



Annual Quality Assurance Report (AQAR)

Submitted to

**NATIONAL ASSESSMENT AND ACCREDITATION COUNCIL
BANGALORE, INDIA**

Submitted By



Peoples Education Society's (Mumbai)

P. E. S. COLLEGE OF ENGINEERING

NAGSENVANA, AURANGABAD – 431 002

MAHARASHTRA

(AQAR 2016-17)

The Annual Quality Assurance Report (AQAR) of the IQAC

Part – A

1. Details of the Institution

1.1 Name of the Institution

P.E.S. College of Engineering

1.2 Address Line 1

Nagsenvana, University Road

Address Line 2

Besides Panchakki

City/Town

Aurangabad

State

Maharashtra

Pin Code

431002

Institution e-mail address

principal@pescoe.ac.in

Contact Nos.

9422293400

Name of the Head of the Institution:

Dr. Abhijeet P. Wadekar

Tel. No. with STD Code:

0240-2403001 0240-2403025

Mobile:

9422293400

Name of the IQAC Co-ordinator:

Dr. S N Kakarwal

Mobile:

9970640159

IQAC e-mail address:

headit@pescoe.ac.in

1.3 NAAC Track ID (For ex. MHCOGN 18879)

MHCOGN26685

1.4 NAAC Executive Committee No. & Date:

EC(SC)/23/A&A/59.1 dated 26th May 2017

1.5 Website address:

www.pescoe.ac.in

Web-link of the AQAR:

http://pescoe.ac.in/download/AQAR2016-17

1.6 Accreditation Details

| Sl. No. | Cycle | Grade | CGPA | Year of Accreditation | Validity Period |
|---------|-----------------------|-------|------|-----------------------|-----------------|
| 1 | 1 st Cycle | B+ | 2.56 | March 28,2017 | March 27, 2022 |
| 2 | 2 nd Cycle | | | | |
| 3 | 3 rd Cycle | | | | |
| 4 | 4 th Cycle | | | | |

1.7 Date of Establishment of IQAC :

25/01/2017

DD/MM/YYYY

1.8 AQAR for the year

2016-17

1.9 Details of the previous year's AQAR submitted to NAAC after the latest Assessment and Accreditation by NAAC

i. AQAR _____NIL_____ (DD/MM/YYYY)

ii. AQAR _____ (DD/MM/YYYY)

iii. AQAR _____ (DD/MM/YYYY)

iv. AQAR _____ (DD/MM/YYYY)

1.10 Institutional Status

University

State Central Deemed Private

Affiliated College

Yes No

Constituent College

Yes No

Autonomous college of UGC

Yes No

Regulatory Agency approved Institution

Yes No

Type of Institution Co-education Men Women
 Urban Rural Tribal
 Financial Status Grant-in-aid UGC 2(f) UGC 12B
 Grant-in-aid + Self Financing Totally Self-financing

1.11 Type of Faculty/Programme

Arts Science Commerce Law PEI (Phys Edu)
 TEI (Edu) Engineering Health Science Management
 Others (Specify)

1.12 Name of the Affiliating University (*for the Colleges*)

1) Dr. Babasaheb Ambedkar Marathwada University, Aurangabad-Second year to Final Year for Under-graduate courses
 2) Dr. Babasaheb Ambedkar Technological University, Lonere-First Year (B.Tech Under-graduate course) and M.Tech.for Post-graduate course

1.13 Special status conferred by Central/ State Government-- UGC/CSIR/DST/DBT/ICMR etc

Autonomy by State/Central Govt. / University
 University with Potential for Excellence UGC-CPE
 DST Star Scheme UGC-CE
 UGC-Special Assistance Programme DST-FIST
 UGC-Innovative PG programmes Any other (*Specify*)
 UGC-COP Programmes

2. IQAC Composition and Activities

| | |
|---|---|
| 2.1 No. of Teachers | <input type="text" value="6"/> |
| 2.2 No. of Administrative/Technical staff | <input type="text" value="2"/> |
| 2.3 No. of students | <input type="text" value="-"/> |
| 2.4 No. of Management representatives | <input type="text" value="2"/> |
| 2.5 No. of Alumni | <input type="text" value="2"/> |
| 2.6 No. of any other stakeholder and community representatives | <input type="text" value="-"/> |
| 2.7 No. of Employers/ Industrialists | <input type="text" value="2"/> |
| 2.8 No. of other External Experts | <input type="text" value="-"/> |
| 2.9 Total No. of members | <input type="text" value="14"/> |
| 2.10 No. of IQAC meetings held | <input type="text" value="04"/> |
| 2.11 No. of meetings with various stakeholders: No. | <input type="text" value="04"/> Faculty <input type="text" value="1"/> |
| Non-Teaching Staff | <input type="text" value="1"/> Students <input type="text" value="1"/> Alumni <input type="text" value="1"/> Others <input type="text"/> |
| 2.12 Has IQAC received any funding from UGC during the year? | Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> |
| If yes, mention the amount | <input type="text"/> |
| 2.13 Seminars and Conferences (only quality related) | |
| (i) No. of Seminars/Conferences/ Workshops/Symposia organized by the IQAC | |
| Total Nos. | <input type="text"/> International <input type="text"/> National <input type="text" value="1"/> State <input type="text"/> Institution Level <input type="text"/> |
| (ii) Themes | <input type="text" value="Symposia on 'Engineering Curriculum Innovation An outcome based Education Approach'"/> |

2.14 Significant Activities and contributions made by IQAC

- Internal Academic and Administrative Audit committee is constituted by Principal, Academic Dean and Head of Department
- External Academic and Administrative Audit committee was formed comprising of Principal of our Institute, Prof. Dr.M.D. Shisath, Prof. Dr. Sachin Deshmukh, and Prof.Sr.Santosh Bhosale from other Institutes/ University
- Stake holder feedback was obtained for the academic year 2016 -17.

2.15 Plan of Action by IQAC/Outcome

The plan of action chalked out by the IQAC in the beginning of the year towards quality enhancement and the outcome achieved by the end of the year *

| Plan of Action | Achievements |
|---|---|
| Quality Policy and objectives were designed | One of the quality objectives is “Upgrade the teacher as per Industry requirement through regular interaction” is fulfilled by training the faculty at industry as shown in Table1. |
| To find the needs of slow learners and Active Learner’s | Remedial classes were conducted to improve their academic performance as shown in Table2. Active learners are motivated to prepare for competitive Exams as shown in Table3. |
| To follow Academic Calendar. | Executed through departmental conduction of activity as per respective department Academic Calendar |
| A quality check through IQAC Audits is scheduled. | |
| To plan for Environmental Awareness | Execution done through Green Audit Plantation of 50 trees carried out in 2016-17 |

* *The Academic Calendar of the year (2016-17) is attached as Annexure I.*

Table1: List of the teacher who are upgraded as per Industry requirement through regular interaction

| Sr. No. | Name of the staff | Industry | Department | Outcome |
|---------|---------------------------|----------------------|------------|--|
| 1 | Prof. V. V. Kulkarni | e_Yantra, IIT Bombay | ETX | Formation of Robotics Club |
| 2 | Prof. R. G. Pungle | e_Yantra, IIT Bombay | Mech | Formation of Robotics Club |
| 3 | Prof. S. V. Murkute | e_Yantra, IIT Bombay | EEP | Formation of Robotics Club |
| 4 | Prof. Prashant. L. Pandit | e_Yantra, IIT Bombay | Mech | Formation of Robotics Club |
| 5 | Prof. Faiz Siddiqui | Infosys | TP Cell | Soft Skills training to faculties |
| 6 | Prof. V. A. Losarwar | Nasscom | CSE | 16 students were for FSIT & out of which 15 were certified |
| 7 | Prof. Y. S. Pagar | Nasscom | CSE | |
| 8 | Prof. V. R. Mote | Nasscom | CSE | |
| 9 | Dr. A. V. Turukmane | Nasscom | CSE | |
| 10 | Prof. B. N. Jha | Nasscom | CSE | |

Table2: List of Remedial classes

| Sr. No. | Name of Staff | Class | Subject | No. of Students | Outcome |
|---------|----------------------|-----------|---------|-----------------|-------------------------------------|
| 1 | Prof. Dudhamal N.D. | SE (Mech) | SOM | 50 | Result increase 90% |
| 2 | Prof. Aves M.N. | SE (Mech) | TD-1 | 45 | Result increase 80% |
| 3 | Prof. G. P. Kamble | SE (ALL) | EM-III | 20 | Result Improved |
| 4 | Prof. G. P. Kamble | SE (ALL) | EM-IV | 25 | Result Improved |
| 5 | Prof. S. R. Acharya | FE (ALL) | EM-I | 41 | Result Improved |
| 6 | Prof. S. R. Acharya | SE (ALL) | EM-III | 40 | Classes conducted for slow learners |
| 7 | Prof. S. N. Admankar | FE(ALL) | EM-I | 12 | Result Improved |
| 8 | Prof. S. N. Admankar | SE(ALL) | EM-III | 30 | Classes conducted for slow learners |
| 9 | Prof. S. C. Rudrawar | FE(ALL) | EM-I | 10 | Result Improved |
| 10 | Prof. S. C. Rudrawar | SE(ALL) | EM-III | 40 | Classes conducted for slow learners |
| 11 | Prof. S. D. Pingle | SE(CSE) | DS | 17 | Result Not Declared |
| 12 | Prof. P. K. Ghuge | SE(CSE) | DE | 16 | Result Not Declared |
| 13 | Prof. M. M. Ambekar | SE(CSE) | CG | 02 | 1 student is Passed |
| 14 | Prof. S. D. Pingle | SE(CSE) | MP | 02 | Result Not Declared |
| 15 | Prof. V. A. Losarwar | SE(CSE) | OOPS | 02 | 1 student is Passed |
| 16 | Prof. G. R. Goud | TE(CSE) | OS | 15 | Result Not Declared |
| 17 | Prof. V. B. Kamble | TE(CSE) | SE | 01 | Result Not Declared |
| 18 | Prof. S. D. Pingle | TE(CSE) | CN-I | 12 | Result Not Declared |
| 19 | Prof. V. B. Kamble | BE(CSE) | DWDM | 04 | 04 students are Passed |
| 20 | Prof. G. R. Goud | BE(CSE) | VM | 15 | 15 students are Passed |
| 21 | Dr. A. V. Turukmane | BE(CSE) | PDC | 04 | 04 students are Passed |
| 22 | Prof.S.M.Kulkarni | TE(EEP) | EMD | 60 | Revision of Syllabus |

| | | | | | |
|----|---|---------|-------|----------------------|--|
| 23 | Prof.S.M.Kulkarni | TE(EEP) | EMFT | 60 | Revision of Syllabus |
| 24 | Prof. B. Kunalkumar | TE(EEP) | CSE | 50 | Revision of Syllabus |
| 25 | Prof. M.S.Potdar Prof. A.P.Paranjape Prof. P.D.Mohite Prof. A.A.Tupe | FE | BEE | 23 41 18 32 | Revision of Syllabus Preparation for Exam |
| 26 | Prof. S.V.Munde | FE | Phy. | 19 | Revision of Syllabus Preparation for Exam |
| 27 | Prof. D.A.Wadatkar | FE | Chem. | 14 | Revision of Syllabus Preparation for Exam |
| 28 | Prof. Y.S.Sable Prof. M.N. Awes | FE | EG | 22 25 | Revision of Syllabus Preparation for Exam |
| 29 | Prof. S.S.Razwi Prof. C.R.Ghushinge | FE | BCE | 12 12 | Revision of Syllabus Preparation for Exam |
| 30 | Prof. P.M. Kadhav Prof. N.S.Syed | FE | CF | 05 05 | Revision of Syllabus Preparation for Exam |

Table3: List of Active Learner promoted for competitive exam

| Sr.No. | Name of Students | Class | Name of Competitive Exam |
|--------|---------------------------------|------------|--------------------------|
| 1 | Ansari Ammar yasir Khurishid A. | BE(MECH) | GATE |
| 2 | Rahul Shewgan | BE(EEP) | GATE |
| 3 | Shaikh Abdul Basit | BE(CIVIL) | GATE |
| 4 | Ketan Bansode | BE (CIVIL) | GATE |
| 5 | Vasant Darne | BE (CIVIL) | MPSC |
| 6 | Magare Prashant Ashok | BE(MECH) | MPSC |
| 7 | Sable Umesh Suresh | BE(MECH) | MPSC |
| 8 | Kothare Hiranman Kashinath | BE(MECH) | MPSC |
| 9 | Sapkal Surekha Rameshwar | BE(MECH) | MPSC |
| 10 | Mr. Yogesh Nagloth | BE(EC) | UPSC |

2.15 Whether the AQAR was placed in statutory body Yes No
Management Syndicate any other body

Provide the details of the action taken

- Audits were conducted for quality checks.
- Conduction of seminar/ workshop/ orientation programmes to promote Research activities and teaching/learning quality of faculty.

Part – B
 Criterion – I

1. Curricular Aspects

1.1 Details about Academic Programmes

| Level of the Programme | Number of existing Programmes | Number of programmes added during the year | Number of self-financing programmes | Number of value added / Career Oriented programmes |
|------------------------|-------------------------------|--|-------------------------------------|--|
| PhD | 01 | | 01 | |
| PG | 03 | - | 03 | |
| UG | 05 | - | 05 | 11 |
| PG Diploma | - | - | - | |
| Advanced Diploma | - | - | - | - |
| Diploma | - | - | - | |
| Certificate | - | - | - | 4 |
| Others | | - | | |
| Total | 09 | - | 09 | 15 |

| | | | | |
|-------------------|---|---|---|----|
| Interdisciplinary | - | - | - | 01 |
| Innovative | - | - | - | - |

1.2 (i) Flexibility of the Curriculum: CBCS /Core/Elective option / Open options
 (ii) Pattern of programmes:

| Pattern | Number of programmes |
|-----------|----------------------|
| Semester | UG-08, PG-04 |
| Trimester | - |
| Annual | Ph.D. |

1.3 Feedback from stakeholders* Alumni Parents Employers Students
 (On all aspects)

Mode of feedback : Online Manual Co-operating schools (for PEI)

*An analysis of the feedback in the Annexure II (to be attached)

1.4 Whether there is any revision/update of regulation or syllabi, if yes, mention their salient aspects.

1. Institute has been affiliated by Dr. Babasaheb Ambedkar Technological University, Lonere for first Year. The Syllabus has been revised by the university.
2. Structure and syllabus of second year (all branches) is designed in Natural growth as the revision of FE was done last year at Dr. Babasaheb Ambedkar Marathwada University, Aurangabad.
3. Both the Universities have adopted CBCS.

Updation in syllabus for various subjects is given below

| Subject | Topics Added | Topics Removed |
|---|--|---|
| Electrical (Electronic and Power Engineering) | | |
| S.E.(EEP)- ADC | 1. Active Filters 2. Phase Lock Loop 3. Voltage regulator | 1.BJT 2. Numbering system and Boolean Algebra 3. FlipFlops 4. Multiplexer and Demultiplexer |
| FE AND M TECH course is as per Dr BATU which is revised. | - | - |
| Electronics and Telecommunication | | |
| Engineering Mathematics – III SE(ETC) | Fourier Transform | Numerical Methods |
| Electronic Devices and Circuits SE(ETC) | Wave-shaping Circuits and Multi-vibrators | Frequency response of Amplifiers and analysis |
| | Voltage Multiplier and Regulator Circuits | Transistor at High Frequencies |
| Analog Communication Engineering SE(ETC) | Noise | Pulse and Digital Signals |
| | Radiation and Wave propagation | Electro Acoustics |
| Network Analysis SE(ETC) | | Transient Response |
| Data Structure and Linux (Earlier it was Data Structures) SE(ETC) | Linux Fundamentals | |
| | Linux Administration | |
| Engineering Mathematics – IV (Exchange with EM-III) SE(ETC) | Numerical Methods and Curve Fitting | Fourier Transform and its Applications |
| Communication Skills-I SE(ETC) | Time Management | |
| | Developing Skills and Presentations | |
| Mechanical | | |
| Machine Drawing (First year) | Development of surfaces | Engineering Curves |
| Thermodynamics I (First year) | Available energy flow and non flow processes, 2 nd law of efficiency | - |
| Civil | | |
| Basics of Civil Engineering (First year) | Branches, role of civil engineer in various construction activities, important national projects. | Site selection, Plinth area, Carpet area, Floor space Index, Cost of building |
| | Raft foundation, pile foundation, beams, columns, slabs, sills, weather sheds, and utility fixtures. | Superstructure and its components: Typical cross section through load bearing wall. Masonry in superstructure and foundation in bricks and rubble, English and Flemish bond in one and a half brick thick wall, construction and precautions to be taken in brick masonry, coursed and uncoursed rubble masonry, construction and precautions to be taken in stone masonry. |

| | | |
|--|---|--|
| | <p>Building plans, principles of planning, site selection for buildings, typical plan of a residential building, plinth area, carpet area, cost of building, FSI, building bye laws, ventilation and lighting, loads on structure, load bearing, framed construction, steel structures types of tiles, materials used for plastering & painting.</p> | <p>Causes of earth quake, changes in earth crust during earthquake, Technical terms related with earthquake such as Focus, Epicenter, magnitude, intensity and seismograph. Factors affecting damage, consideration of earthquake forces in design, General construction aspects, Earthquake resistant low cost buildings, Precautions to be taken before occurrence of an earthquake.</p> |
| | <p>selection of stations, location sketches, site plan, Plane table surveying, planimeter, total-station, remote sensing, GIS, GPS, photogrammetry triangulations and traversing</p> | |
| | <p>road markings. Basics of railways, airport, harbour and docks</p> | |
| | <p>IS specifications for drinking water, water treatment plant, need of sewage treatment & reuse of wastewater, sewage treatment plant, air pollution and its sources, air pollutants, air pollution control measures.</p> | <p>Water demands; design period, per capita demand, Methods of forecasting population: Arithmetic increase, geometric increase and incremental increase method. Treatment flow sheet for a typical water treatment plant, treatment units. Drainage of water from building. Construction of septic tanks and soak pits.</p> |
| Engineering Mechanics (First year) | <p>centrifugal and centripetal forces,</p> | <p>Kinematics of Rigid Bodies: Plane motion of particles and connected bodies, Linear Motion, Translation, Combined Linear and Translation Motion, ICR.</p> |
| Theory of Elasticity and Plasticity (M.Tech. First year) | <p>Derivation of Stress Equilibrium Equations in Cartesian and Polar Coordinate System, Cauchy's Formula, Normal Stress, Shear Stress and Resultant Stress on any Inclined Plane, State of Pure Shear, Principal Stresses, Maximum Shear Stresses, Octahedral Stresses, Decomposition of State of Stress into Pure Shear and Hydrostatic Stress, Mohr's Circles/Spheres for Various States of Stress, Volumetric Strain, Problems on Navier Lamé's Equilibrium Equations, Problems on Beltrami - Michell Compatibility Equations, Boundary Value Problems in Elasticity</p> | |
| | <p>Airy's Stress Function, Bending of Beams, Straight Beams & Asymmetrical Bending, Euler Bernoulli Hypothesis, Shear Center or Center of Flexure, Shear Center</p> | |

| | | |
|---|---|--|
| | in Thin Walled Open Sections and Other Sections | |
| | Stress Concentration Problems Stress Concentration Problems such as Stress Concentration due to Circular Hole in Stressed Plate (Kirsch's Problem), Stresses under Concentrated Load such as Concentrated Load acting on the Vertex of a Wedge (Michell's Problem) and Concentrated Load Acting on the Free Surface of a Plate (Flamant's Problem), Axi- symmetric Problems such as Stresses in Thick Cylinders Subjected to Internal and External Uniformly Distributed Pressures (Lame's Problem). | |
| | Torsion:-Prandtl's Stress Function Approach, Torsion of Circular, Elliptical and Triangular Cross- Section, Torsion of Thin-Walled Structures by Membrane Analogy, Torsion of Rolled Sections and Shear Flow. | |
| | Plasticity:- Basic Equations, Similarities and Differences when Compared with Elasticity, Idealized Material Behaviour, Mechanical Models, Neck Formation, Failure Theories, Modes of Failure, Failure under Static Equilibrium, Buckling, Vibrations, Yielding, Fracture, Ductile and Brittle Failure | |
| | Yield Criteria & Yield Surface:- Use of Factor of Safety in Design, Numerical on Bar subjected to Axial Load, Bending and Torsion, Theories of Plastic Flow, Mohr- Coulomb Yield Criteria, Drucker Prager Yield Criteria, Principal Stress Space & Yield Surface, Pi- Plane, Post Yield Stress Strain Behaviour, Plastic Stress Strain Relations, Prandtl Reuss Equation, Lavy-Mises Relation, Strain Hardening, Introduction to Visco-Elasticity and Visco- Plasticity, 1 D Models | |
| Advanced Prestressed Concrete (M.Tech. First year) | Introduction to Prestressed Concrete Basic Principle of Prestressing, Methods and Systems of Prestressing, Material Requirements, Losses of Prestressing, Analysis of Rectangular, Symmetrical and Unsymmetrical, Flanged Beams, Concept of Cable Profile, Pressure Line, Thrust Lines, etc. | |

| | | |
|--|---|--|
| | Design of Anchor Blocks Design of Anchor Blocks using Magnel's Method, Guyon's Method and IS Code Method. | |
| | Analysis and Design of PSC Members Analysis of PSC section for Flexural Strength, Shear Strength and Deflection, Design of Prestressed Concrete section for Flexural Strength by Analytical procedure and Magnel's Graphical method, Shear Strength and Deflection, Design of Statically Indeterminate Beams and Single Story Portal Frame, Concordant Cable Profile | |
| | Composite Section Analysis and Design of Composite Construction of Prestressed and in-situ Concrete Structures, Design of One way and Two way Slab, Grid Slab | |
| | Design of Various PSC Structures Design of Cylindrical and Non-cylindrical Pipes, Design of Poles, Circular Prestressing for Water Tanks, Design of Sleepers | |
| | Causes and Remedies of Various Defects in PSC Causes of various Defects in Prestressed Concrete like Cracking, Buckling, Deflection, Deterioration, Corrosion of Prestressing Steel, Concrete Crushing at End Anchorages, Grouting of Post Tensioned Tendons, Congested Connections, Dimensional Tolerances etc. and Remedial Measures | |
| Design of Cold formed Still Structure (M.Tech. First year) | Introduction General, Types of Cold-Formed Steel Sections and Their Applications, Standardized Metal Buildings and Industrialized Housing, Methods of Forming, Research and Design Specifications, General Design Considerations of Cold-Formed Steel Construction, Economic Design and Optimum Properties, Yield Stress, Tensile Strength, and Stress-Strain Curve, Modulus of Elasticity, Tangent Modulus, and Shear Modulus, Ductility, Weldability, Fatigue Strength and Toughness, Influence of Cold Work on Mechanical Properties of Steel, Utilization of Cold Work of Forming, Effect of Temperature on | |

| | | |
|---|--|--------------------------|
| | Mechanical Properties of Steel, Testing of Full Sections and Flat Elements, Residual Stresses Due to Cold Forming, Effect of Strain Rate on Mechanical Properties | |
| | Strength of Thin Elements & Design Criteria Definitions of Terms, Design Basis, Serviceability, Structural Behaviour of Compression Elements and Design Criteria, Perforated Elements and Members, Plate Buckling of Structural Shapes, Design Examples | |
| | Design of Axially Loaded Members Design of axially loaded tension members, Flexural Column Buckling, Torsional Buckling and Flexural-Torsional Buckling, Effect of Local Buckling on Column Strength, Distortional Buckling Strength of Compression Members, Effect of Cold Work on Column Buckling, North American Design Formulas for Centrically Loaded Compression Members, Effective Length Factor K, Built-Up Compression Members, Bracing of Axially Loaded Compression Members, Design Examples | |
| | Design of Flexural Members:- Bending Strength and Deflection, Design of Beam Webs, Bracing Requirements of Beams, Torsional analysis of Beams and Combined Bending and Torsional Loading, Design Examples | |
| | Design of Members under Combined Axial Load & Bending Combined Tensile axial load and Bending, Combined Compressive axial load and Bending (Beam-Columns), North American Design Criteria, Design Examples, Second-Order Analysis | |
| | Design of Connections Types of Connectors, Welded Connections, Bolted Connections, Screw Connections, Other Fasteners, Rupture Failure of Connections, I or Box-Shaped Compression Members Made by Connecting Two C-Sections, I-Beams Made by Connecting Two C-Sections, Spacing of Connections in Compression Elements | |
| Computer Science & Engineering | | |
| Digital Electronics | Unit-1 Self complimenting | A to D converter removed |

| | | |
|----------------------------------|--|---|
| SE(CSE) | codes, reflective codes, gray code number system is added | |
| OOPS SE(CSE) | <p>Unit1: Need of Object-Oriented Programming (OOP) and related concepts added</p> <p>Unit 2: A C++ Program with Class, Making an Outside Function Inline, Nesting of Member Functions, Private Member Functions, Arrays within a class, Memory Allocation for Objects</p> <p>Unit3: Constructors and its types, and Destructors.</p> <p>Operator Overloading and Type Conversions</p> <p>Unit4: Base Class and derived Class, Public and Private Inheritance, protected members, Overriding Member Functions, Class Hierarchies, Levels of Inheritance, Multiple Inheritance, Ambiguity in Multiple Inheritance, Aggregation, Classes within Classes. Virtual Base Classes.</p> <p>Virtual functions and Polymorphism and related concepts</p> <p>Unit5: Managing Console I/O Operations Introduction, C++ Streams, C++ Stream Classes, Unformatted I/O Operations, Formatted Console I/O Operations, Managing Output with Manipulators, Working with Files and various operations on it.</p> <p>Unit6: Templates: Introduction, Class templates, Class Templates with multiple parameters, Function templates, Overloading of Template Functions, Member Function Templates.</p> | <p>Unit1: Overview of C++ program with class, Sample C++ program</p> <p>Unit2: Class Objects, Scope resolution operator, Access members, Data hiding, Constructors, Destructors, Parameterized constructors, Static data members, Functions Friend functions, passing objects as arguments, Returning objects, Arrays of objects, Dynamic objects, Pointers to objects, Copy constructors, Generic functions and classes, Applications Operator overloading using friend functions such as +, -, pre-increment, post increment, [] etc., overloading <<, >>.</p> <p>Unit3: Inheritance-I: Base Class, Inheritance and protected members, protected base class inheritance, inheriting multiple base classes,</p> <p>Unit4: Granting access</p> <p>Unit5: Virtual functions and Polymorphism</p> <p>Unit6: C++ streams removed from 6th unit and added in unit5</p> |
| Computer Networks-I SE(CSE) | <p>Unit1-all transmission medium like twisted pair, coaxial cable, unit 2 -FSK,ASK,PSK included in new syllabus</p> <p>unit 3-ALOHA,CSMA and MAC and Ethernet included</p> <p>unit 4-details on network layer included</p> <p>unit 5 & 6-transport and application</p> | |
| Intro to Web Programming SE(CSE) | J Query & bootstrapping added JS & XML also added | 2 hrs/week theory removed |
| Discrete Mathematics SE(CSE) | <p>Unit1: Permutation Combination included in more detail</p> <p>Unit 2: Concept of Quantifier included which was in Unit-3 in old syllabus</p> <p>Unit 5: Concept of Ring included which was in Unit-6 in old syllabus</p> <p>Unit 6: Concept of coding theory</p> | |

| | | |
|---------------------------|---|---|
| | included which was in Unit-5 in old syllabus | |
| DS using C SE(CSE) | Concept of Quantifier included which was in Unit-3 in old syllabus | Unit 2-stacks using dynamic array is removed Unit 4-threaded binary tree removed |
| Microprocessors SE(CSE) | | Section B is completely changed |
| Computer Graphics SE(CSE) | | Unit1: synthetic; Imaging Systems; The synthetic camera model; The programmer's interface; Graphics architectures; Programmable Pipelines; Performance Characteristics Graphics Programming; The Sierpinski gasket. Unit3: Geometric Objects and Transformations-I: Scalars, Points, and Vectors; Three-dimensional Primitives; Coordinate Systems and Frames; Modelling a Colored Cube; Affine transformations; Rotation, Translation and Scaling Unit4: Quaternion's. Unit 5: Phong Lighting model; Computation of vectors; Polygonal Shading; Approximation of a sphere by recursive subdivisions; Light sources in OpenGL; Specification of materials in OpenGL; Shading of the sphere model; Global Illumination. Unit 6: Rasterization; Bresenham's algorithm; Polygon Rasterization; Hidden-surface removal; Antialiasing; Display considerations. |
| | Concept of Ring included which was in Unit-6 in old syllabus | |
| | Concept of coding theory included which was in Unit-5 in old syllabus | |

1.5 Any new Department/Centre introduced during the year. If yes, give details.

Yes, Department of Civil has started the Research Centre for Ph.D. scholars from 23/02/2016.

Criterion – II

2. Teaching, Learning and Evaluation

| | | | | | |
|------------------------------------|-------|------------------|----------------------|------------|--------|
| 2.1 Total No. of permanent faculty | Total | Asst. Professors | Associate Professors | Professors | Others |
| | 103 | 81 | 16 | 06 | - |

2.2 No. of permanent faculty with Ph.D. 7

| | | | | | | | | | | |
|---|------------------|----|----------------------|----|------------|----|--------|---|-------|---|
| 2.3 No. of Faculty Positions Recruited (R) and Vacant (V) during the year | Asst. Professors | | Associate Professors | | Professors | | Others | | Total | |
| | R | V | R | V | R | V | R | V | R | V |
| | 82 | 03 | 15 | 18 | 06 | 05 | - | | - | |

2.4 No. of Guest and Visiting faculty and Temporary faculty 27 - -

2.5 Faculty participation in conferences and symposia:

| No. of Faculty | International level | National level | State level |
|------------------------------|---------------------|----------------|-------------|
| Attended Seminars/ Workshops | 2 | - | 2 |
| Presented papers | 34 | 8 | |
| Resource Persons | | | 4 |
| Symposia | - | 59 | - |
| Conference Attended | 1 | 11 | 1 |

2.6 Innovative processes adopted by the institution in Teaching and Learning:

- Use of smart class room for teaching. Interaction through K-Yan
- Guest lectures & Expert Talks are arranged.
- Industry and Research Lab Visits are arranged.
- Value Added courses & workshops in model making, poster presentation, competition are conducted.
- Innovative final year projects are under taken, IEEE and standard format is followed for standardization of report preparation, and sponsorship is encouraged.
- Texas Innovation Lab is set up and utilized.
- Hands on practice for Assembly and Disassembly of Mechanical Components
- Use of models, charts, analogy, puzzles, storytelling, brain storming in the classroom.
- Group Discussion is carried out.

* The details of Value Added, Industry Visit, and Guests Lectures are attached as Annexure III.

2.7 Total No. of actual teaching days During this academic year 180

2.8 Examination/ Evaluation Reforms initiated by the Institution (for example: Open Book Examination, Bar Coding, Double Valuation, Photocopy, Online Multiple Choice Questions)

- 1) Institute follows the examination rules and regulations framed by Dr. Babasaheb Ambedkar Marathwada University, Aurangabad and now Dr. Babasaheb Ambedkar Technological University, Lonere, for examination/ evaluation process will be adopted.
- 2) In addition to this 2 class tests at institute and as per-university exam are conducted and evaluated. The results of the same are forwarded to the university and informed to the parent by sending the letters
- 3) Other Test and Exams Plans and Methods of Evaluation suggested and followed.
- 4) On student's request, class test answer sheets are shown to the student so that they know how the answers are checked.
- 5) As per Dr. Babasaheb Ambedkar Technological University, Lonere, Rules Mid term test will be conducted.

2.9 No. of faculty members involved in curriculum restructuring/revision/syllabus development as member of Board of Study/Faculty/Curriculum Development workshop

| | | |
|---------------------------------------|---------------------|--|
| 14 | 5 | 14 |
| No. of Member's in Syllabus Designing | No. of BOS Member's | No. of Member's in Curriculum development Workshop's |

2.10 Average percentage of attendance of students

75%

2.11 Course/Programme wise distribution of pass percentage :

| Title of the Programme | Total no. of students appeared | Division | | | | |
|------------------------|--------------------------------|---------------|-------|--------|-------|--------|
| | | Distinction % | I % | II % | III % | Pass % |
| BE MECH | 98 | 63.27 | 13.27 | - | - | 76.53 |
| BE EEP | 118 | 62 | 29 | 0.01 | - | 91.52 |
| BE ETX | 54 | 75.5 | 18.8 | - | - | 94.33 |
| BE CSE | 92 | 68.81 | 20.43 | 1 | - | 91.40 |
| BE IT | 43 | 60.46 | 30.23 | - | - | 90.69 |
| BE CIVIL | 59 | 49 | 34 | - | - | 83 |
| TOTAL | 464 | 63.17 | 24.28 | 0.0016 | - | 87.91 |

2.12 How does IQAC Contribute/Monitor/Evaluate the Teaching & Learning processes:

- At the end of semester teachers feed back is taken from the students and from this feed back staff members are informed to improve their performance.
- Student's attendance is monitored and informed to the parents.
- IQAC checks course file, lab manual, attendance sheet in every semester and report to the Principal
- IQAC encourages staff to use ICT tools(ICT Usages staff:84 & Student:582)

2.13 Initiatives undertaken towards faculty development

| <i>Faculty / Staff Development Programmes</i> | <i>Number of faculty benefitted</i> |
|--|-------------------------------------|
| Refresher courses | |
| UGC – Faculty Improvement Programme | |
| HRD programmes | 5 |
| Orientation programmes | 23 |
| Faculty exchange programme | 4 |
| Staff training conducted by the university | 9 |
| Staff training conducted by other institutions | 33 |
| Summer / Winter schools, Workshops, etc. | 35 |
| Others (STTP) | 23 |

2.14 Details of Administrative and Technical staff

| Category | Number of Permanent Employees | Number of Vacant Positions | Number of permanent positions filled during the Year | Number of positions filled temporarily |
|----------------------|-------------------------------|----------------------------|--|--|
| Administrative Staff | 62 | - | - | 07 |
| Technical Staff | 10 | - | - | 04 |

Criterion – III

3. Research, Consultancy and Extension

3.1 Initiatives of the IQAC in Sensitizing/Promoting Research Climate in the institution

- The institute has organized visits to research institutes such as Dr.Babasaheb Ambedkar Marathwada University, Aurangabad, Water and Land Management Institute (WALMI), Aurangabad; Indo German Tool Room (IGTR), Aurangabad; Finadability Solution Pvt. Ltd. Aurangabad, Central Institute of Plastic Engineering and Technology Chikalthana MIDC Aurangabad, etc
- Under IEEE student branch chapter workshop was organized on “Research Methodology”. (Number of Participants : 84)
- UG and PG students are participating in National/ International Conferences and presenting the research papers
- The institute is permitting staff in presenting/ publishing the research papers in the Conferences and Journals(Number of Staff permitted is 30)
- Students have participated in project competition like “Avishkar” (No. of Participants: 21)
- The students can access on-line research journals from the Institute’s digital Library
- Students are doing innovative projects in e-yantra lab and Innovation Lab of the institute.
- Students participated in BAJA Competition
- Students worked on Industrial Projects

3.2 Details regarding major projects

| | Completed | Ongoing | Sanctioned | Submitted |
|---------------------|-----------|---------|------------|-----------|
| Number | --- | --- | --- | --- |
| Outlay in Rs. Lakhs | --- | --- | --- | --- |

3.3 Details regarding minor projects

| | Completed | Ongoing | Sanctioned | Submitted |
|---------------------|-----------|---------|------------|-----------|
| Number | --- | --- | --- | --- |
| Outlay in Rs. Lakhs | --- | --- | --- | --- |

3.4 Details on research publications

| | International | National | Others |
|--------------------------|---------------|----------|--------|
| Peer Review Journals | 19 | | |
| Non-Peer Review Journals | 29 | | |
| e-Journals | 23 | 3 | |
| Conference proceedings | 17 | | |

3.5 Details on Impact factor of publications:

Range Average h-index Nos. in SCOPUS

3.6 Research funds sanctioned and received from various funding agencies, industry and other organisations

| Nature of the Project | Duration Year | Name of the funding Agency | Total grant sanctioned | Received |
|--|------------------|---|---|---|
| Major projects | - | - | - | - |
| Minor Projects | - | - | - | - |
| Interdisciplinary Projects | 1 | | - | - |
| Industry sponsored | 1 (2016-17) | 1. Morgan Crucible Ltd.,Waluj Aurangabad 2. Shri Ram Enterprises, Waluj Aurangabad 3. Badve Engineering Ltd.,Chitegaon Aurangabad 4. Aurangabad Auto Pvt. Ltd. Waluj Aurangabad 5. Shree Sai Enterprises 6. Jai Bhadra Technologies Pvt. Ltd 7. AIT Computer Services | Total technical Support and components Required for the project | Total technical Support and components Required for the project |
| Students research projects <i>(other than compulsory by the University)</i> | - | - | - | - |
| Any other(Specify) | 2016-17 (ETC) | Ed-Gate, Bangalore | 1.5 lacs | Six Trainer Kits |
| Total | - | 08 | 1.5 lacs | Six Trainer Kits |

3.7 No. of books published

i) With ISBN No. Chapters in Edited Books

ii) Without ISBN No.

3.8 No. of University Departments receiving funds from

UGC-SAP CAS DST-FIST

DPE DBT Scheme/funds

3.9 For colleges Autonomy CPE DBT Star Scheme

INSPIRE CE Any Other (specify)

3.10 Revenue generated through consultancy

3.11 No. of conferences Organized by the Institution

| Level | International | National | State | University | College |
|---------------------|---------------|----------|-------|------------|---------|
| Number | - | - | - | - | - |
| Sponsoring agencies | - | - | - | - | - |

3.12 No. of faculty served as experts, chairpersons or resource persons

3.13 No. of collaborations International National Any other

3.14 No. of linkages created during this year

List of Activities under Linkages

| Sr. No | Name of Activity | No. of participant | Date | Outcome |
|--------|-------------------------------------|--------------------|----------|---|
| 1 | PRIMUS Tech Systems Private Limited | Yet to start | Jun-17 | SAP Training for students |
| 2 | mITu Skillogies, Nashik | 54 | Jun-2017 | STTP on "Recents Trends in IoT & Cloud" was conducted |
| 2 | Quick Heal | 1 | Apr-17 | FDP attended by staff at Vivekanand College |
| 3 | Red Hat | 25 | Mar-17 | 19 students out of 25 are Certified |
| 4 | Universal Education, Bangalore | 750 | Jan-17 | Campus Recruitment Training for students |
| 5 | Vidyalankar Educational Institute | Yet to start | Aug-16 | GATE Coaching for students |
| 6 | Japan- India Business Masters | 5 | Apr-16 | Japanese Language class |
| 7 | IGTR | 25 | Feb-16 | Training for students |

3.15 Total budget for research for current year in lakhs:

From funding agency From Management of University/College

Total

3.16 No. of patents received this year

| Type of Patent | | Number |
|----------------|---------|--------|
| National | Applied | 4 |
| | Granted | |
| International | Applied | |
| | Granted | |
| Commercialised | Applied | |
| | Granted | |

3.17 No. of research awards/ recognitions received by faculty and research fellows of the institute in the year

| Total | International | National | State | University | Dist | College |
|-------|---------------|----------|-------|------------|------|---------|
| 03 | | | | 03 | | |

3.18 No. of faculty from the Institution

who are Ph. D. Guides

and students registered under them

3.19 No. of Ph.D. awarded by faculty from the Institution

3.20 No. of Research scholars receiving the Fellowships (Newly enrolled + existing ones)

JRF SRF Project Fellows Any other

3.21 No. of students Participated in NSS events:

University level State level

National level International level

3.22 No. of students participated in NCC events: University level State level

National level International level

3.23 No. of Awards won in NSS:

University level State level

National level International level

3.24 No. of Awards won in NCC:

University level State level
National level International level

3.25 No. of Extension activities organized

University forum College forum
NCC NSS Any other

3.26 Major Activities during the year in the sphere of extension activities and Institutional Social Responsibility

1. Clean up drive at Pandharpur(No. of Participant:75)
2. Blood donation(No. of Participant:150)
3. Tree plantation(No. of Participant:50)
4. Rain water harvesting and kitchen garden motivation
5. Participation in Organ donation awareness rally(No. of Participant:70)
6. Health check-up camp(No. of Participant:225)
7. Karnpura yatra clean up drive(No. of Participant:45)
8. Guest Lecture was arranged on “Tobacco and its effect on human life” (No. of Participant:150)
- 9.“Anapan” for mind control, concentration, calmness and stability
10. Facilitation Centre and Students’ counselling
11. MZC Vivekananda Youth Conclave in Collaboration with CII- Aurangabad(No. of participants: 400)

Criterion – IV

4. Infrastructure and Learning Resources

4.1 Details of increase in infrastructure facilities:

| Facilities | Existing | Newly created (During year 2016-17) | Source of Fund | Total |
|---|---------------------------------------|---|---------------------------------------|-------------------------------|
| Campus area | 91035 sq.m.(22 .5Acres) | Nil | Institute | 91035 sq.m.(22 .5Acres) |
| Class rooms | 31 | | Institute | 31 |
| Laboratories | 45 | | Institute | 45 |
| Seminar Halls | 4 | | Institute | 4 |
| No. of important equipments purchased (\geq 1.0 lakh) during the current year. | 548 | 01 | Institute | 549 |
| Value of the equipment purchased during the year (Rs. in Lakhs) | 4,17,18,654/- | 7,29,085/- | Institute | 4,24,47,739/- |
| Others | Windows 8 upgradation = 35480/- | TI Innovation Lab | Ed Gate Technologies, Bangalore | 2 |

4.2 Computerization of administration and library

Computerization of Administration:

- *Tally Software for account purpose
- *Paywihz software for salary purpose
- *ERP for student admission, Fees Collection, Notice Management, Result Analysis, etc.

Computerization of Library:

Name of Software : Lib-Man (Library Management System) legally licensed by MasterSoft ERP Solution Pvt.Ltd-A Company of Master's Software Group, 1456-A, New Nandanvan, Nagpur-24.

Lib-Man Modules :

- *Acquisition & Cataloguing
- *Serial Controls (Magazine & Journals) Reports)
- *News paper entry & Paper Cutting
- * Circulation
- * MIS Reports (with Graphical
- * OPAC On Line Public Access

Features Of Lib-Man :

- *Multiuser, Fully secured & maintenance free software
- *250+ Reports as per library
- *Barcode, Spine label generation
- *No limitation of book entry
- *No upper limits on number of document(s)/Journal(s)/periodical(s) entry
- *User can print report in A4, Legal 132,80 column reports
- *Reports export facility to MS word, MS Excel, PDF format etc.
- *Statistical with Graphical MIS reports
- *SMS & Email send to students & staff
- *User defined privileges for different user can be given
- *Data conversion possible from any software to Lib-Man

4.3 Library services:

| | Existing | | Newly added | | Total | |
|------------------|----------|-----------|-------------|----------|-------|-----------|
| | No. | Value | No. | Value | No. | Value |
| Text Books | 31017 | 9254701/- | 1140 | 395796/- | 32157 | 9650497/- |
| Reference Books | | | | | | |
| e-Books | 585 | 00 | 585 | 00 | 585 | 00 |
| Journals | 57 | 159765/- | 57 | 161275/- | 57 | 161275/- |
| e-Journals | 9040 | 23500/- | 9040 | 21500/- | 9040 | 21500/- |
| Digital Database | 02 | 23500/- | 03 | 21500/- | 03 | 21500/- |
| CD & Video | 727 | 00 | 727 | 00 | 727 | 00 |
| Others (specify) | | | | | | |

4.4 Technology up gradation (overall)

| | Total Computers | Computer Labs | Internet | Browsing Centres | Computer Centres | Office | Departments | Others |
|----------|----------------------------|---------------|-------------------|------------------|------------------|--------|-------------|--------|
| Existing | 535 | 18 | 20 mbps + 12 mbps | 15 | 1 | ERP | - | - |
| Added | 05 (K-yan Smart Computers) | - | - | - | 1 | - | - | - |
| Total | 540 | 18 | 32 mbps | 15 | 2 | ERP | - | - |

Jio Campus Wi-Fi

| Sr. | Descript | QTY | Remark |
|-----|---|-----|------------------------|
| 1 | AIRTIGHT ACCESS POINT O-90 | 05 | OD AP |
| 2 | AIRTIGHT ACCESS POINT C-75 | 55 | Indoor AP (Model C-75) |
| 3 | Cisco ASR 901 (A901-6CZ-F-D) optical 8 Port | 03 | Aggregator Switch |
| 4 | POWER SUPPLY,AC,PN;C3KX-PWR-350WAC/2 | 03 | Agg. Switch Power cord |
| 6 | SWITCH,HI-PERFORMANCE WHOLLY GIGABITE | 07 | POE Switch |

4.5 Computer, Internet access, training to teachers and students and any other programme for technology upgradation (Networking, e-Governance etc.)

A. Computer Science & Engineering

1. ERP training arranged by dept. of CSE for the teachers of all the dept. (No of Participant:5)
2. ICT meeting conducted by CSE dept. for all the dept. (No of Participant:5)
3. Training on Red hat Certification(No of Participant:25)
4. Training on FSIT(No of Participant:16)
5. Training on Spoken Tutorial(No of Participant:133)

B. Mechanical

6. Software Value Added Courses for Students Auto Cad, Creo, Robotics Training through e-yantra (No of Participant: 33)

4.6 Amount spent on maintenance in lakhs :

| | |
|--|-------|
| i) ICT | 1.84 |
| ii) Campus Infrastructure and facilities | 4.5 |
| iii) Equipments | 7.70 |
| iv) Others | - |
| Total : | 14.04 |

Criterion – V

5. Student Support and Progression

5.1 Contribution of IQAC in enhancing awareness about Student Support Services

In the IQAC meeting, it was decided to introduce newly admitted students to the support system of the Institute

- Faculty induction programme was arranged to instruct the faculty to participate in this activity
- On the arrival of newly admitted students, a Principal address was arranged. The Principal gave introduction of Dean's, Head's of the various departments and narrated various systems and practices followed by the institute along with an appeal to the student to make the best use of various facilities and support systems.
- Induction programme was arranged in all the departments. A five day program was chalked out which included visits to all the facilities of the college, support system and various services offered to the students.
- Effort was made to guide the students by various activities to enable their transition from higher secondary school/college to Engineering College.
- An effort to bring out the hidden qualities of the new comer was made.

Following Information was provided to the students

- 1) The Academics calendar is displayed on the notice board of each Department.
- 2) The Information about various committees like anti ragging, women's grievance cell etc.
- 3) Each Department is having its own student's Association and Activities are conducted under these Associations.
- 4) By giving awareness regarding ICT.
- 5) Mentor wards scheme is adopted in each department.
- 6) Gate coaching Virtual class rooms & VSAT connectivity is made available to the students.

5.2 Efforts made by the institution for tracking the progression

- 1) Remedial classes
- 2) Continuous Assessment for practical experiment
- 3) Class test for all classes
- 4) PPT presentation by the students
- 5) Unit wise Assignment
- 6) Alumni Meet
- 7) Placement
- 8) Paper Presentation by students
- 9) Parent Meet
- 10) Value Added Programs
- 11) Training by organizing workshop/seminar

5.3 (a) Total Number of students

| UG | PG | Ph. D. | Others |
|------|----|--------|--------|
| 1601 | 88 | 05 | |

(b) No. of students outside the state

8

(c) No. of international students

-

| No | % |
|------|-------|
| 1172 | 69.39 |

Men

| No | % |
|-----|-------|
| 517 | 30.60 |

Women

| Last Year | | | | | | This Year | | | | | |
|-----------|-----|----|-----|-----------------------|-------|-----------|-----|----|-----|-----------------------|-------------------------------|
| General | SC | ST | OBC | Physically Challenged | Total | General | SC | ST | OBC | Physically Challenged | Total |
| 790 | 406 | 16 | 276 | NIL | 1488 | 687 | 467 | 13 | 242 | NIL | 1405 + 285(Other) =1694 |

Demand ratio: NA*

Dropout :0.88%

*All Seats are allocated by DTE during centralized admission process.

5.4 Details of student support mechanism for coaching for competitive examinations (If any)

| Summary of Competitive Exam Training | | | | | | |
|--------------------------------------|-----------|-----------------|-------|--|--|--|
| | Year | Expert Lectures | Total | | | |
| | 2016-2017 | 02 | 02 | | | |

Details are as follows:

| Sr. No. | Year with date | Guest lecture/ Workshop | Name of resource person | Target audience | No. of students beneficiaries | Remark |
|---------|----------------|-------------------------|----------------------------|-----------------------|-------------------------------|--|
| 1 | 11/08/16 | Expert Lecture | Bourde Career Academy | All Branches; TE & BE | 85 | Preparation for Competitive Exams |
| 2 | 2/7/2017 | Expert Lecture | Scope of MBA for Engineers | All Branches: BE | 35 | Millinnium Institute of Management, Aurangabad |

No. of students beneficiaries

5.5 No. of students qualified in these examinations

NET SET/SLET GATE CAT
 IAS/IPS etc State PSC UPSC Others

5.6 Details of student counselling and career guidance

| |
|--|
| <p>1. Institute has Teacher Guardian Scheme; faculty is allotted to the students for all the classes, meeting is conducted by mentor with students. They discuss academic performance of the students, mentor guide the students in studies and personal issue also.</p> <p>2. Disciplinary and Inter- Disciplinary Value added programmes are conducted</p> |
|--|

No. of students benefited

5.7 Details of campus placement

| <i>On campus</i> | | | <i>Off Campus</i> |
|---------------------------------|---------------------------------|---------------------------|---------------------------|
| Number of Organizations Visited | Number of Students Participated | Number of Students Placed | Number of Students Placed |
| 29 | 355 | 37 | 4 |

5.8 Details of gender sensitization programmes

| Sr. No. | Date | Name of Activities | Speaker | Aims and Objectives of the activities |
|---------|----------|--|---------------------------|---|
| 1 | 06/10/16 | Guidance on "Self Defense" (No. of participants: 150) | Shree. Lakshmikant Khichi | To learn skills to fight back against criminals and increase available options against harm and associated fears of assault |
| 2 | 27/02/17 | Awareness Program on Sexual Harassment of Women at Workplace (Prevention, Prohibition and Redressed) Act, 2013 (No. of participants: 600) | Mangal Khivansara | Raise awareness about sexual Harassment of women. Also highlighted on various laws related to women |
| 3 | 07/03/17 | College Competition's such as Rangoli and Mehandi on the eve of International Women's Day (No. of participants: 25) | - | Skill development |
| 4 | 08/03/17 | Celebration of International Women's Day by Counseling Girl Students (No. of participants: 150) | Prof. V. R. Mote | Gender Awareness, Personality development, Precautions to be taken in handling smart phones and Health Awareness |

5.9 Students Activities

5.9.1 No. of students participated in Sports, Games and other events

State/ University level National level International level

No. of students participated in cultural events

State/ University level National level International level

5.9.2 No. of medals /awards won by students in Sports, Games and other events

Sports : State/ University level National level International level

Cultural: State/ University level National level International level

5.10 Scholarships and Financial Support

| | Number of students | Amount |
|--|--------------------|--|
| Financial support from institution | - | - |
| Financial support from government | 942 | 48671102(Received) 2985777(Pending) |
| Financial support from other sources | - | - |
| Number of students who received International/ National recognitions | - | - |

5.11 Student organised / initiatives

Fairs : State/ University level National level International level

Exhibition: State/ University level National level International level

5.12 No. of social initiatives undertaken by the students

5.13 Major grievances of students (if any) redressed: NIL

Criterion – VI

6. Governance, Leadership and Management

6.1 State the Vision and Mission of the institution

| |
|---|
| <p>VISION To create a sound technical manpower with global competitiveness, morality and social sense</p> <p>MISSION</p> <ol style="list-style-type: none">To provide state-of-art technical infrastructure and motivate students to realize their own potential.To provide an embellished academic and congenial environment to student for a complete learning experience.To Promote intellectual, moral and social democracy to ensure all round development of the student. |
|---|

6.2 Does the Institution has a management Information System : Yes.

ERP: Enterprise Resource Planning of P.E.S.COE, Aurangabad by Intellection Software and Technologies Pvt. Ltd., Pune. Following is the description of it.

| Sr. No. | Module Name | Description |
|---------|---------------------------------------|---|
| 1 | Account and Financial Details Module | Students Admission Process |
| 2 | Computerization of Students Enrolment | PNR is generated for students. Student's data (academic and non academic data) is collected. Various documents like bonafide certificate is created through ERP |
| 3 | SMS Based Notification | SMS based notification is available for students and staff. This module is used to send college notices to staff and student individually. |
| 4 | Academic Planning and Notification | Lesson plan is created. Attendance of student is taken with content delivered. Status of the syllabus can be monitored. Performance of student is also monitored. |
| 5 | Leave Management | All types of leave are applied through ERP system. Alternative arrangement feature is available for staff. |
| 6 | Notes Sharing | Notes Sharing feature is available. Staff can share lecture wise notes to student. Student can access these notes through there login. |
| 7 | Staff Feedback from Students | Students can give feedback of staff through there login. Student feedback for staff can be seen by particular staff and respective HOD. |
| 8 | Analysis of student Performance | Class test marks and University Exam marks can be stored in ERP. Criteria wise performance of student can be seen through HOD Login. Student's attendance can be monitored. |

6.3 Quality improvement strategies adopted by the institution for each of the following:

6.3.1 Curriculum Development

- 1) Faculty is participating in syllabus design of Dr. Babasaheb Ambedkar Marathwada University.
- 2) At the time of faculty orientation program suggestions are given.
- 3) Suggestions are taken from all the stake holders and appropriate suggestions are communicated to the BOS chairman for necessary amendments in the syllabus.

Various works shops are conducted to bridge the gap between industry & Syllabus.

1. Training on Red hat Certification (No of Participant:25)
2. Training on FSIT(No of Participant:16)
3. Training on Spoken Tutorial (No of Participant:133)
4. Software Value Added Courses for Students Auto Cad, Creo, Robotics Training through e-yantra (No of Participant: 33)

6.3.2 Teaching and Learning

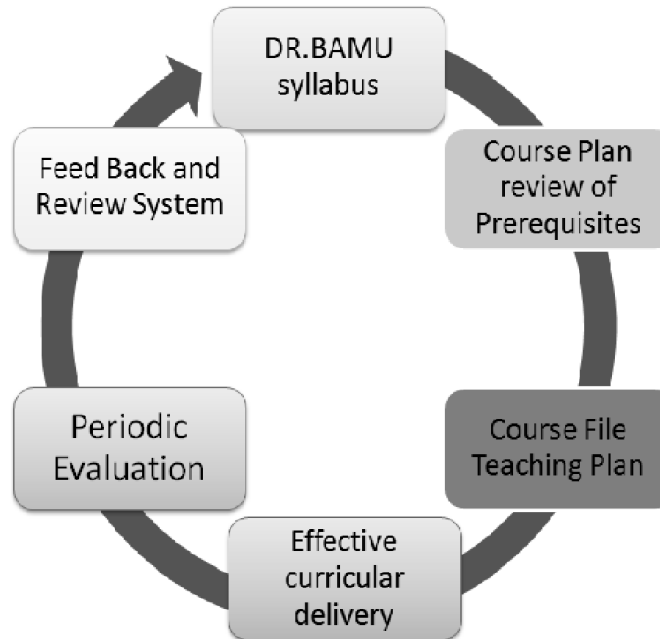


Fig 1: Implementation of Curriculum

- 1) Digital class rooms
- 2) Bridging the gap in Institute and Industry by conducting Seminar/ workshop.
- 3) Providing more than one Elective.
- 4) Adopting Innovative teaching and learning methods
- 5) Internal Assessment during the practicals.
- 6) Remedial Classes for failure students.
- 7) Provision of E-learning Resources in the department and central Library
- 8) Organizing Campus Recruitment Training programme

6.3.3 Examination and Evaluation

- 1) Tests are conducted as per the academic calendar. The question papers are framed as per the weightage and the application of the subject.
- 2) Prelim exams are conducted for giving a pre-exam practice to the students. This has resulted into improvement in results of higher classes.
- 3) Online subject tests and aptitude test are conducted.
- 4) Continuous assessment is carried out by conducting assessment activities. The result are declared periodically and steps taken for improvement
- 5) The end-semester university exams are conducted by the university

6.3.4 Research and Development

- University approved Research Centre has been started at Civil Engineering Department. However other department have formed research activity cell and research activities are promoted.
- Three Research Guides have been approved
- 5 candidates in Civil engineering and 6 candidates in CSE have been registered under these guides.
- 14(Civil) and 06 (CSE) Candidates have completed M.E. from PG section. (Starting of PG in Civil 2012 and EEP, CSE in 2014)
- Research and Innovation labs are setup.
- Some Student have filed the Patents and are in process.
- Research grant proposals have been submitted to various funding agencies. AICTE under MODROB, DR.B.A.M.U under RUSA and Govt. of India under Young India.
- Workshop on “Research Methodology” is conducted.(No of Participant: 84)
- STTP on Recent trends on Internet of Things and Cloud was organized. This is a thrust area in research and staff and students have enthusiastically participated in this STTP. (No. of Participant:52)

6.3.5 Library, ICT and physical infrastructure / instrumentation

Library:

- Hard copies of Journals: 57
- Book bank scheme is implemented in the library (No. of beneficiaries:938)
- Book grants of Rs.347500/- is received from social welfare department.
The schemes are effectively implemented for the respective candidates.

ICT:

1. By means of ERP, staff shares the notes with students
2. Chamilo E-learning and collaboration software is also used to share the notes, power point presentations and solved exam papers with the students.(Learner:582 & Trainer:84)
3. Vidyalankar Group of Educational Institutions, Mumbai have has set up the Virtual Lab for GATE Training via Technology.
4. The students can access on-line research journals from the Institute's digital Library
5. Following are the details of Delnet and NDL subscriptions:

Subscription Through DELNET

| Sr.No. | Delnet Database | No.of Record |
|--------|-------------------------------------|--------------|
| 1 | Union Catalogue of Books | 222845202 |
| 2 | Union list of Current Periodicals | 37847 |
| 3 | Union Catalogue of Periodicals | 20235 |
| 4 | Database of Periodical Articles | 922042 |
| 5 | CD-ROM Database | 22234 |
| 6 | Union list of Video recording | 6000 |
| 7 | Union list of Sound recording | 1025 |
| 8 | Database of theses and dissertation | 81074 |
| 9 | Database of E-books | 1613 |

National Digital Library

| Sr.No. | NDL Database | No. of. Record |
|--------|----------------|----------------|
| 1 | Books | 700000 |
| 2 | Article | 300000 |
| 3 | Thesis | 95000 |
| 4 | Audio lecture | 260 |
| 5 | Video lectures | 18000 |

6.3.6 Human Resource Management

- 1) The orientation program and faculty development programmes are conducted periodically to improve the quality of the staff.
- 2) The staff members are encouraged to conduct/attend FDPs/ Short term courses/workshops/Seminars/Conferences etc. to update their skills and knowledge.
- 3) Assessment is done regularly by the society central committee.

6.3.7 Faculty and Staff recruitment

As per norms of our society the Recruitment process in Peoples Education Society's PES College of Engineering is transparent and fair.

The very first step in recruitment process is, depending upon requirement the management approves the vacancy. Institute is bind to maintain the Roaster for approved vacancies

Secondly, Institute floats advertisement in the News papers and applications of eligible candidates are invited in stipulated date and time.

At last, received application is sorted according to requirement and eligibility criteria. After these Institute conducts Interview in effective manner which consist following steps:

- General and Technical online aptitude test
- Demo of respective candidate who qualified Aptitude test
- Technical and Personal Interview in front of Expert Committee
- Evaluate performance of faculty and display the Merit List

6.3.8 Industry Interaction / Collaboration

1. MOU with EdGate Technologies, Bangalore, through this a Texas Innovation Lab is formed.

2. To inculcate the research and development opportunities, Industry interaction and collaboration is started in following ways.

- I. Memorandum of Understanding with various companies
- II. Conduction of Seminars/Expert lectures/Guest Lectures
- III. Project sponsorship for BE students 03(CSE), 04(Mech)
- IV. MZC Vivekananda Youth Conclave in Collaboration with CII- Aurangabad(No. of participants: 400)

6.3.9 Admission of Students

As P.E.S. College of Engineering is approved by DTE Maharashtra, Institute follows the centralized admission process of Government of Maharashtra which is adopted by Admission Regularity Authority DTE Mumbai.

For remaining Institute level admission, Institute floats Advertisement regarding admission in the Newspaper as well as in Local digital Media.

Institute also executes the advertisement in Local FM Radio channels as well as by posting hording in main localities of city, road junctions, taluka places. Institute ensures that its advertisement should reach to all stakeholders' of urban and rural area of region.

6.4 Welfare schemes for

| | |
|-----------------------|---|
| Teaching/Non Teaching | 1) EPF 2) Gratuity 3) Group Insurance Scheme 4) Medical Leave 5) Maternity Leave 6) Institute provide uniform to class-IV Staff 7) Adoption Leave |
| Students | 1) Group Insurance policy 2) Book Bank policy 3) Sponsoring the project competition/paper presentation |

6.5 Total corpus fund generated

9,38,125/-

6.6 Whether annual financial audit has been done Yes No

6.7 Whether Academic and Administrative Audit (AAA) has been done?

| Audit Type | External | | Internal | |
|----------------|----------|--------|----------|---|
| | Yes/No | Agency | Yes/No | Authority |
| Academic | - | - | Yes | Principal, Academic dean and Head of the Department |
| Administrative | - | - | Yes | Principal |

6.8 Does the University/ Autonomous College declare results within 30 days?

For UG Programmes Yes No

For PG Programmes Yes No

6.9 What efforts are made by the University/ Autonomous College for Examination Reforms?

NA

6.10 What efforts are made by the University to promote autonomy in the affiliated/constituent colleges?

NA

6.11 Activities and support from the Alumni Association

- 1) Guest lectures, Placements, Career Guidance.
- 2) Guiding and sponsoring the project

List of Activities by Alumni

| Sr. No. | Name of Alumni | Name of Activity | No. of participants | Outcomes |
|---------|---|--|---------------------|--|
| 1 | Sandeep Bhokare | Expert Guest Lecture | 50 | Complete awareness about industrial exception and required Skill |
| 2 | Abhijeet Adawant | Career Guidance | 50 | |
| 3 | Nisha Sighaniya | CFD workshop | 41 | Hands on Practices on CFD software |
| 4 | Apurv khadelwal | Industry Expectation from student | 40 | Job Hunting process, How to approach company. |
| 5 | Abhijit Adawant | Opportunity for mechanical engineer | 28 | Various sector of mechanical engineering and How to enter in Specific field |
| 6 | Mr. Zeeshan Shaikh Senior Associate Engineer, Dell Computers, Hyderabad | Alarming lecture on “Do’s and Don’ts for BE students” | 54 | Awareness about the things to be adopted and to be overlooked for better future |
| 7 | Mr. Shaikh Mohsin | Interactive session about opportunities in Networking area | 24 | Knowledge about certification courses like CCNA, CCNP and CCIE. |
| 8 | Parmeet Singh | Guest Lecture | 60 | 1. Making awareness of current trends in IT. 2. How to prepare for competitive Examinations |
| 9 | Abhijeet Bodhankar | Guest Lecture | 60 | 1. Students know the way of handling failure to turn it into success. |

6.12 Activities and support from the Parent – Teacher Association

In each Semester Parents Meet is taken by the each department, suggestions by parents are taken into account and corrective measures are done accordingly.

6.13 Development programmes for support staff

A Meeting of support staff was conducted on 10/01/2017 by principal to give some instructions by guiding them regarding maintaining cleanliness in the departments, class rooms, hostels, library and office. 32 staff's were present for the meetings.

6.14 Initiatives taken by the institution to make the campus eco-friendly

- 1) A small project developed by the students of Department of Electronics and Telecommunication based on energy saving, is installed at three places in the institute.
- 2) Rain water harvesting is done
- 3) Waste management is done
- 4) LED lamps have been installed. Awareness of low energy consumption of electricity has been published on important places.
- 5) Tree Plantation is done.

Criterion – VII

7. Innovations and Best Practices

7.1 Innovations introduced during this academic year which have created a positive impact on the functioning of the institution. Give details.

- ICT based Teaching-learning process
- Innovative project based on Solar Intensity light based controlling is developed by students of Department of Electronic and Telecommunication on Value of Energy and its saving and installed in College Corridors and Campus.

7.2 Provide the Action Taken Report (ATR) based on the plan of action decided upon at the beginning of the year

In the beginning of the semester planning of Academics, Technical and Non Technical activities is circulated to all teaching staff and students. Institute follows objective based Education system. It is mandatory to all staff to prepare teaching plan, lesson plan and lab plan for allotted respective subject as per course outcomes. Institute also adopts best practice known as Guardian Faculty Member in which each faculty is assigned 20 students for Mentoring and Nurture the future of student. Student feedback is collected and staff is informed to improve the performance if his performance is assessed below satisfactory level. Institute also implement Interactive sessions on the basis of internal audit done

7.3 Give two Best Practices of the institution (*please see the format in the NAAC Self-study Manuals*)

- Smart classrooms in each department and its utilization
- Training Impartment for Enhancement of Employability Quotient

** The details are in Annexure-IV*

7.4 Contribution to environmental awareness / protection

1) Tree Plantation is done
2) Cycle rally was arranged to give message of “Pollution free Environment” on 22/08/2016 (No. of participants: 200)

7.5 Whether environmental audit was conducted? Yes No

7.6 Any other relevant information the institution wishes to add. (for example SWOT Analysis)

Strengths:

- Staff retention ratio is good
- Good staff-student ratio
- Adequate infrastructure
- Supportive management, dedicated faculty and motivated students

Weaknesses:

- Limited academic flexibility
- Less percentage of faculty with PhD qualification
- R and D activities need to be increased

Opportunities:

- Improve R & D through interaction with Higher Learning Institutes/Industries
- Strengthen consultancy through IIP cell
- Explore Publications through projects and research
- Obtain autonomous status

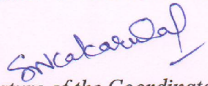
Challenges:

- Placement for all the eligible students
- Recruiting highly qualified faculty members from reputed institutes and retaining them.
- Convincing industries to collaborate for transfer of Technology.

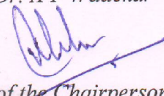
8. Plans of institution for next year

- Maintain excellent teaching-learning environment to achieve Good Results with University rankers.
- Initiate research culture in Institute by arranging workshop, technical events at state, national and international levels.
- Obtain AICTE /DST/UGC grants from Government sources for minor/major Research projects.
- Introduce SAP training and Certification Course.
- Arrange GATE and competitive exam Coaching.
- Offer lab. facilities, projects and product development for other institutes and industry
- Offer consultancies services in all the Departments.
- MITU Skillogies, Nashik(Open Source World) is going to provide full technical support for developing IoT lab with Raspberry Pi 3 and Arduino kit in Computer Science & Engineering department for doing the research project for UG/PG students under MoU signed with them.
- Applying for Research Centre in the various programmes.
- Organizing Conference at International Level for all departments in May-2018. Organizing quality related Seminar/ workshops.
- Academic Planner for the academic year 2017-18 is attached in Annexure –V
- Setting up Virtual centre for all the Departments.


Name: Dr. S N Kakarwal


Signature of the Coordinator, IQAC

Name: Dr. A P Wadekar


Signature of the Chairperson, IQAC

Annexure I

| | |
|---|---|
|  | <p align="center">P.E.S. College of Engineering, Nagsenvan, Besides Panchakki, Aurangabad.</p> |
|---|---|

Academic Calendar 2016-2017 (Semester I)

| | |
|--|---|
| <p>11th July :</p> <p>28th July:</p> | <p>Commencement of First Session S.E., T.E. and B.E. Department to take review & communicate to non reporting students, departmentally. Admissions to F.E. <i>*Admissions to direct S.E., and M.E.-I., As per schedule of DTE.</i> <i>*Admission of higher classes to be taken within 10 days after declaration of results.</i></p> |
| <p>01st August</p> <p>15th August</p> <p>17th August</p> <p>23rd August</p> <p>27th August</p> <p>31st August</p> | <p>Principal's Address to F.E., Orientation. Subsequently classes start F.E. &M.E-I. Independence Day. Parsi New Year Day. University Foundation Day. Class Test I for S.E. to B.E. Department review meeting and display of first defaulters list, departmentally. <i>*Formation of Student's Council as per University Directives.</i></p> |
| <p>03rd September:</p> <p>05th September:</p> <p>10th September</p> <p>13th September:</p> <p>15th September:</p> <p>17th September:</p> <p>30th September:</p> | <p>Class Test I for F.E. to B.E. Ganesh Chaturthi and Teacher's day. Class Test I only for F.E. Bakri Eid Engineer's Day. Inauguration of Student's Council (<i>If formed by this date</i>). Marathwada Mukti Sangram Din. Department review meeting and display of second defaulters list, departmentally.</p> |
| <p>01st October:</p> <p>02nd October:</p> <p>08th October:</p> <p>11nd October:</p> <p>12th October:</p> <p>15th October</p> <p>19th October:</p> <p>22nd October:</p> <p>25th October</p> <p>31st October</p> | <p>Class test II for S.E. to B.E. Mahatma Gandhi Jayanti. Class test II for F.E. to B.E. Dusherra (Vijaya Dashami) Dhamma Chakra Pravartan din. Moharram. Class test II only for F.E. Provisional Detention Meeting for S.E. to B.E. Final Detention & Term End for S.E. to B.E. Provisional Detention Meeting for F.E &M.E-I. Deepawali</p> |
| <p>01st November</p> <p>05th November:</p> <p>7 to 17th Nov:</p> <p>14th November:</p> <p>21Nov to 14 Dec</p> | <p>Deepawali Final Detention & Term End for F.E &M.E-I. Practical exams for S.E. to B.E. Gurunanak Jayanti. University Theory Exams, as per Schedule of Dr.B.A.M.U..</p> |
| <p>01stDec Onwards:</p> <p>06th December:</p> <p>12th December:</p> <p>25th December:</p> | <p>Department to plan STTP, FDP etc. till the reopening of Second term. Dr. Babasaheb Ambedkar Mahaparinirwan Din. Eid e Milad. Christmas. <i>*Vacations as per directives and sanction by the Principal.</i></p> |

**Class Test I&II for SE (all branches) First paper will be Engg Maths-III, common for all branches.*

** Term and Exam dates may be adjusted if any changes are communicated by the University.*

**Departmental programs, Parents meet and Alumni meet to be planned by the department in the department calendar in addition to this calendar, without affecting this schedule.*

**All free Saturdays are reserved for training programmes to be arranged by departments and the TPO.*



P.E.S. College of Engineering,
Nagsenvan, Besides Panchakki,
Aurangabad.

Academic Calendar 2016-2017 (Semester II)

| | |
|--|--|
| 02nd January,2017 14 th January: 26 th January: 23 rd to 9 th Feb | Academic Session-II for F.E. to B.E. and M.E. Starts. Namvistar Din . Republic Day. NAAC visit for 3 days in this period as per the schedule which will be received from NAAC office. |
| 11th February: 18th February: 19 th February: 24 th February: 28 th February | Class Test I Class Test-I Chatrapati Shivaji Maharaj Jayanti Mahashivratri. Department review meeting and display of second defaulters list, departmentally. |
| 1 st to 3 rd March 13 th March: 25th March: 28 th March: 31 st March: | Annual social gathering. Dhulivandan. Class Test II Gudhi Padva. Department review meeting and display of third defaulters list, departmentally. |
| 01nd April: 05 th April: 12th April: 14 th April: 14 th April: 15th April: 17rd to 29st April: | Class Test II Ram Navmi Provisional Detention Meeting for F.E to M.E (All). Dr. Ambedkar Jayanti. Good Friday. Final detention meeting and Term End for All. Practical exams for SE to BE. |
| 01 st May: 02 to 25th May: 10 th May | May Day. University Theory Exams, as per Schedule of Dr.B.A.M.U.. Buddha Pournima. *Training for the faculty to be planned department wise. *Vacations as per directives and sanction by the Principal. |
| 1 st June Onwards: 8th July : | STTP / Workshop / Conference to be arranged by all the Departments in this period till new academic session starts.. People's Education Society Foundation Day |

**Class Test I&II for SE (all branches) First paper will be Engg Maths-III, common for all branches.*

** Term and Exam dates may be adjusted if any changes are communicated by the University.*

**Departmental programs, Parents meet and Alumni meet to be planned by the department in the department calendar in addition to this calendar, without affecting this schedule.*

**All free Saturdays are reserved for training programmes to be arranged by departments and the TPO*

Annexure II

Stakeholder's Feedback Analysis

Through the feedback from the stakeholders, following are the inferences:

a. Feedback from alumni

1. Alumni found that progress of the institute is satisfactory.
2. According to the present scenario in the industry, syllabus needs to be upgraded. Suggestions regarding the same have been given and these suggestions were submitted to the BOS for discussion and approval.
3. The placement activity will be supported by alumni who are well placed.
4. The alumni are conducting guest lecture and guiding the upcoming students.
5. They have agreed to sponsor innovative projects.

b. Feedback from Parents

The parents have expressed satisfaction in the performance of their ward after completing the curriculum. They have given following suggestions:

1. More emphasis is needed to be given on communication skills
2. Training placement needs to be enhanced

c. Feedback from Students

Following feed back was collected from the students in both the semesters:

1. Regarding faculty
2. Regarding Infrastructure
3. Regarding Overall Atmospheres & Facilities
4. Student requested that more Practical knowledge should be given, based on these feed back hands-on work shops were conducted by the industrial experts.

Quantitative details about the feedback

| Sr. No | Name of the Department | Student (no. of Respondent) | Parents (no. of respondent) | Alumni (no. of Respondent) |
|--------|---------------------------------------|-----------------------------------|-----------------------------------|----------------------------------|
| 1 | Mechanical | 130 | 15 | 23 |
| 2 | Electronics and Tele Communication | 67 | 23 | 13 |
| 3 | Computer Science and Engineering | 430 | 25 | 40 |
| 4 | Civil Engg | 10 | 69 | 48 |
| 5 | Electrical & Electronics Power | 42 | 17 | 40 |
| 6 | Information Technology | 32 | 10 | 5 |

Annexure –III

1. List of Guest Lectures

| Sr. No. | Name of faculty | Organization | No. of participant | Title of Guest lecture | Outcome |
|---------|----------------------|--|--------------------|--|--|
| 1 | Bilal Khan | D & D Cad Institute | 80 | HVAC as emerging Trained | Awareness about HVAC |
| 2 | Ms. Nisha Singhaniya | IGTR | 41 | Presentation and hands on Practice on CFD | Awareness about CFD and its important |
| 3 | Mr. Sumit Kocher | | 30 | Opportunity of Job in western country | Awareness of various opportunity in abroad |
| 4 | Nilesh Salgonkar | | 15 | Industrial Automation | Explain in brief emerging and future trends in automation |
| 5 | Dr. B.M. Gawali | Dept. of CSE-IT Dr. B.A.M.U. A'bad. | 68 | Signal Processing | Basic and advanced knowledge along with applications |
| 6 | Mr. Girish Adawatkar | CAN-PACK India Ltd Waluj, Aurangabad | 56 | Optical Fiber and its Applications | Detailed process of manufacturing, types and area of use |
| 7 | Mr. A.S. Gadekar | P.E.S. College of Engineering | 44 | Web Hosting and Search Engine Optimization | Knowledge about Free Web Hosting service provider and the process of uploading the pages using filezilla software in web host. |
| 8 | Dr. S. N. Kakarwal | P.E.S College of Engineering | 09 | How to write a research paper | 1. Students learned to write good quality research paper. 2. Students got information about indexed journal paper and plagiarism. |
| 9 | Mrs. Rashmi Gajja | | 73 | Three Mistakes done by students while choosing the job | 1. Students got knowledge for choosing the right job. 2. It helped to improve communication skill among them. 3. Self-analysis done by students to know about lagging areas. |

| | | | | | |
|----|--------------------------|--|----|---|---|
| 10 | Mr. Tiwari | V4you Technologies, Delhi | 50 | Ethical Hacking & security | 1. Students understand about the basic concepts of ethical hacking. 2. Analyzed the hacking concepts, like legal and illegal hacking, and precaution measures of hacking. |
| 11 | Prof. Pravada D. Durbude | | 36 | Research Methodologies | 1. Helped to know the basic concepts of research & methodologies. 2. Helped to Identify appropriate research or project Topic. 3. Students learned about how to write research / project report & thesis. |
| 12 | Mr. Satish Tambat | GATE Forum | 60 | GATE & Entries in PSU's | To inspire students to take gate examination. As a result 2 students from civil got qualified GATE. |
| 13 | Mr. Pradeep Jha | Ultra Tech | 65 | Mix Design of normal & High Strength Concrete | Learn the process of designing concrete mixes for various strengths |
| 14 | Dr. R.M. Damgir | Govt. College of Engg. Abad | 75 | Earth quake resisting Structure | Students got idea about how to make different components of building earthquake resistant design and construction also. |
| 15 | Dr. Y. M. Ghooole | Govt. Colg of Engg. Karad | 72 | High Strength Concrete | Students got the concepts of High strength concrete its design and use. |
| 16 | Dr. Mahindra Sharmali | VNIT Jaipur, Rajasthan | 67 | Research area in civil engg. | Design of multistorey building, Pavement design |
| 17 | Mr. V.P. Gosavi | Galaxy consultancy services Aurangabad | 70 | Design of Distribution systems | New terms and technology in design of distribution system |
| 18 | Prof. R. Chakole | Nagpur university | 50 | Hardware | Hardware implementation in project |
| 19 | Prof. Mohtashib | Energy Auditor | 60 | Energy Audit | Procedures in industry audit |

2. List of students Involved BAJA/Avishkar project competition

| Sr. No | Name of Students | Class /Branch | Title of project | Project competitions | Outcome |
|--------|-----------------------------------|---------------|---|------------------------|---|
| 1 | Ajaz Shaik +16 other | SE/TE/BE | Jeager | SAE , BAJA,Mahendra | Got knowledge about the design ,Testing And Manufacturing of Automobile |
| 2 | Ambekar Bhagyashri Ravindra | BE (EEP) | Electrical Launcher | AVISHKAR | Selected for University Level Avishkar |
| 3 | Mirza Azhar Manjoor Baig | BE (EEP) | Electrical Luncher | AVISHKAR | Selected for University Level Avishkar |
| 4 | Gathawar Gajanan Balaji | BE (EEP) | Electrical Launcher | AVISHKAR | Selected for University Level Avishkar |
| 5 | Kshirsagar Advait Vijayrao | BE (EEP) | Electrical Launcher | AVISHKAR | Selected for University Level Avishkar |
| 6 | Wankhede Harshad Prataprao | BE (EEP) | Electrical Launcher | AVISHKAR | Selected for University Level Avishkar |
| 7 | Syed Gausiya | BE (CSE) | Public-Oriented Health Care information Service Platform(PHISP) | AVISHKAR | Selected for University Level Avishkar |
| 8 | Shraddha Paudel | BE (CSE) | Public-Oriented Health Care information Service Platform(PHISP) | AVISHKAR | Selected for University Level Avishkar |
| 9 | Shreya Paudel | BE (CSE) | Public-Oriented Health Care information Service Platform(PHISP) | AVISHKAR | Selected for University Level Avishkar |
| 10 | Yadav Heena | BE (CSE) | Public-Oriented Health Care information Service Platform(PHISP) | AVISHKAR | Selected for University Level Avishkar |

3. List of Value Added courses

| Sr. No | Title of Course | No. of Students | Outcome |
|--------|---|-----------------------------------|---|
| 1 | CAD training Program | 30 | Student learn various commands and designing parameters on software |
| 2 | Skill Development Workshop on Robotics | 102 | Student able to develop their own robot and its mechanism and [participated in Various Competition |
| 3 | Skill Development Workshop on Robotics | 90 | |
| 4 | Workshop on “Research Methodology” | 77 | Research Designs and Techniques, Sources of information for the same, Need of statistical tools in research. |
| 5 | Video lecture by Dr. Deepak Pathak, Computer Scientist, IIT, Bombay | 30 | Students are explained about the need of software professionals and an interest about it is also created. |
| 6 | Web Based Training | 16 | Measurement methods of conductivity sensors, practical examples and applications, Flow measurements, Capacitive and Pressure measuring devices |
| 7 | Three days workshop on PCB Designing | 21 | Identification of all the Electronic components and Design of a PCB based mini project |
| 8 | Quiz Competition | 60 | 1. Conceive the students with examinations and competitions. 2. Examine the competitive skills of students. 3. Enhance technical skills of students. |
| 9 | FSIT | 16 | 1. The outcomes of the course is to train students on basic foundation skills to help enhance employability and also to make students industry ready. |
| 10 | Spoken Tutorial | SE- 35 TE-18 BE- 33 | 1. To familiarize the Students with the C Language, to Write C Program, to use Array, Function, Structure, Pointer, File in C Program. 2. To familiarize the Students with the Java Language, Write Java Program and to use Strings, Methods, Constructor, Packages in JAVA Program. 3. To familiarize the Students with the Python & My SQL Language, to Write Python Program, to store data in MY SQL |

| | | | |
|----|---------------------------|----|--|
| 11 | Aptitude Test by FORCES | 50 | To motivate students and encourage them to prepare for interviews. |
| 12 | Web Designing Competition | 24 | To Motivate students and encourage them to become good in web designing and HTML |
| 13 | Mr.Sanjay Gavade | 50 | PLC AUTOMATION |
| 14 | Mr.Shamshersingh khalsa | 50 | Career guidance |

4. List of Industry Visits

| Sr. No. | Name of faculty | Industry/ Organization | No. of participant | Date | Outcome |
|---------|---|--|--------------------|---|--|
| 1 | S.T.Dhande | Paras Thermal Power Plant | 46 | 28/09/2017 | Student found practical application of thermal power plant |
| 2 | Mrs. P. K. Ghuge Mrs. R. M. Jadhav | Dr. Babasaheb Ambedkar Marathwada University, Aurangabad | 32 | 23/08/2016 On the occasion of "Open Day" | Students have seen the laboratories and working of instruments |
| 3 | Mr. S.C. Kathar | Indo German Tool Room, Aurangabad | 28 | 28/09/2016 | Exposure about Robotics details and Embedded Programming |
| 4 | Mrs. P.K. Ghuge Mrs. V.R. Kshirsagar | Deen Dayal Upadhyay KAUSHAL Kendra, Aurangabad. | 19 | 06/04/2017 | Hands on practice on equipments in Process Control |
| 5 | Prof. V.B. Kamble | Infosys Phase II Pune | 94 | 14/01/2017 | 1. Getting knowledge of corporate work culture. 2. Students know recruitment process & interview skills. 3. Getting career guidance by industry expert. |
| 7 | Prof. Y. S. Pagar, Prof. V. R. Mote | Dr.B.A.M. University, Aurangabad. | 22 | 22/08/2016 | 1. Students get project ideas by visiting various departments. 2. Students understand working principle of visited department. 3. Students get acquainted with real time applications. 4. Students getting awareness of research areas. |
| 8 | Prof. S. S. | Manmad | 42 | 27/9/2016 | It is a central workshop |

| | | | | | |
|----|---|--------------------------------------|----|--------------------------|---|
| | Razvi Prof. A. W. Yerekar Prof. S. B. Dhule | Workshop | | | for manufacturing of steel sections; students come to know junctions, points and crossings, yards etc related with transportation engg. |
| 9 | Prof. A. W. Yerekar Prof. C. R. Ghushinge | Jaikwadi Dam | 42 | 22/9/2016 | Visited Dam which helpful to understand Hydraulics and Water resource engg. |
| 10 | Prof. S. S. Razvi | Delhi and Himachal Pradesh(Kol Dam) | 40 | 28 March to 2 April 2017 | Historical monuments and their Architectural prospects and design. |
| 11 | Prof. Vijaya Kamble | 220KV Substation Padegaon Aurangabad | 50 | 21/02/2017 | Substation layout |
| 12 | Prof.S.S.Kamble | VPCI Electricals, Waluj ,Aurangabad | 18 | 04/02/2017 | |

5. List of students send for In-plant training

| Sr. No. | Name of the Student | Class | Name of industry | Date | Outcome |
|---------|-------------------------|---------|---|------------|---------------------|
| 1 | Jayesh Suresh Sonawane | TE EEP | Tradco Disson Pvt. Ltd., Dhule | 5/12/2017 | Industrial Exposure |
| 2 | Syed Hashmi Bilaluddin | BE EEP | Siemens | 5/22/2017 | Industrial Exposure |
| 3 | Priyanka Gavali | TE EEP | Reliance Energy Thermal Power Station, Dahanu | 5/22/2017 | Industrial Exposure |
| 4 | Prashik bagade | TE EEP | MSEB, Bhandara | 5/23/2017 | Industrial Exposure |
| 5 | Sachin Zinjurde | TE EEP | Jain Electricals | 22/6/20167 | Industrial Exposure |
| 6 | Qureshi Meraj | TE EEP | Siemens | 5/25/2017 | Industrial Exposure |
| 7 | Priyanka Chabuksawar | TE EEP | Crompton Greaves | 5/22/2017 | Industrial Exposure |
| 8 | Shahrukh Shaikh | TE EEP | Crompton Greaves | 5/22/2017 | Industrial Exposure |
| 9 | Tejaswini Gore | TE EEP | Crompton Greaves | 5/22/2017 | Industrial Exposure |
| 10 | Poonam Mashke | TE EEP | Crompton Greaves | 5/22/2017 | Industrial Exposure |
| 11 | Nemichand Borkar | TE EEP | Ashok Leyland | 5/24/2017 | Industrial Exposure |
| 12 | Gaurishankar Girhepuje | SE EEP | Ashok Leyland | 5/24/2017 | Industrial Exposure |
| 13 | Abhijeet Vishwas Shinde | TE Mech | Varroc Engg, Aurangabad | 5/25/2017 | Industrial Exposure |
| 14 | Shaikh Abu Sufiyan | TE Mech | Siemens | 5/26/2017 | Industrial Exposure |
| 15 | Akash Uttam Asabe | TE EEP | MSEB, Padegaon Sub Station | 6/1/2017 | Industrial Exposure |
| 16 | Amol Adole | TE EEP | MSEB, Padegaon Sub Station | 6/1/2017 | Industrial Exposure |
| 17 | Roshan Desai | TE EEP | MSEB, Padegaon Sub Station | 6/1/2017 | Industrial Exposure |
| 18 | Shrinath Bhere | TE EEP | MSEB, Padegaon Sub Station | 6/1/2017 | Industrial Exposure |
| 19 | Shubham Sahane | TE Mech | Parson machinary | 6/12/2017 | Industrial Exposure |
| 20 | Sagar Raut | TE Mech | Parson machinary | 6/12/2017 | Industrial Exposure |

| | | | | | |
|----|-------------------------------|-----------|-------------------------------|-----------|------------------------|
| 21 | Quadri Syeda Nabeela Nasir | TE EEP | Crompton Greaves | 6/12/2017 | Industrial Exposure |
| 22 | Kalyani Korde | TE EEP | Pranshu Electricals, Waluj | 5/16/2017 | Industrial Exposure |
| 23 | Rani Raut | TE EEP | Pranshu Electricals, Waluj | 5/16/2017 | Industrial Exposure |
| 24 | Rani magare | TE EEP | Pranshu Electricals, Waluj | 5/16/2017 | Industrial Exposure |
| 25 | Neeta Nikalje | TE EEP | Pranshu Electricals, Waluj | 5/16/2017 | Industrial Exposure |
| 26 | Priyanka Chabuksawar | TE EEP | Pranshu Electricals, Waluj | 5/16/2017 | Industrial Exposure |

Annexure -IV

Best Practices


1. Smart Class room in each Department and its utilization

The institute has Smart Class Rooms in every department. The institute has taken up the innovative step by linking the bio-metric attendance of the students and staff to the ERP and the lot of reports and decision making is done based on the system. We have adopted biometric attendance in the class for staff and students. It resulted in punctuality for staff and students. This has been linked with ERP to have a central record. K-yan and Wi-fi facility is provided in the class room for innovative teaching and learning.

2. Training Impartment for Enhancement of Employability Quotient

P.E.S. College of Engineering is committed to enhance the Employability Quotient of its students which will lead them to become Employable Graduates. This is in lines with our vision of creating a sound Technical Manpower with Global Competitiveness, Morality and Social Senses. Over a period of four years, the students are trained on different aspects of Employability. The institute has incepted Campus Recruitment Training right from First Year to Final Year. Corporate Trainers from industry trains the students on Communication skills, Soft Skills, Aptitude Training, Resume building and Interview Technique. All these efforts helps the students kick start their career in Corporate World.

Annexure –V

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|  | <p>P.E.S. College of Engineering, Aurangabad Nagsenvan, Besides Panchakki, Aurangabad.</p> |
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Academic Calendar 2017-2018 (Semester I) BAMU

BATU

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| 3 July,2017 | Commencement of First Session S.E to B.E. (Dr.B.A.M.U.) * <u>Admission of S.E. to B.E. must be taken within 10 days after declaration of results.</u> |
| 08 July | People's Education Society Foundation Day |
| 31 July | Academic review meeting and display of first defaulters list, and communication to non reporting students, department wise. |
| 01 August 2017 | Commencement of F.Y. B.Tech & M.Tech . classes (BATU) |
| 15 August | Independence day |
| 18&19 August | Class Test I SE to BE |
| 23 August | Dr.B.A.M.U. Foundation Day. |
| 26 August | Parents meet at all departments from F.E. to B.E |
| 05 September | Teacher's day..Department programmes. |
| 11 to 16 Sept. | Internal Academic Monitoring F.Y.B.Tech. .& M.Tech . (BATU) |
| 15 September | Engineer's Day. Inauguration of Student's Council (If formed by this date). |
| 17 September: | Marathwada Mukti Sangram Din. |
| 22 & 23 Sept | Class test II SE to BE |
| 29 September | Academic review meeting and display of second defaulters list, department wise. |
| 30 September | Dharma Chakra Prvartan Din, Vijaya Dashami. |
| 03 to 05 October | Mid Term Exam for F.Y.B.Tech. .& M.Tech . (BATU) marks to be submitted by 15th October. |
| 04 October | Last date of submission of Semester I Exam forms. F.Y.B.Tech.& M.Tech .(BATU) |
| 06 to 09 October | Submission. SE to BE. (Subject-wise schedule be planned by Departments) |
| 09 to 13 October | External Academic Monitoring F.Y.B.Tech.& M.Tech ..(BATU) |
| 10 October | Provisional Detention Meeting. SE to BE |
| 11 to 14 October | Additional Tests and Prelims for SE to BE to be planned by the Department. |
| 14 October | Term End for S.E. to B.E. (Dr.B.A.M.U.). Final Detention meeting. |
| 19,20,21 October | Deepawali |
| 30 Oct to 9 Nov | Dr.B.A.M.U..Practical exams for SE to BE |
| 13 Nov. to 2 Dec. | Dr.B.A.M.U..Theory Exams for FE and ME Backlog, & S.E. to B.E. |
| 30 November | End of Classes and Last date of submitting Assessment Marks..(BATU) |
| 2 to 8 December | Practical exam F.Y.B.Tech.& M.Tech(BATU) |
| 06 December | Dr. Babasaheb Ambedkar Mahaparinirwan Din. |
| 11to22December. | Semester End Exam F.Y.B.Tech.& M.Tech(BATU) |
| | *Vacations as per directives and sanction by the Principal. STTP / FDP/Workshop/Conference to be arranged by the Departments in vacations. |

- * On all Saturdays except 19 Aug and 23 Sept, there will be Training Activity for all the students. TPO activity, other than scheduled training programmes, if any, will be strictly placed only on Thursday afternoon 3.15pm.onwards.
- * Schedule of FE and ME-I is decided as per the Dr.BATU, Lonere, academic calendar., and SEto BE as per DrBAMU academic calendar. Any changes by the said Universities will be applicable & will be communicated.



P.E.S. College of Engineering, Aurangabad

Nagsenvan, Besides Panchakki,
Aurangabad.

Academic Calendar 2017-2018 (Semester II) AMU TU

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| 18 December,17 | Commencement of Session-II Classes for S.E. to B.E. (Dr.B.A.M.U.) |
| 26 December,17 | Comencement of Session II Classes of F.Y. B.Tech & M.Tech(D.B.A.T.U.) |
| 14 January,2018. | Dr. B.A.M.U. Namvistar Din . |
| 26 January | Republic Day. |
| 31 January | SE to BE Academic review meeting and display of first defaulters list, and communication to non reporting students, department wise. |
| 02 & 3 February | Class Test I for SE to BE. |
| 05 -09 February | Internal Academic Monitoring. |
| 06 February | Declaration of F.Y.B.Tech.& M.Tech(BATU) result. |
| 17 February | Parents meet at all departments from F.E. to B.E. |
| 21 to 23 Feb | Annual Social Gathering. |
| 28 February | SE to BE Academic review meeting and display of second defaulters list, department wise. |
| 01-05 March | Mid semester exam for F.Y.B.Tech classes (BATU)Marks to be submitted by 13 March |
| 06-13 March | Remedial exam F.Y.B.Tech.& M.Tech(BATU) |
| 9&10 March | Class test II For SE to BE. |
| 17 March | Last date of submission of Semester I Exam forms F.Y.B.Tech./M.Tech. (BATU) |
| 19-23 March | External Academic monitoring classes F.Y.B.Tech.& M.Tech(BATU) |
| 23 to 26 March | SE to BE Submissions for all classes. (Subject-wise schedule by Depts) |
| 27 March | SE to BE Provisional Detention Meeting. |
| 28 to 31 March | Additional Tests and Prelims to be planned by the Department. SE to BE |
| 31 March: | Term End for SE to BE . Final Detention Meeting. |
| 02 to 12 April | Dr.B.A.M.U. Practical exams for F.E and M.E. Backlog & SE to BE. |
| 13 April | Term End of Classes and Last date of submitting Assessment Marks.(BATU) |
| 16-21April | Practical exam F.Y.B.Tech.& M.Tech(BATU) |
| 16 April- 5 May | Dr.B.A.M.U. Theory Exams for ALL |
| 14 April | Dr. Ambedkar Jayanti. |
| 23 April-19 May | Semester Exam F.Y.B.Tech.& M.Tech(BATU) |
| 30 April | Buddha Pournima. |
| 01 May | May Day. |
| 05 May onwards | *Training for the faculty to be planned department wise. STTP / Workshop / Conference to be arranged in this period with mutual consent for convenient dates. |

** On all Saturdays except 3rd Feb and 10th March, there will be Training Activity for all the students. TPO activity, other than scheduled training programmes, if any, will be strictly placed only on Thursday afternoon 3.15pm.onwards.

* Schedule of FYBTech. and MTech.-I is decided as per the Dr.BATU, Lonere, academic calendar., and S.E. to B.E. as per DrBAMU academic calendar. Any changes by the said Universities will be applicable & will be communicated.

* Departmental programmes may be adjusted by the departments in addition to this calendar, without affecting this schedule.