

**DEPARTMENT
OF
ELECTRONICS
&
TELECOMMUNICATION**

Mahatma Education Society

Pillai HOC Polytechnic, Rasayani (1148)

Department of Electronics & Telecommunications

Departmental Report (A.Y. 2018-19)

About the Department

Department of Electronics & Telecommunications is one of the oldest departments established in 2009. Electronics & Telecommunications is one of the most important trade of engineering the equipment used in all fields are just because of electronics engineer. You will enjoy hands-on activities and hands-on learning, while working with electronics and technology. Electronics is the cutting-edge of the world today and the wave of the future, providing excellent career opportunities. Electronic equipment is becoming more complex and is being used everywhere, in industry, business and in our homes.

Vision

We have Productive and orderly learning environment that provides academically excellent, research oriented diploma engineers to meet the industrial and social requirements of new technical era.

Mission

1. Our Mission is to strengthen soft skills, especially of rural students, through co-curricular and extra-curricular activities.
2. To make the students capable to study, design and analyse the electronics circuits and equipments, we have given more emphasis on practical.
3. To deliver theoretical base, advanced technological concepts, teamwork spirit, ethics, human values, practical base and providing platforms for synergy.
4. We initiated Professional Practices subject consists of various activities such as Expert Lectures, Industrial Visits, and Seminars etc.

STUDENTS' ACHIEVEMENTS

➤ **RESULT:**

The overall aim of the department is to achieve good result for every academic year.

Academic result for year 2017-18 was declared before the commencement of semester. For Result improvement new approach was introduced. This strategy is mainly focussed on modification of Lesson plan.

Class of 2017-18 Outcomes Information

| Third Year (EJ) | | | | |
|----------------------------|----------------|-----------------|-------------------------------|------------|
| Student Name | Sem-V (900) | Sem-VI (800) | Grand Total (out of 1700) | Percentage |
| KANAWADE VISHAKHA VILAS | 727 | 601 | 1328 | 78.11% |
| KUMBHAR PRACHI SUBHASH | 675 | 634 | 1309 | 77% |
| PATIL BHAVIK JAYWANT | 683 | 623 | 1306 | 76.82% |

- **Poonam Biradar, second year student of EJ department scored 99/100 in Applied Maths**
- **Poonam Biradar, second year student of EJ department scored 91/100 in Industrial Measurements**
- **Poonam Biradar, second year student of EJ department represents member of ‘INTERNSHALA STUDENT PARTENERSHIP’. This Program is designed to provide students with valuable leadership experience and strengthen internship culture of our college.**
- **Pallavi Dhulgnade, third year student got placed in WIPRO through campus placement**

➤ **TECHNICAL EVENT PARTICIPATION BY THE STUDENTS :**

| Sr. No. | Name of The Student | Event | Date | Venue | Remark |
|----------------|----------------------------|---|-------------|----------------------------------|---------------|
| 1. | Vishakha kanawade | MSBTE Technical Quiz Competition | 18/01/2018 | Government Polytechnic, PEN | Participated |
| 2. | Reyesh Nair | MSBTE Technical Quiz Competition | 18/01/2018 | Government Polytechnic, PEN | Participated |
| 3. | Snehal Bhoir | State Level Technical Quiz Competition | 16/02/2018 | Pillai HOC Polytechnic, Rasayani | Participated |
| 4. | Snehal Bhoir | State Level Technical Paper Competition | 17/02/2018 | Pillai HOC Polytechnic, Rasayani | Participated |
| 5. | Vishakha Kanawade | State Level Technical Quiz Competition | 16/02/2018 | Pillai HOC Polytechnic, Rasayani | Participated |
| 6. | Reyesh Nair | State Level Technical Quiz Competition | 16/02/2018 | Pillai HOC Polytechnic, Rasayani | Participated |
| 7. | Swarup Kulabkar | State Level Technical Quiz Competition | 16/02/2018 | Pillai HOC Polytechnic, Rasayani | Participated |
| 8. | Steward Udaybhanu | State Level Technical Quiz Competition | 16/02/2018 | Pillai HOC Polytechnic, Rasayani | Participated |
| 9. | Janhvi Kapse | State Level Technical Quiz Competition | 16/02/2018 | Pillai HOC Polytechnic, Rasayani | Participated |
| 10. | Shraddha Mokal | State Level Technical Quiz Competition | 16/02/2018 | Pillai HOC Polytechnic, Rasayani | Participated |

| | | | | | |
|-----|----------------------|--|------------|--|--------------|
| 11. | Juhili Salvi | State Level Technical Quiz Competition | 16/02/2018 | Pillai HOC Polytechnic, Rasayani | Participated |
| 12. | Raj Mahamunkar | State Level Technical Quiz Competition | 16/02/2018 | Pillai HOC Polytechnic, Rasayani | Participated |
| 13. | Bhavik Patil | State Level Technical Quiz Competition | 16/02/2018 | Pillai HOC Polytechnic, Rasayani | Participated |
| 14. | Prachi Kumbhar | State Level Technical Quiz Competition | 16/02/2018 | Pillai HOC Polytechnic, Rasayani | Participated |
| 15. | Pallavi Dhulgande | State Level Technical Quiz Competition | 16/02/2018 | Pillai HOC Polytechnic, Rasayani | Participated |
| 16. | Kapil Mhatre | State Level Technical Quiz Competition | 16/02/2018 | Pillai HOC Polytechnic, Rasayani | Participated |
| 17. | Suvidya Patil | Regional level Technical Quiz competition | 22/02/2018 | Dr. D.Y. Patil Polytechnic | Participated |
| 18. | Daminee Shirke | Regional level Technical Quiz competition | 22/02/2018 | Dr. D.Y. Patil Polytechnic | Participated |
| 19. | Vishakha Kanawade | State Level Technical Paper Presentation Competition | 17/02/2018 | Pillai HOC Polytechnic, Rasayani | Participated |
| 20. | Prachi Kumbhar | State Level Technical Paper Presentation Competition | 17/02/2018 | Pillai HOC Polytechnic, Rasayani | Participated |
| 21. | Bhavik Patil | State Level Technical Paper Presentation Competition | 17/02/2018 | Pillai HOC Polytechnic, Rasayani | Participated |

| | | | | | |
|-----|-------------------|--|------------|----------------------------------|--------------|
| 22. | Raj Mahamunkar | State Level Technical Paper Presentation Competition | 17/02/2018 | Pillai HOC Polytechnic, Rasayani | Participated |
| 23. | Reyesh Nair | State Level Technical Paper Presentation Competition | 17/02/2018 | Pillai HOC Polytechnic, Rasayani | Participated |
| 24. | Steward Udaybhanu | State Level Technical Paper Presentation Competition | 17/02/2018 | Pillai HOC Polytechnic, Rasayani | Participated |
| 25. | Kapil Mhatre | State Level Technical Paper Presentation Competition | 17/02/2018 | Pillai HOC Polytechnic, Rasayani | Participated |

➤ PARTICIPATION IN SPORTS:

| Sr. No. | Name of The Student | Event | Venue | Remark |
|---------|---------------------|----------------|-------------------------------------|--------------|
| 1. | Atharva Mauskar | Carrom & Chess | ARMJET, Shahapur | Participated |
| 2. | Atharva Mauskar | Volleyball | S.H.Jondhale Polytechnic, Dombivali | Participated |
| 3. | Harshal Rai | Football | A.R.Klasekar | Participated |
| 4. | Dheeraj Patil | Cricket | Bharati Vidyapeeth, Kharghar | Participated |
| 5. | Jaydip Patil | Cricket | Bharati Vidyapeeth, Kharghar | Participated |
| 6. | Amey Pitale | Cricket | Bharati Vidyapeeth, Kharghar | Participated |

CO-CURRICULAR ACTIVITIES

➤ TECHNICAL QUIZ:

A quiz is a game which can also be called a mind sport wherein the players, either as individuals or in teams attempt to answer questions posed to them correctly, in order to win a prize. The objective of quiz competition is to encourage students to look beyond their textual knowledge and establish a relationship between theory and application of the learnt concepts. It enables students to think from different angles or simply 'to think out of the box'. Students have participated both in Intra and Inter College Technical Quiz.

Inter College Technical Quiz Participation

| Sr.No | Name of Event | Organiser | Venue |
|-------|---------------|-----------------------|-------------------------------------|
| 1 | CISA | P.N.P | P.N.P , Bhilavale |
| 2 | INNOVISION | D.Y Patil Polytechnic | D.Y Patil Polytechnic , Kahrghar |

Department had arranged technical quiz and paper presentation under Technical event DipTech Euphoria. Students from different institutes have participated in it.



Inauguration of DipTech Euphoria 2k18 at Conclave Hall



Prize Distribution of Technical Quiz

➤ **TECHNICAL PAPER PRESENTATION**

Paper presentation plays an extravagant role in the student's life. Presenting a paper is very difficult but in the end seems to be very simple and easy. Presenting a paper in the diploma level is a big mile stone among the students, but presenting a paper will make them to cross mountains in higher education. Presenting paper in universities will add a lot of significance to the resume. It is not only adding value to the resume but also helps in developing various skills. There were some challenging paper presentation by students and judge was called from other college to encourage and motivate the students.



Paper Presentation event

➤ **ORGANIZING EXPERT LECTURES:**

We initiated Professional Practices subject consists of various activities such as Expert Lectures, Industrial Visits, and Seminars etc.

Expert are usually up-and-comers, experts or well-known in their field. They are invited to the campus by a professor, student organization or department where the lecture will be open to students and will come to know about the available opportunities outside the college.



Mr. Saksham Korde (Campus recruitment trainer) explaining Soft Skills

As a student, it is essential to develop an outgoing and impressive personality that will enhance the quality of learning and educating oneself. There are lecture on “personality development”. Department has arranged a personality development lecture.



Ms. Komal Pawar interacting with students

Entrepreneurial development today has become very significant; in view of its being a key to economic development. The objectives of industrial development, regional growth, and employment generation depend upon entrepreneurial development. Entrepreneurs are, thus, the seeds of industrial development and the fruits of industrial development are greater employment opportunities to unemployed youth, increase in per capita income, higher standard of living and increased individual saving, revenue to the government in the form of income tax, sales tax, export duties, import duties, and balanced regional development.

It is the dynamic process of creating incremental wealth and innovating things of value that have a bearing on the welfare of an entrepreneur. It provides civilization with enormous amount of goods and services and enhances the growth of social welfare.

Entrepreneurship firms contributed a large share of new jobs. It provides entry-level jobs so necessary for training or gaining experience for unskilled workers. The Expert Lecture on entrepreneurship by Mr. Sunil shete focussing on small scale entrepreneurship development of students and guiding them the path towards their goal.



Mr. Sunil Shete giving importance of Entrepreneurship

➤ **INDUSTRIAL VISIT**

Department willingly arrange Industrial Visit during the curriculum. In order to provide students an insight regarding internal working of companies. It provides students with an opportunity to learn practically through interaction, working methods and employment practices.



Industrial visit to Big Cola



Visit to process sections of Big-Cola Company

➤ **SAP TRAINING:**

SAP is one of the number one providers of business software solutions towards better work and data management in organizations across industries. **SAP** training helps one to gain expertise in software and programs that run them along with **SAP** modules.

- World's Largest Enterprise Business Solutions Company with approximately 75% market-share.
- Major companies across all sectors in India utilize **SAP** for efficient functioning and decision making
- Few companies are running on **SAP**
- SAP Training is aimed at enhancing skills thereby making students very attractive to potential employers.



EXTRA-CURRICULAR ACTIVITIES

➤ CULTURAL DAY

We work to help students realize their academic experiences can be enhanced through internships, extra-curricular activities, and sports.

Event were primarily aimed at building the communication skills of the students who had stage fright or inhibitions, a virtue that is largely seen as one of the prime employability skills in the job market. We contribute in developing the artistic talents of the students by giving opportunities to exhibit their talents in the form of intra and inter college cultural festivals. Film celebrities grace the occasion to felicitate and encourage the students.



Flash Mob in Pillai HOCL Campus



➤ SPORTS

Besides giving importance in imparting technical knowledge to the students, the college encourages co-curricular activities in the fields of sports and culture. The students have facilities to play Cricket, Football, Volleyball, Kho-kho, and Basketball etc. in the vast playground provided in the campus. There is an indoor stadium with provisions for playing Table Tennis, Badminton, Chess and Carrom. The college also encourages the students to take part in sports/extra-curricular at university/State/National levels. A large number of students participate both at State and National levels and have brought laurels to the college by winning medals and awards.



Football Team Participation in IEDSSA A-1 Zone Mumbai



Volleyball Team Participation at Zonal Level of IEDSSA



Cricket Team after Winning First Match



Girls Participation in IEDSSA ZONAL LEVEL held at Pune

Pillai Hoc Polytechnic has secured 2nd position and awarded fair play trophy in MES inter college sports.



➤ BLOOD DONATION CAMP

Blood is the most precious gift that anyone can give to another person — the gift of life. A decision to donate your blood can save a life. Students and Faculty willingly and with a fulfilment come forward to donate blood and encourage others too.



➤ INTERNATIONAL YOGA DAY CELEBRATION

Each semester requires a high level of concentration, and your anxiety levels rise when you try to meet the expectations of deadlines and good grades. Practicing regular yoga reduces stress and promotes relaxation.

Departments have celebrated International Yoga Day on 21st June. Mr. Anwar Patel was the event Coordinator



➤ CAREER FAIR

College and Career Fair brings together college-bound students, their families and current college students with postsecondary education institutions. Workshops on admissions, financial aid and a wealth of information about higher education opportunities are offered as part of the event. The fair is also the ideal opportunity for students from colleges and universities nationwide to meet directly with employers in our exhibit hall to discuss careers, part-time jobs, internships, and/or volunteer opportunities.

Our College has also organised a wheels on carrier fair for A.Y.2017-18 at Pen, Alibaugh, Uran.



➤ **ALUMNI MEET:**

Department organize alumni meet for every batch. Each passed out students has been called as they are loyal supporters of the institutions. Each alumni share message about the experience they had in the institution and those will be a positive and current for the future students.



➤ **COMMUNITY SERVICE DAY:**

Community service is a non-paying job performed by one person or a group of people for the benefit of the community or its institutions. Community service is distinct from volunteering, since it is not always performed on a voluntary basis. It may be performed for a variety of reasons. Though not technically considered a requirement, many colleges include community service as an unofficial requirement for acceptance. However, some colleges prefer work experience over community service, and some require that their students also continue community service for some specific number of hours to graduate.

Institute has celebrated community service day with children from Bless foundation.



➤ MARATHI BHASHA DIWAS

Every year, February 27 is celebrated as Marathi Language Day in Maharashtra and Goa states in India. It is also known as ‘Marathi Bhasha Din’ and ‘Marathi Bhasha Diwas’ in Hindi and Marathi respectively. This day is regulated by the State Government. This year institute has also taken initiative, celebrating the same.

Marathi Bhasha Diwas holds a lot of significance for Marathi speaking people. Vishnu Vaman Shirwadkar, alias Kusumagraj, was a noted Marathi poet and was born on February 27, 1912, at Pune in Maharashtra.



➤ AWARENESS PROGRAM ON THALASSEMIA:

Thalassemia is an inherited blood disorder in which the body makes an abnormal form of hemoglobin. Hemoglobin is the protein molecule in red blood cells that carries oxygen. The disorder results in excessive destruction of red blood cells, which leads to anemia.

For many years the society has been working hard to create awareness both at a local and a national level. Institute also contributed towards same by conducting Awareness program on THALASSEMIA.



➤ RALLY FOR RIVERS:

India's rivers are undergoing a drastic change. Due to the pressures of population and development, our perennial rivers are becoming seasonal. Many of the smaller rivers have already vanished. Flood as well as drought are becoming increasingly frequent, as rivers turn unruly during the monsoon, and vanish once the rainy season is over.

In every state, perennial rivers are either becoming seasonal or totally going dry. In Kerala – the Bharatpuzha, in Karnataka – the Kabini, in Tamil Nadu – the Kaveri, Palar and Vaigai, in Odisha – the Musal, in Madhya Pradesh – the Kshipra. Many smaller rivers have already vanished.

Maintaining a substantial number of trees for at least one kilometre width along the riversides has vast environmental, social and economic benefits for nation and society.



INNOVATIVE PRACTICES

➤ **PROJECT BASED LEARNING (PBL) :**

Students not only gain knowledge and elements of the core curriculum, but also apply what they know to solve authentic problems and produce results that matter. Students under PBL courses are required to complete a project instead of regular methods of assessments. Electronic graduate are employed in Electricity Boards/Utility companies and large industries as engineers and managers, responsible for installation, maintenance, operation of power handling equipment and systems.

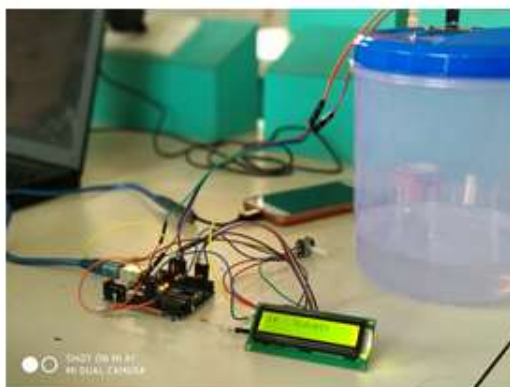
This year technical event ROBOGRIA was arranged. Students actively participated in L1 and L2 Robotics workshop thereby got motivated to work on Robotic.



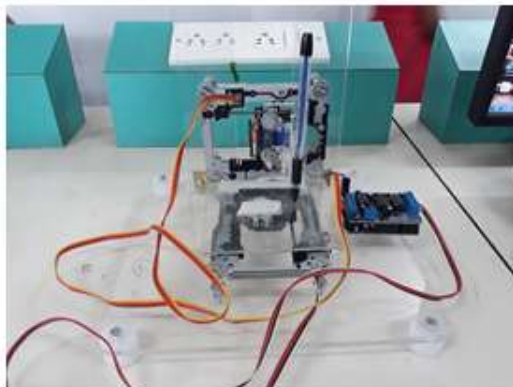


ROBOTICS L1,L2 workshop

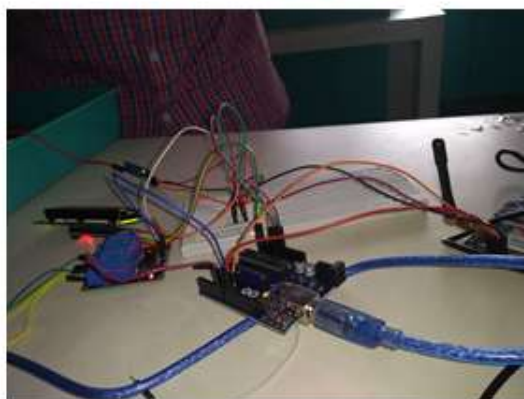
We support students to do their project during the vacation too. Some of the final year projects which students have done in the college premises with the help of faculty members.



Microcontroller Based Water Level Indicator



Low Cost CNC Plotter Using Spare Parts



Automatic water pumping system



Microcontroller based Earthquake Indicator

➤ **TEACHING METHODOLOGY :**

Some of the staff makes their teaching more practical oriented so they took their theory classes in the practical section showing the result, waveform naturally using the instrument and kits available in the laboratory which give more interest to the students towards those subjects.

Practical knowledge can often lead to a deeper understanding of a concept through the act of doing and personal experience. Mr. Kiran Inamdar teaching electrical Engineering Subject has arranged a visit to supply system of Pillai HOCL campus. In this visit students have observed many components of supply system.



Visit to Electric Supply System



➤ **MENTORING & COUNSELLING CENTRE:**

Students have access to a mentor with whom they can interact individually throughout the year. The faculty provide academic advice, career guidance or simply helping them through their personal problems, goals and ideas. The mentors support and help students to get the most out of their education.

The Counselling centre is committed to providing a range of services intended to help students develop improved coping skills in order to address emotional, interpersonal, and academic concerns.

Mr.Kiran Inamdar and Mr.Narendra Dhande has been the backbone for the department as their support towards counselling the weaker students to achieve a good result and through the motivate talk between the parents and students make them to regularly attend the lectures and practical.



Mr. Narendra Dhande interacting with students

➤ **EXTRA CLASSES:**

Staff took initiation to teach students the new rising technology/ Software which will make more interest towards the subject.

Extra classes were taken to bring the students to achieve good marks.



Ms. Jyoti Pundle discussing with students

➤ PARENTS TEACHER MEET:

The PTA is to build strong working relationships among parents, teachers and college, in support of students. Department conduct PTA at the start of the semester, after the unit test to discuss the result performance, attendance and behaviour of the students. In the case of a student who is having difficulty, to enlist the parents' cooperation in the effort to remediate any problems. Through PTA meet there is a strong bond between parents and students.



Parents discussing result with staff

STAFF ACHIEVEMENTS

➤ **TRAINING PROGRAMME ATTENDED:**

This is organized by MSBTE to know the important process for bringing staff into an organisation/institute. It provides an introduction to the working environment and the set-up of the employee within the organisation/institute. The process will cover the employer and employee rights and the terms and conditions of employment.

- Ms.Shruti Wale and Mr.Sajid Shaikh have successfully completed the Industrial training in “**BASIC COURSE ON AUTOMATION**”
- Ms.Trupiti Vishe and Mrs. Aditi Indap have participated one week short term training programme on “NBA Accreditation & SAR Writing Techniques” organized by Saraswati Institute of technology.
- Mr.Narendra and Mr.Kiran Inmadar successfully completed an AICTE Approved faculty development programme (FDP101x) conducted by IIT Bombay.

➤ **EFFORTS BY FACULTY:**



Mrs.Aditi Indap HOD in Electronics Department teaches subjects those are related to instruments and which are utilized at laboratories and industries. She tried to implement a “Thermocouple” which is based on seeback effect which generates a voltage up to 70-80mV whereas a conventional closed circuit is able to produce around 10-15 mV. This thermocouple is a portable device as it is a active transducer which does not require external power supply.



She further taught to give a practical example related to the subject to the students which they are using in day to day life i.e. “Assembling and Disassembling of Electric Iron” were students disassembled the iron and were able to view practically the working of Bimetallic Thermometer which is situated in the electric iron and then assembled it.





Mr.Narendra Dhande lecturer in Electronics and Telecommunication has selected hologram project to implement the new 3-D techniques in Mobile Handset. He further extended his research for Microwave Application so he designs a Yagi-Uda Antenna in the range of 1.5GHz whereas up to 82-150MHz antenna was available in the markets which were used for TV Channel Repetition. The antenna which he has designed is also a low cost which added more benefit.

He further guided six groups of students in Hackthon Competition for the topic which comes under Defence Ministry “Reduce the transportation cost in defence Production and to track the availability of materials” which will benefit the defence thereby the government and society.

➤ PAPER PRESENTATION:

| Sr. No | Name of the Faculty | Title of the paper | Name of the Conference | Organized by/Venue | Awards Recognition if any |
|--------|---------------------|---|------------------------|---|------------------------------------|
| 1 | Anwar Patel | Mobile Application Control 3- D Robot | MES, Rasayani | Pillai Hoc Educational Campus, Rasayani | Presented secured best paper award |
| 2 | Narendra Dhande | Artificial/Natural Intelligence Health Care for Pilots in Indian Ancient Vimana | NCETCET, Pune | MIT Academy of Engineering, Pune | Presented |
| 3 | Narendra Dhande | Ancient Indian Vedic Technology | IJET | IJET | Proposed |

➤ JOURNAL PUBLICATION :

| Sr.No | Name of the Faculty | Title of the Paper | Name of the Journal | Volume / Issue / Page No |
|-------|---------------------|---------------------------------|-------------------------|--------------------------|
| 1 | Narendra Dhande | Indian Ratha in ancient Period | IJSER ISSN No 2229-5518 | Accepted for Publication |
| 2 | Narendra Dhande | Ancient Indian Vedic Technology | IJET | Under Review |

➤ **ACTIVITIES CONDUCTED/ ORGANIZED BY FACULTY:**

| Sr.No | Name of Faculty | Event | Organized/ Conducted | Venue |
|-------|-----------------|------------------------------|-------------------------|------------------------------------|
| 1 | Shruti Wale | Technical Quiz | Organized | Pillai HOC Polytechnic,Rasayani |
| 2 | Sajid Shaikh | Technical Paper presentation | Organized | Pillai HOC Polytechnic,Rasayani |
| | | PCB Workshop | Organized | Pillai HOC Polytechnic,Rasayani |
| 3 | Anwar Patel | Yoga Session | Conducted | Pillai HOC Polytechnic,Rasayani |
| 4 | Anwar Patel | Science Day | Organized | Pillai HOC Polytechnic,Rasayani |
| 5 | Anwar Patel | Marathi Bhasha Divas | Organized | Pillai HOC Polytechnic,Rasayani |

➤ **ROLE IN EXAMINATION:**

Our faculty members also equally take responsibilities in Examination works such as

1. Ms.Shruti Wale has been the officer in-charge in Winter-17
2. Ms. Shruti Wale & Ms. Aditi Indap have been the Exam Controller for summer-18 examination.
3. Ms.Trupti Vishe , Mr.Sajid Shaikh, Ms. Shruti Wale, Ms. Aditi Indap , Mr.Narendra Dhande have been successfully completed the RAC work in A.Y.17-18.