



1. Evaluative Report of the Department of Industrial Chemistry

2. Name of the department : **Industrial Chemistry**

3. Year of Establishment:- **1978**

4. Names of Programs / Courses offered (UG, PG):

i. **UG (B.Sc. Ist, IInd, IIIrd year)**

ii. **NAAQM Programme funded by MPCB Mumbai.**

5. Names of Interdisciplinary courses and the departments/units involved:-

- **Department of Microbiology for biological activities**
- **Department of Computer Science for use computers and internet facility for preparation of Design Thesis in Industrial Chemistry**
- **Department of Physics for analysis of research material**
- **Department of Chemistry for Laboratory Material & Chemicals.**

6. Annual/ semester/choice based credit system (program wise):-

- **Semester - S.R.T.M.U. Nanded.**
- **Internal Theory exams.**
- **Assignments/ Internal MCQ exam.**
- **CBCS Pattern for B.Sc. Ist IInd, IIIrd year.**

7. Participation of the department in the courses offered by other departments:-

- **The faculty member Dr. Chougule A.M & Mr. Jadhav R.K Guides the students of B.Sc. for Design Technical Project**
- **The faculty member Dr. Chougule A.M, Mr. Jadhav R.K & Mr. Dhekane N.S, Guides to the students of M.Sc for preparation of their Project in PG.**
- **The faculty member Mr. Dhekane.N.S teaching for PG Students. In Dayanand Science College Latur.**
- **The faculty member Dr. Chougule A.M invited for Resource person and Chirman for session in work shop of B.Sc III CBCS Pattern at ACS Mahavidyalaya Vasant nagar kotgal Dist. Nanded.**



- The faculty member Dr. Chougule A.M invited for Resource person and Chirman for session in work shop of B.Sc III CBCS Pattern at Dayanand Science College Latur Dist. Latur.
- The faculty Member Dr. Chougule A.M is the Invitee member of B.O.S.of Chemistry at Swami Ramanand Tirth Marathwada University Nanded.
- The faculty member Dr. Chougule A.M is the Chairman of the paper setting & Mr. Jadhav R.K.is a member of Paper setting
- The faculty member Dr. Chougule A.M was the member of adhoc board Industrial Chemistry at Dr BAMU Aurangabad
- Courses in collaboration with other universities, industries, foreign institutions, etc.
- The faculty member Dr. Chougule A.M awarded as Ph.D Research Supervisor and P.G Teacher of S.R.T.M.U Nanded.

The Ph.D., M. Phil., Research work of our department faculty member is in collaboration with the following departments

- Maharashtra Pollution Control Board, Mumbai
- Manjara Sugar Factory, Latur
- Tinna Oil Ltd, Latur
- Balaji Amines Ltd.Tamalwadi

8. Details of courses/program discontinued (if any) with reasons :- Nil

9. Number of Teaching posts

	Sanctioned	Filled
Professors	-	-
Associate Professors	-	-
Asst. Professors	02(F.T.)	02 (F.T.)
CHB	02	-

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



Name	Qualification	Designation	Specialization	Total Years of Experience	No. of Ph.D. Students guided for the last 4 years
Dr. A.M Chougule	M.Sc., B.Ed. M. Phil. Ph.D.	H.O.D. and Asst. Prof	Industrial Chemistry	17 Years	NIL
Mr. R.K Jadhav	M.Sc., B.Ed. Net	Asst. Prof	Industrial Chemistry	09Years	Nil

11. List of senior visiting faculty:-

- 1) Dr. P. S. Mane, S C S College, Omerga.
- 2) Dr. J. S. Diggikar, SCS College, Omerga.
- 3) Dr. J. G. Mulla, Adarsha Senior College, Omerga.
- 4) Dr. S. K. Patel, Adarsha Senior College, Omerga.

12. Percentage of lectures delivered and practical classes handled(programme wise) by temporary faculty:- 06

13. Student -Teacher Ratio (programme wise):- 30:1

14. Number of academic support staff (technical) and administrative staff; sanctioned and filled:- 02

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

- i. Ph.D. - 01 completed
- ii. M. Phil.- 01
- iii. P.G. - 02
- iv. NET - 01

16. Number of faculty with ongoing projects from a) National b) International funding agencies and grants received:- **Maharashtra Pollution Control Board Mumbai.**

17. Departmental projects funded by DST-FIST; UGC, DBT, ICSSR, etc. and total grants received:- Nil

18. Research Centre /facility recognized by the University:- **research center**
Publications:

* a) Publication per faculty

Name of Faculty	National	International
Dr. A.M. Chougule	04	Nil



Mr. R. K. Jadhav	Nil	02
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* Number of papers published in peer reviewed journals (national / international) by faculty and students

➤ **National -** 04

➤ **International-**

* Number of publications listed in International Database (For Eg: Web of Science, Scopus, Humanities International Complete, Dare Database - International Social Sciences Directory, EBSCO host, etc.)

- Monographs:- Nil
- Chapter in Books:- Nil
- Books Edited :- Nil
- Books with ISBN/ISSN numbers with details of publishers:- Nil
- Citation Index :- 06
- SNIP:- :- Nil
- SJR:- Nil
- Impact factor :- Nil
- h-index :- Nil

19.Areas of consultancy and income generated :- Nil

20.Publication list

- 1.Ultrasound eradiation assisted synthesis and antimicrobial screening of Novel transition Metal Complexes of B-Diketone –World Journal of Pharmacy & Pharmaceutical sciences (Dr.A.M.Chougule)
- 2.Analysis of ambient air quality status of Residential ,Commercial, Industrial area in Latur city by using various parameters (Dr.A.M.Chougule)
- 3.Spectral Studies of Biological active newly synthesis Bi –Dentate Schiff base metal Complexes –A.M.Chougule (International Conference on applied Science) (ICAC-17)
- 4 Asseemat of ambient air quality status residential ,Commercial ,& Industrial area in Latur City (Maharashtra India)-A.M Chougule ISSN- 29199318 Vidyawarta

21. Faculty as members in

a) National committees: - Nil



- b) International Committees:-
Nil
- c) Editorial Boards:- **Nil**
- d) **RC/OC** Mr. R.K Jadhav
completed Orientation
Programme at
Punjabi University Patiala **25/05/2017 to 21/06/2017**
- e) Mr. R.K Jadhav completed Degree College teachers Training

Programme in Chemistry at Indian Institute of Science (IISc) Kudapura Challakere campus
Karnataka -577536 **22 November 2018 to 12 December 2018**

22. Student projects

- a) Percentage of students who have done in-house projects including inter departmental/programme: **100% (For UG students)**
- b) Percentage of students placed for projects in organizations outside the institution i.e.in Research laboratories/Industry/other agencies: **05%**

23. List of eminent academicians and scientists/ visitors to the department:-

1. Dr. B.P. Bandgar (Vice Chancellor, Solapur University , Solapur)
2. Dr. N.N. Maldar (Vice Chancellor, Solapur University , Solapur)
3. Dr. M.K. Dongar (Sr. Scientist, NCL Pune)
4. Dr. N.T. Patil (Sr.Scientist, IICT Hyderabad)
5. Dr. B.B. Idge (Sr.Scientist, NCL Pune)
6. Dr. R.N. Sirsat (GoaUniversity, Panjim)
7. Dr. P.P. Wadgonkar (Sr.Scientist, NCL Pune)
8. Dr. S.P. Chavan (Sr.Scientist, NCL Pune)
9. Dr. S.B. Umbarkar(Sr.Scientist, NCL Pune)
10. Dr. U.R. Kalkote(Sr.Scientist, NCL Pune)
11. Dr. S.D. Delekar(Kolhapur University, Kolhapur)
12. Dr. Udge C.G. (BARC,Mumai)
13. Dr. Dhananjay Sabade (Sutchem,Ahemadabad)
14. Dr. Shashikant Phadtare (U.S.A.)
15. Dr. B.H. Mehta (H.O.D. Mumbai University, Mumbai)
16. Dr. R.B. Mane (Kolhapur University, Kolhapur)
17. Dr.P.K Zubaidha (S.R.T.M.University Nanded)
- 18.



24. Seminars/ Conferences/Workshops organized & the source of funding:-



a) National: 01

- Department of Industrial Chemistry & Chemistry has successfully organized a Short Term Course for Teachers (self Funding)

b) International: 03

25. Student profile programme/course wise:-

*M=Male F=Female

26. Student profile programme/course wise:- (2020-2021)

Name of the Course/program	Applications received	Selected	Enrolled		Pass percentage
			*M	*F	
B.Sc. I st Year	12	12	10	02	99%
B.Sc. II nd Year	30	30	20	10	99%
B.Sc. III rd Year	23	23	16	07	99%
M. Phil.					
Ph. D.					
Course					

*M=Male F=Female

1. Diversity of Students

Name of the Course	% of students from the same state	% of students from other States	% of students from abroad
B.Sc. I st Year	100%	00	00
B.Sc. II nd Year	100%	00	00
B.Sc. III rd Year	100%	00	00

2. How many students have cleared national and state competitive examinations such as NET, SLET, GATE, Civil services, Defense services, etc. : **36 Students**

3. Student progression

Student progression	Against % enrolled
UG to PG	75%



Student progression	Against % enrolled
PG to M.Phil.	Data not available
PG to Ph.D.	Data not available
Ph.D. to Post-Doctoral	-
Employed • Campus selection • Other than campus recruitment	5%
Entrepreneurship/Self-employment	25%

4. Details of Infrastructural facilities

a) Library:- **Books:- 1548/52, Journals/Periodicals:- 02**

b) Internet facilities for Staff & Students:-

Students- 00 Computers, Staff- 01 Computer

c) Class rooms with ICT facility:- **Nil**

d) Laboratories:- **01**

5. Number of students receiving financial assistance from college, university, government or other agencies:- **Inspire Nil, GOI & EBC from Govt.**

6. Details on student enrichment programs (special lectures / workshops / seminar) with external experts:-

* Remedial coaching given to weaker students

7. Teaching methods adopted to improve student learning:-

The department follows interactive sessions, group discussion etc. All staff members use computer skill to manage power point presentation in teaching/learning. Apart from the normal lecture deliver method, students are asked to prepare for a lecture on a specified topic and asked to deliver the same in a couple of day.

8. Participation in Institutional Social Responsibility (ISR) and Extension activities:- **NIL**

9. SWOT analysis of the department and Future plans:-

Strength:

- Maximum students admitted in reputed Universities & Institutes for PG courses.
- Maximum candidates got the jobs in various Industrial sector & through competitive Examinations.
- Many of the students complete their Ph.D. from CSIR laboratories



- &Post doctorate from abroad.
- UG students complete projects in our laboratories.
- Department helps to many other colleges from rural area their developments
- The faculty member of the department is actively engaged in the research, presented research papers in different national/state level seminars & conferences
- All remaining faculties registered for Ph.D.
- Demand ratio of students for Industrial chemistry is very high.
- The result is 100%.

Weakness:

- Department is unable to provide Basic Practical Instruments like Orifice meter, Venturi meter Reynolds experiment apparatus etc .
- Not providing any budget for to arrange guest lecturer in Industrial chemistry.
- Department unable to provide facilities for project work & Practical for students.
- Department has lack of Infrastructure, (small area of laboratories as compare to student ratio).
- Department has no freedom for financial activities.

Opportunities:

- Increasing the interest of students in Research through projects
- To develop advanced research centre.
- Good opportunities in the Industrial sector.

Challenges:

- Increasing awareness amongst the students about computer education to solve the mathematics problems.
- Provide Industrial training for students.
- Arrange Industrial Campus Interview.

Future plans:

- To start the PG course in Industrial chemistry.
- To start the Research centre in Industrial Chemistry department.
- To take the various projects in Industrial Chemistry for the students and teachers.
- To publish the research papers in international journals.



- Improvement in laboratory safety.
- Organize National /International Seminars/workshops.
- Develop a strong network & MOU with other institutions.
- Undertaking minor/major research projects.