

### Evaluative Report of Department of Chemical Engineering

**1. Name of the department: Chemical Engineering**

**2. Year of Establishment: 1999**

**3. Names of Programmes / Courses offered:**

| Sr. No | Name of the programme       | Year of Establishment | Intake |
|--------|-----------------------------|-----------------------|--------|
| 1      | UG- BE Chemical Engineering | 1999                  | 60     |

**4. Names of Inter disciplinary courses and the departments/units involved: Nil**

**5. Annual/ semester/choice based credit system (programme wise)**

| Sr. No | Name of the programme   | Pattern/System(Annual/semester/choice based credit system) |
|--------|-------------------------|--|
| 1      | BE Chemical Engineering | Semester wise credit based system (from AY 2015-16)        |

**6. Participation of the department in the courses offered by other departments: Nil**

**7. Courses in collaboration with other universities, industries, foreign institutions, etc.: Nil**

**8. Details of courses/programmes discontinued (if any) with reasons: Nil**

**9. Number of teaching posts**

|                      | Sanctioned | Filled |
|----------------------|------------|--------|
| Professors           | 1          | 1      |
| Associate Professors | 2          | 0      |
| Asst. Professors     | 9          | 11     |

**10. Faculty profile with name, qualification, designation, specialization, (D.Sc./D.Litt./Ph.D. / M. Phil. etc.,)**

| Sr. No. | Name                        | Qualification | Designation         | Specialization | No. of Years of Experience (A+B)* | No. of Ph.D. Students guided for |
|---------|-----------------------------|---------------|---------------------|----------------|-----------------------------------|----------------------------------|
| 1.      | Dr. Venkat S. Mane          | Ph.D.         | Professor &Head     | Chemical Engg. | 17y 9m                            | NA                               |
| 2.      | Prof. Vijay N. Mawal        | M.Tech        | Assistant Professor |                | 16y 8m                            | NA                               |
| 3.      | Prof. Suyog N. Jain         | M.Tech        |                     |                | 15y 8m+5m                         | NA                               |
| 4.      | Prof. Gaurav B. Daware      | M.Tech        |                     |                | 11y 9m                            | NA                               |
| 5.      | Prof. Sandip N. Derle       | M.Tech        |                     |                | 12y 2m                            | NA                               |
| 6.      | Prof. Sachin S. Shinde      | M.Tech        |                     |                | 10y 4m+ 7m                        | NA                               |
| 7.      | Prof. Zameer K. Deshmukh    | M.Tech        |                     |                | 10y 4m                            | NA                               |
| 8.      | Prof. Piyush P. Joshi       | M.Tech        |                     |                | 09y 11m                           | NA                               |
| 9.      | Prof. Manohar K. Ahire      | M. Tech       |                     |                | 09y11m                            | NA                               |
| 11.     | Prof. Tejmal B. Mahale      | M.Tech        |                     |                | 2y 9m                             | NA                               |
| 12.     | Prof. Dhananjay H. Mahale   | M.Tech        |                     |                | 2y 4m+ 6m                         | NA                               |
| 13.     | Prof. Abhijit S. Kshirsagar | M.Tech        |                     |                | 2y 1m                             | NA                               |

\*A – Teaching Experience in K.K. Wagh Education Society

\*B – Teaching Experience in Other institute + Industry

**11. List of senior visiting faculty: Nil**

**12. Percentage of lectures delivered and practical classes handled (programme wise) by temporary faculty:**

(AY: 2017-18)

| Sr. No. | Class | Lecture Delivered By temp faculty/Total Lectures conducted for the class (A/B) | Practicals Handled by temp faculty/Total Practical Handled for the class (C/D) | Total (A+C)/(B+D) | Percentage |
|---------|-------|--|--|-------------------|------------|
| 1       | FE    | 165/451  | 219/468  | 384/919           | 41.80      |
| 2       | SE    | 0/522  | 0/141  | 0/663             | 0          |
| 3       | TE    | 0/482  | 0/114  | 0/596             | 0          |
| 4       | BE    | 0/414  | 0/66   | 0/480             | 0          |

(AY: 2016-17)

| Sr. No. | Class | Lecture Delivered By temp faculty/Total Lectures conducted for the class (A/B) | Practicals Handled by temp faculty/Total Practical Handled for the class (C/D) | Total (A+C)/(B+D) | Percentage |
|---------|-------|--|--|-------------------|------------|
| 1       | FE    | 192/217  | 265/283  | 457/500           | 91.40      |
| 2       | SE    | 0/419  | 0/150  | 0/569             | 0          |
| 3       | TE    | 0/467  | 0/595  | 0/1062            | 0          |
| 4       | BE    | 0/387  | 0/77   | 0/464             | 0          |

**13. Student -Teacher Ratio (programme wise)**

|    | 2017-18 | 2016-17 | 2015-16 | 2014-15 | 2013-14 |
|----|---------|---------|---------|---------|---------|
| UG | 17      | 16.85   | 18.20   | 21.87   | 18.18   |

**14. Number of academic support staff (technical) and administrative staff; sanctioned and filled**

| Sr. No | Type of Staff | Sanctioned | Filled |
|--------|---------------|------------|--------|
| 1      | Support Staff | -----      | 04     |

**15. Qualifications of teaching faculty with DSc/ D.Litt / Ph.D / MPhil / PG**

| Ph.D. | PG |
|-------|----|
| 01    | 11 |

**16. Number of faculty with on-going projects**

a) National: 1

b) International: Nil

**17. Departmental projects funded by DST - FIST; UGC, DBT, ICSSR and total grants Received**

| Sr. No | Projects funded by | Duration  | Co Investigator    | Title  | Grant sanctioned in Rs. |
|--------|--------------------|-----------|--------------------|--|-------------------------|
| 1      | University (BCUD)  | 2014-2016 | Mr. Sandip N Derle | Project on harvesting of algal Biodiesel from local species & testing its suitability in diesel engine | 2,00,000                |

**18. Research Centre /facility recognized by the University: Nil****19. Publications:**

|   |     |
|---|-----|
| Number of Journal Publications by all faculty:                |     |
| Number of paper published in peer reviewed journal:           | 39  |
| Number of publication listed in international database:       | 42  |
| Books with ISBN Number /ISSN Number with detail of publisher: | NIL |

| Name of Faculty    | Number of paper published in peer reviewed journal | Number of publication listed in international database | Citation Index | Impact Factor | H –index |
|--------------------|--|--|----------------|---------------|----------|
| Dr. V. S. Mane     | 5  | 5  | 998            | 5.527         | 4        |
| Prof. S. N Jain    | 5  | 5  | 11             | 4.01          | 2        |
| Prof. S. N. Derle  | 1  | 1  | 6              | ---           | 1        |
| Prof. G. B. Daware | 1  | 1  | 1              | 1.173         | 1        |
| Prof. M. K. Ahire  | 3  | 3  | 3              | 2.81          | 1        |
| Prof. T. B Mahale  | 1  | 1  | -              | 2.120         | -        |

**20. Areas of consultancy and income generated – Nil****21. Faculty as members in****a) National Committees:**

| Sr. No. | Name of the Faculty | Name of the Committee  |
|---------|---------------------|--|
| 01.     | Dr. Venkat. S. Mane | Member of Managing Committee, The Institution of Engineer's (India), Nashik Local Centre |

**b) International Committees: (Reviewers of journal, transactions)**

Dr. V. S. Mane Worked as Reviewer of Various Journals

- Wood Chemistry and Technology, Taylor and Francis group
- Surfactants and Detergents, Springer
- Industrial and Engineering Chemistry, Elsevier Publication
- Journal of Materials Research and Technology, Elsevier Publication
- Toxicological & Environmental Chemistry, Taylor and Francis group,
- Journal of Molecular Liquids, Elsevier Publication
- The Korean Journal of Chemical Engineering, Springer

**c) Editorial Boards – Nil**

**22. Student projects**

| Academic Year | UG  |  | PG  |  |
|---------------|---|--|---|--|
|               | % of students who have done in-house projects | % projects in organization outside the institute | % of students who have done in-house projects | % projects in organization outside the Institute |
| 2017-18       | 66.67   | 33.33  | NA  |  |
| 2016-17       | 87.17   | 12.83  |   |  |
| 2015-16       | 85.22   | 15.9   |   |  |
| 2014-15       | 91.54   | 8.45   |   |  |
| 2013-14       | 71.95   | 28   |   |  |

**23. Awards / Recognitions received by faculty and students**

| Academic Year | Total Number of students awards | Recognitions received by faculty |
|---------------|---------------------------------|----------------------------------|
| 2017-18       | 12                              | 1                                |
| 2016-17       | 7                               | 2                                |
| 2015-16       | 3                               | 5                                |
| 2014-15       | 4                               | 10                               |
| 2013-14       | 6                               | 8                                |

| Academic Year | Rank                 | Name                       | Class | %     |
|---------------|----------------------|----------------------------|-------|-------|
| 2014-15       | 1 <sup>st</sup> Rank | Mohammad Akhtar Nasuad Ali | BE    | 80.73 |
| 2013-14       | 2 <sup>nd</sup> Rank | Mohammad Akhtar Nasuad Ali | TE    | 74.0  |
| 2007-08       | 3 <sup>rd</sup> Rank | Yadav Rahul A              | BE    | 79.73 |
| 2005-06       | 1 <sup>st</sup> Rank | Yadav Rahul A              | SE    | 76.93 |
| 2005-06       | 3 <sup>rd</sup> Rank | Harshe Manish A            | SE    | 73.67 |
| 2004-05       | 1 <sup>st</sup> Rank | Kadam Sandeep A            | BE    | 78.46 |
| 2004-05       | 3 <sup>rd</sup> Rank | Bangera Rooplata J         | TE    | 75.20 |
| 2002-03       | 3 <sup>rd</sup> Rank | Shinde Pramod N.           | BE    | 76.03 |
| 2001-02       | 1 <sup>st</sup> Rank | Shinde Pramod N.           | TE    | 75.13 |

**24. List of eminent academicians and scientists / visitors to the department:**

| Sr. No             | Date       | Name of visitors      | Designation, Name of Affiliated Institute/ Company  |
|--------------------|------------|-----------------------|---|
| <b>A. Y. 17-18</b> |            |                       |   |
| 1                  | 05/07/2017 | Dr. Balaji Sitharaman | Associate Professor, Director, Multi-Functional Nano-Biosystems Lab, Stony Brook University, Newyork, USA |
| 2                  | 04/09/2017 | Dr. Ajit P. Rathod    | Assistant Professor, Chemical Engineering Department, VNIT, Nagpur, Maharashtra                           |
| 3                  | 24/01/2018 | Dr. V. V. Mahajani    | Ex-Professor, Institute of Chemical Technology, Mumbai  |
| 4                  | 10/02/2018 | Dr. S. Murthy Shekhar | Professor & Head, Siddganga Institute of Technology, Tumkur, Karnataka                                    |
| 5                  | 24/03/2018 | Dr. B. N. Thorat      | Professor & Head, Chemical Engg., Institute of Chemical Technology, Mumbai                                |
| <b>A.Y.16-17</b>   |            |                       |   |
| 1                  | 07/07/2016 | Sunil Chandak         | Director, Udyogwardhini Entrepreneurship Development Academy, Nashik.                                     |
| 2                  | 22/07/2016 | B. H. Shrikanth       | Chief Consultant, Sciencia Project Consultant, Pune   |

|                  |                          |                       |   |
|------------------|--------------------------|-----------------------|---|
| 3                | 13/07/2016               | Rohan Pawar           | Director, RAP Consultancy, Nashik                                   |
| 4                | 31/08/2016               | Dr. V. V. Mahajani    | Ex-Professor, Institute of Chemical Technology, Mumbai              |
| 5                | 02/09/2016               | Prashant Urkudey      | Director, Information Technology, Targus Ltd., California, USA      |
| 6                | 09/09/2016               | Dr. Ajit Rathod,      | Assistant Professor, VNIT, Nagpur, Maharashtra, India               |
| <b>A.Y.15-16</b> |                          |                       |   |
| 7                | 24/07/2015               | Dr. P. V. Vijay Babu  | Head, Chemical Engineering Department, Dr. B. A. T. U., Lonere      |
| 8                | 07/08/2015               | Dr. Sudhir Sawant     | Ex-Professor, ICT Mumbai  |
| 10               | 26/12/2015               | Tushar Mahale         | Alumnus of Department (2007 Batch)                                  |
| 11               | 04/01/16                 | B. P. Sonar           | Director, Abeline Polymers, Nashik                                  |
| 12               | 05/01/16                 | Dr. V. G. Pangarkar   | Ex-Professor of ICT Mumbai  |
| 13               | 25/01/2016               | Dr. Pramod Pathak     | Goa Energy Development agency, Goa                                  |
| 14               | 04/02/2016               | Dr. Parag Gogate      | Professor, ICT Mumbai   |
| 15               | 01/04/2016               | Dr. Purnanad V. Bhale | Faculty, SVNIT, Surat   |
| <b>A.Y.14-15</b> |                          |                       |   |
| 16               | 04/08/2014               | Dnyaneshwar Awasare   | Scientific Engineer, National Power Corporation India Ltd., Tarapur |
| 17               | 14/08/2014<br>31/03/2015 | Dr. A. W. Pathwardhan | Professor of ICT Matunga, Mumbai                                    |
| 18               | 17/09/2014               | Dr. A. B. Pandit      | Professor of ICT Matunga, Mumbai                                    |
| 19               | 19/01/2015               | B. H. Shrikanth       | Chief Consultant, Sciencia Project Consultant, Pune                 |
| <b>A.Y.13-14</b> |                          |                       |   |
| 20               | 05/08/2013               | Dr. K. E. Perumal     | Consultant, Corrosion and Metallurgical Consultant, Mumabi          |
| 21               | 14/09/2013               | K. P. Patil           | Asst. Commissioner Sale Tax, Jalgaon                                |
| 22               | 24/01/2014               | Dr. A.V. Borhade      | Faculty, R. Y. K. College, Nashik                                   |

## 25. Seminars/ Conferences/Workshops organized & the source of funding

### a) National

| Sr No | Year    | Name of Seminars/ Conferences/Workshops | Level    | Source of Funding |
|-------|---------|---|----------|-------------------|
| 01    | 2017-18 | Chemfest-2K18                           | National | Self-Financed     |
| 02    | 2016-17 | Chemfest-2K17                           | National | Self-Financed     |
| 03    | 2015-16 | Chemfest-2K16                           | National | Self-Financed     |
| 04    | 2014-15 | Chemfest-2K15                           | National | Self-Financed     |
| 05    | 2013-14 | Chemfest-2K14                           | National | Self-Financed     |
| 06    | 2012-13 | Chemfest-2K13                           | National | Self-Financed     |

## 26. Student profile programme/course wise:

| Name of the Course/programme | Applications received                          | Selected | Enrolled |    | Pass percentage |
|------------------------------|--|----------|----------|----|-----------------|
|                              |  |          | *M       | *F |                 |
| 2017-2018                    | Centralised admission process governed by DTE. | 59       | 43       | 16 | NA              |
| 2016-2017                    |  | 61       | 46       | 15 |                 |
| 2015-2016                    |  | 56       | 40       | 16 |                 |
| 2014-2015                    |  | 64       | 48       | 16 |                 |
| 2013-2014                    |  | 61       | 42       | 19 |                 |

\*M=Male \*F=Female

## 27. Diversity of Students

| Course year                      | Maharashtra State Students | OMS Students | % of students from Abroad |
|----------------------------------|----------------------------|--------------|---------------------------|
| <b>Academic Year (2017-2018)</b> |                            |              |                           |
| FE                               | 59(100)                    | 00           | 00                        |
| DSE                              | 18                         | 00           | 00                        |
| <b>Academic Year (2016-2017)</b> |                            |              |                           |
| FE                               | 58 (95.08)                 | 03 (4.92%)   | 00                        |
| DSE                              | 27                         | 00           | 00                        |
| <b>Academic Year (2015-2016)</b> |                            |              |                           |
| FE                               | 54 (96.43 %)               | 02 (3.57 %)  | 00                        |
| DSE                              | 27                         | 00           | 00                        |
| <b>Academic Year (2014-2015)</b> |                            |              |                           |
| FE                               | 60 (93.75 %)               | 04 (6.25 %)  | 00                        |
| DSE                              | 25                         | 00           | 00                        |
| <b>Academic Year (2013-2014)</b> |                            |              |                           |
| FE                               | 59 (96.72 %)               | 02 (3.28% )  | 00                        |
| DSE                              | 16                         | 00           | 00                        |

## 28. How many students have cleared national and state competitive examinations such as NET, SLET, GATE, Civil services, Defence services, etc.?

| Sr. No. | Academic Year | No. of students |      |     |
|---------|---------------|-----------------|------|-----|
|         |               | GRE/TOEFL       | GATE | CAT |
| 1       | 2017-18       | Nil             | 2    | Nil |
| 2       | 2016-17       | Nil             | 1    | Nil |
| 3       | 2015-16       | Nil             | 1    | Nil |
| 4       | 2014-15       | Nil             | 3    | 2   |
| 5       | 2013-14       | 8               | 1    | 1   |

## 29. Student progression

| Student progression              |                               | Against % enrolled |                   |                 |                 |
|----------------------------------|-------------------------------|--------------------|-------------------|-----------------|-----------------|
|                                  |                               | 2013-14            | 2014-15           | 2015-16         | 2016-17         |
| UG to PG                         |                               | 16.64%<br>(14/85)  | 13.69%<br>(10/73) | 4.76%<br>(3/63) | 5.12%<br>(4/78) |
| PG to M.Phil.                    |                               | Nil                | Nil               | Nil             | Nil             |
| PG to Ph.D.                      |                               | Nil                | Nil               | Nil             | Nil             |
| Ph.D.to Post-Doctoral            |                               | Nil                | Nil               | Nil             | Nil             |
| Employment                       | Campus selection              | 18%                | 20.54             | 11.11           | 19.23           |
|                                  | Other than campus recruitment | 58.82              | 58.90             | 47.61           | 51.28           |
| Entrepreneurship/Self-employment |                               | Nil                | Nil               | Nil             | Nil             |

## 30. Details of Infrastructural facilities

### a) Library

|    | Total number of books | Total number of titles |
|----|-----------------------|------------------------|
| UG | 373                   | 331                    |

**b) Internet facilities for Staff & Students**

Shared 155 Mbps Leased line internet connections for Staff & Students.

**c) Class rooms with ICT facility** 4 ICT enabled classrooms with area 78.75 sq. M. Each and one seminar hall with area 175 sq. m.

**d) Laboratories**

| Sr. No.      | Room No. | Laboratory Name               | Area in sq. m. | Equipment Cost in Rs |
|--------------|----------|-------------------------------|----------------|----------------------|
| 1            | B108-I   | Process Modeling Simulation   | 70.00          | 34,17,940.00         |
| 2            | B108-II  | Mechanical Operation          | 105.00         | 7,77,616.00          |
| 3            | B106-I   | Mass Transfer- I              | 105.00         | 4,93,653.00          |
| 4            | B106-II  | Chemical Reaction Engineering | 70.00          | 3,31,905.00          |
| 5            | B103-I   | Process Dynamics & Control    | 70.00          | 2,69,187.00          |
| 6            | B103-II  | Mass Transfer –II             | 105.00         | 9,25,590.00          |
| 7            | B206-I   | Project Lab                   | 105.00         | 14,55,226.00         |
| 8            | B203-II  | Process Instrumentation       | 70.00          | 7,79,937.00          |
| 9            | B203-I   | Drawing Hall                  | 105.00         | 2,02,337.00          |
| <b>Total</b> |          |                               |                | <b>86,53,391.00</b>  |

**31. Number of students receiving financial assistance from college, university, government or other agencies**

| YEAR           | SC        | ST        | VJNT      | OBC        | SBC       | Minority State Govt. |
|----------------|-----------|-----------|-----------|------------|-----------|----------------------|
| <b>2017-18</b> | 14        | 2         | 12        | 62         | 3         | 4                    |
| <b>2016-17</b> | 17        | 00        | 11        | 51         | 5         | 8                    |
| <b>2015-16</b> | 25        | 4         | 25        | 83         | 6         | 6                    |
| <b>2014-15</b> | 29        | 4         | 25        | 75         | 4         | 3                    |
| <b>2013-14</b> | 26        | 8         | 30        | 66         | 6         | 1                    |
| <b>Total</b>   | <b>97</b> | <b>16</b> | <b>91</b> | <b>275</b> | <b>21</b> | <b>18</b>            |

**32. Details on student enrichment programmes (special lectures / workshops /Seminar) with external experts**

| Sr. No. | Date       | Topic lectures / workshops                                       | Name of Expert/Organization  |
|---------|------------|--|--|
| 1.      | 24/03/18   | Recent Trends and Research Opportunities in Chemical Engineering | Dr. B. N. Thorat, Professor and Head, Chemical Engineering Dept. Institute of Chemical Technology, Matunga, Mumbai |
| 2.      | 28/02/18   | Static Mixers in Chemical Process Industries                     | Dr. V. V. Mahajani Superannuated Professor, Institute of Chemical Technology, Matunga, Mumbai                      |
| 3.      | 10/02/2018 | Computational Fluid Dynamics                                     | Dr. S. Murthy Shekhar, Professor & Head, Siddganga Institute of Technology, Tumkur, Karnataka                      |
| 4.      | 24/01/18   | Solar Conduction Dryer   | Dr. V. V. Mahajani Superannuated Professor, Institute of Chemical Technology, Matunga, Mumbai                      |
| 5.      | 04/09/17   | Etherification- Process Intensification                          | Dr. Ajit P. Rathod, Assistant Professor, Chemical Engineering Department, VNIT, Nagpur                             |

|     |          |   |  |
|-----|----------|---|--|
| 6.  | 24/01/17 | Analytical Techniques                                     | Rohan Pawar, Director, RAP Consultancy, Nashik   |
| 7.  | 20/01/17 | CASI Certification  | Dr. Paresh Seth, CEO, Director- CASI Global, New   |
| 8.  | 19/01/17 | Packed Column Design                                      | Dr. V. V. Mahajani, Ex-Professor, ICT, Mumbai  |
| 9.  | 17/01/17 | Overview of Process Plant                                 | Chandrakant R. Mohikar, Petro Project Consultant, Nashik   |
| 10. | 17/01/17 | Overview of Polymer Industries                            | B. P. Sonar, Director, Abelin Polymers Ltd., B-16, MIDC, Ambad, Nashik   |
| 11. | 16/01/17 | Interview Skills  | Subhash D. Rajguru, Director Maharudra Career Development Academy, Nashik  |
| 12. | 29/12/16 | Career Guidance   | Dr. Prabhakar Jadhav Analyst, Iliya Lily & Co.,  |
| 13. | 27/09/16 | An Overview of Infrared Spectroscopy                      | Dr. Santosh S. Chhajer, Assistant Professor, MET's Institute of Pharmacy, Maharashtra                                    |
| 14. | 03/09/16 | Safe Net Surfing  | Wasim Pathan, Hackers Hook E-Learning, Nashik  |
| 15. | 02/09/16 | Scope of Chemical Engineering- Career Guidance            | Prashant Urkudey, Director, Information Technology, Targus Ltd., California, USA   |
| 16. | 31/08/16 | Chemical Process Engineering                              | Dr. V. V. Mahajani, Ex-Professor, ICT, Mumbai  |
| 17. | 29/08/16 | Personality Development- Soft Skills                      | Subhash D. Rajguru, Director Maharudra Career Development Academy, Nashik  |
| 18. | 25/08/16 | Role & Scope for Chemical Engineers in Process Industries | Manish Harshe, Director, Epicure Foods & Beverages, Belane, Tal. Kankavali, Dist. Sindhudurg, Maharashtra, India-416 602 |
| 19. | 12/08/16 | Study Abroad- Overview & counselling                      | Smita Bhamare, Stepahead Study Abroad Consultancy, Nashik  |
| 20. | 22/07/16 | Guidance for Chemical Projects                            | B. H. Shrikanth, Consultant, Sciencia Project Consultant, Pune   |
| 21. | 21/07/16 | Environmental Engineering                                 | S. K. Kshirsagar, Hydrology Project, Meri, Nashik  |
| 22. | 13/07/16 | Analytical Techniques                                     | Rohan Pawar, Director, RAP Consultancy, Nashik   |
| 23. | 07/07/16 | Entrepreneurship Development                              | Sunil Chandak, Director, Udyogwardhini Entrepreneurship Development Academy, Nashik                                      |
| 24. | 01/07/16 | Glass Lined Reactor and Reactor Design                    | Gaurang Desai and Hardik Upadhyay GMM Pfaudler Process Solutions, Mumbai   |
| 25. | 09/09/16 | Membrane Technology and Transport Phenomena               | Dr. Ajit Rathod, Assistant Professor, VNIT, Nagpur   |
| 26. | 31/03/15 | Critical thickness of insulation for heat Exchanger       | Dr. Anand Patwardhan, Prof., ICT, Mumbai   |
| 27. | 25/03/15 | Sustainability via Green                                  | Dr. V.V. Mahajani, Ex- Prof., ICT, Mumbai  |
| 28. | 24/03/15 | Communication Skill                                       | Sagar Nikam, Director, ELC, Nashik   |
| 29. | 10/03/15 | Entrepreneurship Skills                                   | B.P. Sonar, Director, Abelin Polymers, Ambad   |
| 30. | 09/03/15 | Innovations in Chemical Engg.                             | Dr. V. G. Pangarkar Ex. Prof & Head, ICT, Mumbai   |
| 31. | 25/02/15 | Introduction to Process Design                            | Sharad Naik, Director, Aniruddha Engineering Consultancy   |
| 32. | 24/02/15 | Overview of Environment Engg.                             | S. K. Kshirsagar, Govt. Analyst, Hydrology Project Sinchan bhavan, Nashik  |
| 33. | 20/02/15 | Design of Packed Towers                                   | Dr. V. G. Pangarkar Ex. Prof & Head, ICT,  |
| 34. | 18/02/15 | Career guidance in Engg. Process Consultant               | Nikhil Vyawahare, Xyntech solutions & Training services, Mumbai  |



|     |          |   |   |
|-----|----------|---|---|
| 35. | 19/01/15 | Green Chemistry, Ethanol- A Prospective Renewable Sustainable Auto fuel | B. H. Shirkanth, Sciencia Project Consultant, Pune)                                     |
| 36. | 13/01/15 | Recent trends in Renewable  | J.P. Shah, KKWIEER, Nashik  |
| 37. | 03/01/15 | Study abroad  | Smita Bhamre, Study Abroad, Nashik  |
| 38. | 30/12/14 | Gas processing & gas based power generation & gas                       | Chandrakant Mohikar, Petro-project Consultant   |
| 39. | 20/09/14 | Equipment Design and Material of Construction                           | Jatin Tarkas, Director of Solar Equipments Pvt. Ltd., Baroda, Gujrat                    |
| 40. | 31/09/14 | Orientation Programme for Campus Placement.                             | Dr. P.K. Shahabadkar, KKWIEE &R, Nashik   |
| 41. | 16/08/14 | Business Aspects of the Process Industry                                | Niket Dhirai Director of Camyplants   |
| 42. | 14/08/14 | Separations using Supported Liquid Membrane                             | Dr.A.W. Pathwardhan, ICT, Mumbai  |
| 43. | 11/08/14 | Entrepreneurship  | Nilesh Lahoti , Owner of Giri Paints, Nashik  |
| 44. | 04/08/14 | Nuclear Energy- Green Energy  | Dnyaneshwar Awasare, Scientific Engineer National Power Corporation India Ltd., Tarapur |
| 45. | 26/07/14 | Stress Management   | Dr. Ashwinikumar Bhardwaj Professor in N S P M. B.R. College, Nashik                    |
| 46. | 25/07/14 | Career Guidance- MBA as a career option                                 | Sagar Nikam, Excellence learning centre Pvt. Ltd., Nashik                               |
| 47. | 19/07/14 | Public Speaking   | P. Sriram, UCD Centre, Nashik   |
| 48. | 16/07/14 | Analytical Techniques   | Rohan A Pawar, Director of RAP Analytical Research & Training Centre, Nashik            |
| 49. | 10/7/14  | Environmental Engineering and Science                                   | S. K. Kshirsagar Government Analyst Water Quality Lab Level-II, Nashik                  |
| 50. | 03/04/14 | Project Management  | Dr. V. V. Mahajani, Ex-Professor , ICT, Mumbai  |
| 51. | 20/02/14 | Soft skill, Personality Development                                     | Arpit Ninawe, Elite Academy, Nashik   |
| 52. | 18/2/14  | Process Simulation  | .Arjun Gujar, Hydron Engineering  |
| 53. | 04/02/14 | Opportunities in Engineering R&D  | Sam Bastine, Kothekar, ACCESS CADD  |
| 54. | 24/01/14 | Nan catalysis and Characterization Techniques                           | Dr. A.V. Borhade, RYK, Nashik   |
| 55. | 16/01/14 | Orienting Lifestyle to Success  | H.G. KrishnaDhan Das, ISCON   |
| 56. | 14/09/13 | Preparation of Competitive  | K.P. Patil, Asst. Commissioner Sale Tax, Jalgaon  |
| 57. | 24/08/13 | Awareness Campaign about smoking, chewing tobacco                       | Dr. Raj. Nagarkar, Cancer Specialist, Curie Manawata Hospital, Nashik                   |
| 58. | 14/08/13 | Process Technology in oil and   | Chandrakant Mohikar, Petro Project Consultant   |
| 59. | 05/08/13 | Corrosion in Process Industries   | Dr. K. E. Perumal, Industrial Consultant  |
| 60. | 01/08/13 | Education In Abroad   | Amit Gore Akshay Study Abroad, Nashik   |
| 61. | 25/07/13 | Nano Solar cell   | J. P. Shah, KKWIEER, Nashik   |

### 33. Teaching methods adopted to improve student learning

1. Conducting Session by Industrial Expert
2. Demonstrations in the laboratory
3. Industrial Visit to have more practical exposure

4. Use of MOOCS. (NPTEL etc.)
5. Preparation and discussion of MCQ's in classroom
6. Discussing content beyond syllabus
7. Comprehensive Assignment
8. Mini project

### 34. Participation in Institutional Social Responsibility (ISR) and Extension activities

Number of students Participation in NSS activities

| Sr. No | Academic Year | No. of students worked |        |
|--------|---------------|------------------------|--------|
|        |               | Male                   | Female |
| 1      | 2017-18       | 07                     | 14     |
| 2      | 2016-17       | 13                     | 12     |
| 3      | 2015-16       | 17                     | 8      |

| Sr. No | Academic Year | No. of students |        |
|--------|---------------|-----------------|--------|
|        |               | Male            | Female |
| 4      | 2014-15       | 15              | 10     |
| 5      | 2013-14       | 18              | 7      |

### 35. SWOC analysis of the department and Future plans

|  |  |
|--|--|
| <b>Strengths</b> <ul style="list-style-type: none"> <li>• Young, energetic and hardworking teaching faculty.</li> <li>• Qualified and committed supporting staff.</li> <li>• Adequate space for class room, seminar room and laboratory.</li> <li>• Adequate computing facilities with updated and necessary academic software's.</li> <li>• Strong industry-institute interaction (Expert talks, Industrial visits and Training)</li> <li>• Well maintained alumina interaction.</li> </ul> | <b>Weakness</b> <ul style="list-style-type: none"> <li>• Research and Consultancy</li> <li>• Campus placement</li> </ul>   |
| <b>Opportunities</b> <ul style="list-style-type: none"> <li>• Collaboration with research institutes, laboratories and chemical industries outside Nashik zone.</li> <li>• Research grants for analytical instruments and research projects.</li> <li>• Promoting students to appear and qualify for the different competitive exams like GATE, CAT, GRE, etc.</li> </ul>  | <b>Challenges</b> <ul style="list-style-type: none"> <li>• To develop entrepreneur qualities among students.</li> <li>• Improve campus placement in reputed industries.</li> </ul> |
| <b>Future plans</b> <ol style="list-style-type: none"> <li>1. To enhance research and development activities.</li> <li>2. To start PG programme</li> <li>3. Campus in reputed industries for interested students</li> </ol>  |  |