



Progressive Education Society's

Modern College of Engineering

1186 A, Shivajinagar, Off. J.M. Road
Pune 411005

Annual Quality Assurance Report

2015-2016

Submitted to
National Assessment and Accreditation Council
Bangalore, India.

The Annual Quality Assurance Report (AQAR) of the IQAC

Part – A

1. Details of the Institution

1.1. Name of the Institution

Progressive Education Society's
Modern College of Engineering

1.2. Address Line 1

1186 A, Shivajinagar, Off. J.M. Road

Address Line 2

Tal: Haveli,

City/Town

Pune-411005

State

Maharashtra

Pin Code

411005

Institution e-mail address

principal@moderncoe.edu.in
pesmcoe@gmail.com/

Contact Nos.

020-25533638/648

Name of the Head of the Institution

Prof. Dr.(Mrs.) K.R. Joshi

Tel. No. with STD Code:

020-25533638

Mobile

9011070917

Name of the IQAC Co-ordinator

Prof. Dr. (Ms.) M.V. Arjunwadkar

Mobile

9960611275

IQAC e-mail address

iqac@moderncoe.edu.in

1.3. NAAC Track ID (For ex. MHCOGN 18879): MHCOGN14275

1.4. Website address:

<http://www.moderncoe.edu.in>

Web-link of the AQAR:

http://www.moderncoe.edu.in/IQAC/AQAR_2015-16.pdf

1.5. Accreditation Details

Sl. No.	Cycle	Grade	CGPA	Year of Accreditation	Validity Period
1	1 st Cycle	B	2.45	2011	5yrs
2	2 nd Cycle	NA	NA	NA	NA
3	3 rd Cycle	NA	NA	NA	NA
4	4 th Cycle	NA	NA	NA	NA

1.6. Date of Establishment of IQAC : 05/01/2010

1.7. AQAR for the year (for example 2010-11) 2015-16

1.8. Details of the previous year's AQAR submitted to NAAC after the latest Assessment and Accreditation by NAAC ((for example AQAR 2010-11 submitted to NAAC on 12-10-2011))

i. AQAR 2011-12 submitted to NAAC (On-line) on 10/09/2012

ii. AQAR 2012-13 submitted to NAAC (On-line) on 23/12/2013

iii. AQAR 2013-14 submitted to NAAC on 21/09/2015

iv. AQAR 2014-15 submitted to NAAC on 22/02/2016

1.9. 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 ☐

(eg. AICTE, BCI, MCI, PCI, NCI)

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 ☒

1.10. Type of Faculty/Programme

Arts ☐ Science ☐ Commerce ☐ Law ☐ PEI (Phys Edu) ☐

TEI (Edu) ☐ **Engineering** ☒ Health Science ☐ **Management** ☒

Others (Specify)

1.11. Name of the Affiliating University (for the Colleges)

Savitribai Phule Pune University(SPPU)

1.12. 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

13

2.2. No. of Administrative/Technical staff

1

2.3. No. of students

2

2.4. No. of Management representatives

1

2.5. No. of Alumni

2

2.6. No. of any other stakeholder and
community representatives

2

2.7. No. of Employers/ Industrialists

1

2.8. No. of other External Experts

1

2.9. Total No. of members

24

2.10. No. of IQAC meetings held

6

2.11. No. of meetings with various stakeholders: No. Faculty

Non-Teaching Staff Students Alumni Others

2.12. Has IQAC received any funding from UGC during the year? Yes No

If yes, mention the amount

2.13. Seminars and Conferences (only quality related)

(i) No. of Seminars/Conferences/ Workshops/Symposia organized by the IQAC

Total Nos. International National State Institution Level

(ii) Themes

- Skill building
- Soft skill and personality Development
- Yoga and Mediation

2.14. Significant Activities and contributions made by IQAC

The Institute has established its IQAC cell in the year 2010. Each department also has an IQAC representative. The main activities and contribution of IQAC cell of the Institute are:

- Draft, evaluate and implement academic and administrative policies.
- Planning and monitoring academic and administrative Audit for quality improvement.
- Dissemination of information in the form of reports like Annual Report of Institute, AISHE report, Annual quality Assurance Report (AQAR) on various quality parameters of higher education.
- Submit various proposals for workshops, seminars, conferences, minor/major projects to funding agencies

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
To organize International Seminar/Conference/Workshop.	Few of them are: • International seminar on 'Recent Trends in Renewable Energy Systems' was organized by Electrical Engineering Department on 28th, 29th January 2016 in association with Savitribai Phule Pune University • National level workshop on 'Recent trends in Speech and Biomedical Signal Processing' was organized by E & TC Engineering Department on 29th, 30th January 2016 in association with Savitribai Phule Pune University • State Level Seminar on 'Symbiotic Industry Institute Relationship : A Foundation for Quality Enhancement' was organized by MBA department on 8th January 2016 in association with Savitribai Phule Pune University • State level seminar on 'Recent trends in Finite Element Analysis' was organized by Mechanical Engineering Department on 13th February 2016 in association with Savitribai Phule Pune University • One day workshop on 'Antenna Design and Hand-on on CST Microwave Studio' was organized by E & TC Engineering Department on 1st February 2016. • One day seminar was organized on 'Women in the Era of Current Emerging and Technologies' by E & TC Engineering Department in association with IEEE signal processing Chapter Pune Section on 28th October 2015 • One day seminar on 'Advances in Research methodology' was organized by E & TC Engineering Department in association with IEEE Signal Processing Chapter Pune Section on 29th October 2015 • One day seminar on 'Understanding the nuances of Accreditation' was organized by E & TC Engineering Department in association with IEEE Pune Section under EAC support scheme on 8th, 9th December 2015. • One day FDP on 'Reliability Engineering' was organized by Mechanical Engineering Department on 9th November 2016
To plan various activities to improve Industry Institute Interaction.	• MOUs and MOCs are signed with industry and experts. • E&TC Dept has tied up with 7 companies for internships • Industrial visits are arranged regularly. • Industry Experts regularly visits the Institute for guest lectures, and as visiting faculty and judges for various activities. • Students projects are sponsored by Industry. • Under knowledge Park; Mr. A.T. Bangale of Bangale Associates has given real time projects in industries and

	Distribution Authority in Maharashtra (MAHADISCOM), He also conducted Skill Development programme in the Institute about ▪ Energy Audit Conservation and Management ▪ Solar roof top PV system installation and design.
To submit proposals to different funding agencies for funds for seminars, research and development.	• One international, one national and two state level seminars funded by Savitribai Phule Pune University • One day seminar on "Women in the Era of Current Emerging and Technologies, Advances in Research methodology and Understanding the nuances of Accreditation" was organized in association with IEEE Signal Processing Chapter Pune Section • Three minor research projects are sanctioned by Savitribai Phule Pune University under RPS. Those are: ▪ Cotton Crop disease detection and diagnosis using Image Processing Technique ▪ Design and development reconfigurable antenna deploying electromagnetic band gap structure for improvement of performance parameters ▪ Design and Development of an Adaptive Antenna Array for evaluating performance parameter using efficient beam forming algorithm • Road safety awareness programs were conducted for school and college going students which was funded by US based NGO UL&YSA. Our institute has signed an MOU with UL-YSA to be the patron of Road Safety in Pune.
To conduct additional certification courses.	• On-line certification courses/ tutorials of, NPTEL are made available. From 338 Students who had appeared for March 2016 examination; 22 students have received Elite Golden Medal Certificates, 120 students have received Elite Certificates, 49 Students have received successfully completed Certificates and 147 students received participation certificates. • Spoken tutorials are also made available for staff and students. 302 students got certified in the FOSS of their choice. • The Institute offers certified training programs from IBM in various technologies such as IBM C++ Foundation course, IBM DB2, IBM Core Java training program for improved potential for employability of students. • The Institute offers the courses in association with Bangale Associates of Energy Audit Conservation and Management and Solar roof top PV system installation and design for students. Course will be completed soon. • Certification is provided for SCRUM, Six-Sigma and entrepreneurship program of MCED
To Plan and arrange AAA.	• Academic audit was conducted twice in both the terms & administrative audit is in-process and will be completed till July end.

Introduction of foreign language courses	• In Planning Phase
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2.16. Whether the AQAR was placed in statutory body Yes ☒ No ☐

Management ☒ Syndicate ☐ Any other body ☐

Provide the details of the action taken

- AQAR is approved by management
- As per previous year recommendations; the improvement in research activities of the Institute were found to be satisfactory.
- Advice given to improve other activities for staff and students for the forthcoming academic year 2016-17

Part – B

Criterion – I 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	4	Nil	4	Nil
PG	6	Nil	6	Nil
UG	5	Nil	5	Nil
PG Diploma	Nil	Nil	Nil	Nil
Advanced Diploma	Nil	Nil	Nil	Nil
Diploma	Nil	Nil	Nil	Nil
Certificate	Nil	Nil	Nil	Nil
Others	Nil	Nil	Nil	Nil
Total	15	0	15	0

Interdisciplinary	Nil	Nil	Nil	Nil
Innovative	Nil		Nil	Nil

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

- CBCS for all P.G. Courses and First year Engineering
- UG , PG Engineering and MCA courses have an open elective

(ii) Pattern of programmes:

Pattern	Number of programmes
Semester	11
Trimester	0
Annual	0

1.3. Feedback from stakeholders* (On all aspects)

Alumni

☒

Parents

☒

Employers

☒

Students

☒

Mode of feedback :

Online

☐

Manual

☒

Co-operating schools (for PEI)

☐

**Please provide an analysis of the feedback in the Annexure*

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

- The syllabus revision was done by Savitribai Phule Pune University for the following courses:
 - Fourth Year Engineering.
 - Second Year Engineering

- As the institute is affiliated to SPPU , the structure and syllabus of the course is revised and updated by University to meet the changing requirements of the industry and to accommodate new innovations in the technology.
- As per the syllabus revision, according to the Savitribai Phule Pune University, we have incorporated the revised syllabus in our curriculum for Fourth Year in 2015-16
- The contents of the subjects are included after thorough brain storming sessions among the experts. The prime motto is to make it content wise rich in such a way that it is useful to all the engineering students and faculties.
- Suggestions from students, faculty and community are communicated to respective BOS by the faculty in the syllabus revision workshops.
- This year Choice Based Credit System (CBCS) is included in the revised syllabus which provides choice for students to select from the prescribed courses (core, elective or minor or soft skill courses)
- In revised syllabus, analytical approach is more emphasized, also in practical, simulation design is incorporated, which allows the students to determine the correctness and efficiency of a design before the system is actually implemented.

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

Nil

Criterion – II

Teaching, Learning and Evaluation

2.1. Total No. of permanent faculty

Total	Asst. Professors	Associate Professors	Professors	Others
140	115	15	10	0
*On Roll (including adhoc) = 229				

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

17

*including Adhoc

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
204*	0	15	33	10	15	-	-	229	48

* Assistant Professors are more than requirement

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

67

Nil

2.5. Faculty participation in conferences and symposia

No. of Faculty	International level	National level	State level
Attended	12	31	42
Presented papers	14	35	-
Resource Persons	-	-	2

- All faculty members of college have attended one day NBA workshop which was organized by E & TC Engineering Department in association with IEEE Pune Section under EAC support scheme 8th, 9th December 2015.
- 16 faculty members have attended one day Rubrics workshop at DYPIET, Akurdi

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

Following are the details of innovative teaching approaches adopted:

- The Institute plans and organize the teaching- learning and evaluation schedules.
- Video Clippings are used to show the internal working of machines and workplaces to supplement the teaching of theoretical subjects.
- Academic monitoring committee keeps the track of teaching plan and its implementation.
- Online MCQ Test before University Online Examination has ensured better performance.
- Continuous assessment is done by concerned faculty for all subjects
- Industrial Visits are organized to interact with industry.
- Students are encouraged to do internship during Vacations. This creates Industry exposure and builds the Employability skills in students.
- The Final year projects are evaluated by the internal guides and industry external experts for the progress and efforts put in by the students.
- To incorporate current trends of technology and for collaborative learning various guest lectures, workshops, seminars, webinars, online tutorials are conducted.
- Use of SMS, e-mails, group mails used for faster communication is encouraged.
- New activity is introduced every year in the Institute level Technical Event.

- MOCK practicals conducted before actual examinations.
- E&TC Department publishes Departmental Magazine yearly: 'The Electronics Herald' with involvement of stake holders.
- Departmental News Letter: 'E-Buzz' comprising of an article about well known authors of most referred books in E&TC field.
- E&TC Department has introduced tutorial sessions for the numerical based subjects

2.7. Total No. of actual teaching days during this academic year

162

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

- As per University policy the College authority has appointed College Examination Officer who monitors all the internal and external examinations.
- The Institute formed Examination Committee to work along with College Examination Officer.
- Mid-term tests, Class tests, MCQ tests, open book tests have been conducted in respective departments.
- A Continuous Assessment has been done for theory and practical subjects.

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

2

30

12

2.10. Average percentage of attendance of students

77

2.11. Course/Programme wise distribution of pass percentage

Title of the Programme	Total no. of students appeared	Division				Pass %
		Distinction %	I %	II %	III %	
Mechanical	227	45.81	30.39	8.37	1.32	87.66
E&TC Engg	144	31.61	34.19	16.12	4.51	86.45
Computer Engg	89	37	37	11	-	95.51
Electrical	146	69	23	1.3	-	93.37
IT. Engg.	144	31.56	46.58	11.67	-	91.67
MBA	106	7.5	67	7.5	-	82

Title of the Programme	Total no. of students appeared	Division				Pass %
		'O'	'A'	'B'	'C'	
MCA	128	23.62	33.85	33.85	8.66	99.21

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

The IQAC contributes in improving teaching learning process.

- Academic Record Booklet is maintained for per subject per semester for monitoring attendance of students and their performance.
- Academic Record Booklet is evaluated by academic planning committee through internal academic audit.
- Life management skills lecture series is regularly conducted to motivate staff and students.
- Various clubs are formed for self learning and motivation.
- Usage of ICT is promoted.
- Use of SMS, e-mails, group mails used for effective communication is encouraged.
- Online tutorials are introduced
- Seminars, workshops, Webinars were arranged in departments under Quality Improvement Programs.
- Industrial visits and Lectures of Industry experts are organized in a periodic manner as a part of curriculum.

2.13.Initiatives undertaken towards faculty development

<i>Faculty / Staff Development Programmes</i>	<i>Number of faculty benefitted</i>
Refresher courses	43
UGC – Faculty Improvement Programme	Nil
HRD programmes	154
Orientation programmes	163
Faculty exchange programme	Nil
Staff training conducted by the university	40
Staff training conducted by other institutions	54
Summer / Winter schools, Workshops, etc.	89
Others	49

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	41	-	05	-
Technical Staff	39	-	06	-

Criterion – III

Research, Consultancy and Extension

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

- Submitted various research proposals to different funding agencies
- Encouraged staff members and students to publish/present research papers Organized and attended seminars/workshops/conferences on various topics.
- Provided E-resources to staff members and students.
- Students from UG & PG participate in the university level project competitions like 'AVISHKAR' which is organized by SPPU.
- Motivated students to develop In-house (mini) projects under faculty guidance.
- All departments organized project exhibition and competition in the Institute in association with professional bodies like IEEE, IEL, CSI, IETE, SAE, ASME etc. to motivate students.
- Supported Industrial training and sponsored projects.
- The Institute motivates and assists the students to participate in the national /international competitions like BAJA, SUPRA, ROBOCON, Go-carting, Efficycle where the students are supposed to design and fabricate various types of vehicles.
- Arranged various Industrial visits, guest lecturers from Industry experts. Technical inter collegiate competitions are conducted like circuit design, black coding, Smart Villa, Robo race etc.

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	0	3	3+4*	-
Outlay in Rs. Lakhs	-	-	4.90	-

* 4 more proposals are approved by BCUD SPPU and sanction letter yet to receive.

3.4. Details on research publications

	International	National	Others
Peer Review Journals	66	01	52
Non-Peer Review Journals	15	0	05
e-Journals	2	0	0
Conference proceedings	08	06	08

3.5. Details on Impact factor of publications:

Range 0.3-5.837 Average 2.77 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 (Rs.)	Received (Rs.)
Major projects	Nil	Nil	Nil	Nil
Minor Projects	2015	BCUD	4,90000*	2,45000
Interdisciplinary Projects	Nil	Nil	Nil	Nil
Industry sponsored	Nil	Nil	Nil	Nil
Projects sponsored by the University/ College	Nil	Nil	Nil	Nil
Students research projects (other than compulsory by the University)	Nil	Nil	Nil	Nil
Any other(Specify)* \$ funding converted to INR	2015	IEEE Student Branch	20,000	20,000
		IEI	5,000	5,000
		UL-YSA	64,000	64,000
Total	-	-	5,79,000	3,34,000

*4 more proposals are approved by BCUD SPPU and sanction letter yet to receive.

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 /seminars organized by the Institution

Level	International	National	State	University	College
Number	01	01	06	01	44
Sponsoring agencies	BCUD SPPU	BCUD SPPU	BCUD SPPU, IEEE	Self funded	3- IEEE 41-College Management

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

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	2
	Granted	2
International	Applied	Nil
	Granted	Nil
Commercialised	Applied	Nil
	Granted	Nil

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
5	4	1	Nil	Nil	Nil	Nil

**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	NA	State level	NA
National level	NA	International level	NA

3.25. No. of Extension activities organized

University forum	05	College forum	06
NCC	Nil	NSS	10
		Any other	19

3.26. Major Activities during the year in the sphere of extension activities and Institutional Social Responsibility.**Institutional Level activities****a) NSS :**

- Blood Donation Camp was conducted on 4th August 2015.
- Police Mitra was organized on 17th September 2015 to 27th September 2015 in coordination with Pune police, Savitribai Phule Pune University's National Service Scheme decided to help police department during Ganesh Festival
- N.S.S. team of P.E.S.'s Modern College of Engineering celebrated 46th N.S.S. foundation day, on 29th September 2015 .
- Donation to 'Manavya' and 'Bhartiya Samaj Seva Kendra.' (10th September 2015 to 15th September 2015, 28th October 2015): Arranged a NSS camp for helping 'Manavya' and 'Bhartiya Samaj Seva Kendra' organizations from 10th to 15th September 2015.
- The NSS team celebrated the 'Samata Din' on 28th November 2015.
- The NSS team celebrated the 'National Youth Day' and 'Rajamata Jijau's birth anniversary' on 12th January 2016. Swami Vivekanand's birth anniversary is celebrated as National Youth Day.
- The NSS team arranged the campaign 'Survey Roadside Children' for collecting information of socially ignored children's such as street children's, orphans, on 13th January 2016
- The 67th Republic Day was celebrated in all its solemnity and grandeur on 26th January 2016.
- Second Winter Camp at Mavdi (KP) was conducted on 4th To 10th January 2016.

b) Karmanya

- Publication of the college annual magazine 'Karmanya' – theme 'LITERATURE'.
- Pan Card Camp conducted on 15th September 2015.
- Two PUC Camps were conducted. First one on Thursday, 22nd July 2015 and second one on 22nd January 2016.
- Blood Donation Camp organized on 4th January 2016.
- Muktachand -Art, Rangoli, Poem Exhibition, organized on 5th February 2016.
- Team Karmanya also interviews renowned people in different fields like social, technical, cultural etc. This year, Karmanya interviewed Ms. Mohan Palashe, Mr. Anil MahadevShinde. Karmanya has also interviewed Pt. Bhimsen Joshi, Dr. Shriram Lagu, Dr. Babasaheb Purandare, Sindhutai Sapkal, Mr. Kaushal Inamdar, Mr. Narendra Dabholkar etc. in earlier years

c) Vidyarathi Kalyan Manch

- Organized program on 'Gender Championship' on 18th December, 2015.
- Lecture Series on 'Soft skills and Personality Development'.
 - 'Entrepreneurship Development- I Can', 16th January 2016
 - 'Soft Skills- Business Writing', 18th January 2016
 - 'Personality Development- Present Yourself', 22th January 2016

- Program on 'Vidyarathini Vyaktimatva Vikas Yojana' Lecture series on topics,
 - 'Safety and Security for Girls'
 - 'Challenges Facing Young Women Today'
 - 'Personal and Professional Life Management'
 - Organized program on 'Cleanliness Drive (Swachhta Abhiyan)', 09th January 2016, Saturday.
- d) 'M-Pulse' 'annual National level Techno-Management event**
- M-Pulse 2016 was hosted on 18th & 19th March 2016 between 9 am and 6 pm.
 - This year, 'Digital India' was the theme for M-Pulse.
 - Every department had inaugural ceremony at department level.
 - Nearly 50 technical events were organized during this fest.
 - Team M-Pulse arranged events department wise which include the core concepts and areas respective to the 7 departments with special name for M-pulse like:
 - Computer: code fiesta.
 - ENTC: Extronica.
 - IT: HexabIT.
 - Electrical: Electra.
 - Mechanical: Mechathron.
 - MCA, MBA: MShrishti.
 - Each department has a respective departmental team headed by their own department students who co-ordinate with the entire event core team.
- e) Department Level Activities:**
- Nurturing Plants at Pashan Hill.
 - Swachh Bharat Abhiyan.
 - Monitory support to a needy person undergoing surgery.
 - Pledge to follow traffic rules and regulations.
 - Social Activity in Netaji Palkar Vidyalya.
 - A lecture on career guidance for 10th and 12th students.
 - Tree Plantation Program. 'Each One... Plant One!!!'
 - Yoga and Meditation.
 - Medical Awareness.
 - Joy of Giving.
 - Street Play.
 - A Way' to stress free life.
 - UL YSA Safer Roads Safer India Project – Traffic Summit 2016.
 - Project Competitions.
 - Project Exhibitions.
 - Skill Development Programs.
 - Alumni meet programs.
 - Social Awareness Competition by the students.
 - Visit to Orphan age Home at Shreevatsa center, Pune station
- f) Clubs:**
- **Reader Clubs Activity:**
 - A Readers Club activity was organized on 15th July, 2015 on 'Extempore'.
 - 'Reader's Club Activity' organized on 15th July 2015 and 22th July 2015
 - A session on 'Security in Software Development & Social Activity' was organized on 17th July 2015
 - A student activity was organized on 17th July, 2015 on 'Seminar Presentation'.
 - A session on IoT : Internet of Things & Booting was organized on 28th July 2015
 - Google Projects & Computer vision in Image Processing on 04th August 2015

- A session on Business Intelligence And Data Warehousing & Security features in modern browsers and tips for safe browsing organized on 04th August 2015A session on HTML was organized on 11th August 2015
- ‘Seminar under Aptitude Forum Activity’ organized on 14th August, 2015
- **Open Source club activity:**
 - Open Source club activity on Components of CPU and Linux Operating System was organized on 5th August 2015 for the student of S.E. (A).
- **App Club:**
 - On the auspicious Engineer’s day 15th September 2015 we inaugurate this app club under student association. In this Student develop various android applications.
- **PixInsight Club:**
 - This club provide a platform for student to express their hobbies in art and photography. Under this we organised art and photography exhibition and Ganapati idol making workshop.
- **Seeds of Hope**
 - Extends helping hands to orphanage in ‘Maher VatsalyaDham’
 - Food, shelter and clothing for needy aged
 - Medical care and other activities like Yoga and physical exercises to improve the health.
 - Educational & recreational facilities to the aged and provide facilities for them to lead a religious & meditative life
 - Financial Assistance
- **Book Dost**
 - Collection of books from students and utilized by the students
- **MetaMorph Club**
 - Equip the students in communication skills, soft skills,, presentation skills by providing training and personal guidance so that the students can compete in the job market and can become industry ready for facing the new challenges ahead.
- **Pegasus**
 - GoKart Competition at PCNDT racing track at Bhosari on 12th April 2016

Criterion – IV

Infrastructure and Learning Resources

4.1. Computerization of administration and library

- Use of Management Information System (MIS) software for Admission.
- Implemented Biometric attendance system for staff.
- Used Financial accounting software.
- Deployed a library management system to handle basic housekeeping functions of library such as cataloguing, On-line Public Access Catalogue (OPAC) and circulation.
- Implemented barcode system for quick and error free entry of books
- Installed Video surveillance and security cameras in the library to protect large areas of space and allow librarians and staff to immediately check in on concerns.

4.2. Library services:

	Existing		Newly added		Total	
	No.	Value	No.	Value	No.	Value
Text Books	50372	2,73,95,662	1340	4,90,390.45	51712	2,78,86,052.45
Reference Books	2042	12,69,293	3920	7,88,884	5962	42,64,054.06
e-Books	1489	-	181	-		1670
Journals	149	3,67,825	150	3,65,578.00		
e-Journals	J-gate Elsevier IEEE-ASPP DELNET	9,18,218.88	J-gate Elsevier IEEE-ASPP DELNET	13,34,276.9		
Digital Database						
CD & Video	1788	-	83	-	1871	-
Others (specify) Membership	ACM ARAI Ashare ASME CSI ISHARE SAE Jayakar Library British Lib.	72000	ACM ARAI Ashare ASME CSI ISHARE SAE Jayakar Library British Lib	82,974.49		

4.3. Technology up gradation (overall)

	Total Computers	Comp Labs	Internet	Browsing Centres	Computer Centres	Office	Dept	Others
Existing	825*		44 MBPS leased line	01	01	20	765*	40*
Added	320		60 MBPS leased line (Tata Communication) 10 MBPS leased line (Reliance)	-	-	5	295	20
Total	1145		70 MBPS leased line	01	01	25	1060	60

* after scrap

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

- Total No. of Computers available: 1145 computers + 21 Servers
- Internet details : 70 MBPS leased line
- Life skill management lecture series was conducted to create awareness among the students and staff regarding various skills required for managing the professional and personal life.
- Skill development programs are arranged in collaboration with IBM.
-

4.5. Amount spent on maintenance in lakhs

i) ICT

21.3

ii) Campus Infrastructure and facilities

421.96

iii) Equipments

10.4

iv) Others

Nil

Total:

453.82*

* Unaudited figs

Criterion – V

Student Support and Progression

5.1. Contribution of IQAC in enhancing awareness about Student Support Services

- Established Single Window service approach to issue different certificates like bonafide, no objection certificates, leaving certificates, transcripts for the convenience of students.
- Use of SMS, e-mails, group mails, and social media software to communicate with students and parents about attendance, extra lectures, holidays, examination schedules etc.
- Implemented Earn and Learn scheme for needy students who are selected after interviewing the applicants.
- Fee instalment facility provided to deserving candidates to prevent drop out.
- Health centre facility for students.
- Arranged various awareness programs for students by Grievance Redressal Committee, Anti-Ragging Committee and squad.
- Organized Skill and Personality Development programs for students.
- The students can get certification through NPTEL and Spoken Tutorial. NPTEL Lecture Videos are made available to students from library. Central library has organized NPTEL Video Conference for selected courses
- Conducted various gender Sensitization programs for students.
- Arranged various industrial visits for students and staff to enhance practical knowledge.

5.2. Efforts made by the institution for tracking the progression

The Institute facilitate student progression to higher level of education and employment through different activities

- Special efforts are taken for enhancing communication skills of the students.
- Facilities in the library help our student to get prepare for higher education as well as for competitive examinations
- There are special sessions arranged by the institute for the students to prepare them for different aptitude tests
- There are lectures arranged to help the students to guide them through GRE GATE.
- All the faculty members provide necessary help and guidance to the students opting for higher education in India as well as overseas. They are helped by writing appropriate recommendation letter and are also provided assistance with statement of purpose.
- The Institute has set up Training and Placement Cell which extends its help to seek employment for the students and involved in arranging campus interviews with various companies, training of students for aptitude and soft skills
- Training and Placement cell also prepares the students for the interviews by organizing various Seminars by eminent people, group discussions, and aptitude tests are arranged.
- Individual faculties also provide assistance regarding placement activity.

5.3. (a) Total Number of students

UG	PG	Ph. D.	Others
3031	531	22	

(b) No. of students outside the state

40

(c) No. of international student

NA

Men*

No	%
2278	63.95

Women*

No	%
1284	36.05

Last Year 2015-16*						This Year					
General	SC	ST	OBC	Physically Challenged	Total	General	SC	ST	OBC	Physically Challenged	Total
2338	386	61	771	0	3562	Admission process is In-process					

* excluding Ph. D

Dropout % -

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

- Students are encouraged to appear for competitive exams like GATE /CAT /GRE /TOFEL /GMAT/ Central/State services, Defence, Civil Services.
- Special efforts are taken for enhancing communication skills of the students.
- The institute library is well equipped with a variety of books, magazines, news papers and e-resources which helps students to appear and prepare for different competitive examinations.
- Library has reading room facility for extended hours and is open on all holidays as well during examination period
- The internet facility is also available for student to download the required material, research papers, study material etc. The faculties of the institute provide guidance to the students.
- Guest Lectures are arranged by each department to encourage and help students for preparation of these examinations

No. of students beneficiaries

685

5.5. No. of students qualified in these examinations

NET	2	SET/SLET	Nil	GATE	64	CAT	9
IAS/IPS etc	1	State PSC	1	UPSC	Nil	Others	33

5.6. Details of student counselling and career guidance Counselling

The Institute has its own independent system for student support and mentoring. Student support and mentoring system starts from the day of admission to final year results.

- The Institute conducts orientation program for the students and parents regarding road map for admission for engineering and management courses.
- The Institute arranges Induction Program for newly admitted students along with their parents so that they are well acquainted with all the departments, Institute facilities, various activities held in the institute, scholarships offered, training and placement opportunities and rules and regulations of the institute.
- Fresher are also given an opportunity to interact freely with the pass out students for

guidance.

- Guardian Faculty Member (GFM) personally interacts with students, discusses and takes feedback about academic /subject progress.
- GFM also interacts with parents and reports the progress and misconduct if any.
- A parent's teachers meet is held once a month to discuss problems related to students and report the progress of the student.
- Instalments Scheme facility provides an opportunity to pay fee in easy instalments. The students can pay the fees in two or three instalments.
- The students who are financially weak can get a support from the 'Vidyarthi Kamava Shika Yojana' (earn and learn scheme).
- Training and Placement cell takes care of the student placement and training activities.
- The seminar, open house programmes, workshop information is shared through department notice board, social media group etc.
- The lectures from industry experts, seminars and workshop are conducted for students to enhance the subject knowledge /industry trends.
- The students can directly approach to mentor/GFM, head of department (HOD) and principal for support or guidance on the academic and personal issues.
- The Institute has Grievance Redressal Committee to solve issues related with female students and female staff.
- The Institute has Anti Ragging Committee and Anti Ragging Squad where students can report directly in consultation with GFM and HOD. Anti- ragging and anti smoking boards are displayed in the Institute campus.
- Counselling cell is established in the Institute.
 - The Institute also conducts Life Skill Management Session regularly to train students not only for academics but to enhance their life skills.
 - Relaxation techniques are taught through Yoga Sessions which are beneficial to manage their stress.

No. of students benefitted

2345

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
84	683	158	54

5.8. Details of gender sensitization programmes

- A Gender Sensitization open forum is organized in Computer department in which the issues like gender equality and discrimination against women were discussed with the help of hypothetical examples.
- A session on 'Safety measures and its awareness for women' was organized at E&TC department in September 2015
- From current academic year 2015-16 we have introduced ' Gender Championship Program' under Vidyarthi Kalyan Mandal in association with Savitribai Phule Pune University. Under our staff panel we select one student representative Mr. Anil Hiremath as a boy champion and Ms. Neha patil a girl champion.
- On the occasion of republic day we organize street play on ' Beti Bachav' and Poster presentation. Total 20 students were participated in this program.

5.9. Students Activities

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

Sports : State/ University level National level International level

No. of students participated in cultural events

Cultural: 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(Rs.)
Financial support from institution	00	00
Financial support from government	1165	74810121
Financial support from other sources	0	8000
Number of students who received International/ National recognitions	Nil	Nil

5.11. Student organised / initiatives

Fairs : State/ University level National level International level

Exhibition: State/ University level National level International level

No. of social initiatives undertaken by the students

5.12. Major grievances of students (if any) redressed: Nil

Criterion – VI

Governance, Leadership and Management

6.1. State the Vision and Mission of the institution

Vision

‘To create a collaborative academic environment to foster professional excellence and ethical values’

Mission

- To develop outstanding engineers & professionals with high ethical standards capable of creating and managing global enterprises.
- To foster innovation and research by providing a stimulating learning environment.
- To ensure equitable development of students of all ability levels and backgrounds.
- To be responsive to changes in technology, socio-economic levels and environmental conditions.
- To foster and maintain mutually beneficial partnerships with alumni and industry.

6.2. Does the Institution has a management Information System

- Yes, Management Information System (MIS) is used for academic and administrative activities.

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

6.3.1. Curriculum Development

- Allocation of Subjects as per specialization of teachers.
- Arranged Lectures by Industry Experts and prominent academicians.
- Interaction with alumni, corporate, visiting faculties.

6.3.2. Teaching and Learning

- Preparation of Teaching plans, Lab manuals by faculties.
- Faculty Development Programs (FDP) Conducted / Attended by faculties.
- Organized Quality Improvement Programs like seminars, workshops for faculties and students.
- Arranged extra lectures for academically weak students.
- Executed Academic planning and monitoring activity.
- Academic record booklet maintained by faculties.

6.3.3. Examination and Evaluation

- Appointed University College Examination Officer (CEO) to ensure smooth conduct of exams.
- Used Continuous Assessment for theory and practical subjects.
- Mock practicals and online exams are conducted for practice

6.3.4. Research and Development

- Submitted various research proposals to different funding agencies
- Received fund sanction for minor research projects by BCUD, SPPU under RPS.
- Appointed Academic Research Coordinator (ARC) for smooth conduct of research activities.
- Financial support has been given to faculties to present/ publish research papers.
- Support to faculties for pursuing Ph.D. program
- Technical inter-collegiate competitions have been conducted e.g. circuit design, black coding, Smart Villa, Robo race etc.
- Encouraged staff members and students to publish and/or present research papers.

- Organized and attended seminars and workshops on various topics.
- In-house (mini) projects developed by students under faculty guidance.
- All departments organized project exhibition and competition in the Institute in association with professional bodies like IEEE, IEI, CSI, IETE, SAE, ASME etc.
- Students participated in the national /international competitions like BAJA, SUPRA, ROBOCON, Go-carting, Effi-cycle events where the students are supposed to design and fabricate various types of vehicles.
- Students from UG & PG participated in the university level project competitions like 'AVISHKAR' organized by SPPU.

6.3.5. Library, ICT and physical infrastructure / instrumentation

- Laboratories and Library are regularly updated with new Equipments, books and Journals.
- Classrooms, Laboratories, Library and administrative activities are fully equipped for ICT use.
- Installed CC TV surveillance services in campus including Library and examination control room.
- Adequate safety and fire-fighting equipment installed.
- Installed Biometric attendance system for staff.

6.3.6. Human Resource Management

- Full time staff of the Institute is approved by the SPPU after interview conducted by University selection panel.
- Faculties are encouraged and provided sponsorship to participate in conferences, seminars, workshops funded by AICTE, University and other agencies at local, state, national, international levels, organized both within the Institute and by others.
- Feedback is taken from students regarding subject taught by faculties.
- Each faculty fills self-appraisal form by giving details of teaching, result of subjects taught, department level and college level activities coordinated and participated, consultancy, research etc. HODs also appraise the faculty, after which the Principal reviews it.

6.3.7. Faculty and Staff recruitment

- Transparent recruitment procedure.
- All posts of teaching staff are widely advertised with details of required qualifications as per AICTE and Government norms after verification of Roster from University.
- The advertisement is published in local, regional and national newspaper.
- The advertisement is also published on the Institute website along with application form.
- Vacancies arising in the middle of the term are filled by Management by conducting interviews.
- Demo lecture are arranged for candidates selected in the first round.
- If the demo lecture is satisfactory, the candidate is selected for the said vacant post.

6.3.8. Industry Interaction / Collaboration

- Regular lectures of Industry Experts arranged for the students.
- Industry Visits arranged by every department.
- Sponsorships, Judges and experts for different events in Technical Event M-Pulse.
- Alumni interaction
- The sponsorship received for their last year Projects by Engineering Students.
- Mandatory industry experience of MCA students in their last semester.
- Industry sponsored Summer Internship Projects of MBA students.

6.3.9. Admission of Students

- As Per the guidelines given by AICTE, DTE Maharashtra and SPPU.

6.4. Welfare schemes for

Teaching Staff	- Concession for attending seminars /workshops / conferences. - Funding is given for publishing or presenting research papers. - Accident Insurance. - Discount on pathology tests by Golvilkar Laboratory. - Fee concession for Staff and staff ward.
Non teaching Staff	- Accident Insurance. - Discount on pathology tests by Golvilkar Laboratory. - Fee concession for staff and staff ward.
Students	- Accident Insurance. - Fee concession or instalment facility for needy students. - Extended library hours & borrowing facility - Book bank scheme - Earn and Learn scheme - Life skills management programs

6.5. Total corpus fund generated

Rs. 59500000/-

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	No	Nil	Yes	Academic Planning Committee along with Academic and Administrative Audit Committee
Administrative	No	Nil	Yes	Academic and Administrative Audit Committee

6.8. Does the University/ Autonomous College declares 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?

- As per the guidelines given by the SPPU, College Examiner Officer (CEO) has been appointed.
- Examination committee is formed by the Institute for smooth conduction of Mid-sem examination, online examination and university examination.
- Internal squad is appointed for Vigilance in examination.
- On-line submission of examination forms, examination fees, applications for photocopy of answer sheets, revaluation form etc.

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

- Not applicable

6.11. Activities and support from the Alumni Association

- Alumni help in training and placement activities.
- Alumni share their knowledge by coming as visiting faculty, judges of various activities, guest lecturers for seminars, workshops and etc.
- Alumni who are entrepreneurs are regularly interacting with students to guide and motivate them.
- Alumni also give back to the Institute in the form of their technical skills. The Student MIS which is used in the Institute is developed by our alumnus with inputs from principal and staff.

6.12. Activities and support from the Parent – Teacher Association

- Parent – teacher meetings have been arranged periodically at department level as well as centrally. Student attendance and progress has been discussed in these meetings.
- Parents can meet Principal, HODs, GFM and teachers with prior appointment.
- Few parents are also invited as industry experts in the Institute.
- Parents are nominated on various Institute committees

6.13. Development programmes for support staff

- Support staff has been deputed for various training programs organized by university and college.
- Workshops were arranged on the topics like maintaining physical and mental health, diet, work ethics and team building for achieving goals

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

- The Institute does the Energy audit periodically by BEE (Bureau of Energy Efficiency) approved energy auditors to calculate carbon dioxide emission. For this the institute received subsidy by MEDA (Maharashtra Energy Development Association). The Institute has taken certain preventive measures to check the emission of carbon dioxide.
- A 2kW Solar photo voltaic for UPS charging is available in seminar hall.
- PUC camp by students is arranged on regular basis for checking pollution emissions.
- The Institute has taken initiative to use LED street lights, CFL common lighting inside the institute campus for energy conservation.
- The Institute has a biogas plant in which about 50 kgs of wet garbage is processed.
- The resultant slurry is processed in vermiculture plant.
- This practice has enabled us to generate and use biogas in College canteen resulting in saving of about three LPG cylinders per month.
- Trees are planted in the Institute campus.
- The Institute has initiated steps for hazardous waste management and e-waste management.

Criterion – VII

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.

Innovations

- An additional module ‘Attendance Monitoring’ of On-line Admission and Student Registration software is deployed successfully. This module is useful for attendance monitoring
- NPTEL Local Chapter is established in our college from Dec 2015. Aricent CSR scholarship approved for 274 students of 20 hrs Courses and 60 students of 40hrs Courses. NPTEL Lecture Videos are made available to students from library. Central library has organized NPTEL Video Conference for selected courses.
- The Spoken Tutorial Project is about teaching and learning a particular FOSS (Free and Open Source Software) like Linux, Scilab, LaTeX, PHP & MySQL, Java, C/C++, LibreOffice etc. via an easy Video tool. Till now, 302 participants have got certified in the FOSS of their choice.
- Career guidance is also provided to engineering and MBA aspirants.
- Road safety awareness programs are being conducted for school and college going students funded by US based NGO UL&YSA.
- ‘The ED cell, in collaboration with the Vidyarthi Kalyan Manch, organized ‘I CAN’, an event to celebrate entrepreneurship and achievements of the students and alumni of Modern College of Engineering. The guest of honour was Dr. Thanedar, CEO and Chief Scientist, Avomeen Analytical Services, USA.
- Under various professional chapters many value added programs are organized which creates technical exposures in the cutting edge technologies with hands-on exposure.
- Electrical department publishes Technical Calendar in the calendar format.
- E&TC Department publishes Departmental Magazine yearly: ‘The Electronics Herald’ with involvement of stake holders.
- Departmental News Letter: ‘E-Buzz’ comprising of an article about well known authors of most referred books in E&TC field.
- E&TC Department has introduced tutorial sessions for the numerical based subjects.

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

- An additional module ‘Attendance Monitoring’ of On-line Admission and Student Registration software is deployed successfully. This module is useful for attendance monitoring
- Academic and administrative audit is conducted
- Under knowledge Park; Dr. Mr. A.T. Bangale of Bangale Associates had given a real time projects in industries and Distribution Authority in Maharashtra (MAHADISCOM), He has also conducted Skill Development programme in the Institute about Energy Audit Conservation and Management
- Skill development and Personality development lecture series are arranged for students.
- The ED cell, in collaboration with the Vidyarthi Kalyan Manch, organized ‘I CAN’, an event to celebrate entrepreneurship and achievements of the students and alumni of Modern College of Engineering. The guest of honour was Dr. Thanedar, CEO and Chief Scientist,

Avomeen Analytical Services.

- A business fair was organized under the Entrepreneurship Development Cell of the Institute to support women empowerment and showcase the products of the members from Seva Sahayog, Pune on January 22nd, 2016.
- The students of ED CELL of PES's M.C.O.E. celebrated their birthday with orphans in the orphanage named 'Maher Vatsalyadham'. The smile on the innocent faces made the team feel cheerful. Shoes were gifted to those children by ED CELL team.
- A start-up designed by the students of PES's Modern College of Engineering to buy/sell used books, calculators, drafters at affordable prices.
- E.D. cell conducted a survey in Kadepathar a village in which our N.S.S team is working. The objective was to find out the areas where we can provide service. After the survey it was observed that in the village; students are not aware about the different career streams, there is no awareness about safety issues of electricity. So they did a seminar to show different career opportunities and one on awareness about the safety issues of electricity. Students of ED cell also shared their personal experiences which helped students to get motivated.
- Expansion and renovation of canteen & parking shade is completed
- To make use of renewable energy (solar) for Lift maintenance, seminar hall and corridor lights is in-process.

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

1 Title of the Practice:

- **Tutorials beyond curriculum**
- **Holistic Growth of Student**

2 Goal:

- **Tutorials beyond curriculum**
 - To improve results of the students and to make them practise more numerical, these tutorial sessions are arranged in the department. This helps the students to get an overview of the applications for the respective subject.
- **Holistic Growth of Student**
 - Enhance the student experience while undergoing their education that offers the opportunities to plan, design, organize and execute social, cultural and technical events that act like catalysts ingraining desired qualities in the students to be successful at the place of work and also connect themselves well with the society.

3 The Context

- **Tutorials beyond curriculum**
 - As per the curriculum set by Savitribai Phule Pune University, there are few subjects where the tutorials are not included, so the department has kept tutorial sessions for each batch consisting of 20 students two hours per week
- **Holistic Growth of Student**
 - There are students who have done well in academics but not so successful at the place of work and maintain individualistic approach towards executing a project while working in a team. This leads to unsatisfactory outcome that adversely affect their career growth. It is clear that technical skills alone are not enough in itself and one needs to work on the simultaneous development of values like cooperation, team building and taking efforts towards the larger good. It attempts to nurture underlying values, collaborative spirit, enhance the joy of learning and endeavours towards achieving excellence as well as sensitivity towards others.

4 The Practice

- **Tutorials beyond curriculum**

- Initially a meeting is conducted for all the staff, who are deployed for conducting tutorials for the respective subject along with the HOD. The session is planned well before as to what all contents are to be included in the tutorial. Questions based on application, knowledge, numerical solving skills have to be incorporated in the tutorial. Tutorials are checked regularly and assessed by giving grades based on the student's individual performance.

- **Holistic Growth of Student**

- We recognize the significance of meta skills by creating opportunities for critical thinking, creativity, hands-on general skills, life-long learning and relationship building. With arts and cultural events like Spandan , Karmanya, NSS etc. wherein the students can engage themselves creatively and participate in activities like blood donation camps, Swachh Bharat Campaign, tree plantations, Traffic Safety week etc. The student community is offered with adequate resources and motivated to participate in events organized at an intra and inter-college competitions. Apart from these exercises, the college also promotes the technical events like TechSpark, Robocon, Luminance etc. which stimulates their intellectual thought process providing opportunities and challenges to explore and exhibit their innovative ideas with unique solutions.

5 Evidence of Success

- **Tutorials beyond curriculum**

- Tutorials are assessed and grades are entered into continuous assessment sheet in Academic Record Booklet

- **Holistic Growth of Student**

- Cultural events like Spandan are celebrated with great fervour and enthusiasm. It harnesses the full potential and inherent talents of students in fine arts, music, dance, skits, dramas, painting etc.
- The continual improvement and success of the event in itself demonstrates the collaborative spirit, team building capabilities and effective communications. The outcome also portrays the organizational skills i.e, planning, designing and implementing of their projects and scripts.
- The participation in cultural events finds close relationship with creativity and foreplay. It spans exploration of STEM subjects by singing, dancing imagining and connecting their bodies to their minds.
- Through this medium, the students strengthen their abilities to recognize patterns which form the building blocks of algebraic thinking. Dance makes a unique contribution towards non verbal communication and social awareness along with life skills like fitness, teamwork, coordination, self discipline and risk taking. Students learn through dynamics, space-time relationship, choreographic devices, introduction to contact and performance skills. Likewise, drama and skits help in the development of social as well as communication skills and realize the importance of empathy. The ability to place oneself in someone else's shoes and understand how they think and feel through these events ensures that the students thrive towards making this world a better place to live.
- We recognize innovation hinges on creativity. Vastly different yet complimentary talents, skills and knowledge can be honed for sowing the seeds of one of the most exciting human experiences. For Steve Jobs, creativity was connecting things. Our

institute believes in missionary approach providing the students with a dynamic learning environment for their overall development.

6 Problems Encountered and Resources Required

- There are some students who miss the tutorials, for them extra tutorial sessions are conducted.
- There are a few problems which are encountered while executing the plans. In spite of the continual improvement in the student lead and executed events, the constraints in terms of certain restrictions/ limitations act as dampeners to the event.
- The continuous practice sessions and dress rehearsals as well as the late night practice sessions and falling out on the academic front due to the commitments of the events also causes hindrances in the academic pursuits.
- With an enhanced participation and sponsorship from the industries, the technical events are expected to improve in scope and achieve a higher level of participation.

7.4. Contribution to environmental awareness / protection

The Institute makes an effort to contribute in environmental protection for campus eco-friendliness.

- **Energy conservation**
 - The institute does the Energy audit periodically by BEE (Bureau of Energy Efficiency) approved energy auditors. For this the institute received subsidy by MEDA (Maharashtra Energy Development Association)
 - The Institute authority takes initiative to use LED street lights and CFL common lighting inside the Institute campus.
 - A campaign was done by the student and staff to promote power saving.
 - The Institute building is in L-shape and is fitted with glass windows for maximum utilization of natural light
 - Almost all Class rooms in the Institute are well-ventilated.
 - Light fixtures on two floors of the Institute have been converted to energy conserving CFL fittings from old florescent tubes.
 - The Institute has a biogas plant in which about 50 kgs. of wet garbage is processed which is used in the College canteen
 - The resultant slurry is processed in vermiculture plant.
 - Rain water harvesting is in process
- **Use of renewable energy**
 - SPPU –BCUD funding of Rs. 2,00,000/- is received for minor project titled ‘Charging of UPS batteries with Photovoltaic cells’ by one of our faculty Mr. Ramnani, Assistant Professor in Mechanical Department.
 - A 2kW Solar photo voltaic for UPS charging for seminar hall is completed.
 - The Institute has set up a waste water plant of capacity 20,000 liters of water per day. The plant is operational and this waste water is used in garden and washroom flush.
- **Efforts for Carbon neutrality**
 - In energy audit carbon dioxide emission has been calculated.
 - Regularly checking for pollution control by arranging PUC camp inside the institute campus
 - Organizes ‘Vehicle free day’
 - The institute restricts the usage of plastic bags in the campus.
 - The NSS unit of the Institute has taken up programs like clean Mula and Mutha rivers in the city.

- **Plantation**

- Trees are planted in the Institute campus.
- Drives for beautification of river banks, cleansing of river beds and tree plantation on the riverside areas in the city were conducted.
- Under the community Development program faculties and students participated in Tree Plantation programme at 'Hanuman Tekadi' behind Fergusson college, Pune.
- Some of our students and faculties actively participated in watering Plants at Pashan Hill along with Vasundhara Swachhata Abhiyan members.

- **Hazardous waste management**

- The Institute authority has initiated Awareness programme on waste management.
- The Institute has tie up with the Pune Municipal Corporation for the disposal of wastage of different types. All Hazardous waste is separated inside the campus which is collected by Pune Municipal Corporation.
- Creating Awareness about plastic free zone

- **e-waste management**

- The Institute authority has initiated Awareness programme on e-waste management.
- The obsolete computers or products are donated to the agencies, schools where those can be used.
- The non-working computer spare parts and other non-working equipments are safely disposed outside through the Puna e-waste Agency.
- The cartridge/tonners of printers are refilled outside the Institute campus through vendor instead of throwing the empty cartridge/tonners.

7.5. **Whether environmental audit was conducted?**

Yes

☐

No

☒

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

Strength

- NAAC accredited.
- Regularly conducted student centric programs through different student associations and/or the Institute.
- Awarded as 'Best College' by SPPU under the category Professional College in Urban Area.
- The Institute is centrally located.
- The infrastructure of the Institute is very apt for quality teaching learning process.
- Laboratories are well equipped with state of the art instruments, trainers, software's and computing facilities.
- College motivates faculties for higher educations.
- Topics beyond the syllabus are covered by the faculties and Industry experts.
- The Management always supports the development of new ideas to encourage innovation and organizational development and support financially for quality of education.
- Faculties take additional remedial classes for learning of academically weak students.
- College has an active Entrepreneurship Development Cell, which encourages students who desire to grow as entrepreneur.

Weakness

- Funds constraints being a Self financed institution.
- Limited international linkages or collaborations.
- Faculties have limited industrial experience and consultancy exposure.

Opportunity

- Being centrally located, Industry experts are available for enhancement of skills, updating and upgrading of knowledge of the faculties and students.
- Undertaking industry based and industry related projects by UG and PG students to improve the quality of projects, thus increasing opportunity for placements.
- Pune being educational and IT/ Engineering industry hub, therefore, more opportunities for industry interaction and job opportunities to students.
- Scope for interdisciplinary research.

Challenges

- The competition has increased because of many institutes coming up.
- Students being widely from rural background, hence lack in communication skills. They require great effort to develop communication skills and personality development which is a challenge.
- Changing technology and industrial requirements has developed a need for enhancing employability skills in students for which extra efforts are needed.

Plans of institution for next year

- Apply for NBA accreditation
- Arrange more activities in collaboration with Professional Societies
- Enhance R&D and Consultancy activities with collaborative Research projects
- Strengthen industry institution interaction
- Organize Short Term Training Programs(STTP) for faculty development
- Skill development trainings for teaching and non teaching staff
- Strengthen Training and Placement activities in coordination and help of alumni.
- Infrastructure enrichment by Landscape garden, more seating arrangement and additional parking
- Automation for recording on-line feedback from students and stakeholders

Name Prof. Dr. (Ms.) Maithili Arjunwadkar

Name Prof.Dr.(Mrs.) Kalyani Joshi

Signature of the Coordinator, IQAC

Signature of the Chairperson, IQAC
