INTRODUCTION

- Started UG program (B. E. E&TC) in the year 1999 with intake of 60.
- The intake increased to 120 in 2011.
- PG program (signal Processing) started in 2013 with intake 24.
- The department has 18 well qualified faculty members with 6 doctorates and 9 pursuing PhD
- Industry supported and well equipped laboratories.
- Every year department sponsor the final year projects.
DEPARTMENT ACHIEVEMENTS

- NAAC Accreditation
- Research grants: Rs. 1390000.00
- Revenue generation: Rs. 364000.00
- The department organizes
  - National conference
  - International conference
  - Industrial visits (Sponsored by Department)
  - Workshops
  - Seminars/Guest lectures
- MOUs with CDAC, Amitec Ltd., Mithbhushi, Spicer etc.
- Collaborative Laboratory in association with Amitec Ltd.
- State-of-art infrastructure and facilities in department.
## FACULTY ACHIEVEMENTS

- **Faculty Publications**

<table>
<thead>
<tr>
<th>Name of faculty</th>
<th>Publications/Patents</th>
<th>Reviewer</th>
<th>Citations</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dr. P. B. Chopade</td>
<td>16 (1-SCI, 3-Scopus)</td>
<td>2(IET, SIVP)</td>
<td>10</td>
</tr>
<tr>
<td></td>
<td>1-PATENT</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Dr. M. P. Dale</td>
<td>50 (6-Scopus)</td>
<td>05 (IEEE Conferences)</td>
<td>91</td>
</tr>
<tr>
<td>Dr. P. P. Mane</td>
<td>25 (03-Scopus)</td>
<td></td>
<td>25</td>
</tr>
<tr>
<td>Dr. K. S. Tiwari</td>
<td>23 (03-Scopus)</td>
<td>02 (IEEE Conference)</td>
<td>28</td>
</tr>
<tr>
<td>Dr. A. J. Hake</td>
<td>02-PATENT</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Prof. P. N. Kota</td>
<td>21 (07-Scopus)</td>
<td>01 (IEEE Conference)</td>
<td>08</td>
</tr>
<tr>
<td>Prof. S. N. Dharwadkar</td>
<td>17</td>
<td></td>
<td>06</td>
</tr>
<tr>
<td></td>
<td>1-PATENT</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>1- Book chapter</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Sr. No</td>
<td>Name of faculty</td>
<td>Project Title</td>
<td>Funding Agency</td>
</tr>
<tr>
<td>--------</td>
<td>----------------</td>
<td>-------------------------------------------------------------------------------</td>
<td>----------------</td>
</tr>
<tr>
<td>1</td>
<td>Prof. S.N. Dharwadkar</td>
<td>Iris image acquisition on the move</td>
<td>BCUD UoP</td>
</tr>
<tr>
<td>2</td>
<td>Prof. P. N. Kota</td>
<td>PAPR Reduction Technique in Orthogonal Frequency Division Multiplexing System</td>
<td>BCUD UoP</td>
</tr>
<tr>
<td>3</td>
<td>Dr. K. S. Tiwari</td>
<td>Design of Rough Set Processor for Control and Automotive Applications</td>
<td>BCUD UoP</td>
</tr>
<tr>
<td>4</td>
<td>Dr. M. P. Dale</td>
<td>Development of biometric system based on conjunctival vasculature</td>
<td>BCUD UoP</td>
</tr>
<tr>
<td>5</td>
<td>Prof. R. S. Kadam</td>
<td>Role of active antenna in portable computing devices.</td>
<td>BCUD UoP</td>
</tr>
</tbody>
</table>

Total Amount: 910000.0
STUDENTS ACHIEVEMENTS

- Ms. Andrea Pareira: Gold medalist
- Mr. Tushar Wagh: IAS officer
- Mr. Dhiraj Gurale: IES officer
- Achievements of Students:

<table>
<thead>
<tr>
<th>Sr. No</th>
<th>Name</th>
<th>Class</th>
<th>Activity</th>
<th>Achievement</th>
</tr>
</thead>
<tbody>
<tr>
<td>2.</td>
<td>Yogesh Rakh</td>
<td>T.E E&amp;TC</td>
<td>National Level Youth Festival for the activity Clay Model.</td>
<td>Won the first prize</td>
</tr>
<tr>
<td>3.</td>
<td>Benjamin and group</td>
<td>T.E E&amp;TC</td>
<td>Roborace and Pick N Place competition</td>
<td>Won the first prize</td>
</tr>
<tr>
<td>4.</td>
<td>Group of students</td>
<td>T.E &amp; B.E E&amp;TC</td>
<td>National robotics competition ROBOCON at MAE Alandi, Pune</td>
<td>Secured All India Rank 24</td>
</tr>
<tr>
<td>5.</td>
<td>Shashank Chaudhari and Team</td>
<td>B.E E&amp;TC</td>
<td>Project competition organized by Mitsubishi Electric Ltd</td>
<td>Selected as final team</td>
</tr>
</tbody>
</table>
VISION & MISSION

❖ Vision of Institute
To Groom - Motivated, Environment friendly, Self esteemed, Creative and Oriented Engineers.

❖ Mission of Institute
To Develop Industry Oriented Manpower to accept the challenges of Globalization by,
✓ Promoting Value Education through motivated trained faculty,
✓ Maintaining conducive environment for education at affordable cost,
✓ Promoting Industry Institute interaction,
✓ Involving alumni.
VISION & MISSION (CONTD…)

❖ Vision of E&TC Department
To Groom - Motivated, Environment friendly, Self-esteemed, Creative and Oriented Electronics and Telecommunication Engineers

❖ Mission of E&TC Department
To Develop Industry Oriented Manpower to accept the challenges of Globalization by,

✓ M1: Imparting Electronics and Telecommunication knowledge through trained Faculty in a conducive environment,
✓ M2: Creating awareness about the needs of Electronics and Telecommunication Industries through alumni and Industry-Institute interaction,
✓ M3: Encouraging students to think innovatively and introduce them to various Research activities,
✓ M4: Grooming students in communication and interpersonal skills.
PROGRAM EDUCATIONAL OBJECTIVES

- **PEO1**: To prepare students with strong foundation in mathematical, scientific and engineering fundamentals to excel in their career.

- **PEO2**: To prepare students for technological changes through domain knowledge and extend their skills across the range of disciplines.

- **PEO3**: To prepare students for continuous professional and social development through soft skills and self-learning abilities.
TEACHING LEARNING PROCESS

1. Start of Academic Year
   - Sem I or II

2. Academic Planning
   - Academic & Activity Calendar
   - Load Distribution
   - Time Table

3. Planning
   - Lab Utilization

4. Execution
   - Co-curricular Activities
     - Guest Lectures, Industrial Visits, SDPs, etc
   - Lecture conduction
     - Tutorials, Practicals
   - Extra-curricular Activities
     - Robo-club, NSS, Astitiva, sports, etc

5. Monitoring
   - Instruction Delivery
     - Online & In-Sem Exam
     - Feedback & Result Analysis
     - Parent Meet

6. Final Theory Exam
Students projects are broadly categorized as

- Industry sponsored projects
- Institute sponsored projects
- Self-sponsored projects

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**Academic Year**

- **2014-15**
- **2015-16**
- **2016-17**
- **2017-18**

**Percentage**

- Industry Sponsored
- College sponsored
- Self-Sponsored

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E&TC Dept.
INDUSTRY INSTITUTE INTERACTION

- To strengthen the interaction with Industry, department organizes
  - Guest lectures
  - Industrial visit
  - Student development program
  - Faculty development program
  - Alumni meet
  - Permission to Industrial internship / summer training

- Industry Supported Laboratories

<table>
<thead>
<tr>
<th>Sr. No</th>
<th>Name of Lab</th>
<th>Facilities available</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Software Defined Radio</td>
<td>Hardware + Software</td>
</tr>
<tr>
<td>2</td>
<td>NI Lab</td>
<td>Hardware + Software</td>
</tr>
<tr>
<td>3</td>
<td>R&amp;D Lab</td>
<td>Advanced instruments</td>
</tr>
</tbody>
</table>

E&TC Dept. 20/07/2018
Department interact with industry by signing MoUs.

<table>
<thead>
<tr>
<th>Sr. No</th>
<th>Type of industry</th>
<th>Type of Laboratory</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>National Instruments</td>
<td>NI Laboratory</td>
</tr>
<tr>
<td>2</td>
<td>Mitsubishi Electric India Ltd.</td>
<td>Mechatronics Laboratory</td>
</tr>
<tr>
<td>3</td>
<td>Amitech electronics India Pvt. Ltd.</td>
<td>SDR Laboratory</td>
</tr>
<tr>
<td>4</td>
<td>Sphier Unified Solutions Pvt. Ltd, Pune</td>
<td>Embedded Laboratory</td>
</tr>
<tr>
<td>5</td>
<td>Pro-active IT services Pvt.Ltd.</td>
<td>SDR Laboratory</td>
</tr>
<tr>
<td>6</td>
<td>C-DAC</td>
<td>VLSI and Signal Processing Laboratory</td>
</tr>
<tr>
<td>7</td>
<td>Graceful Growth</td>
<td>Seminar Hall</td>
</tr>
<tr>
<td>8</td>
<td>Edgate Technologies &amp; Texas Instruments</td>
<td>Advanced Equipment Laboratory</td>
</tr>
<tr>
<td>9</td>
<td>Pearson for Authorized Centre Credit Agreement</td>
<td>Pearson Examination Center</td>
</tr>
<tr>
<td>10</td>
<td>Trident TechlabsPvt. Ltd.</td>
<td>Texas Instruments Strellaries Lab</td>
</tr>
<tr>
<td>11</td>
<td>R.S. Network</td>
<td>Computer Network Laboratory</td>
</tr>
</tbody>
</table>

E&TC Dept. 20/07/2018
PROGRAM SPECIFIC OUTCOMES

- **PSO1-** Apply concepts and knowledge of mathematics, basic electronics engineering to various areas like Signal processing, Embedded Systems, VLSI, Communication engineering etc.

- **PSO2-** Design and analyze Electronic Engineering problem with given specification.

- **PSO3-** Implement Electronic and Communication system using appropriate hardware and software tools, keeping in mind it's societal and environmental effect.
# DETAILS OF PLACEMENTS AND HIGHER STUDIES

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Total No of Final Year Students</td>
<td>116.00</td>
<td>116.00</td>
<td>115.00</td>
</tr>
<tr>
<td>No of students placed in the companies or government sector</td>
<td>43.00</td>
<td>55.00</td>
<td>44.00</td>
</tr>
<tr>
<td>No of students admitted to higher studies with valid qualifying scores (GATE or equivalent State or National Level tests, GRE, GMAT etc.)</td>
<td>8.00</td>
<td>3.00</td>
<td>10.00</td>
</tr>
<tr>
<td>Total (In percentage)</td>
<td>43.96%</td>
<td>50%</td>
<td>47%</td>
</tr>
</tbody>
</table>

E&TC Dept.
PROFESSIONAL ACTIVITIES

- The professional societies and chapters active like IETE and ISTE.
- Department Level students organizations/associations:

<table>
<thead>
<tr>
<th>Name of students association/organization</th>
<th>No. of activities per year</th>
<th>2017-18</th>
<th>2016-17</th>
<th>2015-16</th>
<th>2014-15</th>
<th>PO Mapped</th>
</tr>
</thead>
<tbody>
<tr>
<td>ETSA (Electronics &amp; Tele-communication students associations)</td>
<td>13</td>
<td>09</td>
<td>08</td>
<td>08</td>
<td>PO1, PO2, PO3, PO4, PO5, PO8, PO9, PO10, PO11, PO12</td>
<td></td>
</tr>
<tr>
<td>Astitva</td>
<td>03</td>
<td>02</td>
<td>06</td>
<td>04</td>
<td>PO6, PO7, PO9, PO10, PO12</td>
<td></td>
</tr>
<tr>
<td>Roboclub</td>
<td>04</td>
<td>04</td>
<td>04</td>
<td>04</td>
<td>PO1, PO2, PO3, PO4, PO5, PO8, PO9, PO10, PO11, PO12</td>
<td></td>
</tr>
</tbody>
</table>
INNOVATIONS BY THE FACULTY IN TEACHING AND LEARNING

- Work made available on website
- Work made available for peer review and critique
- Work made reproducible and developed further by other scholars
- Use of Information and Communication Technology
  - Multimedia teaching aids
  - Computer - Based Teaching (CBT)
  - Virtual learning Environment (VLE)
- Instruction Delivery and Methods
  - Problem based learning
  - Project-Based Learning
  - Participative Learning
FACULTY AS PARTICIPANTS IN FACULTY DEVELOPMENT/TRAINING ACTIVITIES/STTP’S

No. of faculty members attended 3 days FDP/training program/STTP’s

Year | 2017-18 | 2016-17 | 2015-16 | 2014-15
--- | --- | --- | --- | ---
20% | 23% | 20% | 16% | 37%

No. of faculty members attended 5 days FDP/training program/STTP’s

Year | 2017-18 | 2016-17 | 2015-16 | 2014-15
--- | --- | --- | --- | ---
28% | 22% | 34% | 16% |
RESEARCH AND DEVELOPMENT

*Academic Research*
- Overall 124 research papers were published in last four years

![Graph showing number of publications in internal journals and conference proceedings from 2014-15 to 2017-18]

*Development Activities*
- **Product Development**
  - Four patents are published
- **Research laboratories**
  - Research and Development Laboratory
  - Center of excellence

E&TC Dept.

20/07/2018
CONTINUOUS IMPROVEMENT

- Department has following processes to achieve continuous improvement in teaching learning process and placements
  - Semester wise student feedback
  - Well established policies for appraisal and promotion of staff
  - Mechanism for the academic monitoring
  - Funding for innovative BE projects
  - Sponsorship and duty leaves to faculty to attend various programmes
  - Soft skill training for students
  - Academic Audit
  - Year wise PO attainment calculations and action plan
IMPROVEMENT IN PLACEMENT & HIGHER STUDIES

- Companies came for placement in various academic years listed below
  - HSBC, TCS, L&T InfoTech, Tata Communication, Persistent, TCL, Amazon, S M Tech, Tech Mahindra, Capgemini, NTT Data etc.

<table>
<thead>
<tr>
<th>Year</th>
<th>Total Placed</th>
<th>Percentage Student Placed</th>
<th>Max Pay-Package per annum (In Lakhs Rs.)</th>
<th>No. of students for Higher Studies</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>2016-17</td>
<td>37%</td>
<td>3.26</td>
<td>8</td>
<td>43.96%</td>
<td></td>
</tr>
<tr>
<td>2015-16</td>
<td>47.41%</td>
<td>3.5</td>
<td>3</td>
<td>45.68%</td>
<td></td>
</tr>
<tr>
<td>2014-15</td>
<td>38.26%</td>
<td>3.3</td>
<td>10</td>
<td>46.95%</td>
<td></td>
</tr>
</tbody>
</table>
CONCLUSION

- Well qualified and trained faculty members
- Participation of the students in co-curricular and extra-curricular activities
- Department is continuously taking efforts to improvement the attainment of PO and PSO
- State of art infrastructure and facilities
- Good number of publications & patents
Thank You