








**CTES's**  
**N. G. Acharya & D. K. Marathe College of Arts, Science & Commerce,**  
**Shri. N. G. Acharya Marg, Chembur, Mumbai-400071.**

### DEPARTMENT OF CHEMISTRY

● **Faculty members:**

	<b>Name</b>	<b>Designation</b>	<b>Qualification</b>	<b>Specialization (if Any)</b>
	Dr. Vidyagauri Lele	Principal Associate Prof.	M. Sc., M. Phil., Ph. D.	Research guide
	Ms. Chhaya Pawar	Head, Dept. of Chemistry Associate Prof.	M. Sc.	-
	Dr. Manjusha Karad	Asst. Prof.	M. Sc., M. Phil., Ph. D.	
	Dr. Saira Mulla	Associate Prof.	M. Sc., Ph. D. LLB	Research guide
	Mr. Pravin Bendle	Asst. Prof.	M. Sc., B. Ed., SET	-

	Dr. Kusum Baser	Asst. Prof.	M. Sc., B. Ed., NET, Ph. D.	-
	Ms. Sayli Kambli	Lecturer	M. Sc.	-

### ● **Background of Department:**

- Department of Chemistry is one of the largest and major Department of our college.
- It was established in the year 1982.
- Along with bachelors in chemistry our department has been offering Masters in Organic chemistry course since 2004. It is also a recognized Research Centre for the doctoral course in chemistry.
- Presently our department has 9 faculty members and among their thing 3 are Ph. D. holder and two are currently doing their doctoral research.
- Our principal Dr. Vidyagauri Lele is the senior most member of our department and has many accolades to her credit. She is also bestowed with the best Teacher award (Urban region) by the University of Mumbai for the academic year 2015-16.
- Our principal and Dr. Saira Mulla are research guide.
- Under the guidance and support of our principal, the college management members and our faculty members Dr. Manjusha Karad, Dr. Saira Mulla, Mr. Praveen Bendle, Ms. Kusum Baser, Ms. Sayli, Mr. Varande and Mr. Suryanarayan our department has remained at the forefront in providing the best in class education service to our students.
- Till date we have successfully organized various state-level UGC funded seminars and workshops.
- We have also organized national level conference and RSM which is research scholar meet program in collaboration with Indian chemical Society.
- Our faculty has been proactive in the research domain, publishing 52 research papers in various national and international journals and we have one patents for a research paper titled 'A membrane separation process' presented by Dr. Saira Mulla.
- We have completed nine minor research projects and we also have a couple of

ongoing research projects funded by the University of Mumbai.

- We have well equipped laboratories with the latest instruments, apparatus, high-grade chemicals and infrastructure to perform experiments in all branches of chemistry. To manage these laboratories, we also have a skilled team of support staff. Since our students and faculty members are dealing with chemicals regularly, we adhere to the highest safety standards and we also follow strictly green principle of chemistry.
- Our department has its own library where student can avail reading and borrowing facilities of textbook, reference book. Employment newspaper is also provided to the student once a week. Internet facility and computer are also made available to all student for study and research purpose.
- Our department is committed in preparing competitive and professional graduate and post graduate.
- To enhance the quality of chemistry education our faculty member encourages and motivate our students to participate in various intercollegiate competition.
- Our college is in the vicinity of some of the well-known renowned institution of India like BARC, ICT, TIFR and Marathi Vidnyan Parishad. So, our students have been lucky enough to visit this institution and we have been keen in promoting our students to engage in activities conducted by these institutions.
- Through interaction with industry we arrange industrial visit. We provide our postgraduate student every year for hands on training on HPTLC and we also arrange internship programme for these students.
- Some of the eminent personalities in the field of science and technology had visited our department, India's nuclear Physicist Padma Shree Dr. Anil Kakodkar, Dr. Bal Phondke, a leading Marathi writer of science literature, Dr. G. D. Yadav former vice chancellor of the Institute of Chemical Technology are to name a few.
- And finally, it is indeed a pleasure to mention that some of our alumni are holding key position in the industry, institutions like BRC and many of them have entered in the teaching profession.

● **Achievements:**

<b>Achievement by Faculty</b>	<b><u>Dr. Vidyagauri Lele</u></b> <ul style="list-style-type: none"><li>● Two books written by her were included in M. Sc. Physical</li></ul>
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## members

chemistry syllabus as reference books.

- Invited as a speaker on her research related to ‘Drug Delivery’ at “4<sup>th</sup> International Congress on Biomaterials and Biosensors (BIOMATASEN)” which was held on May 12-18, 2019 at **Turkey**.
- Member of Editorial Board Members / Reviewers and Publish Article.

Invited as a speaker at an ‘International conference on Food, Science & Technology’ on May 6-8, 2019 in Tokyo.

- Reviewed research paper “Fast and efficient preparation of cross-linked potato starch by Microwave technology” for internationally renowned journal of Wiley publications "Starch" in the month of September 2016.
- Appointed as a research guide by university of Mumbai in the year 2013 & under her guidance four students have registered for Ph. D.
- Invited as Guest lecturer in the area of Polymer Chemistry entitled “Introduction to Polymers with special reference to starch graft copolymer” at **University of Nairobi, Kenya college of biological and physical sciences, Department of Chemistry** on 14<sup>th</sup> October 2015 and at Tribhuvan University, Kathmandu, Nepal on 19<sup>th</sup> May 2017. Research guide and under her guidance four students have registered for Ph. D.
- Elected as faculty of science member at University of Mumbai.
- Appointed as paper setter for PET (Ph. D. entrance test) examination by Mumbai University.
- Member of Editorial Board of American Journal of Polymer Science and Technology.
- Invited to review the manuscript & abstract titled ‘Effects of methacrylamide content on mechanical property & hydrophilicity of thermoplastic grafted starch film’.
- Invited for talk on Polymer at EMN Hawaii meeting held from 26<sup>th</sup> to 30<sup>th</sup> March 2019.
- Coordinator for S. Y. B. Sc. Physical Chemistry syllabus.
- B. O. S. member of faculty of science at the University of Mumbai.
- Completed five minor research projects funded by the University of

Mumbai.

- Three of her Ph. D. students namely Ms. Savita Kumari, Ms. Harshada Niju and Mr. Uttam Dalvi presented their research work for Ph. D. at Research Scholar Meet (RSM) at K. C. College on 9<sup>th</sup> February 2020.
- Chairperson For Ph. D. Viva
- One research student under her guidance, Ms. Kusum Baser was awarded a Doctoral Degree on 3<sup>rd</sup> July 2020.
- Invited lecture at Department of Chemistry, University of Nairobi, Nairobi, Kenya on 14<sup>th</sup> October 2015 and at Department of Chemistry, Tribhuvan University, Kathmandu, Nepal on 19<sup>th</sup> May 2017 on “Introduction to Polymer Chemistry with Special reference to starch graft copolymers”.

#### **Ms. Chhaya Pawar**

- Appointed as Chairperson & paper setter for S. Y. B. Sc. semester III & semester IV chemistry papers examination by Mumbai University.
- Co-authored textbook for inorganic chemistry for F. Y.B. Sc. in the year 2013.
- Completed two minor research projects funded by Mumbai University in the year 2012-13 & 2016-17 respectively.
- Appointed as Vice Chancellor’s nominee for affiliation at M. D. College, Parel.
- Appointed as Vice Chancellor’s nominee as subject expert on CAS constituted for promotion of teachers from stage 1 to stage 2 and stage 3 to stage 4 at R. J. College on 11<sup>th</sup> January 2020.
- MRP grant of 30,000/- received from Mumbai University on 17<sup>th</sup> March 2020 on Synthesis and Biological Activity of Paraben Derivatives.
- Appointed as paper setter for theory examination of M. Sc. Semester II Paper II by the University of Mumbai.

#### **Dr. Manjusha Karad**

- Appointed as Vice Chancellor's nominee & subject expert for CAS interviews at VES college on 2<sup>0th</sup> Aug 2018.
- Co-authored textbooks for Organic chemistry and Drugs & Dyes for T. Y.B. Sc. in the year 2018-19.
- Appointed as paper setter for T.Y. B. Sc. by Mumbai University in the year March 2019.

**Dr. Saira Mulla**

- Appointed as Ph. D. research guide by Mumbai University on 23<sup>rd</sup> October 2018.
- Granted Patent for her research work in "Emulsion Liquid Membrane Technology" in the year 2005 and she has also filed two national and one **International Patent**.
- Completed one minor research project funded by Mumbai University in the year 2011-12.
- Guided two students for Ph. D. degree in the faculty of science in the year 2016 from JJTU, Rajasthan.
- Published book on "Guidelines to obtain Patent in India" by Walnut publications (ISBN No. 9789389744279).
- Published book on "Emulsion Liquid Membrane Technology: Separation of some compounds of Biological importance" by Lambert Academic Publication (ISBN No. 9786200532305).
- Co-ordinator of Certificate Course in "Basic & Applied Chemistry" (started on February 2020).
- Participated and presented poster paper at the National conference organized at CKT, college Panvel on the topic 'Extraction & separation of antibiotics from industrial effluent' on 17<sup>th</sup> and 18<sup>th</sup> February 2020.
- Appointed on Advisory Board of "World Journal of Pharmacy and Pharmaceutical Sciences", in the month March 2020.
- On 3<sup>rd</sup> May 2021 she had reviewed research article named EFFECT OF BEVERAGES ON RELEASE OF PARACETAMOL TABLET BY IN-VITRO DISSOLUTION METHOD USING MODIFIED MEDIA in the journal of Pharmaceutical Research International.
- Appointed as paper setter for theory examination of M. Sc. Semester

II Paper IV by the University of Mumbai.

**Mr. Pravin Bendle**

- Co-coordinator of Certificate Course in “Basic & Applied Chemistry” (started on February 2020).
- Completed online Refresher Course in Chemistry in the month of February 2020.
- Completed one minor research funded by Mumbai University in the year 2017-18.
- attended a university Level Workshop which was organized by Eligibility section of University of Mumbai on 16<sup>th</sup> July 2020. The workshop was related to various procedures like admission, enrollment, eligibility processing of students. The duration of this workshop was 3 hrs.
- Admission taken for Ph. D. in chemistry in KBP College, Vashi.

**Ms. Kusum Baser**

- Won 2<sup>nd</sup> prize for poster presentation at National Seminar at C. K. T. College on “Graft polymerization vinyl monomer on to native starch initiated by persulphate”.
- Won 3<sup>rd</sup> prize poster presentation at National Seminar at Vaze College, Mulund on “Characterization of starch graft copolymer initiated by CAN”.
- Completed one minor research funded by the University of Mumbai in the year 2016-17.
- MRP grant of 35,000/- received from Mumbai University on Synthesis characterization and microbial degradation study of starch graft copolymers.
- Kusum Baser successfully faced online viva on 3<sup>rd</sup> July, under the guidance of Dr. Vidyagauri Lele on " Syntheses of starch graft vinyl polymers, their characterization and biodegradation study". The Referees were Dr. Vaishali Shinde from Pune University and Dr. Ansul Dandia from Rajasthan university. Mr. Talwadkar, Deputy Registrar thesis section of University of Mumbai, treasurer CTES

	<p>Shri. Rammurthy sir, vice principal Mr Liaquat Ali sir, faculty members of the chemistry department and colleagues from other departments were also present.</p> <ul style="list-style-type: none"> <li>Presented a paper titled Characterization and biodegradation study of starch graft vinyl polymer in International conference ‘Covid-19 Perspective of Science and Challenges’ 19<sup>th</sup>&amp; 20<sup>th</sup> June 2020 at Siddharth College, Fort.</li> </ul>
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● **Annual programmes/ Conference/ Workshop & Seminars Organized:**

<b>Annual programme/s</b>	<ul style="list-style-type: none"> <li>● <b>Chem Fun</b></li> <li>● <b>National Science Day celebration</b></li> <li>● <b>Fascinating World of Science</b></li> </ul>
<b>Conference, Workshop &amp; Seminar Organized</b>	<ul style="list-style-type: none"> <li>● UGC Sponsored State Level workshop on 13<sup>th</sup> March 2010 on “Common Places between Pure &amp; Industrial Chemistry”.</li> <li>● UGC Sponsored State Level seminar on 4<sup>th</sup> December 2010 on “Corrosion &amp; it’s prevention”.</li> <li>● Two days Research Scholar Meet organized on 25<sup>th</sup>&amp; 26<sup>th</sup> February 2011 in Collaboration with Indian chemical society.</li> <li>● UGC Sponsored State Level workshop on 12<sup>th</sup> January 2013 on “Waste Management”.</li> <li>● University Level workshop on 2<sup>nd</sup> March 2013 on “T.Y. B. Sc. C. B. G. S. Syllabus”.</li> <li>● University Level workshop on 29<sup>th</sup> March 2014 on “F. Y. B. Sc. Revised Syllabus”.</li> <li>● UGC Sponsored State Level seminar on 6<sup>th</sup> September 2014 on “Recent Trends in Analytical Chemistry”.</li> <li>● One day National level Conference was organized by Science Faculties on the theme “Emerging Trends in Science”.</li> <li>● Intellectual Property Right seminar on 12<sup>th</sup> January 2019.</li> <li>● Two days International Level Conference Webinar on “New pathways in Chemistry” on 23<sup>rd</sup> and 24<sup>th</sup> May 2020.</li> </ul>

● **Awards:**



<b>Awards</b>	<ul style="list-style-type: none"> <li>● Received ‘<b>Dharmanirpeksh sadbhavana award</b>’ in the presence Union Social Justice Minister Mr. Ramdasji Athawale on 23<sup>rd</sup> January 2019 at Fine Arts Society.</li> <li>● Award- ‘<b>towards par excellence services for the betterment of society &amp; nation in her chosen arena</b>’ on International women’s day in International conference on 6<sup>th</sup> March 2019 in Thane at K. B. college of Arts &amp; Commerce for women.</li> <li>● <b>Principal Dr. Vidyagauri Lele</b> received “<b>BEST TEACHER AWARD</b>” (URBAN AREA) amongst the teachers of the Affiliated Colleges by University of Mumbai for the academic year<b>2015-16</b>.</li> <li>● Principal Dr. Vidyagauri Lele conferred a with “<b>BEST TEACHER AWARD</b>” in <b>Chemical Science</b> by Global society for basic and applied science at Kathmandu Nepal in <b>May 2017</b>.</li> </ul>
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● **Current status of department & future plans:**

<b>Current Status</b>	<p>The department is currently offering</p> <ul style="list-style-type: none"> <li>● Courses in B.Sc. Chemistry &amp; M. Sc. in Organic Chemistry &amp; Ph. D. programme.</li> <li>● Certificate Course in “Basic &amp; Applied Chemistry” for non-science students (B. Com. students).</li> </ul>
<b>Future Plans</b>	<p>The Department plans to raise <b>funds</b> from <b>University and UGC schemes</b> to add value to the curriculum by providing access to <b>specialized infrastructure in terms of high-end instruments and research facilities</b>.</p>

● **Regular activities of the department:**

<b>Study visits:</b>	<ul style="list-style-type: none"> <li>● The Department also organizes visit to Industries like FDC Pvt. Ltd., Sudarshan Chemicals, Mapro Industry, Nipha wine industry, Reviello wine industry and Central Government institutes like <b>ICT, IIT, CIRCOT, FDA, TIFR, BARC, Nehru Science Centre, Homi Bhabha Research Centre, Nipha Wine &amp; Sula Wine Industry, Science Park</b>, etc. for students.</li> </ul>
<b>Community Outreach Programme</b>	<ul style="list-style-type: none"> <li>● <b>Fascinating World of Science</b> for 10<sup>th</sup> std school students.</li> <li>● <b>Shanivari Vidnyanvari</b> program to teach and spread basic science concepts to school children this special program T. Y. B. Sc. Students has been conducting since last year in which they explained various science-based experiments to students. Marathi vidnyan parishad help these</li> </ul>

	students to carry out this noble cause.
<b>Intercollegiate competition</b>	<ul style="list-style-type: none"> <li>● B. Sc. &amp; M. Sc. students participate in various Intercollegiate competitions every year.</li> </ul>
<b>Guest Lectures:</b>	<ul style="list-style-type: none"> <li>● The Department organizes Guest lectures for T. Y. B. Sc. students for their theory papers by inviting experienced teachers from various colleges of Mumbai.</li> <li>● The Department organizes Guest lecture for 'IIT JAM entrance examination' for S. Y. B. Sc. students.</li> <li>● Department also organizes Laboratory safety workshop for students as well as for support staff by inviting experienced person from Borosil, India LTD every year.</li> </ul>
<b>Distinguish visitors</b>	<ul style="list-style-type: none"> <li>● Dr. Anil Kakodkar</li> <li>● Dr. M. M. Sharma</li> <li>● Dr. Bal Phondke</li> <li>● Dr. G. D. Yadav</li> <li>● Dr. A. K. Tyagi</li> <li>● Mr. Charegaokar (Anchrom)</li> <li>● Dr. Kalsi</li> <li>● Dr. Ramanna</li> <li>● Dr. Mohan Apte</li> <li>● Mr. A. P. Deshpande</li> <li>● Dr. Hemant Sodaye</li> <li>● Dr. Chandan</li> </ul>

**Updated till date 28<sup>th</sup> June 2021**