

Mahatma Education Society's

Pillai College of Engineering

Dr. K. M. Vasudevan Pillai Campus, Sector16, New Panvel, Navi Mumbai (M.S.) 410206

INFORMATION FOR ACADEMIC AND ADMINISTRATIVE AUDIT OF THE DEPARTMENT (2019-2020)

(Provide information for last A.Y. 2019-2020)

1. Name of the Department: Department of Applied Science, Mathematics and Humanities and First Year

2. Year of establishment: 2000

3. Programmes offered:

4. Details of certificate/diploma program introduced in last academic year:

| SN | Program code | Program name | Name of the certificate/diploma introduced in last 5 years | Year of introduction | Link the relevant document | | |
|----|---|-----------------|---|----------------------|----------------------------------|--|--|
| | No Certificate/ diploma program introduced. | | | | | | |

5. Details of participation of full time teachers in various bodies of the Universities/ Autonomous Colleges/ Other Colleges, such as BoS and Academic Council:

| Year | Name of | Name of the body in which full time | RELEVANT |
|-------------|--------------------|-------------------------------------|--|
| | Teacher | teacher participated | LINK |
| 2019 -20 | Dr Manju Pillai | Member of BOS/ Syllabus setting | https://drive.goo gle.com/drive/fol ders/1kLcsEzyAI <u>GF-</u> OJjOZptvWQu AiskRZblL?usp= <u>sharing</u> |

| | r | | 11 |
|-------------|----------------|--------------------------|---|
| | | | https://drive.goo |
| | | | gle.com/drive/fol |
| | | | ders/1kLcsEzyAI |
| 2019 | | | <u>GF-</u> |
| -20 | | | <u>QJjOZptvWQu</u> |
| | | | AiskRZblL?usp= |
| | Dr Mahendra | Cullabus satting | <u>sharing</u> |
| | Khandkar | Syllabus setting | |
| | | | https://drive.goo |
| | | | gle.com/drive/fol |
| 2010 | | | ders/1kLcsEzyAI |
| 2019 -20 | | | $\frac{GF}{OIO7}$ |
| -20 | | | <u>QJjOZptvWQu</u> AiskRZblL?usp= |
| | Dr. Sachin S | | sharing |
| | Wani | Syllabus Setting | sharing |
| | | | https://dnivo.goo |
| | | | https://drive.goo gle.com/drive/fol |
| | | | ders/1kLcsEzyAI |
| 2019 | | | GF- |
| -20 | | | QJjOZptvWQu |
| | | | AiskRZblL?usp= |
| | Dr. Sachin S | | <u>sharing</u> |
| | Wani | Paper Setting | |
| | | | |
| | | | https://drive.googl |
| 2019 | | | e.com/file/d/12PuR |
| -20 | | | 1ZuBo5N0YfldYwV |
| | | | uQaEedgv3mJzx/v |
| | Archana Ingole | Paper Setting | iew?usp=sharing |
| | | i aper Setting | |
| | | | https://drive.goo |
| | | | <u>gle.com/drive/fol</u> ders/1kLcsEzyAI |
| 2019 | | | GF- |
| -2019 | | | <u>QJjOZptvWQu</u> |
| 40 | | | AiskRZblL?usp= |
| | Dr. Snigdha | | sharing |
| | Saxena | Chairman & Paper Setting | |
| L | 1 | | 1 |

6. Details of new Courses introduced of the total number of courses across all Programmes offered by the department :

| Name of the new course introduced in last A.Y. | Program name | Program code | Course code | Year of introduction | Link the relevant document |
|--|------------------------|---------------------|----------------|----------------------|--|
| Engineering Chemistry I | FE ALL BRANCH ES | ALL BRANCH ES | FEC103 | 2019-20 | https://drive. google.com/d rive/folders/1 |

| Engineering Chemistry II | FE ALL BRANCH ES | ALL BRANCH ES | FEC203 | 2019-20 | nYVNJc4h7y pe3wg5AJy |
|---|------------------------|---------------------|--------|---------|--|
| Basic Electrical Engineering | FE ALL BRANCH ES | ALL BRANCH ES | FEC203 | 2019-20 | <u>CClO5Vl3py</u> <u>L?usp=shari</u> <u>ng</u> |
| Engineering Physics I | FE ALL BRANCH ES | ALL BRANCH ES | FEC203 | 2019-20 | |
| Engineering Physics I I | FE ALL BRANCH ES | ALL BRANCH ES | FEC203 | 2019-20 | |
| Professional Communication and Ethics I | FE ALL BRANCH ES | ALL BRANCH ES | FEc206 | 2019-20 | |
| | | | | | |

7. Details of the programmes in which Choice Based Credit System (CBCS)/ elective course system has been implemented:

| Name of all programs | Whether adopting CBCS course system(yes/no) | Whether adopting elective course system(yes/no) | Program Code | Year of implementation of CBCS/ elective course system | Link the relevant document |
|----------------------------|--|--|-----------------|--|----------------------------------|
| | | Not applicable. | | | |

8. Details of students enrolled in subject related Certificate/ Diploma programs/ Add-on programs :

| Year | Title of the programme | Type of the programme (Certificate/ Diploma programs/ Add-on programs) | Total Number of students enrolled in certificate or diploma or add-on programs |
|---------|------------------------|--|--|
| 2019-20 | Coursera Courses | Certificate | No of Students :- 115(Courses completed 367 |
| 2019-20 | NPTEL | Certificate | 384 |

9. Details of value added courses imparting transferable and life skills :

| SN | Name of the value added courses (with 30 or more contact hours) offered during last five years | Course Code | Year of offering | Year of discontin uation | Number of students enrolled in the year | Number of students completing the course in the year | |
|-----|---|----------------|------------------|--------------------------------|--|--|--|
| Nil | | | | | | | |

10. Details of the students undertaking field projects/ internships:

| Program | Program | No of students undertaking field | Link the relevant |
|---------|-----------------|----------------------------------|--|
| name | code | projects / internships | document |
| FE | All Branches | 15 | https://drive.google.c om/drive/folders/1X HxHQQ5V_BDOhF 93qXL3Aup2jvgUdJ bk?usp=sharing |

11. Analysis with action taken report of feedback received from different stakeholders i.e. students, Alumni, Employer and teachers.

| SN | Stakehol der | Departme nt | Feedback Received | Action Taken | Link for Document |
|----|-----------------|------------------------------------|--|---|--|
| 1 | Students | FE | Find it difficult to Illustrate the knowledge of Fermi level in semiconductors and applications of semiconductors in electronic devices. | Will be taken in coming semester | |
| | Students | FE | Difficulty in Illustrating the basic knowledge of superconductors and supercapacitors. | | |
| | Students | FE | Illustrate the knowledge of engineering materials and applications. | | |
| | Teacher | Engineeri ng Chemistry -I | Introduction of Molecular orbital theory instead of Composite material and lubricants is not justifiable. These were the current topics which have been sacrificed | | https://docs.go ogle.com/sprea dsheets/d/1MC BhzFdo8kYAK NVYEAWv2aaq rFo152U2zN9S |

| | | | Γ_ | |
|--|-----------------|--|----|---|
| | | for Atomic structure aromaticity | | 7 <u>4dwt0A/edit#g</u> id=1974839862 |
| | | and MOTThe need of time to | - | |
| | | include in chemistry is Material | | |
| | | research related topics. | | |
| | | The new topics introduced in the | | |
| | | syllabus based on AICTE | | |
| | Engineeri | curriculum do not actually interpret | | |
| | ng | the relevance of the subject in | | |
| | Chemistry -I | industry. This gap must be bridged | | |
| | , | by introducing topics that can | | |
| | | relate the subject to industry. | | |
| | | Scilab Batchwise Practicals can be | | |
| | Engineeri | included. Expansions of functions | | |
| | ng | by standard expansion can be | | |
| | Mathemati | , | | |
| | cs l | be dropped. Introduction to | | |
| | | eigenvalues can be included. | | |
| | Engineeri | | | |
| | ng | More lecturing time is needed to | | |
| | Physics-I | cover the entire syllabus. | | |
| | Basic | | | |
| | Electrical | The number of lectures per week | | |
| | Engineeri | The number of lectures per week can be increased to 5 | | |
| | ng | | | |
| | Engineeri | | | |
| | ng Mechanic | designing of Experiment setup as | | |
| | S | PBL | | |
| | C | | | |
| | programm | File topic should be added in | | |
| | ing | syllabus of c programming. | | |
| | | | | |
| | Profession | | | |
| | al | MLA and ADA referencing at the | | |
| | Communi | MLA and APA referencing styles | | |
| | cation and | seem to be irrelevant for first year | | |
| | Ethics- I | students, it could be in third year. | | |

12. Number of students from other States and Countries admitted in the department:

| Year of enrolment | Number of students enrolled from other states | Number of students enrolled from other countries | Link of the relevant document |
|----------------------|---|--|-------------------------------------|
| 2019-2020 | 23 | - | |

13. Total number of students admitted in the department:

| Year | Program name | Program Code | Total Number of Seats Sanctioned | Total Number of students admitted |
|------|--|-----------------|-------------------------------------|--------------------------------------|
| 2019 | Automobile Engineering | 320760210 | 60 | 33 |
| 2019 | Computer Engineering | 320724510 | 120 | 131 |
| 2019 | Electronics Engineering | 320737610 | 90 | 22 |
| 2019 | Electronics and telecommunicati on Engineering | 320737210 | 120 | 90 |
| 2019 | Information Technology | 320724610 | 120 | 117 |
| 2019 | Mechanical Engineering | 320761210 | 120 | 102 |

14. Number of seats filled against seats reserved for various categories(including Divyangjan) in the department:

| 29 % of total sanctioned seats | | Number of seats earmarked for reserved category as per GOI or State Government rule | | | | | r of stud he reser | | |
|--------------------------------------|---------------|---|----|-----|----|----|-----------------------|-----|--------|
| | | SC | ST | OBC | SC | ST | OBC | Gen | Others |
| | 2019- 2020 | | | | 14 | 1 | 63 | 391 | 26 |

| Name of the student enrolled under Differently abled Category | Gender | UDID Card Number | Type of Disability | Percentage of Disability | Program enrolled | Year of Enrolment |
|--|--------|------------------------|-----------------------|-----------------------------|---------------------|----------------------|
| 0 | NA | NA | NA | NA | NA | NA |

15. Special programmes conducted by the department for advanced learners and slow learners:

Slow Learners - Study Camp , Use of calculators, Blended learning

Advanced Learner - Application oriented approach in batches of study camp Designing different levels of questions in tutorials for Engineering Mathematics. Extra efforts taken by allocating additional teachers for slow learners.

Doubt solving session was added in the time table and teachers were identified in classrooms

Online Lectures conducted for ATKT Students.

16. *Student- Full time teacher ratio:*

| Year | Number of students enrolled in the department(UG) | Number of students enrolled in the department (PG) | Number of full time teachers in the department (UG) | Number of full time teachers in the department (PG) | Number of teachers teaching both UG and PG courses | STR |
|------|--|---|--|--|---|-----|
| 2019 | 495 | NA | 27 | NA | 1 | |

(To be verified by Pragnesh Sir)

17. Number of teaching posts sanctioned, filled and vacant.

| Designation | Sanctioned | Filled |
|---------------------|------------|--------|
| Professor | 4 | 4 |
| Associate Professor | 7 | 7 |
| Assistant Professor | 16 | 16 |
| Total | 27 | 27 |

18. Number of full time teachers with Ph.D. degree:

| Year | Total No. Full time teachers | No. of teachers with PhD |
|-----------|---------------------------------|-----------------------------|
| 2019-2020 | 27 | 11 |

19. Details of full time teachers who received awards, recognition, fellowship at State, National, International level from government, recognized bodies:

| | No. Of Full | No. of teachers received awards/recognition/fellowship at | Relevant link |
|------|---------------|--|--------------------|
| Year | time Teachers | State/National/International level | |
| | | | https://drive.goog |
| | | | le.com/drive/u/0/f |
| | | | olders/10Bsv3uol |
| | | Kamini Chaudhari (Selected for Avishkar 2019, | v0WLO_vkIXCA |
| 2019 | 1 | KBCNMU, Phase-II: University level) | F_Y_hFjvr8N2 |

20. Number of full time teachers from other States against sanctioned posts:

| Year | No. Of Full time Teachers | No. of teachers from other states |
|------|---------------------------|-----------------------------------|
| 2019 | 27 | 10 |

21. Details of examination related grievances received if any. No grievance received

22. Adherence to the academic calendar: The first year has an academic calendar for Odd and Even Semester which is prepared at the commencement of Semester .The calendar is discussed among the staff members and approved by the Principal.

The progress is reviewed in the Department Interaction and actions are initiated to comply with the syllabus and to ensure effective learning of the student.

SEM-

Ihttps://drive.google.com/file/d/149EDhvnyiseiIvTstCMoiPjznTwjlOTe/view?usp=sharing

Modified For month of

November:<u>https://drive.google.com/file/d/1SvdC8GlNUktXo7jFaELWar43b_2M9JBo/v</u> iew?usp=sharing

SEM-IIhttps://drive.google.com/file/d/1SEUmBHOGKv1oXCGNKYERXOWUWjsCR1a/view?usp=sharing

23. Attainment of Programme outcomes, Programme specific outcomes and course outcomes:<u>https://docs.google.com/spreadsheets/d/1HwDcYxss9ehc4YFkfdcJ0ZgzwNuogPl-6BladFxWg-M/edit?usp=sharing</u>

| Program | Program Name | Level/Semester | Number of | Number of |
|-----------|-----------------|----------------|-----------------|-----------------|
| Code | | | students | students passed |
| | | | appeared in the | in the exam |
| | | | exam | |
| | Automobile | SEM-I(DEC 19) | 31 | 12 |
| 320760210 | Engineering | | | |
| | Computer | SEM-I(DEC 19) | 128 | 88 |
| 320724510 | Engineering | | | |
| | Electronics | SEM-I(DEC 19) | 21 | 10 |
| 320737610 | Engineering | | | |
| | Electronics and | SEM-I(DEC 19) | 87 | 41 |
| | telecommunicati | | | |
| 320737210 | on Engineering | | | |
| | Information | SEM-I(DEC 19) | 114 | 72 |
| 320724610 | Technology | | | |
| | Mechanical | SEM-I(DEC 19) | 99 | 56 |
| 320761210 | Engineering | | | |

24. Result Analysis:

25. Total Grant received for research projects sponsored by the government and the nongovernment sources such as industry, corporate houses, international bodies, endowments, Chairs

| S N | Name of the Project/ Endowment s, Chairs | Name of the Principal Investigato r | Departme nt of Principal Investigato r | y ear of | Funds provide d | Duration of the project | Name of the Funding Agency | Type (Governme nt/non- Governme nt) | Documen |
|--------|---|---|--|----------|-----------------------|-------------------------------|-------------------------------------|---|---------|
|--------|---|---|--|----------|-----------------------|-------------------------------|-------------------------------------|---|---------|

| 1 | MRG | Dr. Surabhi Dr Manju Pillai | ASMH | 2019-20 | 40,000/- | 6 Months | Mumbai University | Government | https://dr ive.googl e.com/file /d/1a- 4WCkc PZ56Cj8 4G8KUo JI7EMN wHaaH/v iew |
|---|---|------------------------------------|------|------------------------|----------------------|----------|---------------------------|------------|--|
| 2 | MRG | Archana Ingole | ASMH | 2019-20 | 25,000/- | 6 Months | Mumbai University | Government | https://dr ive.googl e.com/file /d/1a- 4WCkc PZ56Cj8 4G8KUo JI7EMN wHaaH/v iew |
| 3 | UGC_DAE- CSR Mumbai Collaborative Research Scheme | Dr Deepali S and Dr PS Goyal | ASMH | April 2020- 2021 | 45,000/- Per Year | 03 year | UGC_DAE- CSR Mumbai | Government | https://dr ive.googl e.com/file /d/1vxga L7hL8M G8PZvkl UPS9317 usE33p4 2/view?u sp=shari ng |

26. Details of the teachers recognized as research guides:

| SN | Name of teachers recognized as research guides | PG / PhD Recognition | Department | Year of Recognition |
|----|--|-------------------------|------------|------------------------|
| | NA | | | |

27. Details of workshops/ seminars conducted on Intellectual Property Rights (IPR) and Industry- Academia Innovative practices:

| SN | Year | Name of the workshop/ seminar | Date From – To | Activity(IPR/Industry- AcademiaInnovative practices) |
|----|---------|--|-------------------------|--|
| 1 | 2019-20 | Curriculum Development with learner centric approach(Faculty Coordinator-Dr.Arun Pillai) | 10th June -14th June 20 | Academia Innovative practices |

28. Details of incentives to teachers who receive state, national and international recognition/ awards:

| Sr. No. | Name of the Awardee with contact details | Name of the Award | Name of the Awarding Agency |
|---------|---|--|-----------------------------|
| 1 | Dr. Sundeep Deulkar (saisundeep@mes.ac.in) | Grant under students co-curricular activity scheme | |

29. Details of research papers published by teachers in the Journals notified on UGC website:

| 1 | website. | | | | | | i |
|----|---|-------------------------|---|---|----------------------------|---|--|
| SN | Title of paper | Name of the author/s | Depart ment of the teache r | Name of journal | Year of publicatio n | ISBN/ISSN number | Link of the recognition in UGC enlistment of the Journal |
| 1 | Adjunct Octagonal Array Token Petri Nets | Kuberal S. | ASMH | International Journal of Recent Technology and Engineering (IJRTE) | 2019-20 | ISSN: 2277- 3878, Volume-8 Issue-4 | https://drive.google.com/file /d/1oU9VAx3ZC1HskZstjf x4Kb_i76GtIVY5/view?usp =sharing |
| 2 | Adjunct Octagonal Array Token Petri Nets | Dr Anshu Muraka. | ASMH | International Journal of Recent Technology and Engineering (IJRTE) | 2019-20 | ISSN: 2277- 3878, Volume-8 Issue-4 | https://drive.google.com/file /d/10U9VAx3ZC1HskZstjf x4Kb_i76GtIVY5/view?usp =sharing |
| 11 | Thermoelastic modelling of a Rectangular Plate under the Hyperbolic Heat Conduction with an internal heat source, | Kamini k Chaudhari | ASMH | Int. J of Mechanical and Production Engineering Research and developmen t | 2019-20 | 2249-6890 Vol 9 issue 6 | http://www.tjprc.org/view _paper.php?id=12194 |
| 12 | Thermoelastic Response of a Rectangular Plate under Hyperbolic Heat Conduction Model in Differential Transform Domain | Kamini k Chaudhari | ASMH | Int. J of Engineerin g and Advanced technology | 2019-20 | 2249-8958 Vol 9 issue 4 | https://www.ijeat.org/wp- content/uploads/papers/v9 i1/F9047088619.pdf |

| , | | nationa | al/ inter | mational co | | e: | [| 1 | 1 | 1 | 1 |
|------------|-------------------------------|---|--------------------------|--|----------------------------------|---------------------------------|---------------------|---|---|--|--|
| Sl. No. | Name of Teacher | Title of the book/chapte rs published | Title of the paper | Title of the proceeding s of the conference | Name of the confere nce | National / internatio nal | Year of publication | ISBN/ISSN number of the proceeding | Affiliating Institute at the time of publication | Name of the publish er | Relevant link |
| 1 | Dr Manju pillai | Engineering Chemistry II | - | - | Text Book | National | 2019-20 | 978-81- 940267-3-0 | Pillai College Of Engineering | jamnad as publica tion | https://dr ive.google .com/file/ d/1QSF3 b5CjSyjs 54WVuiV kWkY5F FcknO3 W/view?u sp=sharin g |
| 2 | Dr B Panda | Engineering Chemistry II | - | - | Text Book | National | 2019-20 | 978-81- 940267-3-0 | Pillai College Of Engineering | jamnad as publica tion | https://dr ive.google .com/file/ d/1pOKu v0OPIQb nXazI10a V88MZu 3YAf74d/ view?usp =sharing |
| 3 | Suvarna Haridas Gaikwad | Numerical and Statistical Methods | _ | | | | | 978-93- 89460-97-1 | | Tech- Neo Publica tions Pvt. Ltd. | https://dr ive.google .com/file/ d/19Yv6N g4QeeBJs hXIu04Y YBZXEo wArPI1/v iew?usp= sharing |
| 4 | Dr Manju pillai | Engineering Chemistry I | - | - | Text Book | National | 2019-20 | 978-81- 939956-9-3 | Pillai College Of Engineering | jamnad as publica tion | https://dr ive.google .com/file/ d/1pOKu y0OPIQb nXazI10a V88MZu 3YAf74d/ view?usp =sharing |
| 5 | Dr B Panda | Engineering Chemistry I | - | - | Text Book | National | 2019-20 | 978-81- 939956-9-3 | Pillai College Of Engineering | jamnad as publica tion | https://dr ive.google .com/file/ d/1pOKu v0OPIQb nXazI10a V88MZu 3YAf74d/ view?usp =sharing |

30. Details of books and chapters in edited volumes/books published and papers in national/international conference:

31. Details of the extension activities undertaken by the department in sensitizing students to social issues and holistic development:1.Plastic Collection Drive (5th Oct 2019)

2.Mini Marathon organised in association with Panvel Municipal corporation on 14th Dec 2019 with a vision of "Pollution free city".

32. Total number of awards and recognition received for extension activities from Government/ recognized bodies:

| SN | Name of the activity | Name of the Award/ recognition | Name of the Awarding government/ recognised bodies | Year of award | Name of the Faculty |
|----|--------------------------------|--|--|------------------|------------------------|
| 1 | Plastic Collection Drive | Financial Support to organised the programme | Indian Center for Plastic in Environment | 2019-20 | Dr.B.Panda |

33. Details of extension and **outreach** Programmes conducted in collaboration with industry, community and Non- Government Organizations through NSS/ NCC/ Red Cross/ YRC etc.:(More Sir)

| SN | Name of the activity | Organising unit/ agency/ collaborating agency | Year of the activity | Number of teachers participated in such activities | Number of students participated in such activities |
|----|----------------------------|--|----------------------------|--|--|
| | | | | | |

34. Total number of Students participating in extension activities with Government Organization, Non-Government Organizations and Programmes such as Swachh Bharat, AIDs awareness, Gender issue etc.

| SN | Name of the activity | Organising unit/ agency/ collaborating agency | Name of the scheme | Year of the activity | Number of students participated in such activities |
|----|-------------------------|--|-----------------------|----------------------------|--|
| 1 | Essay Writing | Women Development Cell,Pillai College of Engineering | NA | March 2020 | 20 |

35. Details of linkages for faculty exchange, student exchange, internship, field trip, onthe- job training, research etc:

| Sl. | Title of the | Name of the partnering institution/ industry | Year of | Duration | Nature of |
|-----|--------------|---|--------------|-----------|-----------|
| No. | linkage | /research lab with contact details | commencement | (From-To) | linkage |

| 1 | Internship | Jatin Chaudhari Ekeeda, Lower Parel | 2019-20 | 24/12/2019 to 21/01/2020 | https://dri ve.google. com/file/d /1UIFhqS dU2y2lyk k7YZqcA FIbeQKw xjLE/view ?usp=shar ing |
|---|------------|--|---------|--------------------------------|--|
| 2 | Internship | Pratik Kamble Ekeeda, Lower Parel | 2019-20 | 24/12/2019 to 21/01/2020 | https://dr ive.google .com/file/ d/1Prv9R owBFna9 v2_EM81 LzXJASh L7QBxt/v iew?usp= sharing |
| 3 | Internship | Onkar Prakash Mali Branding and Designs Bureau of Scyara Antiliz Private Limited. | 2019-20 | 24/04/2020 to 24/06/2020 | https://dr ive.google .com/file/ d/1M6zzb eEbrpWq _0BudX ODkhUq Pthq6AG T/view?u sp=shari ng |
| 4 | Internship | Dnyaneshwari Mohod Herody, Image Creative Education Private Limited | 2019-20 | 2 months | https://dr ive.google .com/file/ d/1rgPNP w1EtJE2 KBFLUj dn_Zzo4J hS42e3/vi ew?usp=s haring |

36. Details of functional MoUs with Institutions of national, international importance, other universities, industries, corporate houses etc. :

| Sl. No. | Organisation with which MoU is signed | Name of the institution/ industry/ corporate house | Year of Signing MoU | Duratio n | List the actual activities under each MoU year wise | Number of students/teachers participated under MoUs |
|------------|---|---|---------------------------|--------------|---|--|
| 1 | M/S RIGHTSOL | | 2018-19 | | | |

| | PTE LTD. | | | | |
|---|--|---------|-------|--|---|
| 2 | L & T training Madh Island Mumbai | 2018-19 | 3 yrs | Joint Research Project, Faculty Training Programme | No of Teachers:2 |
| 3 | Biocrux Private Limited | 2018-19 | 3 yrs | Plastic Collection Drive | No of Students:605 No of Teachers:24 |
| 4 | Indian Center for Plastic in Environment | 2018-19 | 3 yrs | Plastic Collection Drive, Webinar on Role of Plastic | No of Students:698 No of Teachers:46 |

37. Details of departmental infrastructural & other facilities:

| a)Departmental Library (books, journals etc.) | : |
|--|---|
| c) Computers and Internet facilities for staff | : |
| d) Total number of class rooms | : |
| e) Class rooms with ICT facility | : |
| f) Students' laboratory | : |
| g) Research laboratories | : |
| h) Seminar Hall | |
| i) Smart class room | : |
| j) Any other facility LCDs, | |

38. Student – Computer ratio:

| Total Number of students | Number of computers for students in working condition | Student Computer Ratio |
|--------------------------|--|---------------------------|
| | | |

39. Details of e-content developed by the faculty in the department:

| Name of the e-content development facilities | Provide link to videos of the media centre and recording facility |
|--|---|
| Articulate storyline authoring tool (Sundeep Deulkar) | Title of video: <u>Use of Projector as a Spectrophotometer</u> Link of video: <u>https://www.youtube.com/watch?v=Xg1e9rY1JLw</u> |
| Double Integration(Archana Ingole) | https://youtu.be/640j-Bn4zZA |
| Change the Order Of Integration- 1(Archana Ingole) | https://youtu.be/HDWkVQ_Mo68 |
| Change the Order of Integration- 2(Archana Ingole) | https://youtu.be/vd05oMk9g5o |

| Change The Order of Integration- 3(Archana Ingole) | https://youtu.be/Z4GLecsGfb4 |
|---|------------------------------|
| Triple integration-1(Kamini Chaudhari) | https://youtu.be/zqQuhHlLOhg |
| Triple integration-2(Kamini Chaudhari) | https://youtu.be/t7Et6NhXPVs |
| Numerical integration(Lilly Pradhan) | https://youtu.be/VUPvoFk41Nk |
| Evaluate the integral over the regions cartesian form(Lilly Pradhan) | https://youtu.be/T_N5qLRZ6AQ |
| Evaluate the integral over the regions polar coordinate(Lilly Pradhan) | https://youtu.be/4gi9wzShO9Y |
| Double integration- Change the order of integration and evaluate(Lilly Pradhan) | https://youtu.be/uw10R0wz9i0 |
| Double integration-Cartesian to polar form(Lilly Pradhan) | https://youtu.be/BOn0ISBGp2I |
| Introduction to Double integration(Sneha Jondhale) | https://youtu.be/N_LjO5bGhq0 |
| Double integration over the region(Sneha Jondhale) | https://youtu.be/cfJjK-jU_6w |
| Examples of Double integration over the region(Sneha Jondhale) | https://youtu.be/9iP9Fs91alc |
| Change the order of the integration(Sneha Jondhale) | https://youtu.be/ZkJ6KiqBoME |
| Double integration in polar form(Sneha Jondhale) | https://youtu.be/QvGNuKLXECI |
| Double integration by converting cartesian coordinates to polar coordinates(Sneha Jondhale) | https://youtu.be/Xjun4YDjj6E |
| Double integration by converting polar coordinates to cartesian coordinates(Sneha Jondhale) | https://youtu.be/5w_EoNUdGGU |

40. Details of maintenance of laboratory and classrooms:

41. Number of students benefited by scholarships and freeships provided by the Government:

| | Number of students | | | |
|---------|---------------------|------------------------------|-------------|-------------|
| Name of | benefited by | Number of students | State | Merit Cum- |
| the | government scheme (| benefited by government | Minority | Means |
| scheme | Scholarships) | <pre>scheme(freeships)</pre> | Scholarship | Scholarship |

| VJNT | 2 | 7 | |
|------|----|----|--|
| OBC | 14 | 40 | |
| SBC | 2 | 5 | |
| SC | 4 | 10 | |
| EBC | 12 | 50 | |

42. Total number of students benefited by scholarships, freeships, etc provided by the institution besides government schemes:

| Name of the scheme with contact information | Number of students benefited by non- government schemes |
|---|--|
| Academic Advance Scheme | 495 |
| Felicitation of Toppers | 23 |
| F.E ETRX Admission | 1 |
| | |
| Total | 519 |

43. Number of students enrolled capability enhancement and development scheme:

| Name of the capability enhancement scheme | Year of implementation | Number of students enrolled | Name of the agencies involved with contact details |
|--|------------------------|-----------------------------------|--|
| Language Lab | 2019-20 | 495 | Department ASMH |
| Training on Arduino | 2019-20 | 495 | PCE / Spoken Tutorial By IIT Bombay |
| Training on Virtual Labs | 2019-20 | 495 | IIT Bombay |

| Scilab Programing | 2019-20 | 495 | Spoken Tutorial By IIT Bombay. |
|-------------------|---------|-----|-----------------------------------|
|-------------------|---------|-----|-----------------------------------|

44. Number of students in the department benefitted by guidance for competitive examinations and career counseling offered by the institution:

| Year | Name of the scheme | Number of students benefited /attended/participated by career counseling/Competitive exam activities | |
|------|--------------------|---|--|
| | | Not Applicable | |

45. Number of students attending Vocational Education and Training (VET)

| Number of students attending VET | Total number of students |
|----------------------------------|--------------------------|
| 0 | |

46. Minutes of the meetings of student redressal committee, prevention of sexual harassment committee and Anti Ragging committee:

| No. of grievances appealed | No. of grievances redressed | Average time for grievance redressal in number of days |
|-------------------------------|--------------------------------|--|
| Nil | Nil | Nil |

47. Number of outgoing students placed along with name of the employer with contact details:

| Number of students | Name of the employer with | Package received | Program graduated | |
|--------------------|---------------------------|------------------|-------------------|--|
| placed | contact details | | from | |
| Not Applicable | | | | |

48. Details of the students going for higher education:

| Number of students enrolling into higher education | Program graduated from | Department graduated from | Name of institution joined | Name of program admitted to | | |
|--|------------------------------|------------------------------|----------------------------------|-----------------------------------|--|--|
| Not Applicable | | | | | | |

49. Number of students appearing and qualifying in state/ national/ international level examinations (eg: NET/ SLET/ GATE/ GMAT/CAT/GRE/ TOEFL/ Civil Services/ State government examinations):

| Number of students selected/ qualifying | | | | | | State |
|---|--|--|--|--|--|---------------------------|
| Registration govern | | | | | | government examination |
| Not Applicable | | | | | | |

50. Number of awards/medals for outstanding performance in sports/cultural activities at national / international level:

| Name of the award/ medal | National/ International | Sports/ Cultural | Name of the Student | Number of students | Adhaar Number/Admi ssion Number |
|----------------------------------|----------------------------|---------------------|------------------------|--------------------|---------------------------------------|
| University champion Trophy | University level | Handball | Rubin Sajan | 01 | 2019PC0323 |
| University champion Trophy | University level | Handball | Aditya Khilare | 01 | 2019PC0165 |

- **51.** Details of the student council and the departmental student chapters:
 - 1) PCE Nature Club
 - 2) FE Student representative in Student Council
- **52.** Number of sports and cultural activities/competitions organized at the institution level:

| Sr. No. | Name of the activity | Event Date |
|---------|--|-------------------|
| 1 | FE Interdivision Sports Event | 13-14 Feb 2020 |
| 2 | Yoga Day | 14-17 Oct 2019 |
| 3 | First Year Makers Day | 17 August 2019 |
| 4 | Science Exhibition | 7 March 2020 |
| 5 | Freshers Day | 20 Sept. 2019 |
| 6 | Makerthon | 13 Nov 2019 |
| 7 | Mathematics Quiz | 23 Sep 2019 |
| 8 | Placement Cell Induction Seminar | August 2019 |
| 9 | Concept based Teachers Training in Physics | 25-26 July2019 |
| 10 | Making GD more meaningful | 10 August 2019 |
| 11 | FE Induction Ceremony | 31 July 2019 |

- **53.** Details of the contributions of alumni in the development of the department/ institution through financial and non financial means:**Not Applicable**
- **54.** Details of teachers provided with financial support to attend conferences/workshops and towards membership fee of professional bodies:

| <u>Sr.No</u> | Name of teacher | PAN | Name of conference/ workshop attended for which financial support provided | Name of the professional body for which membership fee is provided | Amount of support(REMA RK) |
|--------------|-----------------------------|------------|--|---|----------------------------------|
| <u>1</u> | Dr. Sachin S. Wani | AAJPW7095A | FDP on Scilab | NA | 200 |
| <u>2</u> | Dr. Anshu Murarka | AFGPA9339B | FDP on Scilab | NA | 200 |
| <u>3</u> | Prof. Archana L Ingole | AAUPI0640Q | FDP on Scilab | NA | 200 |
| <u>4</u> | Prof. Kamini K Chaudhari | AHFPC1252L | FDP on Scilab | NA | 200 |
| <u>5</u> | Dr. Kuberal S. | CWYPK8979A | FDP on Scilab | NA | 200 |
| <u>6</u> | Prof. Neethu P | CKZPP9003M | FDP on Scilab | NA | 200 |
| <u>7</u> | Prof. Lilly P | BPYPP7720N | FDP on Scilab | NA | 200 |
| <u>8</u> | Prof. Sneha J | BLJPJ1332B | FDP on Scilab | NA | 200 |

55. Number of professional development/administrative training programs organized by the department for teaching and non teaching staff:

| Sl. No | Title of the professional development program organised for teaching staff | Title of the administrative training program organised for non-teaching staff | Dates (from-to) | Dates (from- to) Non Teaching | No of participants (Teaching staff) | No of participants (Nonteaching staff) |
|-----------|--|--|------------------------|-------------------------------------|--|---|
| 1 | FDP on Scilab | | 11 to 15th May,2020 | | 400(PCE-37) | 0 |
| 2 | Best Practices and Strategies for Effective Online Teaching | | 27th May 2020 | | 137 | 2 |

| 3 | Workshop on Curriculum Development with Learner Centric Approach | 10-14th June,2020 | 116 | 2 |
|---|---|-------------------------------|------------|----|
| 4 | workshop on Assessment Tools | 25 to 26 th June,2020 | 6(PCE-30) | 0 |
| 5 | Mathematica and Applications of Mathematics | 27 to 29 th June 2020 87 | /4(PCE-14) | 0 |
| 6 | Webinar on Role of Plastic in Pandemic | 27th June 2020 | 41 | 4 |
| 7 | Fun With Mathematics | 5th May 2020 | 2602 | |
| 8 | Fun with Physics | 15 May 2020 70 | 00(PCE-10) | NA |
| 9 | Three Day Online Conference on "Proficiency Improvement on Polymer Processing and Advanced Characterization Techniques | 1st July- 3rd July 2020 | 17 | 2 |

56. Details of teachers attending professional development Programmes viz., Orientation Programme, Refresher Course, Short Term Course, Faculty Development Programmes:

| Number of teachers who attended | Title of the professional development program | Date and Duration (from – to) |
|------------------------------------|---|----------------------------------|
| 2 | STTP on LATEX for Everyone | 18 to 20th June, 2020 |
| 9 | One week faculty development programme on "Scilab" (spoken Tutorial IIT Bombay) | 11th to 15th May,2020 |
| 1 | IIT Bombay and PMMMNMTT FDP cum Workshop: Effective and Efficient Online Teaching in the Age of Corona A Hands on Workshop including | May 14-16, 2020 |
| 1 | International faculty development program on Avant-garde Trends in Mathematics organised by Bannari Amman Institute of Technology | 17 June to 23 June , 2020 |

| 1 | Workshop -"Curriculum Development with Learner -Centric Approach" | 10th June to 14th June 2020 |
|---|---|--------------------------------|
| 1 | One week online FDP on Engineering Education & the industry/; A post covid perspective | 1st to 5th June,2020 |
| 1 | International FDP on"Digital Teaching and Learning Environment | 11 to 13th May,2020 |
| 1 | One week Faculty Development programme on "OPEN SOURCE TOOLS FOR RESEARCH" organised by Ramanujan College University of Delhi & Government of India (Ministry of H R D) under PMMM National Mission on Teachers & Teaching | 8th to 14th June, 2020. |
| 3 | STTP on "Trajectories of Professional Development :Harnessing the Power of Business Communication" | 15-17 June 2020 |
| 1 | IIT Bombay MHRD FDP Effective and Efficient Online Teaching in the Age of Corona: A Hands-On Workshop | 16 May 2020 |

57. Total Grants received from non-government bodies, individuals, Philanthropers:

| Name of the non government funding agencies/ individuals | Funds/ Grants received in Rs. | Initiative |
|---|----------------------------------|--|
| GATEFORUM Engineering Success | Rs.20,000.00 | Two Day Workshop on Concept Based Teacher's Training in Physics 25 th and 26 th July,2019 |
| Tpac Packaging India Pvt Ltd | Rs. 20, 000. 00 | Two day Workshop on "Polymer Processing and Characterizations" on 22 nd and 23 rd August 2019 |
| Indian Centre for Plastic in Environment (ICPE) | Rs.60, 000.00 | Plastic Awareness Program on 5 th Oct, 2019 |

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- **58.** Details of quality enhancement initiatives in the academic and administrative domains of the department:
- **59.** Number of gender equity promotion Programmes organized by the department: All project group in the department put an emphasis on one girl student in each group.
- 60. Details of the PBL topics floated by the department:

 Graded Mini Projects (Engineering Physics)
 Topics:

 (i)I-V characteristics and spectral response of Solar cell
 (ii)Characteristics of Optical and Sound Sensors in a mobile phone
 (iii)Determination of Numerical Aperture, V-number of a bare core fibre using laser
 (iv)Use of photodiode to find beam divergence in a laser beam.
 (v)Spectral response of a photodiode.
 (vi)Use of a projector as a spectrometer.
- **61.** Initiatives taken by the department to enhance quality of teaching learning process, research and entrepreneurship:

(i)Game based learning sessions conducted and data collected to study the impact of the same on learning concepts in Engineering Physics.

Declaration by the Head of the Department/Institution:

I am aware that the above information provided by the department will be validated by the AAA committee during the visit.

Head of Department 2010/2020 Head of Department Arun Pillai 9819110096 Profarun@mes.ac.in