



K. K. Wagh Institute of Engineering Education and Research  
HirabaiHaridasVidyanagari, Amrut Dham, Panchavati, Nashik-422003  
Department of Chemical Engineering

### Faculty Research Areas

Sr. No.	Prioritized Research Areas	Name of the Staff
1.	Environmental Engineering, Heat Transfer and Mass Transfer Applications	Prof. Dr. V. S. Mane
2.	Process Design and Equipment Design, Adsorptive Separation and wastewater treatment	Prof. V. N. Mawal
3.	Adsorptive Separation and wastewater treatment, Process intensification, Catalysis	Prof. Dr. S. N. Jain
4.	Waste water treatment, Fuel Cell, Ultrasonication and process modification/ intensification	Prof. Dr. G. B. Daware
5.	Process Modeling & Simulation, Catalysis and BioFuels, Computational Fluid Dynamics	Prof. S. N. Derle
6.	Microbial Fuel Cell, Extraction and Synthesis of Herbal Chemicals	Prof. P. P. Joshi
7.	Alternative Fuels / Biofuels, Refining Processes	Prof. Z. K. Deshmukh
8.	Process Modeling & Simulation, Computational Fluid Dynamics	Prof. T. B. Mahale
9.	Modeling and Simulation, Waste Management	Prof. Varsha Parashar
10.	Liquid and gas phase adsorptive separation	Dr. Rajesh Yennam

### Consultancy (From Industry)

#### List of Equipments:

Following equipments are available in project lab for the research and project:

Sr. No.	Equipments	Utilization
1.	BTI COD testing kit	For measurement of COD of the water samples in experimentation for the project and research activity by the students and staff respectively
2.	COD Digester (digital) 15 tubes	
3.	Ravel make variable speed peristaltic pump	Useful for the project and research activities regarding liquid flow
4.	Water testing kit	To analyze the water samples
5.	BTI orbital shaking incubator	To analyze the liquid samples under the controlled parameters
6.	BTI B.O.D. Incubator	To measure the Biological Oxygen Demand of water samples for 5 days under the controlled parameter
7.	Magnetic stirrer with hot plate	For stirring as well as heating purpose in project and research work
8.	Autoclave	To carry out the reaction under different operating conditions in project
9.	Vacuum pump Mono block	Useful to do experimentation under vacuum
10.	Plate type heat exchanger	To use in the project work
11.	Open pan Evaporator	For evaporation or concentrating the solution
12.	Fluidized bed heat transfer unit	To transfer the heat by fluidization
13.	Heat transfer in agitated vessel	To study an enhancement of the heat transfer rate by agitation
14.	Distilled Water Set Up	To generate distilled water for reaction and experimentation
15.	Water Softener	For softening or reduce the hardness of water required for experimentation.
16.	PH Meter Digital	Measurement of the acidity or alkalinity of solution
17.	Redwood Viscometer	Measurement of the viscosity of fluid
18.	Digital TDS Meter	Determination of total dissolved solids in given sample
19.	Muffle Furnace	Heating of the sample at higher temperature for experimentation purpose

20.	Hot air Oven 250°C with shelves	To dry the sample within time
21.	Magnetic Stirrer	For continuous stirring and heating
22.	Ultrasonic Cleaner (Sonicator)	Carry out the operation using sonication
23.	Digital electronic Balance	To measure required quantity of samples for experimentation
24.	ASTM Distillation Apparatus	To produce the distilled water
25.	RTD Pt-100 thermocouple sensors with indicator	Determine the temperature of reaction media or solution.
26.	Water and Oil Bath With Digital Controller	To carry out the constant temperature operation
27.	Revolutionary high speed Centrifuge without rotor Head	Separation of phases in the liquids
28.	Solar Conduction Dryer	Drying of food grade product without an exposure of the UV radiations

#### **MoUs with Industries:**

Department has signed MoU's with different industries to enhance interaction with industries, the list of MoU's signed with industries and the outcomes are shown in the below table.

**Table: MoUs with Industries**

<b>Sr. No.</b>	<b>Name of Industry</b>
1.	Catapharma Chemicals Ltd, Sinnar
2.	S.V. Plastrochem Pvt. Ltd, Nashik
3.	Chemito Technoly, Nashik
4.	Delta Finochem Pvt. Ltd, Nashik
5.	Abelin Polymer Ltd, Ambad, Nashik
6.	Water Quality Lab, Nashik
7.	Amol Oils, Jalgaon
8.	Janardan Fuels , Nashik
9.	Meridian Techniques, Nashik
10.	Sigma Chemical Industries, Nashik
11.	CP& Company, Thane
12.	Ekhande Agro Fertilizers Private Ltd, Nashik
13.	Agrisearch Search (india) Pvt. Ltd, Nashik

### Outcomes of MOU's with Different Industries

Sr. No.	Name of Industry with Whom MoU signed	Activity	Type of Activity	Date	Academic Year
1.	Abelin Polymers Ltd., Ambad, Nashik	Expert Lecture	Mr. B. P. Sonar, Director, Abelin Polymers, Ambad, Nashik delivered Expert Lecture on 'Working of Polymer Industries'	25/01/2019	2018-19
		Industrial Visit	Industrial Visit of S. E. Chemical Students along with following staff members Prof. G. B. Daware and Mr. A. N. Pagar	01/02/2019	2018-19
		Expert Lecture	Mr. B. P. Sonar, Director Abelin Polymers, Ambad, Nashik delivered Expert Lecture on 'Working of Polymer Industries'.	30/12/2017	2017-18
2.	Water Quality Laboratory Level-2, Hydrology Project Circle, Nashik	Expert Lecture	Mr. S. K. Kshirsagar, Government Analyst Water Quality Lab Level-II, Jalvigyan Bhavan, Dindori Road, Nashik-4 delivered Expert Lecture on topic 'Environmental Engineering'	08/09/2018	2018-2019
		Industrial Visit	Industrial Visit of T. E. Chemical Students along with members Prof. G.B. Daware & Prof. A. S. Kshirsagar	27/08/18	2018-2019
3.	Catapharma Chemicals Pvt. Ltd., Sinnar, Dist. Nashik.	Industrial Visit	Industrial Visit of B. E. Chemical Students along with following staff members Prof. S S. Shinde & Prof. T. B. Mahale	29/12/2018	2018-2019
		Campus Placement	Following student Selected in Campus Placement <ul style="list-style-type: none"> <li>Sahil Gohad</li> <li>Rohit Gaikwad</li> <li>Meghana Chavan</li> <li>Adil Patahan</li> </ul>	25/05/2019	2018-2019
4.	Delta Finochem Pvt. Ltd., Wadivarhe, Nashik	Inplant training	Following T.E. Chemical students have undergone inplant training <ul style="list-style-type: none"> <li>Jayesh Mahakal</li> <li>Altamash Khan</li> <li>Suraj Yadav</li> <li>Shubham Patil</li> </ul>	01/06/2019 to 21/06/2019	2018-19

		Industrial visit	Industrial Visit of T. E. Chemical Students along with Prof. G. B. Daware & Prof. S. S. Shinde	13/01/2019	2018-19
5.	S. V. Plastochem Pvt. Ltd., Janori, Nashik	Inplant training	Following students have undergone inplant training <ul style="list-style-type: none"> <li>Somnath Darekar (TE)</li> <li>Sunil Kokare (TE)</li> <li>Dhanashri Ahhirao (TE)</li> <li>Tejaswini Khirari (TE)</li> <li>Varsha Patil (SE)</li> </ul>	01/06/2019 to 21/06/2019	2018-19
6.	Janardan Fuels, Nashik	Industry Sponsored Project	Project title: Research on Deodorization of Tyre oil Name of students: <ul style="list-style-type: none"> <li>Avinash D. Agwan</li> <li>Bhagyashri V. Shelke</li> </ul>	2018-2019	2018-2019
7.	Meridian Technics, Nashik	Industry Sponsored Project	Project Title: Plant Design of Manufacture of Ester Name of students: Saurav Kucheria Rohit Parchure	2020-2021	2020-2021
		Inplant Training	Following 6 students of SE Chemical have undergone in-plant training <ul style="list-style-type: none"> <li>Swapnil Gade</li> <li>Rohit Parchure</li> <li>Abhishek Bhujade</li> <li>Nilesh Vishvambhar</li> <li>Sagar Patil</li> <li>Akhilesh Nikam</li> </ul>	01/06/2019 to 15/06/2019	2018-2019
8.	Ekhande Agro Fertilizers Private Limited, Nashik	Placement	Following students secure job through campus placement <ul style="list-style-type: none"> <li>Sangram Shirsat</li> <li>Vaibhav Chudhari</li> </ul>	2020-2021	2020-2021
		Industry Sponsored Project	Project Title: Ultrasound assisted Adsorption of 2-4 D amine salt Name of students: Shete Pratik Ekhande Avinash	2019-20	2019-20
9.	Agrisearch Search (india) Pvt. Ltd.	Inplant Training	Following 4 students of BE Chemical have undergone in-plant training <ul style="list-style-type: none"> <li>Pranjali Rajendra Aher</li> <li>Anjali Manoj Devang</li> <li>Soham Sandeep Dharankar</li> <li>Jadhav Chaitanya Prashant</li> </ul>	05/06/2021 to 25/06/2021	2021-2022

		Inplant Training	Following 3 students of TE Chemical have undergone in-plant training <ul style="list-style-type: none"> <li>• Pranjali Rajendra Aher</li> <li>• Anjali Manoj Devang</li> <li>• Soham Sandeep Dharankar</li> </ul>	10 /12 /2020 to 25/12/2020	2020-2021
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 Chemical Engineering Department