



Progressive Education Society's,

**Modern college of Arts, Science and Commerce,
Shivajinagar, Pune 411005, Maharashtra.**

The Annual Quality Assurance Report (AQAR) of Internal Quality Assurance Cell



2017-2018

www.moderncollegepune.edu.in

The Annual Quality Assurance Report (AQAR) of the IQAC

(July 1, 2017 to June 30, 2018)

Part – A

1. Details of the Institution

1.1 Name of the Institution

Progressive Education Society's
Modern College of Arts, Science and Commerce

1.2 Address Line 1

Shivajinagar

Address Line 2

Modern College Road, Off J. M. Road,

City/Town

Pune

State

Maharashtra

Pin Code

411005

Institution e-mail address

principal@moderncollegepune.edu.in

Contact Nos.

(020)25535927

Name of the Head of the Institution:

Dr. Rajendra S. Zunjarrao

Tel. No. with STD Code:

(020)25535102

Mobile:

09922007302

Name of the IQAC Co-ordinator:

Dr. Anjali S. Sardesai

Mobile:

09325382444

IQAC e-mail address:

iqac@moderncollegepune.edu.in

1.3 NAAC Track ID (*For ex. MHCOGN 18879*)

MHCOGN10219

1.4 NAAC Executive Committee No. & Date:

(For Example EC/32/A&A/143 dated 3-5-2004.
This EC no. is available in the right corner- bottom
of your institution's Accreditation Certificate)

EC(SC)/21/A&A/123
dated 23 January 2017

1.5 Website address:

www.moderncollegepune.edu.in

Web-link of the AQAR:

http://www.moderncollegepune.com/administration/internal-quality-assurance-cell-iqac/

1.6 Accreditation Details

Sr. No.	Cycle	Grade	CGPA	Year of Accreditation	Validity Period
1	1 st Cycle	B++	-	21/03/2003	-
2	2 nd Cycle	A	3.15	28/03/2010	28/03/2015
3	3 rd Cycle	A+	3.51	23/01/2017	22/02/2022
4	4 th Cycle	-	-	-	-

1.7 Date of Establishment of IQAC:

11/02/2004

1.8 AQAR for the year (for example 2010-11)

2017-18

1.9 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 : 2015-2016 submitted on 08/07/2016
- ii. AQAR : 2016-17 submitted on 14/10/2017

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

(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

1.11 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)

Savitribai Phule Pune University
(Formerly University of Pune)

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	08
2.2 No. of Administrative/Technical staff	06
2.3 No. of students	01
2.4 No. of Management representatives	01
2.5 No. of Alumni	01
2.6 No. of any other stakeholder and community representatives	03
2.7 No. of Employers/ Industrialists	02
2.8 Member from Local Society	01
2.9 Total No. of members* (Including 1 Chairperson, 1 Coordinator)	23

2.10 No. of IQAC meetings held : 4

2.11 No. of meetings with various stakeholders:	No.	1	Faculty	2
	Non-Teaching Staff	-	Alumni	1
	Students	-	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

1. **International Conference on** Importance of Emotional Intelligence For Educators
2. **National Conference** on Revamping of Indirect Tax Structure of India
3. **State Level** Conference on GST : One Nation One Tax
4. **State Level** Conference on Business Analytics and Statistics

5. Electronic Science: “Workshop on Robot using 8051”
6. Chemistry : “A workshop on Laboratory safety in Chemistry”
7. Commerce : “Faculty Development programme under Quality Improvement Programme”, topic ‘Practical dimensions of Cost Audit’ on 11th April, 2018. Dr. Sanjay Bhargave, CMA in practice.
8. Hindi : माध्यमों में सूत्रसंचालन और वीडियो ओवर का उपयोग- एकदिवसीय जिलास्तरीय कार्यशाला
9. Marathi : Themes : Use of Voice over in social media
10. Mathematics : Workshop on Latex for college teachers.
11. Physics : “Wind Energy Technology and Photovoltaic’s” on Friday, 22nd September 2017 for M.Sc. students.
12. Computer Science :
 - a. Two days workshop on Web Technologies E-Cell
 - b. Seminar on Hadoop - Big Data (Shashank Kulkarni)
 - c. Lecture Series
 - d. Sessions on Skill India
 - e. Sessions on Placement Preparation(Vidap Sir & Dixit Sir)
 - f. Animation workshop
 - g. We Fight - Cyber Crime
 - h. Seminar on AS-400 by Ramesh Joshi,GN Solutions
 - i. two days workshop on AS400
 - j. Seminar on Android, Spring & Hybernet (3RI Technologies)

2.14 Significant Activities and contributions made by IQAC

- IQAC has taken initiatives in organization and conduction of various International, National, State level and institutional level conferences / workshops/ seminars.
- IQAC has proposed to implement online fees payment services in the college.
- IQAC has taken initiative to develop an Institutional Web portal to capture all the data and get the reports online.
- IQAC has successfully implemented the system of online registration of various courses conducted on the campus and also printing the names on the certificates to be distributed to participants.
- IQAC has promoted to conduct various need based courses and made those courses to get conducted successfully.
- IQAC has purchased and distributed the Projector cameras (Visualisers) to various Departments which are helpful for the demonstration of practical sessions.
- IQAC has taken initiative in conduction of various ISR activities.
- IQAC has proposed to apply for Autonomy.
- IQAC has taken initiatives to strengthen the Centre for Teaching, Learning and Evaluation by conducting various activities and thereby played a significant role in enhancing the quality of education in the college.

- Under Centre for Promotion of Research a core research team is formed to focus on the research enhancement.
- IQAC has taken initiative to streamline the process of obtaining ISSN numbers for the remaining 6 research journals planned by the college.
- IQAC has played a significant role in enhancing the activities of Centre for guidance of competitive examinations to encourage and guide the students.
- IQAC has given important contribution to streamline the process of online feedback mechanism. IQAC also analyses teaching – learning feedback from teachers, students and parents.
- Decisions for improving the academic process, the infrastructure, library facilities, and laboratory up-gradations were recommended to Local Managing Committee for the proper implementation.
- IQAC has implemented the process of maintaining teaching plans (lecture plans), weekly worksheets and teacher’s diaries to continuously monitor and improve teaching learning process.
- Time tables for practical and theory classes are planned in three sessions by considering the students’ convenience especially from the co-ordination point of view.
- IQAC has insisted and encouraged the use of ICT for enhancing the quality of teaching-learning process.
- IQAC has organized lecture series, quality enhancement workshops, seminars, and conferences for facilitating interaction with the experts in respective fields.
- IQAC has also contributed in the aspect of Examination reforms.

2.15 Plan of Action by IQAC/Outcome

The plan of action* towards Quality Enhancement chalked out by the IQAC in the beginning of the year and the outcome achieved by the end of the year is stated below:

Sr.No	Plan of Action*	Outcome /Achievements
1.	Curricular Aspects: Suggestions for addition of new courses to keep pace with the changing needs of academia and industry	1. Under Graduate Course in Bachelor of Computer Application (B.C.A.) under Science Faculty is started from academic year 2017-18. 2. Post Graduate Course M.Com e-Commerce under Commerce Faculty is started from academic year 2017-18
2.	Enhancing Quality of Teaching and Learning	• Implementation of Teachers Diary that contains detailed information regarding the teaching plan, execution, and recording of the day wise activities of the teacher.
3.	Motivating the research culture	Organization of Zonal Level Avishkar Competition conducted by SPPU, to inculcate and promote resurch among students and teachers. Implementation of <i>Yuva Sanshodhak</i> Scheme for the student research projects. The students were given scholarship to implement the scheme. Formation of Researchers forum to inculcate and motivate the research culture
4.	Admission Process	Implementation of Online Admission process for all courses Online Payment option planning was done.

Sr.No	Plan of Action*	Outcome /Achievements
5.	Enhancing results	Remedial Coaching classes were conducted for S.Y. students to improve the backlog results Brainstorming meetings of teachers teaching F.Y.B.A., B.Com. and B.Sc. were organized and preparation strategies were drawn for enhancing the results.
6.	Digitization of office records	Initiative has been taken to develop an Institutional Web portal to capture all the data and get the reports online IQAC proposed digitization of office records and the process is initiated. Online Admission system is implemented for all the courses.
7.	Sports Initiatives (Implementation of <i>Tri-sutri</i> formula : freedom, budget and expert coaching)	The college received Best College Award, Sports by SPPU in the academic year 2017-18 for the consecutive Third year.
8.	More ICT facilities in classes	ICT enabled classrooms and laboratories are 53. Webinars were organized and conducted in the college.
9.	Enhancing Value based education programme	Yoga and Medication Classes were conducted by Value Based Committee for the neighbourhood community Value based education programmes/activities are organized by NSS / NCC unit. Organization of various programs on value education by value based Committee*
10.	To enhance extension activities	Rice Plantation move Successful implementation of ISR activities
11.	e-Governance Activities	Implemented the system of online registration of various courses conducted on the campus and also printing the names on the certificates to be distributed to participants.
12.	Student Centric Activities	Promoted to conduct various need based courses and made those courses to get conducted successfully. Purchased and distributed the Projector camera to various Departments which is helpful for the demonstration of practical sessions.

* *Academic calendar Part A Annexure I.*

* *List of value education programmes Part A Annexure II.*

2.15 Whether the AQAR was placed in statutory body Yes No

Management Syndicate Any other body

Provide the details of the action taken

- CDC approved to upgrade internet leased line from 10 mbps to 30 mbps
- CDC approved to prepare and submit proposal for Autonomy.
- CDC suggested implementing online fees payment for all the courses.
- CDC suggested opting for Departmental academic and administrative audit.

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
Ph.D.	7	0	7	-
PG	19	1 M.Com(e-Commerce)	16	-
UG	26	01 B.C.A. (Science)	9	-
PG Diploma	2 (Banking and Finance & Fashion Technology)	-	-	-
Advanced Diploma	-	-	-	-
Diploma	-	-	-	-
Certificate (skill Development Courses)*	-	-	28 programs on autonomous and self financed basis have been conducted and certificates have been awarded by the college.	21
Others	-	-	-	-
Total	54	01	60	21

Interdisciplinary	-	1.Biostatistics 2.Animal Tissue Culture 3.Plant Tissue Culture 4. Training course on “ <i>Modi Script</i> ”
Innovative	Fashion Technology	1.Training course on Chemical Based Product preparation 2.Training course on Herbal Product Preparation

* *Skill Development Courses Part B Annexure I (Criteria I).*

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

With effect from academic year 2013-14, the SPPU, Pune has implemented the Choice Based Credit System to all P.G. courses. The System allows the students to opt for certain elective subjects in the second year of the course. Additional Ten credit points are compulsory along with the main subject courses. They are: Human Rights (2 Credits), Introduction to Cyber security and Information security (4 Credits) and Skill Development (4 Credits).

From academic year 2015-16, the college has started B.Sc. (Blended) Bioscience three year degree course in association with University of Melbourne. This Under Graduate course is a semester pattern credit system course.

From academic year 2017-18, the college has started B.C.A. (Science) three year degree course affiliated to Savitribai Phule Pune University, Pune. This Under Graduate course is a semester pattern credit system course.

(ii) Pattern of programmes:

Pattern	Number of programmes
Semester	11 (B.Sc.)+ 1 B.B.A. and B.B.A.-C.A. (B.C.A.) + 1 B.B.A. (IB) + 1 BSc. (Blended) Bioscience, B.C.A. (Science)
Trimester	-
Annual	11 (B.A.) + 1 B.Com. PGDBF

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

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

* *Feedback Part B Annexure II (Criteria I).*

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

- Syllabus of Third Year Undergraduate courses was revised and updated by SPPU (formerly University of Pune) from June 2016. The courses were revised by the University keeping in mind the changing trends and patterns in education and to keep pace with the global change in research and development.

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

No.

Criterion – II

2. Teaching, Learning and Evaluation

2.1 Total No. of permanent faculty

Total	Asst. Professors	Associate Professors	Professors	Others
167	138	24	2	3

2.2 No. of permanent faculty with Ph.D.

56

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
-	18	-		-		-	-	-	18

2.4 No. of Guest and Visiting faculty and Temporary faculty

Guest Lecturers 32	Visiting Faculty 53	Temp. Faculty 69
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2.5 Faculty participation in conferences and symposia:

No. of Faculty	International level	National level	State level
Attended	8	11	14
Presented papers	14	5	9
Resource Persons	4	2	9

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

- The College conducted the workshop on e-content development and some of the staff members have taken initiatives to develop e-contents for their subjects.
- A group of staff members is formed to discuss and implement various pedagogic techniques in teaching. A workshop in this regard was organized.
- Innovative pedagogical method called cooperative learning is adopted by teachers from many departments.
- Efforts are taken to adopt advanced technology in teaching certain topics with the help of computer simulations, demonstration in class with LCD and Laptop, use of virtual classes and virtual laboratories.
- Few staff members used their personal website and blog.
- Business Administration section organized a Sales Activity to teach sales techniques to students.
- Role Plays were conducted by Business Administration section to improve the interview techniques among students.
- Department of Computer Science conducted Spoken Tutorials by IIT Mumbai, for M.Sc. Computer Science students for the subject Java. This is an initiative towards online course conduction and examinations.

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. Bar coding and online question paper delivery system has been introduced by SPPU and is implemented by the college successfully. The college has created necessary infrastructure facility for this.
2. Under CBCS all the Post graduate courses conduct examination in the form of
 - Open Book Test
 - Multiple Choice Test
 - Debates
 - Presentations
 - Review writing
 - Seminars
 - Quizzes
 - Group Discussions

2.9 No. of faculty members involved in curriculum Restructuring/ revision/ syllabus development

(i)

7

(ii)

18

(iii)

40

as (i) member of Board of Study(ii) Faculty(iii) Curriculum Development workshop

Two staff member is Chairperson, BOS.

One Staff member is Chairperson, of BOS for one subject

Eighteen teachers are Members of BOS of SPPU and other universities.

Forty faculty members are also the members of syllabus sub-committees of BOS.

2.10 Average percentage of attendance of students

UG: 75- 80 %

PG: 80- 90%

Ph. D: 90- 100 %

2.11 Course/Programme wise distribution of pass percentage:

Title of Programme	Total No. of Student Appeared	Division (in %)						
		Total No. of Student Passed (in %)	Distinction	First Class	Higher Second Class	Second Class	Third Class	Fail
B. Sc. (Animation)	13	100	30.77	69.23	0	0	0	0
B. Sc. (Botany)	26	65.38	47.06	23.53	29.41	0.00	0.00	34.62
B. Sc. (Biotech)	34	82.35	21.43	50.00	25.00	3.57	0.00	17.65
B. Sc. (Chemistry)	73	54.79	57.50	35.00	7.50	0.00	0.00	45.21
B. Sc. (Comp. Sci.)	125	56.80	26.76	46.48	22.54	4.23	0.00	43.20
B. Sc. (Electronic Sci.)	12	75	66.67	22.22	11.11	0	0	25
B. Sc. (Physics)	40	57.50	47.83	34.78	17.39	0.00	0.00	42.50

B. Sc. (Mathematics)	54	59.26	68.75	31.25	0.00	0.00	0.00	40.74
B. Sc. (Microbiology)	45	93.33	16.67	54.76	21.43	7.14	0.00	6.67
B. Sc. (Statistics)	39	79.49	64.52	32.26	3.23	0.00	0.00	20.51
B. Sc. (Zoology)	33	78.79	53.85	38.46	3.85	3.85	0.00	21.21
M. Sc. (Botany)	21	100	33.33	47.62	9.52	9.52	0	0
M. Sc. (Biotechnology)	24	100	50.00	45.83	4.17	0.00	0	0
M. Sc. (Chemistry)	44	75	36.36	51.52	12.12	0.00	0	22.73
M. Sc. (Comp. Sci.)	51	96.08	30.61	42.86	20.41	6.12	0.00	3.92
M. Sc. (Electronic Sci.)	10	60	16.67	50.00	16.67	16.67	0	40
M. Sc. (Mathematics)	49	83.67	31.71	48.78	14.63	4.88	0.00	16.33
M. Sc. (Microbiology)	38	63.16	20.83	50.00	16.67	8.33	4.17	36.84
M. Sc. (Physics)	23	82.61	26.32	52.63	10.53	5.26	5.26	17.39
M. Sc. (Statistics)	27	88.89	12.50	58.33	20.83	8.33	0	11.11
M. Sc. (Zoology)	19	100	63.16	26.32	10.53	0	0	0
B. A. (Economics)	37	83.78	6.45	32.26	25.81	16.13	19.35	16.22
B. A. (Geography)	35	68.57	8.33	20.83	33.33	25.00	12.50	31.43
B. A. (German)	3	100.00	33.33	66.67	0.00	0.00	0.00	0.00
B. A. (Hindi)	9	44.44	0.00	25.00	50.00	0.00	25.00	55.56
B. A. (History)	26	53.85	21.43	14.29	28.57	28.57	0.00	46.15
B. A. (Marathi)	17	52.94	0.00	66.67	11.11	11.11	11.11	47.06
B. A. (Optional English)	20	100.00	5.00	55.00	25.00	5.00	10.00	0.00
B. A. (Political Science)	47	72.34	23.53	35.29	23.53	8.82	8.82	27.66
B. A. (Psychology)	38	86.84	33.33	45.45	15.15	3.03	3.03	13.16
M. A. (Economics)	25	96	33.33	54.17	8.33	4.17	0	4
M. A. (Geography)	9	66.67	66.67	33.33	0.00	0.00	0.00	33.33
M. A. (Marathi)	20	95	68.42	31.58	0	0	0	5
M. A. (Optional English)	35	85.71	3.33	30.00	43.33	16.67	6.67	14.29
M. A. (Political Science)	26	96.15	8	68	12	12	0	3.85
M. A. (Psychology)	45	100	35.56	35.56	13.33	8.89	0	0
B. Com.	766	53.52	14.39	51.46	30.73	23.17	6.34	32.77
M. Com.	92	90.22	37.35	42.17	16.87	3.61	0	9.78
B.B.A.	156	80.13	6.00	25	40	--	9	20
B.B.A. (IB)*	First Batch is not yet passed out							
B.B.A. (CA)	163	66.25	4%	18%	19%	12%	14%	34%

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

- IQAC has taken initiatives to establish a Centre for Teaching, Learning and Evaluation and has thereby played a significant role in enhancing the quality of education in the college.

- A Centre for Promotion of Research is established successfully by the initiatives taken by IQAC and 84 members are registered under the same.
- IQAC has played a significant role in establishing the Centre for guidance of competitive examinations to encourage and guide the students.
- IQAC analyses teaching – learning feedback from teachers, students and parents.
- Decisions for improving the academic process, the infrastructure, library facilities, and laboratory upgradations are recommended to Local Managing Committee for their proper implementation.
- IQAC implements the process of maintaining teaching plan (lecture plans) by each teacher, weekly worksheets and teacher’s diary to continuously monitor and improve teaching learning process.
- Time tables for practical and theory classes are planned in three sessions by considering the students’ convenience.
- IQAC has insisted and encouraged the use of ICT for enhancing the quality of teaching-learning process.
- IQAC has organized lecture series, quality enhancement workshops, seminars, and conferences for facilitating interaction with the experts in respective fields.
- IQAC has taken initiative to promote conduction of online courses and conduction of online examination through IIT Mumbai, Spoken Tutorials.

2.12 Initiatives undertaken towards faculty development

<i>Faculty / Staff Development Programmes</i>	<i>Number of faculty benefitted</i>
Refresher courses	5
UGC – Faculty Improvement Programme	7
HRD programmes	7
Orientation programmes	1
Faculty exchange programme	-
Staff training conducted by the university	6
Staff training conducted by other institutions	3
Summer / Winter schools, Workshops, etc.	19
Others	3

List of Staff members Attended Courses :

Sr. No.	Name of the Staff	Course Type	Duration
1	Prof. D.B. Gaikwad	Online course "Physics of Semiconductors" conducted by Centre for Development of Technical Education, Indian Institute of Technology Kanpur.	15 th August 2017 to 20 th November 2017
2	Prof. B.B. Yenage	National Integration Camp, Sangali	05 th November to 14 th November 2017.
3	Prof. G.M Tarate	Online course "Physics of Semiconductors" conducted by Centre for Development of Technical Education, Indian Institute of Technology Kanpur.	15 th August 2017 to 20 th November 2017
4	Mrs. Vaishali A. Chuadhari	Hands on Workshop on ARDUINO and Sensor Interfacing, Modern College, Ganeshkhind, Pune-16.	29 th to 31 st January 2018
5	Dr. Rebecca Thombre	Visited National Synchrotron Radiation Research Center, Hsinchu, Taiwan as a Principal investigator for project entitled "VUV irradiation of molecules of Astrobiological interest".	16 th to 27 th December, 2017
6	Dr. Rebecca Thombre	Principal investigator to study Tirez facility under INTA-CAB- a NASA Astrobiology affiliated institute at Madrid Spain	9 th to 13 th April, 2018
7	Dr. Rebecca Thombre	Participated in NASA Space Biology/CASIS Microgravity Research Workshop	24 October 2017
8	Dr. Rebecca Thombre	Participated in Symposium I and II on Growth, Impact and Control of Biofilms in Spacecraft at 2017 Meeting of <i>American Society for Gravitational and Space Research</i> at Seattle, USA	26 October 2017
9	Dr. Rebecca Thombre	Was invited as a judge to Judge the Poster session at 2017 Meeting of <i>American Society for Gravitational and Space Research</i> at Seattle, USA	27 October 2017.
10	Dr. Geetanjali Litake	Attended 2 days workshop on "Immunology at glance" organized by Department of Zoology, SPPU, Pune	1 st and 3 rd March, 2018.
11	Dr. Sharad Goswami	Attended one day workshop on "Teaching and Learning Skills in Plant Molecular Biology" Department of Botany, SPPU, Pune	1 st March, 2018.
12	Ms. Radhika Oke	Attended 2 days workshop on "Immunology at glance" organized by Department of Zoology, SPPU, Pune	1 st and 3 rd March, 2018.
13	Mrs. Mukta Patil-	Attended 2 days seminar and training	26 th and 27 th Feb, 2018.

	Kothari	workshop on “Teaching and learning skills in Developmental Biology” funded by MHRD and organized by Department of Zoology, SPPU, Pune	
14	Prof. S. S. Sakate	Refresher Course	December, 2017
15	Prof. R. M. Jagtap	Refresher Course	December, 2017
16	Dr. R. D. Bansode	Short Term Course	20/02/2018 to 27/02/2018
17	Prof. Samir Badmanji	completed Teacher Training Program on Cyber	28 th November 2017
18	Prof. Samir Badmanji	Security as a part of #WEFIGHTCC initiative	28th November 2017 at COEP,Pune
19	Prof.Sheetal Patil	completed Teacher Training Program on Cyber	28 th November 2017
20	Prof.Sheetal Patil	Security as a part of #WEFIGHTCC initiative on 28 th November 2017 at COEP,Pune	28 th November 2017
21	Prof.Supriya Shinde	completed Teacher Training Program on Cyber Security as a part of #WEFIGHTCC initiative on 28 th November 2017 at COEP,Pune	28 th November 2017
22	Prof.Supriya Shinde	Android development fundamentals faculty training at SPPU	9 th – 13 th April 2018
23	Prof.Asha Sagar	completed Teacher Training Program on Cyber	28 th November 2017
24	Prof.Asha Sagar	Security as a part of #WEFIGHTCC initiative on 28 th November 2017 at COEP,Pune	28 th November 2017
25	Prof. Madhuri Ghanekar	Completed a Refresher Course on ‘Water, Environment and Energy in Environmental Science’ in the department of Environmental Science in SPPU	between 3-7- 2017 and 23-7- 2017
26	Prof. Madhuri Ghanekar	Secured First Class (68% marks) in Praveshika Purna singing exam conducted by Akhil Bhartiya Gandharva Mahavidyalaya Mandal	May 2017
27	Dr. Anjali Sardesai	Short term course on WordPress Web Development (2017)	July 2017
28	Dr. Anjali Sardesai	Faculty Development Course for IQAC Coordinators by Human Resource Development Cell, SPPU	March 2018
29	Prof. Sandhya Vartak	Short Term Course	March- April 2018
30	Ms. Pallavi Math	Orientation Programme, SPPU	3/8/18-30/8/18
31	Dr.Rajesh Kulkarni	Faculty development programme,short term course	17/7/2017 to 23/7/2017
32	Rajkumar Barmukh	Short Term Course	21/02/2018 to 27/02/2018
33	Dr.Nisha Bhandare	Human Research Centre	-

34	Dr. A.N. Bhavale	Instructional School for Teachers on Functional Analysis	23/10/17 to 4/11/17
35	Dr. A.N. Bhavale	Special Winter School in Computational Mathematics	6/11/17 to 26/11/17
36	Dr. N. H. Mahajan	Special Winter School in Computational Mathematics	6/11/17 to 26/11/17
37	Dr. N. H. Mahajan	State Level Workshop on Applications of Mathematics at MIT- WPU	6 th , 7 th April 2018
38	Prof. Mrs. M. S. Rane	State Level Workshop on Applications of Mathematics at MIT- WPU	6 th , 7 th April 2018
39	Prof. Mrs. M. S. Rane	National Workshop on use of appropriate softwares in Mathematical modeling and statistical analysis	9/2/18 to 10/2/18
40	Prof. Ms. B.R. Agarwal	State Level Workshop on Applications of Mathematics at MIT- WPU	6 th , 7 th April 2018
41	Prof. Ms. B.R. Agarwal	3 Days FDP in Collaboration with Heartfulness Institute	18 th , 19 th , 20 th April 2018
42	Dr. S. S. Patil	Refresher courses in Physics at UGC-HRDC, SGBAU Amravati.	10/07/2017-28/7/2017
43	Prof.S.R.Gogte	TEQIP-III Sponsored Faculty Development Programme on Multiscale Modeling and Simulation Government College of Engineering,Pune	2/4/2018 to 6/4/2018
44	Prof. A.A.Rindani	TEQIP-III Sponsored Faculty Development Programme on Multiscale Modeling and Simulation Government College of Engineering,Pune	2/4/2018 to 6/4/2018
45	Prof. A.A.Rindani	Indian Institute of Technology, Kanpur “Physics of Semiconductors”	15/08/2017 to 20/11/2017
46	Prof.Dipmala Sali	Induction Programme for College Teachers sponsored by PMMMNMTT Centre of Excellence in Science and Mathematics Education at IISER Pune.	02/05/2018 to 26/05/2018
49	Khokale D.L	Refresher Course	04/12/2017-23/12/2017
50	Mrs. Aprna Satpute	workshop on Research Methodology organized by Jnana Prabodhini Institute of Psychology, Pune.	June 2017

51	Dr. Kamble A.T.	Refresher Course at Dr. Babasaheb Ambedkar University, Aurangbad	3 rd July to 22 nd July 2017
52	Dr. P. S. Kudnar	Refresher courses at UGC- HRDC, SPPU	-July 2017

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	88	6	-	12
Technical Staff	57	7	-	-

Criterion – III

3. Research, Consultancy and Extension

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

- Newly appointed teaching staff as well as graduate and postgraduate students are encouraged to participate in various National and International conferences, seminars, similarly for guiding students for their projects at Under Graduate and Post Graduate level such as 'Avishkar' organized by SPPU, 'Ignited innovators of India' (I²I) organized by COEP in collaboration with Bhau Institute, Pune and participating in Project competitions organized by Departments of the college.
- Students are encouraged to participate in research activities like Avishkar organized by BCUD, SPPU, International Conference 'Youth United for voluntary Action' (YUVA-2013) organized by 'The Energy and Resource Institute' (TERI) and 'Pune Intercollegiate Consortium' (PICC).
- The college is promoting research amongst undergraduate and Post Graduate students under 'Yuva Sanshodhak' scheme by funding the projects of the students by college under the guidance of faculty members.
- Presentation of faculty research work under BCUD funded projects in National Seminars such as INNOVATIONS.
- Students are encouraged to apply for DST INSPIRE scheme to promote basic science research.
- Display of notices with respect to conferences, seminars, workshops, training programmes for P.G. students and research students.
- Recruitment of Ph.D. candidates is preferred, so as to pursue research.
- Interaction of the students with the scientists from various industries and institutes.
- Visits are arranged for students to various research organizations.
- U.G. as well as P.G. students are encouraged and motivated to take part and perform experiments in small research projects.
- Provide infrastructure for in-house and inter-departmental research projects.
- Encourage faculty for submission of research proposal to various funding agencies.

3.2 Details regarding major projects

Details*	Completed	Ongoing	Sanctioned	Submitted
Number	2	1	1	-
Outlay in Rs. Lakhs	Rs. 33,82,735/-	Rs. 15,60,000/-	Rs. 17,00,000/-	-

* Major Projects Part B Annexure III (Criteria III).

3.3 Details regarding minor projects

Details*	Completed	Ongoing	Sanctioned	Submitted
Number	1	7	2	-
Outlay in Rs. Lakhs	Rs. 3,35,000/-	Rs. 15,60,000/-	Rs. 14,70,000/-	-

* Minor Projects Part B Annexure IV (Criteria III).

3.4 Details on research publications

Details*	International	National	Others
Peer Reviewed Journals	28	6	
Non-Peer Reviewed Journals	6		7
e-Journals			
Conference proceedings	5	6	0

* *Research Publications Part B Annexure V (Criteria III).*

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 (in Rs.)	Received Amount (in Rs.)
Major projects	2014-18	ICSSR, UGC, CSIR, DST-FIST, ISRO	1,02,16,688/-	68,78,000/-
Minor Projects	2014-18	UGC, BCUD	33,65,000/-	21,94,500/-
Interdisciplinary Projects	-	-	-	-
Industry sponsored	-	-	-	-
Projects sponsored by the University/ College	-	-	-	-
Students research projects (other than compulsory by the University)	2017-18	College	50,000/-	50,000/-
Any other(Specify)	2015-16	Biodiversity audit and green campus audit	1,07,67,113/-	32,91,947/-
Total	-	-	Rs. 2,43,98,801/-	Rs. 1,24,14,447/-

3.7 No. of books published i) With ISBN No. Chapters in Edited Books

ii) Without ISBN No.

**Books published Part B Annexure VI-a (Criteria III).*

3.8 No. of University Departments receiving funds : Not Applicable

UGC-SAP CAS DST-FIST
DPE DBT Scheme/funds

3.9 For colleges

Autonomy - CPE ✓ DBT Star Scheme ✓
 INSPIRE - CE - Any Other (specify) ✓

UGC Community College Scheme is awarded to college during the academic year 2015-16

Rs. 46,00,000/-

3.10 Revenue generated through consultancy

Rs. 72,900/-

Sr. No.	Name of the Staff Member	Consultancy Provided to	Revenue Generated
1	Mrs.MadhuriKothawade and Ms.Anushkadevole	Tilak Maharashtra aurvedik college MD student	5000/-
2	Mrs.MadhuriKothawade and Ms.Anushkadevole	JSPM Engineering college students	900/-
3	Mr.VivekBobade	ShreShailya Biotech Ltd	55,000/-
4	Dr. Amruta S Oke	Modern Law College, Ganeshkhind, Pune.	12,000/-
5	Mrs. Aparna A Satpute	Modern Law College, Ganeshkhind, Pune.	Non-remunerative
6	Dr. Amruta S Oke	students	Non-remunerative
7	Dr. Dixit P.G.	Modern Law College, Pune -16.	Non-remunerative
8	Dr. R. S. Zunjarrao	Modern Law College, Pune 16 Modern College of Arts, Science and Commerce, Ganeshkhind, Pune 16 Modern College of Pharmacy, Nigadi Modern College of Agri-Biotechnology, Moshi	Non-remunerative
9	Prof. S. S. Deshmukh	Modern Law College, Pune 16 Modern College of Arts, Science and Commerce, Ganeshkhind, Pune 16 Modern College of Agri-Biotechnology, Moshi	Non-remunerative
9	Prof. S. S. Thengadi	Modern Law College, Pune 16 Modern Institute of Business Management, Pune	Non-remunerative
8	Dr. Anjali Sardesai	Modern Law College, Pune 16	Non-remunerative

3.11 No. of conferences organized by the Institution

Level	International	National	State	University	College
Number	1	2	2	2	5
Sponsoring agencies	SPPU QIP	SPPU QIP, Shubhchintak Foundation, Pune	SPPU QIP	Student Welfare, SPPU	College, College, Anvi construction, College, College

3.12 No. of faculty served as experts, chairpersons or resource persons 35

**Faculty Served as experts, chairpersons or resource persons Part B Annexure VI-b (Criteria III).*

3.13 No. of collaborations International 6 National 8 Any other 21

**Collaboration Details Part B Annexure VII-a (Criteria III).*

3.14 No. of linkages created during this year 59

**Linkages Created Details Part B Annexure VII-b (Criteria III).*

3.15 Total budget for research for current year in lakhs :

From Funding agency (Research Project)	Rs. 83,32,735/-
From Management of University/College	Rs. 3,00,255/-
Total	Rs. 86,32,990/-

3.16 No. of patents received this year : Nil

Type of Patent		Number
National	Applied	2
	Granted	1
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
10	3	1	2	4	-	2

1. Dr. Shilpa Mujumdar received Dr.Sarvapalli Radhakrishnan Best Teacher Award State level award by Maulana Azad Sports and social Institute.

2. Prof. Manisha Suryawanshi received Guruvarya Shankarraoji Kanetkar Best Teacher Award by Progressive Education Society
3. Prof. Sameer Badmanji received Guruvarya Shankarraoji Kanetkar Best Teacher Award by Progressive Education Society.
4. Dr. Rupesh Bansode awarded Ph. D. degree by Savitribai Phule Pune University
5. Dr. Swati Ahiwale awarded Ph. D. degree by Savitribai Phule Pune University
6. Dr. Vaijayantimala Jadhav completed Post Doctoral Degree and awarded a Dr. Radhakrishnan Fellowship National award by UGC
7. Dr. M. D. Waghmare awarded Ph.D. degree by Savitribai Phule Pune University, Pune
8. Dr. Amol Shinde awarded Ph.D. degree by Savitribai Phule Pune University, Pune
9. Dr. Rebecca Thombre received international grants from Europlanet European Union, UK, Beam Time Grant at Taiwan for three different projects.

3.18 No. of faculty from the Institution who are Ph. D. Guides and students registered under them 21 67

**Ph.D. guide list and Students registered for Ph.D. Part B Annexure VIII-a, VIII-b (Criteria III).*

3.19 No. of Ph.D. awarded by faculty from the Institution 01

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

JRF 4 SRF - Project Fellows - Any other RA 1

3.21 No. of students Participated in NSS events:

University level	15	State level	06
National level	1	International level	-

3.22 No. of students participated in NCC events:

University level	65	State level	35
National level	30	International level	-

* S Y Biotech student received , Gold medal in cultural, silver medal in boat pulling and Broze in drill Indian National Academy on Feb.2017.(NCC)

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	64
National level	8	International level	-

3.25 No. of Extension activities organized

University forum	<input type="text" value="-"/>	College forum	<input type="text" value="6"/>		
NCC	<input type="text" value="12"/>	NSS	<input type="text" value="15"/>	Any other	<input type="text" value="-"/>

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

1. A display of books in a 'Library on wheels' was arranged in the month of December 2017.
2. Inauguration of Activity "Aaj ka Shabd"
3. **Self Development course** for graduate and post-graduate students was conducted.
4. A session on '**Relaxation Technique**' was conducted for PG students.
5. Daily meditation activity has been initiated.
6. Daily Yoga Sessions are being conducted for the women from neighbourhood community.
7. A session on 'Stress Relief and Meditation' was arranged for all students, teaching and non-teaching staff members on the occasion of International Yoga Day 21st June 2016 and a lecture on 'Mechanical analysis of Yogic Procedures' was arranged for all students, teaching and non-teaching staff members on the occasion of International Yoga Day 21st June 2017.
8. Rice plantation (Paddy Cultivation) programme, "*Ek Divas Shetasathi Shetkaryancha Madatisathi*" (One day for farming, for helping the farmers) was organised at village Vinzar, Taluka Velhe Dist. Pune, Maharashtra where 1100 students from our college participated with NSS officers where students helped the local farmers in rice plantation.
9. Blood Donation Camp and NSS day was celebrated where 117 student volunteers donated blood for KEM Hospital, Pune.
10. Road Safety Awareness Programme was organised to emphasize the importance of Road safety in Pune city. In the same camp Haemoglobin checking activity was also conducted in which 224 students participated.
11. Students of BBA and BCA have been organizing the "Social Week" since December 2017. The core motive behind observing the "Social Week" is to inculcate a sense of social responsibility amongst our students who are the future of tomorrow.
12. Workshop on awareness about opportunities for visually challenged students was organized.
13. Awareness workshop organized in association with Pune Police about Self defence.
14. Workshop '*Apulki ek Samajik Bandhilki*' was organized by NSS in collaboration with *Apulki* NGO on 'Child Abuse and laws to stop child abuse'.
15. Tree plantation : 90 different plants including medicinal plants were planted near Paud.
16. Organized National Safety awareness programme in collaboration with RTO, Pune.
17. Cloth Collection camp : Cloths were collected and donated to NGOs.
18. NCC cadets of Naval unit actively participated in communicating welfare schemes of Government of India and Maharashtra to the beneficiaries in the villages around Pune city.
19. Singing competition for visually challenged students.
20. Our NSS volunteers participated in the sell camp of different items made by members of 'PALVI.'
21. (PALVI is an NGO which take cares of HIV/ AIDS infected KIDS). Also helped to the DALSA members for information collection from needy peoples,

Criterion – IV

4. Infrastructure and Learning Resources

4.1 Details of increase in infrastructure facilities:

Facilities	Existing	Newly created	Source of Fund	Total
Campus area	3 acres	2 acres	College	5 acres
Class rooms	89	-	College	89
Laboratories	54	-	College	54
Seminar Halls	2	-	-	2
No. of important equipments purchased (\geq 1-0 lakh) during the current year.	-	-	XII Plan	-
Value of the equipment purchased during the year (Rs. in Lakhs)	Rs. 2596557/-	-	XII Plan	-
Additional Library Reading Hall	2	-	College	2
Others	-	-	-	-

4.2 Computerization of administration and library

- Admissions to all the courses are made online.
- A **separate administration building** of 6000 sq. ft. is available for office and is in use for office administration purpose.
- Each staff is provided with a computer of latest configuration and '*Vriddhi*' **office automation software** installed on it. The office administration has reorganised the activities of the office for rendering good service to staff by utilising '*Vriddhi*' Software for database management
- **Digital record room** is established, from where digitized reference books, teachers' notes are accessible to students.
- A **digital Library** is established in the college. It was inaugurated on 31st July 2013.
- Ambiance of the library with infrastructure, new storage cupboards and easily accessibility through computerized data, OPAC helps to relatively easily locate the status of a book / journal in the library.

4.3 Library services:

	Existing		Newly added		Total	
	No.	Value Rs.	No.	Value Rs.	No.	Value Rs.
Text Books	108025	36,23,757/-	590	92,688/-	1,09,475	42,38,215/-
Reference Books			860	5,21,770/-		
e-Book(e-resources) & e-journals (Digital Database)	579000+ & 391000+	37,193/-	-	-	579000+ & 391000+	37,193/-
Journals	132	1,41,332/-	-	-	132	1,41,332/-

CD & Video	238	79,458/-	5	-	243	79,458/-
Others (specify)	1. Jaykar Library 2. Gokhale Institute	13,000/-	1. Jaykar Library 2. Gokhale Institute	4,540/-	2	4,540/-

4.4 Technology upgradation (overall)

	Total Computers	Computer Labs	Internet	Browsing Centres	Computer Centres	Office	Depart-ments	Others
Existing	590	12	117	1	1	1	24	-
Added	80	3	10	-	-	-	1	-
Total	670	15	127	1	1	1	25	-

Internet Leased Line upgraded from 10mbps to 30 mbps

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

- Upgradation of internet leased line from 10 mbps to 30 mbps.
- Upgradation of institutional website to new framework.
- Implementation of online Teacher's diary.
- Organization of an Android Development training programme for students and teachers, .
- Online payment implementation for all the courses in the college

4.6 Amount in lakhs spent on maintenance in lakhs :

i) ICT	Rs. 20,13,510/-
ii) Campus Infrastructure and facilities	Rs. 20,65,945/-
iii) Equipments	Rs 24,50,571/-
iv) Others (Gymkhana & Repairs and maintenance)	Rs. 2,77,48,454/-
Total :	Rs. 3,42,78,480/-

Criterion – V

5. Student Support and Progression

5.1 Contribution of IQAC in enhancing awareness about Student Support Services

- Remedial coaching
- Government scholarships and freeships
- Financial help through Students' Aid Funds
- Earn and Learn Scheme
- Concession in fees.
- Installments in fees.
- Financial help by well wishers for weak students.
- Staff members give monetary help and help in kinds from time to time for needy students.
- SET-NET coaching, Competitive exam coaching, equal opportunity cell.

5.2 Efforts made by the institution for tracking the progression

- The institution consistently makes the efforts and guides the students to reach higher goals in their life to pursue higher academics and jobs.
- Career guidance by placement cell and aptitude test and career counseling by psychology department.
- Interaction between the representatives of foreign universities and the UG-PG students of the college.
- Regular feedback of students is taken.

5.3 (a) Total Number of students

UG	PG	Ph. D.	Others
6,775	1376	34	95

(b) No. of students outside the state

92

(c) No. of international students

32

		No	%			No	%
Men		3910	48.38	Women		4370	54.07

Last Year 2016-17						This Year 2017-18					
General	SC	ST	OBC	Physically Challenged	Total	General	SC	ST	OBC	Physically Challenged	Total
4495	941	166	1119	12	7590	5500	1100	174	1289	29	8082

Demand ratio 1:1 to 1:2 Dropout % - 0.5 to 1 % (The dropout percentage is negligible)

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

Competitive examination guidance centre is established in the college which conducts regular programmes on every Friday and Saturday. Guidance from experts is provided from time to time to

the students enrolled in the Centre. A separate library room is established for these students which is made available from 2.30 p.m. to 11.30 p.m. in the campus.

No. of students beneficiaries 315

5.5 No. of students qualified in these examinations amble sire

NET	2	SET/SLET	5	GATE	1	CAT	-
IAS/IPS etc	-	State PSC	-	UPSC	-	Others	-

5.6 Details of student counselling and career guidance

No. of students benefitted

110

Department of Psychology is running the counselling centre since 1991. It provides Psychological counselling, career counselling to students, teachers, non-teaching staff and neighbourhood community.

Aptitude testing and career counselling is a unique feature of Department of Psychology and 'I AM', the standardized software is used for the same. From March 2015 -June 2015, 63 students of 10th, 12th standards in addition to other students have benefitted from this test.

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
BBA BCA	6	239	22	50
Biotech	1	10	04	10
Computer Sci	15	67	57	10
Maths	1	15	1	0
Micro	00	00	00	27
Psychology	0	0	0	4
Stats	5	21	12	0

Representative data of Placement Cell of some of the departments (Computer Science, Commerce, Biotechnology, Psychology, Mathematics, Statistics)

5.8 Details of gender sensitization programmes

- In order to supplement the existing syllabus on gender issues, the college has initiated several programs such as – Gender Sensitization workshop, Guidance lectures by Lady Police officers to the ladies student.
- Programs on women employment, self defence training for ladies students, lecture on legal provisions for women and their safety.
- Workshops on pre-marital counselling are organized for both boys and girls by Department of Psychology.
- Staff Academy and PG Association organize various sensitization programs through which gender inclusion and environment related issues are emphasized.

5.9 Students Activities

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

517

State/ University level	National level	45	International level	3	
No. of students participated in cultural events					
State/ University level	176	National level	35	International level	-

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

Sports : State/ University level	384	National level	11	International level	3
Cultural: State/ University level	32	National level	-	International level	-

Sports- Team Performance

WINNERS	RUNNER UP	THIRD PLACE
Hockey(W), Softball (W), Volleyball (W), Baseball (M) , Baseball(W), Hockey(M), Netball (M), Kho- Kho (W), Chess (M), Ball Badminton (W)	Volleyball (M), Softball (M), Ball Badminton (M), Kho- Kho (M), Cricket(W), Handball (M), Handball (W), Cross Country(W)	Netball(W),, Badminton (W)

The college received Best College Award, Sports by SPPU in the academic year 2017-18 consecutively for third year.

5.10 Scholarships and Financial Support

Source of Support	Number of Students	Amount Rs.
Financial support from institution	10+152= 162	50,000/- + 2,50,255/- = 3,00,255/-
Financial support from government	1535	1,73,24,585/-
Financial support from other sources	370	49,51,900/-
Financial Support under Earn and Learn Scheme	152	15,27,255/-
Sports Scholarship (University and College level)	100	6,00,000/-
Number of students who received International/ National recognitions	1	-

5.11 Student organised / initiatives

Fairs : State/ University level 13 National level - International level -

Exhibition: State/ University level 6 National level - International level -

5.12 No. of social initiatives undertaken by the students 5

(Dhristi Abhiyaan, Rice Plantation, Voting Camp, Cleanliness Drive, Road Safety Awareness Programme)

5.13 Major grievances of students (if any) redressed: Not received.

Criterion – VI

6. Governance, Leadership and Management

6.1 State the Vision and Mission of the institution

Vision of the institute

The Vision statement of the institute is ‘ज्ञानमयो भव’, meaning ‘Be Knowledge Incarnate’. The word ‘EXCELSIOR’ at the bottom of the logo is an expression of incessant aspirations of higher attainment.

Mission Statement

“To create multidisciplinary best citizens to suit the local, national and international needs, having scientific temperament, moral, ethical values and multifaceted proactive personality, by providing excellent education”

Objectives

- Use of ICT and other advanced technologies for enhancing the quality of education.
- Increasing Co-curricular and Extra-curricular activities.
- Supplementing formal education with skill development.
- Infrastructural improvement for enhancing academic ambience.
- Inculcating research culture among staff members and students.
- Educational quality enhancement through ‘Trisutri’ (Three Point) program of Decentralised Governance, Increased Budgetary Provision and Specialized Training.
- To inculcate ethical and moral values among the youth.

6.2 Does the Institution has a management Information System

YES. Management Information System is in place. The college also uses *Vridhhi* software which is recommended by S.P. Pune University (Formerly University of Pune)

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

6.3.1 Curriculum Development

- Number of demonstration experiments was increased
- Involvement of maximum teachers in curriculum development at university level and college level
- Add on courses were increased
- Workshops were organised on syllabus designing, restructuring and implementation
- Teachers are encouraged to participate in seminars, conferences and workshops on curriculum development by other colleges

6.3.2 Teaching and Learning

- Use of ICT enabled teaching
- Modern Pedagogical methods are used for teaching like Cooperative learning and PBL.
- Use of Traditional methods in combination with advanced method is encouraged
- Efforts are made to have classroom ambience supportive for teaching and learning
- More CCTV terminals are installed for safety, security and monitoring.

6.3.3 Examination and Evaluation

- Compulsory questions on problem solving were introduced.
- Summative and Formative evaluation and examination reforms for overall continuous assessment of student
- Since SPPU has started online question paper system, the Examination Control room is made well equipped

6.3.4 Research and Development

- More number of departments should make efforts for recognized research Centers.
- Continue organization of seminars and conferences
- The students are encouraged to select project themes which aim at focussing and resolving issues of the society or which have social economic relevance. E.g. Vermiculture and bio-fertilizer production project
- Teachers are encouraged to avail facility of FIP-UGC for improving and advancing their qualifications
- The college encourages teachers to undertake minor and major research schemes from various funding sources like BCUD, SPPU, Pune, UGC, DST, DBT, etc.
- Teachers who are research guides in our Research Centres are guiding research scholars working for Ph.D. in the college.
- In the institution the departments have research projects funded by BCUD, UGC, 'Avishkar' and PICC which are undertaken by the students. This helps in nurturing innovative and research aptitude among the students.

6.3.5 Library, ICT and physical infrastructure / instrumentation

- Use of advanced technology is encouraged to make library services more effective and convenient.
- All the required equipments as per the syllabus are purchased and made available to the students
- In addition to the instruments prescribed by University, advanced equipment are purchased for promoting research

6.3.6 Human Resource Management

- To organize training programme/ workshops/ conferences etc for human resource development and human resource management
- Use of computer technology for HR management

6.3.7 Faculty and Staff recruitment

- Regulations and norms of UGC, Govt of Maharashtra and SPPU are followed for staff recruitment.
- Conducting entrance examination, classroom demonstration in addition to the formal interview.
- Preference is given to those fulfilling basic requirements but also have additional qualifications.

6.3.8 Industry Interaction / Collaboration

- Because of industry academia cell, collaboration with industries and national laboratories has increased.
- To develop strategies, encouraging industry academia collaboration through establishment of industry academia committee
- Arranging industry academia meets every year
- To arrange industrial visits and encourage research projects in collaboration with industry

6.3.9 Admission of Students

- Use of technology for making admission process effective, transparent and convenient to the student through online admissions.
- College has purchased *Vridhhi Edubrain* software and in some cases college has taken help of external agencies for online admissions, namely e-Pravesh.

6.4 Welfare schemes for

Teaching	1. Cooperative credit Society 2. Staff welfare fund
Non teaching	1. Cooperative credit Society 2. Staff welfare fund
Students	Student Welfare Scheme

6.5 Total corpus fund generated

Rs.4, 85, 73,735/-

6.6 Whether annual financial audit has been done

Yes No

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

Internal audit has been initiated and steps to conduct a systematic audit by external agency are underway.

Audit Type	External		Internal	
	Yes/No	Agency	Yes/No	Authority
Academic	YES	CEDA, Pune & SPPU, Pune	YES	IQAC
Administrative	YES	CEDA Pune & SPPU, Pune	YES	IQAC

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?

Not applicable

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

The college has initiated autonomous skill development courses. The college also has an autonomous Life Science Research Centre.

6.11 Activities and support from the Alumni Association

- Modern Alumni Association has been registered (Registration No. 945).
- Online registration form is made available on College website. Department wise alumni meet are arranged.
- In Computer Science Department, successfully placed Alumni visit the college for weekly interactive meetings and guide the present students for enhancing their employability.
- Alumni interact with the stakeholders namely teachers, non teaching staff and present students and give their feedback about various criteria.
- For students excelling in Sports, a separate Alumni association '*Modern Past Association*' is also formed.
- The Alumni from Dept. of Physical Education and Sports participate in conducting of Inter Collegiate Sports events.

6.12 Activities and support from the Parent – Teacher Association

Many of the Departments arrange Parent Teacher meetings in their departments. In such meetings, Parents are made aware about the facilities and activities of the department. Feedback is taken from the parents. Interaction between parents and teachers is facilitated. Based on feedback of the parents possible actions are initiated. Some parents have installed scholarships for giving financial support to needy students.

6.13 Development programmes for support staff

Meetings of Lab assistants and lab attendants are conducted for giving guidance on laboratory safety. Training activities like campus safety, use of fire extinguisher, lab safeties etc are conducted for their development. The support staffs are trained according to the needs of their specific departments. Workshop on lab safety was organised for Lab assistants and attendants. Training for using Safety equipment like fume hoods and safety materials like lab shoes, apron, and gloves are provided.

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

- NSS unit of our college implemented some activities in the college and in the adopted village.
- Survey on e-waste management in adopted village Phulgaon, District Pune.
- Organized lecture of experts on this topic in NSS special camp and in college.
- Prepared and displayed posters / banners on this subject in NSS camp at Phulgaon.
- Started e-waste collection Centre at our college NSS unit.
- The Department of Computer Science donates the old versions of computers to the schools of our organization.
- The faculty members and students of Department of electronics and computer science of the college are working on different aspects of e-waste management.
- The college has conducted Energy Audit, Green Audit, and Biodiversity Audit. Collection of Biomedical Waste is done periodically.
- E-waste management, Biodegradable Urban Waste management are done regularly.
- Use of renewable energy is promoted.

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.

1. The Library has its separate website designed in which the Library interactive programme is also linked.
2. The college has developed an innovative Centre for Teaching, Learning and Evaluation to strength the teaching learning activities.
3. The college has established the centre for Promotion of Research to focus the staff and students research and to promote more research related activities.

4. Digital Record room

Digital Record room is used for preserving the data. Human resource utilized is to the minimum; also time is saved and at a time data can be accessed by number of people and data is easily available for the compliance of RTI.

- As data is preserved in digitized format use of paper is reduced and eco friendly message is given.
- As data is preserved in digitized format, less storage is required.
- We can save various important research papers, as well as conference proceedings in the form of soft copies.

5. Digital Library

For a college, library is always considered as an asset. In order to further improve the functioning library is made digital.

With successful use of advanced scanners, the stock verification of library books has become more effective and less time consuming.

- We have taken subscription of e-resources like N-list, British library etc.
- Digitization of college annual magazines of last 40 years and scanning of various rare and old books, various question papers and project report is in process.
- Use of OPAC is implemented

6. Use of ICT:

The World is increasingly revolving on technological axis. To access internet via computer, Smart phone is fundamental, not just for individual for personal communication and creativity, but also for educational institution. In Modern College, Pune-5, we are focusing on use of ICT. We are using digital technology for education and other services, and focus is on creating Best Digital Citizens. We have,

- Virtual Classroom
- Digital Classroom
- Advanced laboratories
- Use of ICT in the classrooms

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

All the plans chalked out during the beginning of the year as mentioned in 2.15 as in Part A, were completed successfully

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

Best Practices of the Institution*

1. Use of Electronic and Computer Technology in academics and administration
2. Green Campus Initiative

**Best Practices Part B Annexure IX (Criteria VII).*

7.4 Contribution to environmental awareness / protection

- Environmental education course is conducted at the second year of all graduation programmes. The study material for the said course is prepared by the college for the benefit of students.
- Students are encouraged to undertake the projects on various issues of environment studies.
- Some of the projects prepared by the students have received awards in *International Youth Convention*.
- College has initiated efforts for formation GCI (Green Campus Initiative) committee.
- Bio-diversity audit and green audit of college campus have been initiated.
- Several conferences are organized by our college were based on the theme on environmental awareness and its conservation.
- College has established bio-medical waste disposal system.
- The college has been running Vermiculture training programme for the last six years and vermiculture facility is being used very effectively.

7.5 Whether environmental audit was conducted?

Yes

No

The college has conducted Energy Audit, Green Audit, and Biodiversity Audit. Collection of Biomedical Waste is done periodically. E-waste management, Biodegradable Urban Waste management are done regularly. Use of renewable energy is promoted.

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

- i. SWOC Analysis has been conducted in 2017.
- ii. The college is awarded Best College Award-Sports by SPPU.
- iii. Green Campus Initiative is undertaken by the college.

8. Plans of institution for next year

- To plan for applying for institutional Autonomy.
- To conduct Departmental Academic and Administrative Audit for every department.
- Installation of Digital Audio Notice Board for Visually Challenged students.
- Enabling institutional website to be used by Visually Challenged students.
- To develop institutional online web-portal.
- To apply for DST FIST and DBT Star College Schemes for Second Phase.
- To create infrastructure for e-content development of study material, social awareness programs, etc.
- To Promote SWAYAM MOOC courses.
- To strengthen the e-governance facilities.

- To implement services for online payment of fees by students.
- To develop institutional repository.
- To plan and implement the digitization process for the records and books to be digitized.
- To plan and implement the revision in examination seating arrangement system.
- To plan for training/ awareness programs for teaching as well as non-teaching staff members .
- Increasing the number of ICT enabled classrooms.
- Installation of additional department wise and classroom wise CCTV surveillance system.
- Further improvement in Digital Library Services and Digital Record Room facility.
- To start conducting webinars and to prepare infrastructural facilities for the same.
- To publish Research Annual of Marathi Post Graduate Research Centre.
- To organize 1 International, 1 National and 2 State Level conferences on various important aspects.
- To promote eco-friendly activities particularly with respect to installation of additional solar energy equipment.
- To promote and implement Plastic free campus, Zero garbage campus.
- To plan and implement online examinations for skill development courses, Physical Education Examination, examinations for Extra credit courses.
- To plan and conduct institutional Gender Audit.
- To promote Quality Enhancement Workshops at department level and prepare departmental SWOC analysis.


Dr. Anjali S. Sardesai
Coordinator, IQAC




Dr. R. S. Zunjarrao
Principal

Date : 22nd October 2018

Part –A
Annexure I: Academic Calendar

Date	Event
15 June 2017	Commencement of First term
First week of August 2017	Principal's Address and Guidance Session for First Year UG Students
Last week of Sept 2017	Internal Examinations
18 October 2017	First Term End Meeting
13 November 2017	Commencement of Second term
16-17 November	International Conference on Importance of Emotional Intelligence for Educators
12-13 December 2017	State level workshop on 'GST : One Nation one Tax'
19-20 December 2017	State level workshop on Business Analytics and Statistics
23-24 January 2018	College Annual Social Gathering
25 January 2018	<i>Kanitkar</i> Day (Founders Day)
3-4 February 2018	National Conference on 'Revamping of A Direct Tax Structure of India'
3 rd week of February 2018	Internal Examinations
28 February 2018	Science day celebration
March 2018	Annual Practical examination of SY and TY
30 April 2018	End of term

Part –B Annexure I (Criteria I) : Skill Development Courses

Sr. No.	Course Name	Department	Coordinator
1	Pharmaceutical Techniques	Microbiology	Dr. Shilpa Mujumdar
2	Plant Tissue Culture I	Botany	Dr. K.D.Gopale
3	Seed Technology	Botany	Prof. Arti Goggi
4	Computerized financial accounting (Tally)	Commerce	Prof. Mishi Moreshwar
5	German level I (Basic)	German	Prof. Sanjeevani Kuwalekar
6	German Level II (Advanced)	German	Prof. Sanjeevani Kuwalekar
7	Fashion Designing	Arts	Dr. Nayana Kulkarni/Prof. Manasi Thakur
8	Integrated Vermi-technology	Zoology	Prof. Narendra Naidu
9	Ayurvedic medicines and Herbal products preparation	Botany	Prof. R.N. Ingole
10	Animal Tissue Culture	Biotechnology	Dr.S.Puranik
11	Analytical Techniques	Chemistry	Dr. S.Pokharkar
12	Chemical Based Household Products	Chemistry	Dr. Ujlambkar S. K.
13	Biostatistics	Statistics	Dr.M.M.Sane
14	Statistical Analysis System (SAS)	Statistics	Prof. P.G.Dixit
15	PCR Techniques	Biotechnology	Prof. Rama Phadke

16	Course on Nanotechnology-Under DBT Star College Scheme	Biotechnology	Dr. Rebecca Thombre
17	Soft Skills	Commerce	Dr. Vijay Gaikwad
18	Industrial Electronic Components: Familiarization and Testing	Physics	Prof. S.S.Thengadi
19	Flower Arrangement	Botany	Prof. Manisha Mandhare
20	Microscopy: Under DBT Star College Scheme	Zoology	Prof. N.M.Naidu
21	Flower Remedy	Psychology	Prof. Vijaya Jagtap
22	Embedded Systems	Electronics	Prof. D.B.Gaikwad
23	Translation	Marathi	Dr. Snehal Taware
24	DOTNET and PHP	Computer	Prof. Aditi Patil
25	Spoken Marathi (Vani Course)	Marathi	Dr. Snehal Taware
26	Spoken English	English	Prof. Alka Kamble
27	Computer awareness	Computer Science	Prof. S.S.Deshmukh
28	'Modi' Script	History	Dr. Rajesh Kulkarni

Part –B Annexure II (Criteria I) : Feedback

Format of various Feedback forms

Progressive Education Society's
Modern College of Arts, Science and Commerce, Shivajinagar, Pune 411005.

Feedback from Employer

Feedback about the employee

1. Name of the Firm/Company:

2. Address of the Employer:

3. Contact details:

4. Name and Designation of the
Respondent :

Tick the number that best describes your level of satisfaction about your
employee(s) (who are past students of this college) at each point given below:

1- far from satisfied, 2 - not satisfied, 3 - satisfied, 4 - happy, 5 - very happy.

Sr.No.	Attributes	5	4	3	2	1
1	Ability to contribute to the goal of the organization					
2	Planning and organization skills					
3	Communication skills and Soft Skills					
4	Obedience and relationship with Seniors					
5	Leadership, Team spirit and Initiative					
6	Relationship with peers/subordinates					
7	Willingness to learn new techniques, adopt new ideas etc.					
8	Ability to use workplace equipment					
9	Ability to solve workplace problems					
10	Innovativeness, creativity					
11	Involvement in social activities					
12	Simplicity and Sense of belongingness					
13	Respect for values in life					

Suggestions if any:

Place:

Date:

SIGNATURE

Feedback from Teachers

This form is intended to collect information relating to your satisfaction towards the curriculum, teaching, learning, evaluation and infrastructure. The information provided by you will be kept confidential and will be used as important feedback for quality improvement of the programme of studies and the institution.

For each item please indicate your level of agreement with the following statements by indicating Tick mark (✓) in appropriate column.

(1 - strongly disagree, 2 - disagree, 3 - neither agree nor disagree, 4 - agree, 5 - strongly agree)

Sr. No.	Statement	5	4	3	2	1
1	The courses/syllabi taught by me have a good balance between theory and application.					
2	The objectives of the syllabi are well defined					
3	The books/journals etc. prescribed/listed as reference materials are relevant, updated and cover the entire syllabi					
4	The course/syllabi of the subjects taught by me increased my interest, knowledge and perspective in the subject area.					
5	The college has given me full freedom to adopt new techniques/strategies of teaching such as group discussions, seminar presentations and learners' participations.					
6	I have the freedom to adopt new techniques/strategies of testing and assessment of students.					
7	Tests and examinations are conducted well in time with proper coverage of all units in the syllabus.					
8	The prescribed books are available in the Library in Sufficient numbers					
9	The environment in the College is conducive to teaching and research.					
10	The administration is teacher friendly					
11	The College provides adequate opportunities and support to faculty members for upgrading their skills and qualifications.					
12	ICT facilities in the college are adequate and satisfactory					
13	Separate space in College Canteen is available for Teachers					
14	Toilets/washrooms are clean and properly maintained					
15	The classrooms are clean and well maintained.					

Suggestions if any:

Place:

Date:

SIGNATURE

Feedback from Students about Teaching

Dear Students,

This form has been designed to seek feedback from you to strengthen the quality of teaching-learning environment and to improve the performance of the teachers. The information provided by you will be kept confidential.

Directions:

For each item please indicate your level of agreement with the following statements by indicating Tick mark (✓) in appropriate column.

(1 - Strongly disagree, 2 - disagree, 3 - not sure, 4 - agree, 5 - strongly agree)

Sr.No.	Statement	5	4	3	2	1
1	The entire syllabus is completed in time.					
2	The teachers are punctual and regular in taking lectures and practicals.					
3	The teachers come well prepared for the class					
4	The teachers encourage participation and discussion in class.					
5	The teachers' attitude towards the students is friendly & helpful.					
6	Modern teaching aids, power point presentations, web-resources, etc. are used by most of the teachers while teaching.					
7	The teachers are available and accessible in the Department after lecture timings.					
8	Periodical assessments are conducted as per schedule.					
9	Attendance record of the students is maintained by the teachers					
10	Regular and timely feedback is given on our performance.					
11	The evaluation process is fair and unbiased.					
12	The teachers guide the students for overall personality development of the students.					

Suggestions if any:

Course:

Year:

Place:

Date:

SIGNATURE

Feedback from Students about College

Dear Students,

This form has been designed to seek feedback from you to strengthen the quality of teaching-learning environment, to provide best possible facilities and modern infrastructure. The information provided by you will be kept confidential.

Directions:

For each item please indicate your level of agreement with the following statements by indicating Tick mark (✓) in appropriate column.

(1 - Strongly disagree, 2 - disagree, 3 - not sure, 4 - agree, 5 - strongly agree)

Sr. No.	Statement	5	4	3	2	1
1	The office staff in the college is cooperative and helpful.					
2	The library staff is cooperative and helpful.					
3	Online educational resources are available and accessible in the library.					
4	Internet facility provided in the Library is satisfactory					
5	The prescribed books/reading materials are available in the library.					
6	Equipment in the lab(s) is in good working condition.					
7	Results are displayed by the college.					
8	Separate common rooms for girls and boys are available.					
9	Toilets/washrooms are clean and properly maintained					
10	The classrooms are clean and well maintained.					
11	The campus is green and eco-friendly					
12	Clean drinking water is available in the college campus.					
13	The buildings/classrooms are accessible to disabled persons.					
14	The campus has adequate power supply.					
15	Our grievances are redressed/problems are solved well in time.					
16	The functioning of the placement cell in the college is satisfactory.					

Suggestions if any:

Course:

Year:

Place:

Date:

SIGNATURE

Feedback from Alumni

Dear Alumnus,

Thank you for considering Progressive Education Society's, Modern College of Arts, Science and Commerce, Shivajinagar, Pune 411005 as a source of your graduate / Post-graduate / doctoral studies. This form has been designed to seek suggestions or comments from you about the college.

A. Preliminary Information

1. Name of the Alumnus : _____
2. Address of the Alumnus :
3. Contact Number:
4. Email ID:
5. Name of the course completed:
5. Year of completion of course :
6. Present Occupation/ Designation:

Please Tick

Particulars	Excellent	Very Good	Good	Average	Poor
How do you rate the courses that you have learnt in the college in relation to your current job/ occupation?					
Infrastructure & Lab facilities					
Faculty					
Canteen Facilities					
Library					
Office Staff					
Hostel Facilities					
Educational Resources					
Admission Procedure					
Overall Rating of the College					

Mention at least four points which make you feel proud to be associated with Modern College as Alumni

PTO

Alumni Feedback form continued

1. In what way have the development activities organised by the College contributed to your overall development?

2. Do you have any grievances with the College?

(a) As a student: Yes No

(b) As an alumni: Yes No

If the answer is 'Yes', please specify/indicate the grievance

3. Are you a member of Alumni Association of our College?

Yes No

If the answer is 'No' please state the reasons

4. Any other suggestions/comments:

Place:

Date:

SIGNATURE

Feedback from Parents

Dear Parents,

Progressive Education Society's, Modern College of Arts, Science and Commerce was established in the year 1970. The college aims at the overall development of the students to become entrepreneurs and professionals in the respective disciplines. This form has been designed to seek feedback from parents to strengthen the quality teaching-learning environment in the college, to assess and to improve academic, non-academic, infrastructural facilities. The information provided by you will be kept confidential.

A. Preliminary Information

Name of the parent: _____

Contact Number :

Name of the Ward :

Name of the department:

Academic year :

Course of the Ward:

You are requested to tick (✓) the appropriate option for the following points

Particulars	Excellent	Very Good	Good	Average	Poor
Admission procedure					
Infrastructure and lab facility					
Work Culture observed by you and your Ward					
Canteen facility					
Library					
Other facilities provided by the college					
Sports and cultural activities					
Students' counseling and guidance					
Use of Information and communication technology in the college					
Academic Discipline (i.e. timely conduct of lectures, practicals and related activities) observed by the college					
Improvement in soft skills, knowledge, ethics, morality, observed by you in your ward while studying in college.					
Examination system adopted by the college					
Evaluation and Feedback mechanism					
Placements					

Suggestions (if any)

Place:

Date:

SIGNATURE

Analysis of Feedback on 5 point scale

Feedback from Students about college	3.66
Feedback from Students about teaching	3.61
Feedback from teachers	4.08
Feedback from parents	3.41
Feedback from Alumni	2.93
Feedback from Employers	3.85

Part B Annexure III (Criteria III): Major Projects

Principal Investigator	Title of the Project	Name of funding agency	Amount sanctioned	Duration of the Project
Ongoing Projects				
Dr. Mrs. A. S. Oak	Emotional Intelligence among adolescents: Tool Development, Enhancing through training and study of correlates	ICSSR	Rs. 17,00,000/-	2015-17
Total Amount			Rs. 17,00,000/-	
Completed Projects				
Mrs. Rama M. Phadke	Evaluation of potential of cytotoxicity of curcun protein from <i>Jatropha curcas</i> L.	UGC	3,35,000/-	2015-2017
Dr. Pradnya P. Kanekar (CSIR Emeritus scientist)	Exploring halophiles from west coast of India for production of bacteriorhodopsin novel protein that converts light energy into electrical energy	CSIR	30,13,953/-	2013-2017
Total Amount			Rs. 33,48,953/-	
Sanctioned Projects				
Dr. Rebecca Thombre	Astrobiology experiments on Effect of impact and space related stress on micro-organisms isolated from rocks: Implications for origin of life and Lithopanspermia	ISRO, Govt. of India	Rs. 14,50,000/	2017-19
Dr. K. D. Gopale	<i>Ex-Situ</i> Conservation of Some selected threatened, endemic and medicinal plants from <i>western ghats</i> on the land of P.E. Society, at Kule-Dakhane, Paud, Pune	MOeF	Rs. 33,82,735/-	2017-2020
Mrs. Rama Phadke	Study of Cytotoxic effect of Curcun Protein from	UGC-MRP	Rs. 3,35,000/-	2017-19

	Jatrofa CurcasL.			
Dr. Rebecca Thombre	Résponse of extremophiles from Tirez lake to space related stress: Implications for exploring habitability Mars and Europa	Europlanet European Union, UK	Travel Grant for Spain, Europe	2017
Dr. Rebecca Thombre	VUV irradiation of molecules of Astrobiological interest	NSRRC. Taiwan	Beam Time Grant at Taiwan	2017
Dr. Rebecca Thombre (Co-Pi)	EUV spectroscopy of interstellar icy mantles	NSRRC. Taiwan	Beam Time Grant at Taiwan	2017
Total			Rs. 51,67,735/-	

Part B Annexure IV (Criteria III) : Minor Projects

No	Principal Investigator	Department	Title of the Project	Name of funding agency	Amount sanctioned	Duration of the Project
Ongoing Projects						
1	Dr. Shubhangi Puranik	Zoology	To study anticarcinogenic activity silver nano-particles synthesized from medicinal plant resources	BCUD	2,10,000/-	2016-18
2	Dr. Rebecca Thombre (Co-Pi) and Dr. P.B.Vidyasagar Pi: Dr. Sagar Jagtap	Biotechnology	"Study of Growth, Antibiotic Resistance and Physiological Parameters of Haloarchaea under Simulated Microgravity (SMG)" Proposal No : 15SCI001620	BCUD	2,75,000/-	2016-18
3	Prof. Mrs. R. M. Phadake	Biotechnology	Evaluation of potential of cytotoxicity of curcumin protin from Jatropha curcus L.	UGC	3,35,000/-	2015-17
4	Dr. Mrs. V. S. Waman	Physics	Development of CZTS based low cost thin film solar cells by electrochemical deposition method	BCUD, SPPU	2,20,000/-	2014-16
5	Prof. S. R. Chaudhari	Electronic Science	Systemic Survey and Experimentations to Establish e-waste Management Centre in Modern College, Shivajinagar	UGC	2,30,000/-	2017-19
6	Dr. Abhay Shende	Economics	Impact of tribal development schemes on economic, social, cultural & educational life of tribals in Akole Tahsil	BCUD	1,40,000/-	2016-18
7	Prof. N.L. Wayal	Geography	Ground Water Management for Sustainable Agriculture Development: A Case Study of Akole Tahsil Dist. Ahmednagar, Western Maharashtra	BCUD	1,50,000/-	
Total					Rs. 15,60,000/-	

No	Principal Investigator	Department	Title of the Project	Name of funding agency	Amount sanctioned	Duration of the Project
Completed Projects						
1	Prof. Mrs. R. M. Phadake	Biotechnology	Evaluation of potential of cytotoxicity of curcumin protein from <i>Jatropha curcus</i> L.	UGC	3,35,000/-	2015-17
	Total Amount				3,35,000/-	
Sanctioned Projects						
1	Prof. Radhika Oke	Biotechnology	Isolation of Cell free extract/Enzyme responsible for biodegradation properties to the organism: The concept of Enzymatic Bioremediation	Sakal India Foundation on Research Fellowship	20,000/-	2017-19
3	Dr. Rebecca Thombre	Biotechnology	Astrobiology experiments on Effect of impact and space related stress on micro-organisms isolated from rocks: Implications for origin of life and Lithopanspermia	ISRO, Govt. of India	14,50,000/-	2017-19
	Total Amount				Rs. 14,70,000/-	

Part B Annexure V (Criteria III) : Research Publications

Sr. No	Name of the Staff Member	Title of the paper	Journal Name, ISSN Number	Volume Issue, Date of publication	Impact Factor of journal
1	Dr. M.R.Bodke	“Comparative study on zinc oxide nanocrystals synthesized by two precipitation methods”	ISSN 0366-6913 On-line version ISSN 1678-4553	vol.64 no.369 São Paulo Jan./Mar. 2018	
2	Prof. P.S.Varade	" Synthesis, characterization of polyaniline –SnO ₂ composite for volatile organic compounds”	UGC approved Journal (No. 63628), International Research Journal of Science and Engineering ISSN: 2322-0015	December 2017; Special Issue A1 : 117-122	SJIF Impact Factor 4.11
3	Prof. P.S.Varade	“Study on Mass loading and Acoustoelectric Effects in Surface Acoustic Wave Devices”	UGC approved Journal Journal (No 64094 International Journal of Innovative Knowledge Concepts	Vol 6 No 3 (2018): March	
4	Prof. S. S. Sakate	Cascade synthesis of dihydrobenzofuran via Claisen rearrangement of allyl aryl ethers using FeCl ₃ /MCM-41 catalyst	Journal of Saudi Chemical Society	22 (4), 396-404	3.2
5	Prof. S. S. Sakate	Facile one-pot synthesis of aliphatic bridged diaryloxy compounds, cyclic and crown ethers under mild conditions	Supramolecular Chemistry	29 (6), 462-470	1.2
6	Prof. R. M. Jagtap	X-ray crystal structures and anti-breast cancer property of 3-tert-butoxycarbonyl-2-arylthiazolidine-4-carboxylic acids	New Journal of Chemistry	42 (2), 1078-1086	3.2
7	Prof. R. M. Jagtap	Selective N-acetylation with concurrent S-oxidation of <i>o</i> -amino thiol at ambient conditions over Ce doped ZnO composite nanocrystallites	Molecular Catalysis	450, 19-28	1.090

8	Shilpa Pund/Dange	Data Hiding techniques using catalan-lucas number sequence	Indian Journal of science and technology 0974-6846(print) 0974-6845(online)	Vol.10(4),January 2017	Thompson Reuter 1.63
9	Shilpa Pund/Dange	Comparison of steganography technique using 8 bit binary representation & catalan-lucas representation	International Journal of Innovative computer science & Engineering 2393-8528	Vol.4 Jan-feb 2017	4.06
10	Anjali Sardesai	Fuzzy Logic Based Web Application for Gynaecology Disease Diagnosis, 2017	Springer	2017	4.932
11	Anjali Sardesai	Agreement among Expert's Perceptions with Respect to Gynaecology Disease Diagnosis using Fleiss Kappa	Dnyanmayo Interdisciplinary Research Journal	Volume 3, Issue 1, 2017	-
12	Anjali Sardesai	Artificial Intelligence in Medicine : A Review, February 2017	International Journal of Innovative computer science & Engineering	February 2017	4.06
13	Kalyani Salla	Big data a new challenge: A survey of existing techniques available for big data analytics and need for a paradigm shift	10.13140/RG.2.1.499 9.9601	2017	
14	Prerna Ubale	अज्ञेय की शाश्वती	Printing Area	2017	
15	Prerna Ubale	सहज और अनौपचारिक शिक्षा की प्रासंगिकता	Shodh Rutu	2017	
16	Prerna Ubale	तलछट से निकालने के लिए – भाग ०2	Yudhharat Aam Aadami	2017	
17	Prerna Ubale	असगर वजाहतांचा संवादाचा नवा मार्ग	Saksham Samiksha	2017	
18	Prerna Ubale	शिक्षणाने काय मिळते,	Marathboli –	2017	

		काय मिळावे?	Dipawali Ank		
19	Prerna Ubale	समकालीन हिंदी नाटक विधा में बदलते जीवन- मूल्य		2017	
20	Vaijayanti Jadhav	Arun koltakaranchya Droan ya kavitecha roopbandh	Power of knowledge	June,2017,vol, 01,issue,april- june 2017	ISSN-232- -4494
21	Vaijayanti Jadhav	Arun koltakaranchya kavita ya kavysangrahatil aashaysutre	Vidyavarta	Issue-19,vol- 01,july- sept.2017	ISSN- 2319-9318
22	Vaijayanti Jadhav	Arun koltakar yanchi Droan Kavita	Akshar Vangamay	July-sept-2017	ISSN- 2229-4929
23	Vaijayanti Jadhav	Strilikhit aatmcharitratil mulyanche swaroop	Snehavardhan Prakasahn	Dec.2017	
24	Vaijayanti Jadhav	18880 te 1950 ya kalaltil striyanche kathamulya	Sanshodhanvishwa	Dec.2017	ISSN- 2456-2548
25	Vaijayanti Jadhav	Arun koltakaranchya Chirimiri ya kavysangrahatil aashaysutre	Vidyabharti	Vol,1,issue,1,J une 2017	ISSN 2319-4979
26	Vaijayanti Jadhav	Arun koltakaranchya kavitechi shaili	Dnyanmay	Vol-1-Issue- 4March 2016- May 2016	ISSN2395- 7484
27	Gajanan Apine	Jativyavastheche samajik sandarbh aani ubh aadav	Samaj Prabodhan Patria	June,2017	ISSN- 0973-2845
28	Gajanan Apine	Kalavyavhar aani Prayogsheelata	Power of Knowldege	June2017	ISSN-232- -4494
29	Gajanan Apine	Kadambari:ek sahityaprakar	Vidyabharati	Vol,1,issue,1,J une 2017	ISSN 2319-4979
30	Gajanan Apine	Sahityatil Prayogsheelata	Printing area	Issue -31,Vol- 03,July 2017	ISSN- 2394-53-3
31	Gajanan Apine	Mithkancha lekhak aani lekhakiy Mihak	Maymawashi	Nov.2017	no
32	Gajanan Apine	Marathi Kadambari aani Uday kalatil Parshwbhoomi	Sanshodhanvishwa	Dec.2017	ISSN- 2456-2548

33	Gajanan Apine	Samiksha Sammelan:Kahi Nondi aani kahi nirikhshane	Mukt Shabda	Jan.2018	ISSN 2347-3150
34	Nisha Bhandare	Ra.na.Chavahn yanche lokshahi rajkaravishayak prabodhan'	Saksham Samiksha	2017	
35	Nisha Bhandare	Prasarmadhyman madhye marathiche sthan		2017	
36	Sangeeta Dhamdhare	Web-Based Bibliographic Services Offered by Top World and Indian University Libraries: A Comparative Study	International Journal of Library and Information Services (IJLIS) ISSN: 2475-9961 EISSN: 2475-997X DOI: 10.4018/IJLIS	Vol. 6, No.1 2017	
37	Sangeeta Dhamdhare	Impact of Innovations in Education on Rankings of Indian Universities	10th National and International Award Conference. Samata Sahiya Academy. Goa.	29th May 2017. pp. 42-45.	
38	Sangeeta Dhamdhare	Universities and their Web-Based Library Services: A Study of their Relationship	Humanities and Social Sciences Reviews	Vol.7, No.1. ISSN: 2165- 6258. pp.61-74	
39	Sangeeta Dhamdhare	Web-based best practices offered by top university libraries in the world versus university libraries accredited with "A" grade in India: a comparative study	International Journal of Library Science.	Vol 16, Issue 6. 2018. ISSN: 0975- 7546. pg.20-32	
40	Sangeeta Dhamdhare	Cumulative citations index, h-index and i10-index (research metrics) of an educational institute: A case study.	International Journal of Library and Information Science	Vol. 10, Issue.1 pg. 1-9 January 2018 ISSN: 2141- 2537	

41	Pratul Gadagkar	Initial Value Linear Evolutions Equations Involving Elliptic Operator on the Plane	IJMAA 2347-1557	Volume 5 Issue 3A 2017	0.564
42	Sandeep Patil	Synthesis and field emission investigation of the polypyrrole-zinc oxide (PPy-ZnO) nanocomposite	ISBN: 978-93-87317-98-7	-	-
43	Vaishali Waman	Nanocrystalline silicon (nc-Si:H) thin films synthesized by HW-CVD for solar cells	ISBN: 978-93-87317-98-7	-	-
44	Vaishali Waman	Synthesis of Cubic Nanocrystalline Silicon Carbide (3C-SiC) Films by HW-CVD Method	Silicon DOI 10.1007/s12633-015-9358-8	9 (2017) 4-4 Published online: 2012 February 6 21 29	0.7
45	Priya Sawant Dr. Amruta S Oke	Combating Stress at Workplace	<i>Social Sciences International Research Journal – Biannual Referred Journal, 2395-0544</i>	Volume-3 Spl Issue	2.97
46	Prof. Narendra M. Naidu	Report of <i>Cyrtanops punctipennis</i> White, 1853 (Coleoptera: Cerambycidae) from Maharashtra, India	Journal of Threatened Taxa, ISSN 0974 7893	10(1): 11201–11204 26 January 2018	

Conference Publications

Sr. No.	Name of the Staff	Name of conference and Level	Role	Name of the paper	Dates
1	Prof.P.S. Varade	International Conference " ETMN 2017, organized by Solapur University	Presented paper	"Evaporation Studies of VOCs Using Surface Acoustic Wave (SAW) Devices"	2017
2	Prof.P.S. Varade	Inter-national conference" ICANN 2017" organized T. C. college, Baramati, on 7th- 9th December 2017	Presented paper	Synthesis, characterization of polyaniline –SnO ₂ for volatile organic compounds"	2017
3	Prof.P.S. Varade	National conference organized by Indira College, Pune on 22nd - 23rd December 2017	Presented paper	"Simulation Of Saw Delay Line Sensor Using Matlab"	2017

Sr. No.	Name of the Staff	Name of conference and Level	Role	Name of the paper	Dates
4	Dr. Prerana Ubale	National	Present paper	समकालीन हिंदी साहित्य में जीवन-मूल्य	19-20 Jan. 2018
5	Dr. Prerana Ubale	National	Present paper	भारतीय नवजागरण : एक वैचारिक क्रांति	16-17 Feb. 2018

Part B Annexure VI-a (Criteria III) : Text Books written by Staff

Sr. No.	Name of Staff Member	Name of Book	Reference / Text	Publisher	ISBN No.	Year of Published
1	Prof. S. S. Deshmukh	Social Media Marketing	Text	Nirali Prakashan	-	2017
2	Dr. Anjali Sardesai	Applications of Soft Computing on the Web	Reference	Springer	9789811070976	2017
3	Dr. Anjali Sardesai	T.Y.B.Sc. (Animation) Lab book	Lab book	SPPU		2017
4	Prof. Sameer Nerlekar	T.Y.B.Sc. (Animation) Lab book	Lab book	SPPU		2017
5	Dr. Anjali Sardesai	Springer Book chapter	Reference	Springer		2017
6	Prof. (Dr.) M.D.Waghmare	Employees Turnover & Industrial Profitability	Text	Idol Publication	978-93-84283-42-1	2017
7	Prof. (Dr.) Amol Shinde	Behavioural Finance	Text	Idol Publication	978-93-84283-04-09	2017
8	Dr. Prerana Ubale	मन ओथंबून जाते -कवितासंग्रह	Text	शब्दवैभव प्रकाशन, पुणे	978-81-934248-6-5	Feb. 2018
9	Dr. Prerana Ubale	टूटन बढती जाती -कवितासंग्रह	Text	शब्दवैभव प्रकाशन, पुणे	978-81-934248-7-2	Feb. 2018
10	Dr.Nisha Bhandare	Ra.Na.Chavahn vyakti v karya	Reference	Shabdvaibhav	-	2017
11	Dr. Dixit P.G.	Discrete Probability and discrete probability distributions	Text	Nirali	978-93-86700-00-1	2017
12	Dr. Dixit P.G.	Descriptive Statistics	Text	Nirali	978-935164-738-6	2017
13	Dr. Dixit P.G.	Statistical	Text	Nirali	978-93-87937-	2017

Sr. No.	Name of Staff Member	Name of Book	Reference / Text	Publisher	ISBN No.	Year of Published
		Inference : Estimation			41-5	
14	Dr.Sane M.M.	Regression Analysis	Text	Nirali	978-93-86700-94-0	2018
15	Mr.Waldhe P.S.	Linear Algebra	Text	Nirali		2018

Part B Annexure VI-b (Criteria III) : Faculty served as experts, chairpersons or resource persons

Sr. No.	Name of the Staff Member	Role	Name of Conference / Seminar / Symposia
1.	Prof. D.B. Gaikwad	Resource Person	DBT sponsored workshop on “Digital Design using Verilog” on 1st September to 09th September 2017 by Ferguson College Pune-4.
2.	Prof. D.B. Gaikwad	Resource Person	Guest Lecture on “Embedded System” under DBT Scheme on 27/12/2018 at Sangamner Nagarpalika Arts, D.J. Malpani Commerce and B.N. Sarada Science College , Sangamner.
3.	Mrs. Rama Phadke	resource person for 2 days workshop	Immunology at glance” organized by Department of Zoology, SPPU, Pune on 1 st and 3 rd March, 2018.
4.	Dr. Rebecca Thombre	Invited speaker	Cassini-Huygen Meet organized by Physical Research Lab, Dept. of Space at Physical Research Lab, Ahmedabad on 13 Sept. 2017
5.	Dr. R. S. Zunjarrao	Resource Person	Abasaheb Garware College, Pune
6.	Dr. R. S. Zunjarrao	Resource Person	Dr. Babasaheb Ambedkar Mahavidyalaya, Aundh
7.	Dr. R. S. Zunjarrao	Resource Person	Modern Law College, Pune
8.	Dr. R. S. Zunjarrao	Resource Person	Anantrao Thopte College, Bhor
9.	Dr. R. B. Barmukh	Resource Person	Conference, New Arts, Commerce and Science College, Ahmednagar
10.	CA Rasika Date	Resource persons	Stress Management through Yoga and Meditation. On 3 rd November, 2017, Women RRC organized by Pune Branch of the Institute of Chartered Accountants of India, at Tural, Near Sangameshwar, Maharashtra
11.	Dr. Rupesh Bansode	Resource persons	Impact of GST on Banking sector in India. 8 th January, 2018 at State level Seminar on Goods and Service tax at Samajbhushan Ganpatrao Kalbhor College- Loni Kalbhor, Maharashtra
12.	Dr. Anjali Sardesai	Resource Person	Two Days Workshop on Computer Based 2-D Animation : A Gateway to e-content Development Process
13.	Dr. Anjali Sardesai	Judge	Logo Competition, Science Association MCASC Pune 5
14.	Dr. Anjali Sardesai	Resource Person	Modern Law College, Pune
15.	Dr. Anjali Sardesai	Resource Person	S.P. College, Pune
16.	Dr. Kalyani Salla	Resource Person	St. Meera’s College, Pune
17.	Prof. Manisha Suryawanshi	Resource Person	B.C.A. Syllabus restructuring workshop, Ahmednagar
18.	Prof. Sameer Nerlekar	Resource Person	Two Days Workshop on Computer Based 2-D Animation : A Gateway to e-content Development Process
19.	Prof. Hari Pagire	Resource Person	Two Days Workshop on Computer Based 2-D Animation : A Gateway to e-content Development Process
20.	Prof. Supriya Wable	Resource Person	Two Days Workshop on Computer Based 2-D Animation : A Gateway to e-content Development Process
21.	Dr Madhu Satam	Resource Person	2
22.	Prof. Alka Kamble	Resource person	English for Bharat. ELTIS. Pune
23.	Dr. Vilas B. Kamble	Expert Committee Member Nominated by Hon. V. C.	Pravara Gramin Sanstha’s Arts Science and Commerce College Kolhar, Tal. Rahata, Dist. Ahmednagar

Sr. No.	Name of the Staff Member	Role	Name of Conference / Seminar / Symposia
24.	Dr. Prerna Ubale	Judge	State level elocution and poem recitation competition, Mumbai
25.	Gajanan Apine	Expert	Expert for sahitya akadami awards distribution
26.	Dr.Nisha Bhandare	Expert	Rayat Avishkar,2017 ,SM Joshi college,Hadapasar
27.	Dr.Nisha Bhandare	Resource Person	Annabhavunchya kadambaryatil nayika is topic on which deleivered lecture
28.	Dr. A. N. Bhavale	Planery Session	One Day State Level Seminar on Recent Trends in Mathematics
29.	Prof. Gadagkar P.V.	Symposia Talk	International Conference on Algebra and Analysis
30.	Mr.Vivekbobade	Resource person	Lab safety for Lab assistants in science laboratories
31.	Dr. Amruta S Oke	Resource Person at Modern college	Self Development with Value based Education
32.	Mrs. Shradha Sakatkar	Resource Person at Garware College	Workshop on Mental wellness of students
33.	Mrs. Shradha Sakatkar	Resource Person at Modern college	Soft-skills and Emotional Intelligence
34.	Dr. Dixit P.G.	Resource Person	1. How to do the Projects Modern College of Arts, Science and Commerce, Ganeshkhind 15 th January 2018.
35.	Dr. Dixit P.G.	Expert	2. SWOT Analysis Modern College of Arts, Science and Commerce, Shivajinagar, Pune
36.	Dr. Dixit P.G.	Resource Person	3. Research Methodology Dr. Babasaheb Ambedkar Marathwada Vidyapeeth 7 th March 2018
37.	Mt. Waldhe P.S.	Resource Person	Actuarial Statistics at Dr. Babasaheb Ambedkar University, Aurangbad 19 th and 20 th March 2018.

Part B Annexure VII-a (Criteria III) : Collaboration Details

	Name of the Institute/ University/ Department/ Agency /Industry	Level	Department	Purpose
1.	PASCH, Goethe Institute, Germany	International	German	Students' Exchange and Faculty Empowerment
2.	Deenanath Mangeshkar Hospital ,Pune-07	National	Biotechnology	for molecular biology analysis of miscarriage foetus samples
3.	Malkolak Knowledge Centre Hyderabad	National	Biotechnology	for molecular biology analysis of miscarriage fetus samples
4.	Microsat Biolabs (Mumbai based Biotechnology Industry)	National	Biotechnology	For Academic and research collaboration
5.	NCCS, Pune	National	MCC (Dr. Yogesh Shouche, Director)	ISRO Project of Dr. Rebecca Thombre -related collaboration for 16 s Sequencing of Bacteria
6.	Agharkar Research Institute, Pune	National	Microbiology Div. (Dr. P.K.Dhakephalkar, Scientist F)	ISRO and BCUD Project of Dr. Rebecca Thombre - related collaboration for 16 s Sequencing of Archaea
7.	DELNET: Developing Library Network	National	Library	Resource Sharing : online database- 3000000 e-books
8.	Door-Step NGO	State	Psychology	Consultancy
9.	Pragati Foundation	State	Psychology	Consultancy
10.	Equip-Kids, Thane	National	Psychology	Research and Training
11.	Modern College of Pharmacy, Nigdi, Pune	State Level	Pharmaceutics	PG Research Project
12.	Satara College of Pharmacy, Satara	State Level	Pharmaceutics	PG Research Project
13.	Quick Heal Technologies (QH Connect Program)	Intercollegiate	Computer Science	Main purpose of the Quick Heal Connectprogram is to guide students in C and C++ and also Prepare them for campus recruitment program. Quick Heal conducts training sessions for the students and after training, they again conduct test and interview the students. Depending on their performance they recruit the students in Quick Heal Technologies
14.	TOEFL/GRE Quiz (Satan Paradise)	Intercollegiate	Computer Science	This event was arranged for Graduate and Post Graduate students in order to generate awareness of future career prospects

	Name of the Institute/ University/ Department/ Agency /Industry	Level	Department	Purpose
				abroad and highlight the significance of
15.	WordPress Community (Word Camp, 2013,2015)	International/ National	Computer Science	Technical Talk on customized websites and blogs development using 'WORDPRESS' – A Content Management System
16.	Evolve Excellence (Academic Career Excellence)	Collegiate	Computer Science	Benefits everyone who needs to communicate effectively. Most widely used global language. Opens the door to multidimensional careers. Students and professionals are better equipped to deal with international challenges
17.	TOEFL/GRE Quiz (Satan Paradise)	Intercollegiate	Computer Science	This event was arranged for Graduate and Post Graduate students in order to generate awareness of future career prospects abroad and highlight the significance of GRE/TOEFL
18.	WordPress Community (WordCamp,2013,2015)	International/ National	ComputerScience	Technical Talk on customized websites and blogs development using 'WORDPRESS' – A Content Management System
19.	Mahatma Gandhi Institute, Mauritius	International	Marathi	Interdisciplinary Research/Conference
20.	Manipal University, Dubai	International	Marathi	Interdisciplinary Research/Conference
21.	Arya Samaj, Thailand	International	Marathi	Interdisciplinary Research/Conference
22.	Shejwalakar Education Institute, Pune	State	Marathi	Interdisciplinary Research/Conference
23.	Evolve Excellence (Academic Career Excellence)	Collegiate	Computer Science	<ul style="list-style-type: none"> • Benefits everyone who needs to communicate effectively. • Most widely used global language. • Opens the door to multidimensional careers. • Students and professionals are better equipped to deal with international challenges
22.	CAREER EXHIBITION Energia WellBeing	Collegiate	Collegiate	Career Exhibition cum Career Talk on different career choices available along with alternate career path with informative flex

	Name of the Institute/ University/ Department/ Agency /Industry	Level	Department	Purpose
23.	CAREER FEST	Collegiate	Collegiate	Career fest cum Career Talk where different institutes participated and guided the students on various career choices available along with alternate career path
24.	Anibrain (An award winning visual and creative studio)	Collegiate	Computer Science	Awareness on Online & Digital Marketing, 3D, VFX, and Digital Painting, Mobile App Development and Gaming
25.	AniBrain (Visit)	Collegiate	Computer Science	Demo of making of different movies , 3D affects etc.
26.	Gebee Education (Study Abroad)	Collegiate	Collegiate	The interactive session highlighted on various career courses abroad along with the sufficient guidelines for the admission process for the same.
27.	Modern College of Pharmacy	National	For research and pharmaceutical course	
28.	Peace of Mind Holistic Health Services, Pune	State Level	Psychology	For Students Internship
29.	Modern Law College, Ganeshkhind, Pune	State Level	Psychology	For Counselling
30.	Modern College of Engineering, Pune	State Level	Psychology	For Counselling
31.	Data Science Lab, Software Services, Pune	Other	Statistics	Training programme on SA software
32.	CYTEL Software Services Pune	Other	Statistics	Analysis of Clinical Trials
33.	Finstat, Pune	Other	Statistics	R- software and Ms-Excel certificate course
34.	Asian Center for research and Training	Other	Computer Science	Student Placement, e-content development
35.	Dr. S. Y. Paranjape	Other	Research	Research Assistance
36.	Deenath Mangeshkar Hospital	Other	Research	Research inculcation
37.	Ken Arts	State	Fashion Technology	Student placement, Field experience
38.	Microsat Biolab	State	Microbiology	Training, research, exchange of knowledg
39.	Ramesh Dyeing	State	Fashion Technology	Student placement, Field experience
40.	Stallo Suiting, Shirting and Tailoring	State	Fashion Technology	Student placement, Field experience

	Name of the Institute/ University/ Department/ Agency /Industry	Level	Department	Purpose
41.	Satara College of Pharmacy	Other	Microbiology	Training, research, exchange of knowledge

Part B Annexure VII-b (Criteria III) : Linkages Created Details

Departments	Name of the Institute /University /Department /Agency /Industry	Nature of Linkage/ Collaboration
Biotechnology	Modern College of Pharmacy Nigdi	M.Sc. Research Projects
	Tilak Maharashtra University , Pune	Research
	Department of Chemistry and physics SPPU, Pune	M.Sc. Research Projects
	BharatiVidyapeeth Pune	Academic Programme, Skill development course
	NCCS, Pune	M.Sc. Research Projects
	Serum Institute, Pune	Summer training and placement
	NCL, Pune	M.Sc. Research Projects, Research Fellows
	Agharkar Research Institute, Pune	M.Sc. Research Project, Research Fellows
	IISER, Pune	M.Sc. Research Project, Research Fellows
	MUHS-regional centre	M.Sc. Research Project
	Evolvus system	Student placement
	Opra systems	Student placement
	Persistant Systems	Bioinformatics lecture, Student placement
	N-CORD	Student placement
	PremiereBiosoft	Student placement
	Thyrocare	Student placement
	MicrosatBiolabs (Mumbai based Biotechnology Industry)	For Academic and research
	Agharkar Research Institute,Pune	Research
	SVRTMUniversity, Nanded	ISRO-related collaboration for Microgravity related experiments
	SVRTM University, Nanded and HV Desai College,Pune	Collaborative BCUD proposal sent in 2015
Rangoonwala Dental College,Pune.	Worked as a Co-Guide for MD project of Dr. SimrataAijrawat (MD student)	
Deccan College,Pune	Collaborative Proposal related to study of Haloarchaea from ancient rocks of India	
Botany	Agharkar Research Institute, Pune	Research Project
	Botanical Survey of India , Western Circle, Pune	Research work
	Central Marine Fisheries Research Institute, Cochin, Kerala	Student Training and Research Work.
	Department of Botany, Agriculture College of Pune	Student Training and Skill development course
	Central Research Facility, of SPPU, Pune	Research Work
	Department of Botany, of SPPU.	Research Work
Chemistry	Centre for Materials for Electronic Technology, Panchawati, Pashan, Pune-411008	M. Sc. Research projects
	Department of Chemistry, SP Pune University, Pune.	M. Sc. Research projects
	Physical and Material Chemistry Division, CSIR-National Chemical Laboratory, Pune 411008.	M. Sc. Research projects
	Chief Scientist, Physical and Material Chemistry Division, CSIR-National Chemical Laboratory, Pune 411008.	M. Sc. Research projects
	CEPD Division, CSIR-National Chemical Laboratory, Pune 411008.	M. Sc. Research projects
	Catalysis and Inorganic Chemistry Division, CSIR-National Chemical Laboratory, Pune 411008.	M. Sc. Research Project
Economics	Gokhale Institute, SSPU, Indian Economics association, MP Economics association, Marathi Artha ShastraParishad, Indian Association of Social Science and Health, Family Planning Association, Vidya Sahakari Bank	Conferences, Training, library and project work
Electronics	IIT Mumbai, Centre for Materials for Electronics Technology (C-MET) Scientific Society, Department of Information Technology Panchawati, Pashan Road Pune - 411 008 , IGATE,	M. Sc. Student Project and Research Project

Departments	Name of the Institute /University /Department /Agency /Industry	Nature of Linkage/ Collaboration
	DOES SPPU, VSI Pune, PCSmile Industries, Dynolog systems, MEDA Pune, BINIX Electronics Pune. Prowiz enterprises Pune.	
English	BCL, Centre for post-colonial study Nottingham Trent University UK, BITS private Limited Pune, Technoknit Pune,	Library, Organising Workshops, International Resource Person, Pilot Course-Blended English, Research work, Placements
German	Max Mueller Bhawan, Delhi, IGS Garbsen, Germany Department of Foreign Languages, SPPU	Students' and Teachers' Training, Student's Exchange, Youth Camps in Germany and India, collaborative work ., international resource persons
History	Students informally visit to Kelkar museum, Mahatma Phule museum, Bhandarkar Research Institute	Academic
Library	British Library, F. C. Road, Pune	Online Resources – 85000 e-books/14000 e-journals And We can borrow total 14 items from Books, CD's, Periodical's, DVD's, Films, Children's Section and access to 4000+ Newspapers on Smart Card Provided by BL
Marathi	Jaykar Library, SPPU, Pune	Book borrowing and reference reading facility
Mathematics	Gokhale Institute of Politics and Economics, Pune	Book borrowing and reference reading facility
Microbiology	INFLIBNET-NLIST, Gujarat	online database-6000+ e-journals and 97000+ e-books
Physics	Deccan College, Pune	book borrowing facility
Psychology	Kaivalyadham Yoga institute, Lonavala., Manashakti Kendra, Lonavala, Regional Mental Hospital, Ratnagiri, Walawalkar Trust's hospital, Derwan, Christian Counselling centre, Vellore, Tamil Nadu, Rotary club, Schizophrenia Awareness Association, Mukhtangan De-addiction centre, Prasanna Autism Centre, Kripa Foundation de-addiction centre, Samparca Balagram orphanage	Field based activities, Teacher Training programme, PG Research Project, Visiting faculty, Social work, PG Research Project, Social work
Zoology	IISER, Pune, Garware College, Pune, Chief Eng. (Rtd.), Pune, ELA Foundation, Pune, Pugmarks Pune, Garware College, Pune, Dept. of Environmental Science, SPPU, Pune,	Field based activities, Teacher Training programme, PG Research Project, Visiting faculty, Social work, PG Research Project, Social work
IQAC	German Indian Business Centre, GIBC Hannover, Bussardweg, 31-30880, Loatzen Germany.	Indo-German Exchange and Collaborative Initiative
Microbiology	Microbial Culture collection	National
Microbiology	University of Pune	National
Microbiology	Garware College	National
Physics	Department of Physics SPPU	Project of M.Sc.students Material Science and Nanotechnology
Physics	DIAT, Pune	Project of M.Sc.students Biomedical Instrumentation
Physics	NCRA, Pune	Project of M.Sc.students Astrophysics
Physics	IITM, Pune	Project of M.Sc.students Weather Forecast
Psychology	Ernst and Young Foundation	For activities
Psychology	My Mind Matters	For activities
Psychology	Schizophrenia Awareness Association(SAA)	For activities

Part B Annexure VIII-a (Criteria III) : List of Ph.D. guides

From college:

No.	Name	Subjects	Period of recognition
1.	Dr. R. S. Zunjarrao	Botany	29/08/2005 to 28/08/2013
2.	Dr. Mrs. N. M. Patil	Botany	08/05/2012 to 07/05/2020
3.	Dr. Mrs. S. S. Puranik	Zoology	21/02/2013 to 20/02/2021
4.	Dr. H. V. Ghate	Zoology	19/06/2009 to 18/06/2017
5.	Dr. Y. R. Waghmare	Commerce	14/03/2012 to 13/03/2020
6.	Dr. A. V. Kamble	Commerce	24/11/2012 to 23/11/2020
7.	Dr. Mrs. M. M. Satam	Economics	23/04/2010 to 22/4/2018
8.	Dr. Abhay Shende	Economics	19/01/2010 to 18/01/2015
9.	Dr. Mrs. S. L. Taware	Marathi	20/03/2012 to 19/03/2020
10.	Dr. Mrs. Sanjivani Rahane	Commerce	17/08/2012 to 16/08/2020
11.	Dr. R. B. Barmukh	Botany	20/02/2015 to 19/02/2023
12.	Dr. Mrs. S. S. Mujumdar	Microbiology	08/05/2015 to 07/05/2020
13.	Dr. Rebecca Thombre	Microbiology	08/05/2015 to 07/05/2020
14.	Dr. Geetanjali Litke	Biotechnology	08/05/2015 to 07/05/2020

From outside college:

No.	Name	Subjects
1	Dr. D. B. Pawar	Economics
2	Dr. Arvind Shelar	Economics
3	Dr. U. N. Hivarkar	Electronic Science
4	Dr. P. K. Bhadane	Electronic Science
5	Dr. Shobha Ingavale	Marathi
6	Dr. Madhavi Kharat	Marathi
7	Dr. Mahadev Walunj	Marathi
8	Dr. Jaya Kadam	Marathi
9	Dr. Kharat S.S.	Zoology
10	Dr. Patil S.B.	Zoology

No.	Name	Subjects
11	Dr.Kshirsagar R.V.	Zoology
12	Dr.Modak M.A.	Zoology
13	Dr.Padhye A.D.	Zoology
14	Dr. Datar S.P.	Zoology
15	Dr. Inamdar S.	Zoology

Part B Annexure VIII-b (Criteria III) :
List of Ph.D. and M.Phil. Students in college

No	Name of the Student	Subjects	Topic of Research	Name of the Guide	Date of Registration
1	Mr. Prashant D. Mohite	Commerce	A study of interrelationship between stress level and productivity among Pune Mahanagar Parivahan Mandal Ltd. (PMPML) Bus driver and conductor	Dr. S. D. Pawar	Ph. D. Awarded on 31 st May 2014
2	Mr. Suneel A. Kelkar	Commerce	Strength of candlestick graph as tool for predicting prices of shares included Nifty index.	Dr. Ravi M. Chitnis	Ph. D. Awarded on June 2014
3	Mr. Dhondibhau S. Borkar	Commerce	Impact of IT of efficiency of banking Industry.	Dr. V. S. Mangnale	Ph. D. Awarded on 31 st May 2014
4	Mr. Virendra Vasant Tatake	Commerce	A Study of Performance of Selected Index Mutual Funds and Investors' response to Index Mutual Funds 'Investments'	Dr. Y. R. Waghmare	DOR. 28-08-2010 Letter Ref. No. PGS/9721 Dated 9/12/2012
5	Mr. Anil Vinayakrao Jagtap	Commerce	A Study of Disclosure of Accounting Policies in Financial Reports of Selected Companies in India	Dr. Y. R. Waghmare	DOR- 14/01/2011 Letter Ref. No. PGS/8 dated 2/01/2012
6	Mr. Yuvraj Rajaram Thorat	Commerce	Fianacial Analysis of Regulated Agriculture Produce Market Committees in Maharashtra with Special Reference to Pune District.	Dr. Y. R. Waghmare	DOR – 28-08-2010 Letter No. 10099 / dated 30/12/2011
7	Mr. Parag Sumatilal Shah	Commerce	Designing of user satisfaction index for hotel Industry in Pune city.	Dr. Subhas Devlu Pawar	DOR. 07/07/2011 Letter Ref No. PGS/ 9907 Dated 22/12/2011

No	Name of the Student	Subjects	Topic of Research	Name of the Guide	Date of Registration
8	Mr. Nilesh Tukaram Waghmare	Accountancy	A Study of Fundamental Analysis and Movement in Commodity Prices and Its' Impact on Indian Share Market	Dr. Yeshwant Raghunath Waghmare	DOR - 28-05-2015 letter No. PGS/COM/4193 DATED 25 SEPT. 2015
9	Mrs. Savita Shatrughan Thorat	Commerce	A Critical Study of State Government's role in promotion of sericulture in Western Maharashtra	Dr. Shoba G. Dadlani	DOR 24/01/2011 Letter Ref. No. PGS / 9900 dated 22/12/2011
10	Mr. Vijay Narayan Gaikwad	Commerce	A Study of Working Capital Management of Selected Co-operative Factories in Pune District.	Dr. Yeshwant Raghunath Waghmare	DOR - 25/10/2008 Letter Ref. No. 9534 dated 21/11/2008
11	Mr. Pimple Nirbhay Sudhir	Zoology	A Study of Reproductive Biology of Genus <i>Osteobrama vigorsil</i> and <i>Rohtee ogilbilii</i> from Nira River.	Dr. Sanjay S. Kharat	20/09/2012
12	Mr. Raut Rupesh Nivruti	Zoology	Osteological and Morphological relationship among family cyprinidae fishes	Dr. Sanjay S. Kharat	10/01/2013
13	Mr. Naidu Narendra Madhukar	Zoology	Taxonomy and Biodeversity of Cerambyoid beetles (Insecta:Coeptra) of Maharashtra	Dr. Hemant V. Gahte	14/01/2013
14	Mrs. Sontakke Sangita Sandip	Zoology	Cheak Embryo as Model for Understanding Biochemical and Molecular Mechanisms of Glucose induce organ damage	Dr. Savita P. Datar	05/04/2013
15	Mrs. Patil Bharati Vishwasrao	Zoology	Hydrobiological study of Tungarli and Valvan Dams of Lonavla with Special reference to aquatic insects	Dr. S. B. Patil	05/04/2013
16	Nafieshsadat Omidiani	Botany	Studies on medical efficacies of <i>Achyranthes aspera</i> L.	Dr. R B Barmukh	18/04/2016
17	Hemlata S. Chandorkar	Accountancy		Dr. Yeshwant Raghunath Waghmare	DOR - 23-03-2015 letter No. PGS/COM/4193 DATED 25

					SEPT. 2015
18	Shraddha Rajeev Hirve	Banking and Finance	A Study of Green Banking Practices in Select Commercial Bank	Dr. Yeshwant Raghunath Waghmare	pgs/com/2244 DATED 27/06/2015
19	MS. Sangeeta Vishwanath Dixit	Banking and Finance	A Comparative Study of the Customer Relationship management Policies in Indian Public Sector Banks with Special reference to Retail Banking within Pune city after 2001	Dr. Ravikumar Manohar Chitnis	PG/COM/8052 DT 30/10/12 REVISED PGS/4212 DT 25/9/15 Submitted
20	Mr. Bhise Hemant Keshav	Banking and Finance	A Study of Financial For Successful Retirement planning : Issues and Challenges	Dr. Ravikumar Manohar Chitnis	PGS/ COM/ 2244 DATED 27/06/2015
21	Mrs. Veena Rajesh Kale	Business Administration	An Evaluative Study of Training System and Practices in RTI , by YASHADA	Dr. Shoba G. Dadlani	DOR 28th December 2015
22	Mrs Reshma Gawali	Banking And Finance	A Study of Analysis of Impact of Stress on Managerial Styles of Textile Entreprises	DR. Vandana Vilas Kulkarni	PGS/COM/2244 DATED 27/06/15
23	Mr. Sampat Iyyer	Banking And Finance	Study of Banking Preferences of Youth and senior Citizens	DR. Vandana Vilas Kulkarni	PGS/3560 DATED 12/09/2016
24	Mr. Narayan Sakate	Marketing , Business Administration	A Study of Comtemporary Corporate Social Practices of Select Industrial Units in Western Maharashtra	Dr. Ashok Vishwnath Kamble	PGS/ 3115 DATED 23/3/2015
25	Rasika Prabhakar Date	Marketing , Business Administration	A Study of Comtempory Management and Social Audit Practices for Assessing Empowerment of Women employees in Educational Institutions	Dr. Ashok Vishwnath Kamble	PGS/COM/2244 DATED 27/06/2015
26	Vilasini D.S.	Marketing , Business Administration	A Comparative Study of Impact of Customer services and pricing policies of IDEA and VODAPHONE on Consumer Behaviour	Dr. Ashok Vishwnath Kamble	pgs/2934 dated 9/8/2016
27	Mrs Vinita Srivastava	Economics	Role of Mann Deshi Mahila Bank in Financial Inclusion	Dr. Madhu Satam	25-7-2014

28	Mrs Shilly john	Economics	Card Based Payment System and consumption	Dr. Madhu Satam	25-7-2014
29	Kailas Astarkar	Economics	Role of Banks in Financial Inclusion of Youth in Pune	Dr. Madhu Satam	20-4-2016
30	Gadge Ramdas Kamaji	Economics	Agriculture Marketing	Dr. D. B. Pawar	20-04-2016
31	Vartak Sandhya Anil	Economics	Economic Problems of Elderly	Dr. Abhay Shende	14-09-2015
32	V. C. Wagh	Economics	Rural Maharashtra	Dr. Abhay Shende	14-09-2015
33	Jadhav B. S.	Economics	Employment Schemes	Dr. D. B. Pawar	20-04-2016
34	Gaikwad Pramila N.	Economics	Demographic Changes and HRD	DR. Arvind Shelar	25-07-2014
35	Jagtap H. K.	Economics	Industry and Agriculture	Dr. Abhay Shende	25-07-2014
36	Ms. Pote Madhuri Keshav	Electronic Science	Study of Vision and Speech based hybrid system for biometric identification and exploring its use in school bus transport	Dr. U.N. Hivarkar	21/02/2015
37	Mrs. Divatankar Swati Nivrutti	Electronic Science	Development of vision based approach for optimal real time road traffic control application	Dr. U.N. Hivarkar	21/02/2015
38	Ms. Menon Anitha Ramchandran	Electronic Science	Study of Electronic photonic co simulation at dielectric and metallic interface in silicon photonics	Dr. U.N. Hivarkar	15/09/2015
39	Mr. Chaudhari Sharad Raghunath	Electronic Science	Study and experimentation to establish a standardized e-waste management protocol for used mobile phones	Dr.P.K.Bhadane	15/09/2015
40	Mrs. Suchita Prakash Bhangale	Electronic Science	Development of improved performance potentiometric chemical sensors Indigenous signal conditioning and study of their feasibility of uses in industrial process of control application	Dr.P.K.Bhadane	15/09/2015
41	Mr. Bhusnar	Electronic	Development of automated irrigation system for slowing	Dr.P.K.Bha	18/05/2016

	Nagnath Vasant	Science	doen fertility degradation of soil under sugarcane plantation	dane	
42	Ms. Pagar Vandana Nilesh	Electronic Science	Development of human sweat analysis system based on electro chemical sensors and to study feasibility of its use as wearable health monitoring devices	Dr.P.K.Bhadane	18/05/2016
43	Deshmukh Vishnu	Zoology	Management of Insect oests, potato cutworms (Agrotis Ipsilon peridroma saucia) and pulse beetles (Bruchus chinensis, linn) using biosynthesized nano-particles	Dr.Kharat S.S.	27/08/2014
44	Patil Sanjivani	Zoology	Correlative analysis of oxidative DNA damage repair cell proliferation mechanisms in pancreatia B cells	Dr.Patil S.B.	27/08/2014
45	Bhaiyyalal Ramprakash	Zoology	Studies on evaluation of Bivoline hybrid of Bombay moril for cocoon productivity in non-traditional region of Pune division of Mahashtra state	Dr.Kshirsagar R.V.	29/08/2015
46	Patil Ashwini	Zoology		Dr.Modak M.A.	29/07/2015
47	Deshpande Rujuta	Zoology	Screening anticancer properties of novell soxazolona derivatives	Dr.Modak M.A.	31/03/2016
48	Jagtap Rutika	Zoology	In vitro studies on anti cancer potential of embelia ribes derived nanoparticles	Dr.Puranik S.S.	29/07/2015
49	Gosavi Sachin	Zoology	Reproductive biology and digestive physiology of pachypterus khavalchor (Kulkarni 1952) an endemic freshwater fish of perimsular India and its implication for conversation	Dr.Kharat S.S.	29/07/2015
50	Kulkarni Netra	Zoology	Interrelationship between endoplasm micreticulum stress oxidative stress and the fate of pancreatic beta cells	Dr.Modak M.A.	31/03/2016

			lines – RIN 5F		
51	Shaikh Mubeen	Zoology	Taxonomic and regeneration studies of diverse fresh water planarian in Pune district	Dr.Kshirsagar R.V.	31/03/2016
52	Sarika Thorat	Marathi		DR.Shobha Ingavale	
53	Vaishali Mohite	Marathi	Warkari sampradayatil sant kaviyatrishya vangmayatil strivishayak Janiva	DR.Shobha Ingavale	9/8/2014
54	Sumangala Bakare	Marathi	Sant Janbai yanchya samagra vangmayacha abhyas	DR.Shobha Ingavale	9/8/2014

Part B Annexure IX (Criteria VII): Best Practices

1. Title of Practice: Use of Electronic and Computer Technology in academics and administration

- **Goal**
 - To develop / enhance competencies in teaching, learning and research.
 - To improve academics by using web based information
 - Improvement in teaching and learning using web based infrastructure such as Google Apps for Education.
 - To increase the efficiency of team work by increasing effective communication
- **The Context**

Students come from various socio-economic backgrounds with little or no access to Information Communication technology (ICT) for learning. The use of ICT by the college has positive impact on learning experience. The importance of ICT lies in focusing individual student, teacher and thus improving overall teaching learning experience. It helps to develop aptitude from descriptive to analytical, from academic to practical and to decide the future career goals.
- **The Practice**
 - Every department of the college has received laptops and projector for conducting lecture, practical sessions and seminars.
 - Internet facility is provided to all departments of the college.
 - College website is developed for presenting activities of college related to academics, administration, research and student support services
 - Use of Google Apps for Education for online quiz, filling up forms, making spreadsheets and power point presentations etc. Online examination software Quiz Fire is used by Department of Electronic Science to conduct internal examination.
 - Library makes use of advance technologies to access online reference databases
 - Teachers and students have direct access to INFLIBNET facility of UGC
 - Web OPAC - Adequate provision of computers has been done to refer OPAC with proper instructions. Students extensively use this OPAC to locate the required book and they do not require any manual help. It saves their time.
 - The college has digital library through which the staff and students get easy access to e-material.
 - Digital record room enables the administrative staff to maintain the records and helps easy and quick access of records.
 - **Virtual classroom:** virtual classroom facility is made available with online audio-video recording system, enabling interactive sessions with eminent professors and scientists.
 - **Digital classrooms:** In digital classroom '*Mi board*' is installed which enables to teach interactive sessions including audio-video, drawing objects, recording lectures. The college has installed five digital classrooms.
 - Wi-Fi connectivity on college campus
 - Mobile jammer in Library Reading hall
 - ICT in sports : Live matches are recorded and those are replayed in Gymkhana department for the players to learn the tactics, to understand and avoid the mistakes during play and to improve their performance.
 - ICT in Languages: Independent Language laboratory with necessary software
 - ICT In Social Sciences: Collection of educational videos
 - ICT in Geography : GIS mapping
 - ICT in Commerce : SPSS , Tally
 - ICT in Sciences
 - Most of the advanced instruments in laboratories are aided with Computer and internet facility
 - Dedicated Bioinformatics laboratory for bioinformatics study
 - Mathematics and Statistics laboratories are equipped with advanced software such as Metlab, 'R' Software, Algorithm software, Problem solving software, Modeling and simulation software
 - Animation laboratories have software such as Maya, Flash, Adobe Acrobat, photoshop.

- **Evidence of Success**
 - Lectures
 - Teachers are using ICT facility for preparation and presentation of lectures.
 - ICT facility is provided for guest lectures
 - Lecture notes, references, information is exchanged between teachers and students using ICT
 - Practical sessions
 - The ICT facility is used for demonstration of practical sessions and their standardization.
 - Google Apps for Education
 - The students and teachers use official email IDs to exchange the information.
 - The online software helps to organize various tasks in teaching and learning.
 - ICT in sports: increase in medals and championship in gymkhana department.
 - ICT in languages -
 - Significant increase in the interest of the students in learning foreign languages is observed because of the specialization implemented in the subject.
 - The quality of home assignment and projects has increased because of access to digital library and electronic resources.
 - The employability of the students has increased.
 - The students design, Program and evaluate elementary tasks in regular Lectures, practicals and Projects using computers.
 - The number of publications in national and international journals, poster presentations in State, National / International conferences has increased because of ICT facility.
 - The students access various educational websites and online examinations for preparation of various competitive examinations
- **Problems Encountered and Resources Required**
 - Technical Problems related to presentation
 - Antivirus upgradation,
 - High speed internet.
 - Computers to Students ratio: The college has 404 desktops. The computer-student ratio is 1:11.
 - Orientation of staff and students for using advanced technology.
 - Encouragement for more applications of ICT
 - The number of virtual classroom should be increased.
 - Advanced software and hardware should be purchased for subjects such as Bioinformatics / Animations / Graphics / Modeling and Simulations
 - Robotics and feedback devices
 - Need of ICT for Drama and Music

2. Title of Practice: Green Campus Initiative

- **Goal**
 - To increase environmental awareness among students, staff of the college and among population in the vicinity of the college.
 - To minimize the environmental pollution in and around college campus.
 - To minimize the use of PMC water resources by installing wastewater recycling plant and rain harvesting plant.
 - To use renewable energy resource particularly solar and wind energy .
 - To establish Bio-gas plant for the disposal of wet garbage this can be used as fuel source to the college canteen.
 - To study and maintain biodiversity of campus.
 - To quantify carbon foot print and find out solutions to minimize it.
 - To support and implement ‘Swachh Bharat Aabhiyan’.
- **The Context**

Clean environment is the basic necessity for human being for health and efficiency. Mostly limited availability of public transport compelled increased use of personal vehicles which is one of the reasons to increase pollution in and around campus. Chemical experimentation in the

college laboratories emits green house gases (GHG). It adds to the environmental pollution. Water is scarce natural resource hence needs to be used rationally. Solar energy can be the potential replacement for conventional electricity.

- **The Practice**

The Green Campus Initiative practices are as follows:

- **Green Audit :**

College consulted Dr. Sunil D. Kulkarni for quantifying the green house gas (GHG) emitted on the campus for the academic year 2014-2015. The green audit report is prepared by adhering to the standards provided by ISO/DIS 14067, 2012 and report was submitted in July 2015. The GHG quantification is done in terms of carbon foot prints (CFP). The carbon foot prints are expressed as Carbon dioxide equivalents (CO₂e). Twenty nine departments of the college were audited for the emission of GHG directly or indirectly.

- **Biodiversity audit :**

The Biodiversity audit was conducted for our college during the period from May 2015 to June 2015. The report of “**Biodiversity Assessment of Modern Educational Campus, Shivajinagar**” was submitted to College authorities.

The study was conducted as a rapid biodiversity survey and systematic photo-documentation as per the directives given by the Principal, Modern College of Arts, Science and Commerce Pune-05. Hence present study can be considered as a snap-shot of biodiversity of the Modern Educational Campus area. Systematic documentation coupled with measures for enhancement and protection will prove to be a prudent step towards ‘environment protection and green initiative.

The site visits and the collected database showed following key findings for the Biodiversity Assessment of Modern College Pune.

Biodiversity study mainly refers to the assessment of biodiversity of Modern college campus.

This has also been referred to as survey of Modern Educational campus

Key findings :

- i) A total of 107 species of flora were observed during the biodiversity survey of the Modern Educational Campus.
- ii) 13 species of birds were observed during the survey.
- iii) 10 species of butterflies were seen.
- iv) 2 species of mammals, 1 amphibian specie and 1 mollusc species was recorded.
- v) 3 IUCN listed species of conservation significance were recorded in the survey.

Results :

The results of the biodiversity survey are as following:

- i) The campus demonstrated the presence of more than 15 species of flora which have been listed under the IUCN Red list.
- ii) Out of these 15 species of plants, 3 species, namely *Pterocarpus marsupium* (Bibala), *Santalum album* (Chandan) and *Jacaranda mimosifolia* (Neelmohar) are listed under the Vulnerable Category of IUCN Red list.
- iii) On similar lines, 11 bird species, 2 mammal species and 1 amphibian species have been listed under the IUCN Red list.

- **Nameplates on trees.**

Trees are an integral part of human life. To create awareness among people about botanical name, common name, plant family and significance of these trees we have undertaken a program to label the road side trees near college campus.

In Nov-2008, nearly 800 tress along the road sides of J.M. Road, F.C. Road, Modern college Road were identified and nameplates were displayed on tree trunks. During 2013-14 and 2014-

15 nearly 350 road side trees along Ghole road and Apte Road were identified and name plates were displayed on tree trunks.

■ **Biomedical Waste Disposal :**

Biomedical waste generated by life science departments of our college is collected periodically by the **PASCO** Environmental Solution Pvt. Ltd. for its proper disposal. Our college has signed MoU with the firm. This company is registered with Pune Municipal Corporation to treat biomedical waste by various treatments. The company has issued a certificate to that effect for the period 3/12/2014 to 2/12/2015.

■ **e-waste Management**

From 2012 Department of Electronic Science has set in motion the issue of e-waste management. Due to advancement in technology, number of electronic gadgets are manufactured and marketed. These products become outdated after few months. Due to less utility these products are discarded and updated versions are adopted. Since these products contain some kinds of hazardous materials such as lead, zinc, lithium batteries, tin etc. Improper disposal of these products is dangerous for living beings. Therefore management of e-waste is very important issue. e-waste management can be done by number of ways such as reduce, reuse and recycle. Our college has therefore taken lead and had organized a national conference 'Hazardous e-Waste Management' on the same topic. Thus contributing to creating awareness in the society and minimizing the hazardous effects of e-waste.

Furthermore, our college also conducted a campaign in rural area and Pune city area. A survey is carried by NSS volunteers in the village Phulgaon. A rally was organised in this village and volunteers visited the families to explain concept of e-waste management and collected the data. Students from T.Y.B.Sc. carried out survey for e-waste management through college research scheme of 'Yuva Sanshodhak'. In December 2013 National Conference on 'Hazardous e-Waste Management' was organized by our college. It is proposed to establish e-waste collection and systematic disposal process through Post Graduate research centre in Electronic Science.

■ **Biodegradable Urban Waste management**

Since January 2010, Department of Zoology is conducting the **Integrated Vermitechnology Training Course (IVTC)** in collaboration with a renowned organization 'INORA' (Institute of Natural Organic Agriculture), Pune. Two batches are conducted per year. Students and general citizens enthusiastically participate in this training course.

■ **Use of Renewable Energy**

Two solar panels with 1 KW capacity have been installed at roof top. Using these solar panels we are lighting 25 lamps which are installed in staircase of East wing and 12 lamps in principal's office. The backup of this system is about 6 hours per day.

Solar Distillation Plant having distillation capacity 25 lit. per day is also installed. Department of Physics has taken initiative in starting renewable energy course as one of the specialized course at T. Y. B. Sc. and also planning to start Renewable Energy as a specialization course for M. Sc.

■ **Microscale experiments in Chemistry**

The Department of Chemistry is practicing microscale technique in Analytical Chemistry Practicals. For this purpose special glassware are procured such as Pasteur pipette, Hickman Head, Hirsch funnel and Special microscale methods such as double burette titration are adopted. This method reduces the volume of solutions required to about one fourth of that in the traditional method.

■ **Energy audit:**

Energy Audit of consumption of electricity in the College was entrusted to 'Enrich Consultants' Pune. The objectives of the audit includes study the energy consumption pattern of the facilities, identify the areas where potential for energy/cost saving exists and prepare proposals for energy/cost saving along with investment and payback periods.

We have implemented no cost and low cost recommendations according to the guidelines given in Save Energy Program of MEDA.

Energy Audit also gives focused attention to energy cost and cost involved in achieving higher performance with technical and financial analysis. The best alternative is selected on financial analysis basis.

Following Energy Efficiency Improvement measures were implemented by the college.

- Automatic Power Factor Correction systems were installed for main building, east wing and administrative building.
- Energy Saver Circuits were installed for old air conditioners
- Replacing Conventional Ballasts for Fluorescent Tube Lights (FTL) with Electronic Ballasts
- Replacing Tube Lights (FTL) with LED Tube Lights
- Providing Solar PV system for part load operations during day time
- Total savings during the energy audit is estimated at 10.10 Lakhs which is 23 % of the total energy cost with an overall payback period of 3 Years.
- Rain water harvesting
- Sewage treatment
- Biogas plant near canteen
- Digital herbarium
- Animal dissection simulation
- Zero garbage campus
- e-Governance
- Digital library
- **Evidence of Success**
 - Electricity failure will not affect the availability of light during the period of power cut by MSEB due to solar system installation. Especially eastern building gets the benefit.
 - Electricity bills are reduced and we have achieved 91 power factor for the 7% discount in the electricity bill.
 - The college is running vermitechnology training programme since last five years.
 - Continuous water supply is available even during the period of water scarcity.
 - Problem of disposal of garbage is solved by Bio-gas plant.
- **Problems Encountered and Resources Required**
 - These activities have been initiated based on the available funds and those could be further enhanced upon receiving funding for the same.