovery of Multiple Metal Ions from Industrial Wastewater using Adsorption
Amount : 2.00 Lakhs
Funding Agency : UGC, New Delhi
Duration : 2013-2015

Member of professional bodies:

- **Senior Member** of American Institute of Chemical Engineers (AIChE)
- **Life Member** of Indian Institute of Chemical Engineers (LMIChE)
- **Associate Member** of The Institution of Chemical Engineers (AMICChemE)
- **Fellow** of International Congress of Chemistry and Environment (FICCE)
- **Member** of Society of Petroleum Engineers (SPE)
- **Life Member** of Indian Society for Technical Education (ISTE)
- **Member** of International Association of Engineers (IAENG)
- **Member** of Asia-Pacific Chemical, Biological & Environmental Engineering Society (APCBEEES)
- **Member** of International Association of Computer Science and Information Technology (IACSIT)
- **Member** of International Society on Multiple Criteria Decision Making (MCDM)
- **Member** of Institute of Research Engineers and Doctors (IRED)

Professional recognition, awards, fellowships received: 08

- Felicitated by H.E. Smt. Pratibha Patil mam, Ex-President, India for working in the field of organizing blood donation camps on 13th May 2018

- Invited as Resource person at TEQIP-III sponsored one week workshop on "Refresher Course in Chemical Engineering and Technology" 2019 at Padmabhooshan Vasantraodada Patil Institute of Technology (PVPIT), Budhgaon, Sangli during 18th June-22nd June 2019
- Invited as judge for 'Prakalp', 13th National Chemical Engineering Students Conference, organized by MIT Academy of Engineering, Pune along with IChE, Pune regional Center on 8th September 2017
- Invited as judge for Promising and Innovative Young Chemical Engineer (PIYCE-2017), organised by AISSMS College of Engineering & IChE Pune Regional Center on 26th March 2017
- Chaired a session on "New process technologies & Adsorption technology" held during the 67th Annual Session of IChE (CHEMCON-2014) and Indo-Japanese Symposium, jointly organized by Chandigarh Regional Center, IChE and Dr, SSB University Institute of Chemical Engineering & Technology, Chandigarh, 27th to 30th December 2014
- Delivered a lecture on "The Importance of Water" at Regional Science Congress, 2014 organized by Jawahar Navodaya Vidyalaya, Kajra, Jhunjhunu on 11th November, 2014
- Awarded travel grant from Centre for International Co-operation in Science (CICS) to attend 2013 AIChE Annual Meeting held at Hilton San Francisco Union Square, San Francisco, CA during 3rd to 8th November 2013
- Chaired a session in 5th International Congress of Chemistry and Environment (ICCE-2011), Glory Beach Resort, Port Dickson, Negeri Sembilan, Malaysia, 27th to 29th May 2011
- Awarded GATE scholarship during M.E. from 2007-2009

Academic and Administrative Responsibilities: 12

Journal Reviewer : 15 International reputed journals

Conference/Workshop Attended : 18

M.E. Dissertation/B.E. Thesis Supervised : 12

Area: Oil recovery due to water influx,

Optimization of Dimethyl production techniques using Aspen Plus

Academic and Research Projects Supervised: 100+ Nos.

Patents Applied : 02

- Utkarsh Maheshwari, Kirti Zare, D. P. Deshpande, Pankaj Vardhe. Spiral Finned Crystallizer for Progressive Freeze Concentration, Application No. 201721022784A published on 21/07/2017
- Utkarsh Maheshwari, Priti Phalak, Sonali Singh, Shweta Kumbhar. Production of wine from grapes and brown rice, Application no. 201721022793A published on 21/07/2017

List of publications

Book Chapter Publication : 01

Journal publications : 11

Related to my Ph.D. work : 07

Others : 04

Conference Proceedings : 77

Related to my Ph.D. work : 12

Students project supervised : 65

In the area of Reservoir Engineering, Simulation & Optimization of Petrochemical Processes using Aspen Plus, Enhanced Oil Recovery Techniques, Alternative Energy Sources, etc.