**INSTITUTE FUNCTIONARIES**

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| **Name of the Official** | **Designation** |
| Prof. B. B. Ahuja | Director |
| Prof. B. N. Chaudhari | Deputy Director |
| Prof. M. S. Sutaone | Dean Academics |
| Prof. S. L. Patil | Dean Student Affairs |
| Prof. D. W. Pande | Dean R & D |
| Prof. R. R. Joshi | Dean Quality Assurance |
| Prof. M. J. Rathod | Dean Alumni & International Affairs |

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| **Heads of Departments** | |
| **Name** | **Department** |
| Dr. J. A. Kher | Applied Science |
| Prof. S. S. Bhosale | Civil Engineering |
| Dr. (Mrs.) V. S. Inamdar | Computer Engineering & Information Technology |
| Prof. D. B. Talenge | Electrical Engineering |
| Prof. (Mrs.) P. P. Rege | Electronics & Telecommunication Engineering |
| Dr. C. Y. Patil | Instrumentation & Control Engineering |
| Dr. K. V. Dalvi | Mathematics |
| Prof. S. N. Sapali | Mechanical Engineering |
| Prof. N. B. Dhokey | Metallurgy & Material Science |
| Dr. J. W. Dadge | Physics |
| Dr. Rajiv B. | Production Engineering & Industrial Mangement |

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| **Heads of other committees / centres** | |
| **Name** | **Designation** |
| Dr. (Mrs.) V. Z. Attar | Controller of Examination |
| Prof. G. N. Kulkarni | Training & Placement Officer |
| Dr. Sandeep Meshram | Corporate Relation Officer |
| Dr. S. P. Mohani | Chairman, Library Committee |
| Dr. P. R. Dhamangaonkar | Vice President, Gymkhana |
| Dr. S. S. Pardeshi | Vice President, Boat Club |
| Mr. S. S. Kumbhar | Incharge of Central Computing & Networking |

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| **Facilatators** | |
| **Heads** | **Designation** |
| Mr. G. B. Joshi | Admin Officer |
| Mr. C. R. Bamble | Registrar |
| Brig. K. S. Pathania | General Manager, Admin |
| Mr. P. C. Gholap | Accounts Officer |
| Mr. V. B. Gonte | Accounts Officer |
| Mrs. Anisha Dhongade | Accounts Manager |
| Mrs. A. N. Deshpande | Asst. Physical Director |

**BOARD OF GOVERNORS**

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| **Members** | **Designation** |
| **Dr. F. C. Kohli**  Former Chairman  T.C.S. Ltd., Mumbai  Air India Building, 11th Floor  Nariman Point, Mumbai 400 021 | Chairman |
| **Mr. Sitaram Kunte**  Principal Secretary  Department of Higher & Technical Education  Maharashtra State, Mumbai 400 032 | Member  (Ex-Officio) |
| **Mr. Prataprao Pawar**  Chairman, Sakal Media  Sakal Papers Ltd., 595, Budhwar Peth  Pune 411 002 | Member |
| **Dr. Rajendra Hiremath**  Chairman  Synergy Infrasys Management Pvt. Ltd  Pune | Member |
| **Mr. Vikas S. Patil**  Managing Director  SaviInfrastructures& Properties Pvt. Ltd.  Pune- 411030 | Member |
| **Mr. Sanjay Inamdar**  Co-Founder BIEL  College of Engineering Pune  Shivajinagar, Pune – 411005 | Member  (UGC Nominee) |
| **Prof. W. N. Gade**  Vice Chancellor,  Savitribai Phule Pune University,  Ganeshkhind, Pune – 411007 | Member  (Savitribai Phule Pune University Nominee) |
| **Prof. B. N. Chaudhari**  Deputy Director & Professor  (Dept. of Electrical Engineering)  College of Engineering Pune  Shivajinagar, Pune – 411005 | Member  (Senate Nominee) |
| **Prof. B. B. Ahuja**  Director & Professor  (Dept. of Production Engineering & Industrial Mangement)  College of Engineering Pune  Shivajinagar, Pune – 411005 | Member Secretary  (Ex-officio) |

**FINANCE COMMITTEE**

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| **Members** | **Designation** |
| **Mr. Prataprao Pawar**  Chairman, sakal Media Group  Sakal Papers Ltd.,595, BudhawarPeth  Pune 411 002 | Chairman |
| **Dr. Rajendra Hiremath**  Chairman  Synergy Infrasys Management Pvt. Ltd., Pune | Member |
| **Mr. Ravi Pandit**  Chartered Accountant  Maratha Chamber of Commerce, Pune | Member  Nominated by BoG |
| **Mr. P. D. Parkhi**  Cost Accountant  719, BudhwarPeth, Near Sampada Bank  Pune 411002 | Member  Nominated by BoG |
| **Dr. B. B. Ahuja**  Director & Professor  Production Engineering & Industrial Management  College of Engineering Pune  Shivajinagar, Pune – 411005 | Member Secretary |
| **Mr. M. B. Pol**  Chartered Accountant  Malhari Bglw No D/2/22  Shastri RD, Navi Peth, Pune - 411030 | Statutory Auditor |
| **Mrs. Anisha Dhongade**  Junior Accounts Manager  College of Engineering Pune  Shivajinagar, Pune – 411005 | Invitee |
| **Mr. V. B. Gonte**  Accounts Officer  College of Engineering Pune  Shivajinagar, Pune – 411005 | Invitee |

**BUILDING & WORKS COMMITTEE**

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| **Member** | **Designation** |
| **Dr. B. B. Ahuja**  Director & Professor  Production Engineering & Industrial Management  College of Engineering Pune  Shivajinagar, Pune – 411005 | Chairman |
| **Mr. Vikas S. Patil**  Managing Director  SaviInfrastructures& Properties Pvt. Ltd.  Pune- 411030 | Member |
| **Mr. Atul Kirloskar**  Managing Director  Kirloskar Oil Engines Ltd.  LK Road, Khadki, Pune 411003 | Member |
| **Mr. Salil Randive**  Chinay Randive & Associate C/o. Piraymal Sons Pvt. Ltd.  1st Floor, Army-Nevy Building  M.G.Road Near Kalaghoda  Mumbai 400001. | Member  Nominated by BOG |
| **Prof. Uday Athavankar**  Professor of Industrial Design  I IT Mumbai, | Member  Nominated by BOG |
| **Superintendent Engineer, PWD**  Central Building, Pune-411001. | Member  (Ex- officio) |
| **Joint Director of Technical Education**  Shivajinagar, Pune, Maharashtra 411005 | Member  (Ex- officio) |
| **Prof. B. G. Birajdar**  Professor  Civil Engineering  College of Engineering Pune  Shivajinagar, Pune – 411005 | Member Secretary |

**Senate Members**

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| **Name** | **Designation** |
| Prof. Bharatkumar Ahuja | Chairman,  (Director, COEP) |
| Prof. Mukul Sutaone | Member Secretary,  (Dean Academics, COEP) |
| Prof. G. K. Kharate | Member,  (Dean Engineering, UOP ) |
| Prof. Jagannath Aghav | Members |
| Prof. Sudhir Agashe |
| Mrs. Vahida Attar |
| Dr. Prashant Bartakke |
| Prof. Sukhanand Bhosale |
| Prof. Bhalchandra Birajdar |
| Dr. Sandeep Butee |
| Mr. Uttam Chaskar |
| Dr. (Mrs.) Rohini Chattrala |
| Prof. Bhalchandra Chaudhari |
| Dr. (Mrs.) Shweta Chawre |
| Dr. Kiran Dalvi |
| Prof. Sanjay Dambhare |
| Dr. (Mrs.) Charusheela Deshpande |
| Dr. (Mrs.) Anjali Dharme |
| Prof. Narendra Dhokey |
| Mr. (Mrs.) Sunanda Ghanegaonkar |
| Mr. Shirish Gosavi |
| Dr. Rajendra Goyal |
| Dr. Rajiv H |
| Dr. (Mrs.) Yashodhara Haribhakta |
| Dr. (Mrs.) Vandana Inamdar |
| Mrs. Sadhana Jadhav |
| Dr. Maheshwar Jaybhaye |
| Prof. (Mrs.) Madhuri Joshi |
| Prof. Rajendra Joshi |
| Dr. (Mrs.) Radhika Joshi |
| Dr. Jayant Kher |

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| **Name** | **Designation** |
| Dr. Mohan Khond | Members |
| Prof. Govind Kulkarni |
| Dr. (Mrs.) Shailaja Kurode |
| Dr. Arvind Latey |
| Dr. (Mrs.) Suhasini Madhekar |
| Dr. Shrinivas Mahajan |
| Prof. Dileep Malkhede |
| Mr. Sunil Mane |
| Mrs. Ujjwala Mate |
| Mr. Shripad Mohani |
| Dr. (Mrs.) Rohini Mudhalwadkar |
| Dr. (Mrs.) Arati Mulay |
| Dr. Milankumar Nandgaonkar |
| Dr. Shantipal Ohol |
| Mr. Vinod Pachghare |
| Prof. Deepak Pande |
| Dr. Vijay Pande |
| Prof. Gajanan Parishwad |
| Prof.(Mrs.) Snehal Pathak |
| Prof. Chetankumar Patil |
| Prof. Sanjaykumar Patil |
| Dr. Rajendrakumar Patil |
| Dr. Shrivijay Phadke |
| Mrs. Vijaya Rajguru |
| Prof. (Mrs.) Neela Rajhans |
| Dr. Mahadeo Ranadive |
| Prof. Pratap Raval |
| Prof. (Mrs.) Priti Rege |
| Prof. ShivalingappaSapali |
| Prof. Ashok Sapkal |
| Mr. Arun Savant |
| Mr. Hanmant Shinde |
| Dr. Mahesh Shindikar |
| Dr. Ishwar Sonar |
| Dr. Dayaram Sonawane |
| Dr. Bhagwan Sonawane |
| Prof. Dhananjay Talange |
| Dr. Kamlesh Tripathi |

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| **Name** | **Designation** |
| Dr. Vipin Tripathi | Members |
| Dr. Rajaram Ugale |
| Prof. Shashikant Vagge |
| Dr. (Mrs). Vibha Vyas |
| Prof. Prakash Wani |
| Mr. A. M. Abhijit |
| Mr. S. P. Gosavi |
| Dr. Jagdish Dadge |
| Mr. Yatin Pitkar |
| Mrs. H. K. Munot |
| Ms. S.U.Dangarikar |
| Mrs. S. V. Unde |
| Dr. Mukund Kale | External Members |
| Dr. S. S. Sundarrajan |
| Mr. S. P. Dixit |
| Dr. I. S. Mulla |
| Mr. J. Ramanand |
| Dr. Suresh Phadke |
| Dr. Shrikant Lele |
| Dnyaneshwar Mutkule | Student Members |
| Pushkar Chaudhari |
| Omkar Bhaskar Methavade |
| More Diraj V |
| Siddharth Nitin Jain |
| Mihir Kelkar |
| Borkar Ketki N |
| Deshpande Shreya |
| Abhijit Datta |
| Sayali S Bhajipale |
| Pooja K Pathak |
| Ashwini A Mutalik |
| Omkar P Yarguddi |
| Suyog K Sarda |
| Aakash Kulkarni |
| Kiran Trimukhe |
| Srushtee Chirme |
| Harsha Gandhare |

**ANNUAL REPORT BY THE DIRECTOR**

**(YEAR 2015-16)**

**GRADUATION CEREMONY OF THE TENTH BATCH OF ENGINEERS**

Honourable Chairman, Board of Governors of the College of Engineering, Pune, Dr. F. C. Kohli, distinguished Chief Guest, Vice Chancellor of Savitribai Phule Pune University, Dr. W. N. Gade, Members of the Board of Governors, Members of Academic Senate, all the graduating students and their family members, faculty, staff, students, media persons, ladies and gentlemen, on behalf of COEP, I take this opportunity to welcome you all on the occasion of the 10th graduation ceremony at COEP.

Today a total of 1171 students will be awarded degree certificates of which 807 are B. Tech in 10 engineering disciplines, 364 are M. Tech in 22 specializations. I congratulate all of them for their success and for making their parents and us proud.

I am glad to present before you a brief report for the academic year 2015-16. As usual, COEP has been constantly pursuing excellence in both academic as well as non-academic fronts, adhering to the commitment of the institute to develop technologically superior manpower with social concerns.

Today, COEP offers ten UG, twenty-two PG programs, and Ph. D programmes in all departments and has more than 4000 students enrolled in its various courses. COEP, today has 216 regular faculty including Professor Emeritus of which 115 are with PhD degrees and many working towards it. In addition there are 40 reputed experts from industry as Adjunct Faculty to cater to all our programmes. All the eligible 9 undergraduate and 16 post graduate programmes run by the institute have recently been accredited by the National Board of Accreditation in the new outcome based tier-I format earning the honour of being the only institute to have achieved this feat in India so far.

COEP has been recognized by the World Bank funded TEQIP project as the best governed institute in India and has been associated for helping all other TEQIP institutes to follow COEP’s best governing practices. COEP, thus prominently appears on the World Bank’s TEQIP website for good governance. The institute is acclaimed as one of the leading institutes of the country by various industry bodies such as NASSCOM, CII and FICCI. CII and AICTE have recognized COEP for a mentoring role of other institutes in India in the area of industry- institute interaction. The Ministry of Human Resource Development, Govt. of India through their notification dated 16th December 2015, has announced that COEP will be the Mentor Institute for the newly coming up Indian Institute of Information Technology (IIIT) Pune. COEP is ranked at the 21st position amongst top 100 engineering institutes as per the results of National Institutional Ranking Framework.

COEP has remained vibrant throughout the year with a mélange of events, New milestones are set, students create ‘records with history’ and win various awards and scholarly recognitions thrive. We have a vision not just for our institute, but for the nation and the students are carrying ahead the same legacy. We want our students to graduate from this place and do their bit to the society. Our aim is to provide them with all the necessary infrastructure and knowledge to ‘ignite’ these young minds. Each small step in that direction matters to us. The success of our students on every front is truly an amazing story of how team work and synchronization can be best nurtured at COEP. Be it creating the 4th world record of making the world’s largest Floating Rangoli named as Prajyot, making a pico satellite- ‘Swayam’, winning the Mahapurshottum Karandak, Firodiya Karandak or their victory at BAJA, Robocon, Sparkle and other technical and non technical events,the students have always shown that there is no place for complacency in our dictionary. These are the ones who have made us feel proud.

**I would now briefly touch upon a few major activities and achievements of the institute during the academic year 2015-16.**

* The pico satellite- ‘Swayam’ developed by the Satellite club of COEP team was launched by ISRO on 22nd June, 2016. The accomplishment of these students was recognized and acknowledged across the country with appreciation received from Shri. Narendra Modi, Hon’ble Prime Minister of India, Shri. Devendra Fadnavis, Hon’ble Chief Minister of Maharashtra, Shri. Vinod Tawade, Hon’ble Minister of Higher & Technical Education, Maharashtra State, Shri. Ashok Chavan, Former Chief Minister of Maharashtra, Smt. Supriya Sule, Member of Parliament, Shri. Prashant Jagtap, Moyor of Pune and many others.
* The Govt. of Maharashtra has commited to provide a funding of about Rs. 50 lakhs for the project Swayam-2.
* COEP students also showed excellence in academics during the entire year 2015-16 by getting admissions to top universities in the US, the UK, Germany etc.
* Many COEP students have been figuring amongst the top rank holders in GATE, CAT, UPSC Administrative and Engineering Services Exams.
* COEP had a roaring success in Indian BAJA by winning the overall championship in 2016 and 11 individual prizes. Thus, out of 9 years of the competition, COEP has been an overall winner four times and once a runner up. For the first time COEP entered in the US BAJA 2015 and stood 10th in the worldwide competition, the first Indian team to have achieved this feat. The team also won 9th Overall, 14th Endurance and 3rd Best in Engineering Design Awards at the Baja USA 2016.
* Students from COEP won the Gold Award of INR 5 lakhs at Sparkle 2015 **and won the Silver Award of INR 1 lakh at Sparkle 2016.**
* COEP Robotics Team was the 1st runner up at Robocon 2016
* COEP team won the 1st prize in Firodiya Karandak 2016 and MahaPurushottam Karandak 2016.
* COEP’s street play team has won 14 of the 16 nationwide competitions in the last few years.
* Several start-ups by graduating students and current students have led to a culture of innovation and entrepreneurship on the campus with some of these startups winning awards at various national and international competitions.

* All India ranking in GATE 2016 Rushikesh Sabban-2nd; Pooja Kulkarni -3rd; Shubham Jadhav – 10th and Shubham Mohod – 71st
* Dr. Rajendra Hiremath, Chairman, Synergy Infrasys Management Pvt. Ltd., Pune, Mr. Vikas Patil, Managing Director, Savi Infrastructure and Properties Pvt. Ltd., Pune and Mr. Sanjay Inamadar, Co- Founder, Bhau Institute of Innovation, Entrepreneurship and Leadership (BIEL) at COEP have been appointed as the new Board members

**Important programmes and events:**

* An innovative and unique programme named EAGLE (Energized Accelerated Growth and Leadership Excellence), launched in 2013 by COEP in association with the Hermitage Group for building life skills, communication skills, commitment, ethics and to be useful to the society, is continuing.
* The institute has more than 32 clubs and societies that organized more than 220 social, cultural, technical activities throughout the year.
* The annual technical festival of COEP "MindSpark" with the theme ‘Exploring unexplored timelines’  was held from 9thto 11th October, 2015 at the college campus. This was the 9thsuccessive year of MindSpark with over 5000 students participating from across the nation.
* The 14th Annual sports fest of COEP- “ZEST” was held from 23rd to 26th January 2016 with great fervour.
* Colourful 88th Annual Regatta was organized by the Boat club on 6th March 2016.
* A large number of eminent personalities namely Bharatratna Dr C. N. R. Rao, Dr. Anil Awchat, Dr. Vijaya Wad, Mr. Narendra Singh Tomar, Union Minister of Steel and Mines, Mr. Sajjan and Sangita Jindal, Prof. Robert H. Bishop, Prof. Leonid Fridman, Dr. Tom Lee, Prof. Mark Niedre, Prof. Desineni Naidu, Dr Baba Kalyani, Dr. Anil Kakodkar, Dr. Srikumar Banerjee, Dr. Vijay Mohanan Pillai, Dr. Raghunath Mashelkar, Mr. Rahul Bajaj, Shri. Vinod Tawade, Smt. Supriya Sule, Shri. Ashok Chavan, Shri. Prashant Jagtap and many other visited the institute and interacted with students.
* The Ignited Innovators of India Programme of Social Entrepreneurship was conducted with a sponsorship from Eaton Corporation for the 5th year under which more than 250 socially relevant projects were undertaken by more than 50 colleges.
* COEP’s suggestion portal to raise the problems faced by students anonymously has caught the attention of many colleges and media; and recognition for transparency. COEP has also launched a counseling forum portal meant for providing support to current students by alumni.

**Academic Reforms and Activities**

* The Institute has revised its curriculum for the fourth time since the autonomy bringing in major changes like mathematics courses in all four years, a mandatory self learning course, MOOCs in addition to offering of several electives.
* The faculties are also encouraged to undertake MOOCs offered by IIT Bombay.
* The Institute has been recognized along with all IITs by the HRD Ministry and the PM to execute “Unnat Bharat Abhiyaan” programme for the empowerment of villages by technology interventions. COEP has selected 10 villages and a team led by Dr. Madhuri Joshi has been actively engaged with these villagers in several key areas like water, sanitation, energy and education.
* Industry Advisory Boards comprising experts from industry were formed in all the departments. All the departments have completed 2-3 cycles of meetings and their roadmaps are getting ready.

**Infrastructural Development**

* The construction of the proposed building of BHAU institute of Innovation, Entrepreneurship and Leadership is nearing completion and the facility will be inaugurated soon.
* There are several renovation works undertaken such as smart renewable energy system lab in the Electrical Department, new canteen, 3D printing lab. The Geometric software has committed an amount of Rs 1.2 crores towards 3D printing lab.
* The Bajaj Auto committed an amount of Rs 4.5 crores for the renovation of the Mechanical Engineering Department Labs; and the department building “Bajaj Auto School of Mechanical Engineering” was inaugurated on March 21, 2016 at the hands of the renowned scientist, Dr. Raghunath Mashelkar.

**Memorandums of Understanding (MOUs)**

* A total of 36 MOUs with different Universities and organizations were signed during the academic year. Prominent among them being MOUs with Tel Aviv University Isarel, Kunsan National University South Korea, Colarado State University, Geometric Ltd, IIT Bombay Design Department, ARAI, and Danfoss Industries, to name a few
* These organizations have extended their support for conducting various academic, non- academic, research, exchange programmes for the students and faculty at COEP.

**Technical Education Quality Improvement Programme (TEQIP Phase- II)**

* Several Seminars, Workshops and Conferences were conducted throughout the year under TEQIP-II.
* Equipment worth Rs. \_\_\_\_crores were procured using these funds.

**Training & Placement and Industry Interaction**

* Several industry institute partnership programmes such as soft skills training, competitions, awards, internships, student projects have been conducted.
* The placement season started on 11th August 2015, with some premium companies like D. E. Shaw, Bajaj Auto, Morgan Stanley, Raukten, Credit Suisse, ARAI, VM Ware, BMW, Amazon etc. visiting the institute. TCS recruited 147 students.
* About 138 companies visited the campus and 70% of the students are placed and the placement drives are still going on. Maximum packages offered this year were 33.00 LPA by Rakuten, 18.05 LPA by D.E. Shaw, 17 LPA by Infosys, 16 LPA by Morgan Stanley, 15 LPA by Amazon, 13 LPA by VM ware etc.
* AMCAT assessment test was conducted for all the third year B Tech and first year M.Tech students.
* A special training was conducted for students lacking English and Communication skills. Mock sessions were conducted by TCS, Wipro, and Infosys.
* The Industry Institute Interaction meet was arranged by the institute in which more than 120 industry houses and 41 Training and Placement officers participated in February 2015.

**Major National and International Conferences / Workshops / Lectures organized:**

* 50th Indian Geotechnical Conference was organized from 17th- 19th December 2015
* 3rd International Conference on Transformations in Engineering Education was held from 8th to 12th January 2016.
* ATrainer Workshop for experts for AICTE approval Process 2016-17 was organized by COEP and AICTE on 6th March, 2016.
* COEP, in association with IIT Bombay and VNIT Nagpur rorganized Indian Medical Device Expoat COEP from 8th to 10th April 2016.

**College Ranking as per the results of various surveys**

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| --- | --- | --- | --- |
| **Sr. no.** | **Survey** | **Categorgy** | **Rankings** |
| 1 | Competitive Success Review- Global Human Resource Development Centre  (CSR-GHRDC) | Top Engineering Colleges of Super Excellence in India | 3rd amongst top 12 colleges |
| Top Engineering Colleges ranked by the State. | 1st amongst top 9 colleges |
| 2 | Outlook MDRA | ---- | 14th amongst Top 100 Engineering Institutes in India |
| 3 | India Today | ---- | 11th amongst Top 25 Engineering Institutes in India |
| 4 | The Week Hansa Research Survey | ---- | 22nd amongst top 100 Engineering Institutes in India |
| 5 | Data Quest Cyber Media Research & Services Ltd (DQ-CMR) | ---- | 11th  out of 25 top Govt. colleges |

All these achievements have led COEP being reckoned consistently among the top 10-15 institutes in India by most of the national level surveys.

Many top colleges and universities have recognised the transformation achieved by COEP though a decade of autonomy and have been seeking its guidance. Some of these institutes and universities include Cummins College of Engineering, Pune, Punjab University of Technology, TEQIP SPFU unit of Telangana and NPIU, IUCEE, VIIT, Pune, SDM College Dharwad, Veltech University Chennai, Jai Parkash Mukand Lal Institute of Engineering and Technology, Haryana, Visvesvaraya Technological University, Belgum, Aditya Institute of Engineering and Technology, Vishakhapattanam among others.

College of Engineering Pune has grown by leaps and bounds and our proposal for Deemed University is under process. We are confident of reaching new heights in the years to come and be a globally recognized institute.

Thank you.

Jai Hind and Jai Maharashtra

The Director

College of Engineering, Pune

**DEPARTMENT OF APPLIED SCIENCE**

* **INTRODUCTION**

Applied Science is a bridge that connects pure science with engineering practices. It aims to provide a strong foundation for students of engineering and is one of the indispensable departments of the institute. Chemistry and Biology, along with Advanced Engineering Materials, Professional Ethics, Humanities, Psychology, Environmental Awareness and Entrepreneurship Development are taught at the undergraduate level. The Department has well equipped laboratories which enable faculty and students to employ fundamental principles to create innovative new technologies. These novel solutions are then handed off to engineering disciplines to be refined, enhanced and used to address important problems. Guidance and Psychological counseling sessions are provided to the students by Faculty of Psychology at the Department.

Department has started the activity called GRAMODYOG to help the existing rural based industries and to create entrepreneurship among the students from village background to start their own venture with appropriate technology.

* **ACADEMIC PROGRAMS (B. TECH/ M. TECH/ PH. D)**

Our department is taking care of all the subjects which are required to strengthen the basic knowledge in fundamental Sciences and Humanities.

* **FACULTY STRENGTH**

|  |  |  |
| --- | --- | --- |
| **Sr. No** | **Designation** | **No.**  **of Faculty** |
| 1 | Professor | 1 |
| 2 | Associate Professor | 1 |
| 3 | Assistant Professor | 8 |
| 4 | Adjunct Professor | 6 |
| Total | | 16 |

* **MAJOR EQUIPMENTS & FACILITIES**

|  |  |
| --- | --- |
| **Name of the Lab** | **Facilities** |
| **Chemistry Laboratory** | The department has all the basic Instruments required for Chemistry, Environmental Science laboratory classes as well as for material synthesis, characterization and industrial testing. The facilities include Water Analyzer Kit, Water Demineralization Plant, Microprocessor Based pH System, R O based Water Purifier, AfcosetMp Control Electronic Balance, Lab Guard Fume hood,Inert high temperature work platform, Ball mill, Hydraulic Pellet press and die set, Flame photometer, Colorimeter, 979 VA Computrace – Cyclic voltameter, High temperature furnace, Muffle Furnace, Thermogravimetry analyzer, Differential thermal analyzer. Autoclave , Incubator, Hot air oven,. etc.  **Faculty in Charge: Mrs N V Iyer** |
| **Language Laboratory** | The language lab offers a platform for students and Faculty members to enrich their communication skills with the help of software applications available in the lab such as Renet Language Studio, ESPOIR Interview Simulator, ESPOIR Spoken English, ESPOIR English through Science and Technology, etc. It also helps students to practise various international level exams in Business English and TOFEL, GRE  **Faculty in Charge: Mrs Aparna Khandekar** |
| **Applied Biology**  **Laboratory** | The Applied Biology laboratory is recently started in the Department. The research focus is integrating Bioengineering, Nanotechnology with Life sciences. The current research projects are on diagnostics and biosensing for hospital borne and water borne infections and metabolic disesases. The aim is to develop Point-of-Care devices for prognosis, diagnosis and monitoring of dieseaes integrating nanomaterials. The laboratory also gives hands-on experience to under-graduate and post-graduate students to carry out short-term projects and practicals.  The lab is having microbial culture laboratory, refrigerated centrifuge, PCR, electrochemical workstations, Biosafety cabinets. The department is planning to develop a state-of-the art laboratory for Nano-Biotechnology and Bioengineering.  **Faculty in Charge: Dr Anup Kale** |

* **RESEARCH & DEVELOPMENT ACTIVITIES**

|  |  |  |
| --- | --- | --- |
| **Sr. No** | **Research Activities** | **Total No.** |
| 1 | No. of Books Authored | 00 |
| 2 | No. of Conference/Seminars/ workshops attended | 14 |
| 3 | No. of Conference/Seminars/ workshops organized | 03 |
| 4 | No. of publications in International/National Journals and conference | 10 |
| 5 | No. of Government Sponsored Projects | 02 |
| 6 | Value of the Government Sponsored Projects (In Lakhs) | 60.6 |
| 7 | No. of Consultancy Projects | 03 |
| 8 | No. of Ongoing Ph.D.s | 10 |

* **DETAILS OF CONSULTANCY PROJECTS**

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **Sr. No** | **Title** | **Name of the Project Leader** | **Year in which started** | **Funding agency** | **Duration** | **Amount sanctioned** |
| 01. | Approval of process design for the leachate treatment plant at PCMC | Dr. Mahesh Shindikar | March 2016 | WTE Infra Projects Pvt. Ltd. Pune | One Month | 1,20,000 |
| 02. | Restitution & Restoration of Ground Water qualiy of the desputed wells in and around petrol depot of Akolner area | Dr. Mahesh Shindikar | May 2015 to June 2016 | Maharashtra Pollution Control Board, Nashik | One Year | 57000.00 |
| 03. | Preparation of DPR for Solid Waste Managemnt | Dr. Mahesh Shindikar | June 2015 | Jalgaon Jamod Nagar Parishad | Three Months | 50000.00 |

* **DETAILS OF RESEARCH PROJECTS**

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| **Sr. No** | **Scheme** | **Whether Sponsored by**  **Industry/ Government** | **Name of coordinator** | **Amount sanctioned(In Lakhs)** | **Title of the (Sanctioned) project** | **Funds Utilization**  **Position as on today** | **Year in which the Grant was received)** |
| 1. | ISRO-UOP-STC | Government-ISRO-UOP-STC | Dr. M Y Khaladkar | 20.60 | Fabrication of a small satellite for monitoring radiations in different orbits of outer atmosphere where orbit maneuvering will be controlled by solar sail. | Project has started recently | June 2016 |
| 2. | DST Nanomission | DST | Dr. Anup A Kale | 38.95 | Real-time biosensor nano-device for detection and identification of multiple pathogens | Project is in progress | Dec.2015 |

# PUBLICATIONS

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| **Sr. No** | **Name of Department** | **Research Publications** | | | | **Total** |
| **National Journal** | **International Journal** | **National Conference** | **International Conference** |
| 1. | Applied Science | 00 | 06 | 04 | 05 | 15 |

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| **International Journals** | | | |
| **Sr. No** | Title of the Paper | **Authors** | **Publication Details /Vol.No. /ISSN No./***Page No****.*** |
| 1 | An innovative approach to impart life skills to engineering students to enhance their personality | Tanuja Kher | Published a paper in International Journal of Science Technology and management, Vol. No. 4 Special issue No. 01, August 2015. ISSN 2394- 1537 |
| 2 | Use of catalyst in pyrolysis of polypropylene waste into liquid fuel | Sonawane YB, Dr. Shindikar M.R, Dr. Khaladkar MY | International Research Journal of Environment Sciences,ISSN 2319–1414, Vol. 4(7), 24-28, July (2015) |
| 3 | Influence of Dodecylbenzene Sulfonic Acid Doping on Structural, Morphological, Electrical and Optical Properties on Polypyrrole/3C-SiC Nanocomposites. | Shrikrushna, S., Dr. Kher, J. A., & Kulkarni, M. V. | Journal of Nanomedicine & Nanotechnology, 6(5), 1. ISSN: 2157-7439 |
| 4 | Comparative Study of Yttria Stabilized Zirconia Prepared by Co-precipitation Method using Various Precursors and its Potential as Gas Sensor | Dr. M Y Khaladkar and Rucha Purandare | Int. J. Res. Chem. Environ. Vol. 6 Issue 2 (14-17) April 2016 |
| 5 | High Density Polyethylene Waste Treatment By Using Catalytic Pyrolysis To Recover Liquid Fuel, | Sonawane YB, Dr. Shindikar M R, Dr. Khaladkar MY | International Journal of Science, Environment and Technology, 5(3):1421 – 1425. |
| 6 | Unsteady polar fluid model of blood flow through tapered ω-shape stenosed artery: Effects of catheter and velocity slip. | D Srikanth, JVR Reddy, S Jain, A Kale. | Ain Shams Engineering Journal, DOI:10.1016/j.asej.2015.01.003 |

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| **National Conference** | | | |
| **Sr. No** | Title of the Paper | **Authors** | **Publication Details /Vol.No. /ISSN No./***Page No****.*** |
| 1 | Empowering women through rational self appraisal | Mrs.Tanuja Kher | 2nd National conference on women health” Challenges and solutions” Novenber 28-29,2015 |
| 2 | Role of Education in Women Health | Mrs. Aparna Khandekar | 2nd National conference on women health” Challenges and solutions” Novenber 28-29,2015 |
| 3 | Invited Talk on Nanobiotechnology and its applications in medicine | Dr. Anup Kale | Convergence Of Stem Cells And Medical Nanotechnology on 2nd and 3rd September 2015, Kolhapur |
| 4 | Understanding Quantum dot-protein interactions for diagnostic and therapeutic applications Presentation received first prize in the conference | Shreeram Joglekar, Harish Gholap, Dr. Anup Kale | National Conference On Advanced Materials & Applications-2016. March 4-5, 2016, Fergusson College, Pune |

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| **International Conferences** | | | |
| **Sr. No** | Title of the Paper | **Authors** | **Publication Details /Vol.No. /ISSN No./Page No.** |
| 1 | Kinetics of decomposition of strontium doped YSZ, xray characterization and gas sensing potential of the end product | R.R.Purandare,  Dr. M.Y.Khaladkar | ICMST 2016 (International Conference in Material Science & Technology) at Thomas College, Pala, Kottayam, Kerala |
| 2 | Effect of nature of organic surfactants doping on electrical, optical and sensing properties of nanoscales polypyrrol | Sachidanand shrikrushna, Dr. J.A.Kher, M.V.Kulkarni | ICMST 2016 (International Conference in Material Science & Technology) at Thomas College, Pala, Kottayam, Kerala |
| 3 | High calorific value fuel from house hold plastic waste by catalytic pyrolysis | Y.B.Sonawane, Dr. M.R.Shindikar, Dr. M.Y.Khaladkar | ICMST 2016 (International Conference in Material Science & Technology) at Thomas College, Pala, Kottayam, Kerala |
| **Sr. No** | Title of the Paper | **Authors** | **Publication Details /Vol.No. /ISSN No./Page No.** |
| 4 | Creative Curriculum for Connection College to Corporate | Mr. Atul B. Patil | Nepal Language Teachers’ Association (NELTA) Journal |
| 5 | FITC Embedded Zno/Silica Nanocomposites as probes for Point-of-Care diagnosis | Shreeram Joglekar,Prashant Pimpliskar, Dr. Anup Kale | Third International Conference on Nanotechnology for Biological and Biomedical Applications (Nano-Bio-Med 2015), IIT-Bombay Dec. 1-4, 2015 |

* **NATIONAL / INTERNATIONAL CONFERENCES / SEMINAR / SYMPOSIA / WORKSHOP ATTENDED DURING LAST ACADEMIC YEAR.**

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| **Name of Department** | **National**  **Conferences** | **International**  **Conferences** | **Workshop** | **Seminar** | **Total** |
| **Applied Science** | **05** | **01** | **08** | **01** | **15** |

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| **NationalConferencesAttended** | | | | | |
| **Sr. No.** | **Title of the Paper** | **Title of the Conference** | **Name of the Faculty** | **Period** | **Venue** |
| 1 | Participant | National conference on evolving future of air quality of Pune city | Dr. Mahesh Shindikar | 6th February 2016 | organized by MPCB and NEERI at Pune |
| 2 | Presenter (Workshop) | National Conference on Communication *Plus* | Mr. Atul B. Patil | 5-6 February, 2016 | Symbiosis, Pune |
| 3 | Participant | National Conference on Communication *Plus* | Mr. Swapnil Shirsath | 5-6 February, 2016 | Symbiosis, Pune |

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| **Sr. No.** | **Title of the Paper** | **Title of the Conference** | **Name of the Faculty** | **Period** | **Venue** |
| 4 | Presenter | Conservation of biodiversity for the sustainable development at the Costs | Dr. Mahesh Shindikar | 24-15 February, 2016 | Yashwantrao Mohite College of Arts, Science and Commerce |
| 5 | Presenter  (Paper) | 2ND National Health Conference | Mrs. Aparna Khandekar | Nov. 2015 | Organized by Sharada Shakti |

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| **InternationalConferencesAttended** | | | | | |
| **Sr. No.** | **Title of the Paper** | **Title of the Conference** | **Name of the Faculty** | **Period** | **Venue** |
| 1 | Plenary Session Speaker and Paper Presenter | 21st International Conference on English Language Teaching by NELTA | Mr. Atul B. Patil | March 2016 | Kathmandu, Nepal |

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| **Workshops Attended** | | | | |
| **Sr. No.** | **Name of the workshop** | **Name of the Faculty** | **Period of Course** | **Institute where deputed** |
| 1 | Teaching Productive Skills | Mr. Atul B. Patil | July 25, 2015 | Cambridge Office, Mumbai |
| 2. | Personality Development Programme: Connecting College to Corporate (TEQIP-II sponsored) | Mr. Atul B. Patil | 28 Dec. 2015 to 2 Jan. 2016 | COEP |
| 3 | Personality Development Programme: Connecting College to Corporate (TEQIP-II sponsored) | Mr. Swapnil Shirsath | 28 Dec. 2015 to 2 Jan. 2016 | COEP |
| **Sr. No.** | **Name of the workshop** | **Name of the Faculty** | **Period of Course** | **Institute where deputed** |
| 4 | Entrepreneurship | Mr. Atul B. Patil | February 11 to 13, 2016 | Sinhagad College of Engineering Pune |
| 5 | Flora and Founa | Dr. Mahesh Shindikar | 3 to 8 November, 2015 | University of Technology, Mauritius |
| 6 | Personality Development Programme: Connecting College to Corporate (TEQIP-II sponsored) | Mrs. Aparna Khandekar | 28 Dec. 2015 to 2 Jan. 2016 | College of Engineering Pune COEP |
| 7 | Developmental Assessment Scales for Indian Infants and follow up of high risk newborns and Neurodevelopmental Assessment Tests | Dr. Anup Kale | June 6-11, 2016 | KEM hospital Research Centre at its campus, Pune |
| 8 | TEQIP-II Sponsored A Short Term Training Programme on Fundamentals of Fluid Power Devices and their Applications | Mr. Atul B. Patil | 6 June to 10 June, 2016 | COEP |

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| **SeminarAttended** | | | | |
| **Sr. No.** | **Title of the Seminar** | **Name of the Faculty** | **Period** | **Venue** |
| 1 | Animation for Better Educational Communication | Mr. Atul B. Patil | 9-10 Feb. 2016 | Symbiosis Institute of Design,Viman Nagar, Pune |

* **NATIONAL / INTERNATIONAL CONFERENCES / SEMINAR / SYMPOSIA /**

**WORKSHOP ORGANIZED DURING LAST ACADEMIC YEAR.--**

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| **Name of Department** | **National**  **Conferences** | **International**  **Conferences** | **Workshop** | **Seminar** | **Total** |
| **Applied Science** | **00** | **00** | **02** | **00** | **02** |

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| **Workshops Organized** | | | | | |
| **Sr. No.** | **Title of the Workshop** | **Name of the Faculty** | **Period** | **Venue** | **No. of**  **Participants** |
| 1. | Special Remedial Course in English and Communication Skills (TEQIP-II sponsored) | Mr. Atul B. Patil, Mrs. Aparna Khandekar, Mr. Swapnil Shirsath | 24May to 28 May 2016 | COEP | 50 |
| 2. | TEQIP-II sponsored Summer Internship Programme for Govt. Engineering College Students from Maharashtra | Mr. Atul Patil | 30 May to 10, 2016 June | COEP | 35 |

* **MEMBERSHIPS TO SOCIETIES**

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| **Sr. No** | **Name of the Society** | **Name of the faculty/s** |
| 1. | SAEST | Dr. J.A.Kher  Dr. K.S.Suranje  Mrs. N.V.Iyer  Dr. M. Y.Khaladkar |
| 2. | Children’s’Future India, Pune chapter appointed as a expert on Local advisory board | Mrs. TanujaKher |
| 3. | IET - UK | Dr. M. Y.Khaladkar  Dr. J. A. Kher  Dr. M. K.Ranjekar |
| 4. | Indian Institute of Metals , Calcutta | Dr. J. A. Kher (Life Member) |
| 5. | Materials Research Society of India |
| 6. | Instruments Society of India |

* **SPECIAL MENTION**

Dr. Mahesh Shindkar became the Member, Maharashtra Costal Zone Management Authority, Environment Department, Government of Maharashtra.

* **FACULTY MEMBERS**

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| **Sr.No** | **Name of the Faculty** | **Highest Qualification** | **Designation** | **Areas of Interest** |
| 1. | Dr. Jayant A. Kher | M.Sc, Ph.D,  A.M.I.I.M, M.M.S. | Assistant Professor of Chemistry and HOD | Material Science- Superconducting ceramics, ferrites, non linear  dielectrics, High energy material, Fabrication of analytical instruments related to  Thermal analysis and Conducting Polymers. Expert in Metal and alloy analysis. |
| 2. | Dr. (Mrs.) Manisha Y. Khaladkar | M.Sc.;Ph.D. | Associate Professor in Chemistry | Material Science- Superconducting ceramics, ferrites, non linear dielectrics, High energy material, Fabrication of analytical instruments related to thermal analysis and Conducting Polymers. |
| 3. | Dr. Mahendra K. Ranjekar | M.Sc (Microbiology), M. Phil. (Life Sciences, Microbiology), Ph.D. (Microbiology), DIT | Professor in Biology, Chief Rector, COEP Hostels | Organic farming, Biofertilizer Technology, Industrial Microbiology, Siderophore Technology, Actinomycetes Ecology |
| 4.. | Mrs. Tanuja Jayant Kher | M.A., M. Phil. ; B.Ed | Assistant Professor in Psychology | Counseling, Training & Development, Trianer for workshops/sessions on self-awareness, confidence building, group discussion and interpersonal interaction, effective teaching, and positivity, creativity |
| 5. | Mrs. Nandini V.Iyer | M.Sc -  (BioChemistry), BEd | Assistant Professor in Chemistry | Materials Chemistry, Biochemistry, Nanostructured Materials , |
| **Sr.No** | **Name of the Faculty** | **Highest Qualification** | **Designation** | **Areas of Interest** |
| 6. | Mrs. Kshipra V. Moghe | M.A.-Clinical Psychology (SNDT Women’s University), Pune, SET, PGDHRM | Assistant Professor in Psychology and Counselor | Counseling, Training & Development, Facilitator for workshops/sessions on self-awareness, confidence building, group discussion and interpersonal interaction, effective teaching, and positivity |
| 7. | Dr. Mahesh R. Shindikar | Ph. D Botany (Pune University) | Assistant Professor in Biology | Biodiversity conservation, reforestations, Environmental Science. |
| 8. | Dr. (Mrs.) Kavita S. Suranje | MSc. Organic Chemistry, Ph. D Chemistry (Amravati University),B.Ed | Assistant Professor in Chemistry | Synthesis, Antimicrobial activities and physicochemical study of 3,5-diaryl-4-aroyl-1-substituted Pyrazolines and Pyrazoles. |
| 9. | Mr. Atul B. Patil | M.A. (English), Pursuing Ph.D. | Assistant Professor of Communication Skills | Computer assisted language learning (CALL), language laboratories, online teaching |
| 10 | Mr. Aparna Khandekar | MPM, M A  (English Literature)  PGCTE | Assistant Professor of Communication Skills | Phonetics, Assessment and Language testing, Soft Skills Development, Business English, Human Resource Development, Organizational Behaviour |
| 11 | Mr. Swapnil Shirsath | M A  (English Literature) | Adjunct Professor in communication | Literature |
| 12 | Mr. Uday Putali | B.E. MBA | Adjunct Professor in Ethics | Industrial Planning |
| 13 | Mrs. Purva A. Kulkarni | M.A. (Psychology) | Adjunct Professor in Psychology | Counseling and Teaching |
| 14 | Mr. Pramod V. Lele | M.Sc. (Chemistry) | Adjunct Professor in Chemistry | Developing new formulas and Teaching |
| 15 | Adv. Shalaka D. Deshpande | M.Com. LL.M | Adjunct Professor in Law and IPR | Teaching Constitution of India and Intellectual property Rights as well as Commercial Law. |