

Guidelines for the Creation of the
Internal Quality Assurance Cell (IQAC)
and Submission of Annual Quality Assurance
Report (AQAR) in Accredited Institutions
(Revised in October 2013)



राष्ट्रीय मूल्यांकन एवं प्रत्यायन परिषद्

विश्वविद्यालय अनुदान आयोग का स्वायत्त संस्थान

NATIONAL ASSESSMENT AND ACCREDITATION COUNCIL

An Autonomous Institution of the University Grants Commission

P. O. Box. No. 1075, Opp: NLSIU, Nagarbhavi, Bangalore - 560 072 India

NAAC

VISION

To make quality the defining element of higher education in India through a combination of self and external quality evaluation, promotion and sustenance initiatives.

MISSION

- ☞ To arrange for periodic assessment and accreditation of institutions of higher education or units thereof, or specific academic programmes or projects;*
- ☞ To stimulate the academic environment for promotion of quality of teaching-learning and research in higher education institutions;*
- ☞ To encourage self-evaluation, accountability, autonomy and innovations in higher education;*
- ☞ To undertake quality-related research studies, consultancy and training programmes, and*
- ☞ To collaborate with other stakeholders of higher education for quality evaluation, promotion and sustenance.*

Value Framework

To promote the following core values among the HEIs of the country:

- Contributing to National Development*
- Fostering Global Competencies among Students*
- Inculcating a Value System among Students*
- Promoting the Use of Technology*
- Quest for Excellence*

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Guidelines for the Creation of the Internal Quality Assurance Cell (IQAC) and Submission of Annual Quality Assurance Report (AQAR) in Accredited Institutions

Introduction

In pursuance of its Action Plan for performance evaluation, assessment and accreditation and quality up-gradation of institutions of higher education, the National Assessment and Accreditation Council (NAAC), Bangalore proposes that every accredited institution should establish an Internal Quality Assurance Cell (IQAC) as a post-accreditation quality sustenance measure. Since quality enhancement is a continuous process, the IQAC will become a part of the institution's system and work towards realisation of the goals of quality enhancement and sustenance. The prime task of the IQAC is to develop a system for conscious, consistent and catalytic improvement in the overall performance of institutions. For this, during the post-accreditation period, it will channelize all efforts and measures of the institution towards promoting its holistic academic excellence.

The guidelines provided in the following pages will guide and facilitate the institution in the creation and operation of the Internal Quality Assurance Cell (IQAC). The work of the IQAC is the first step towards internalization and institutionalization of quality enhancement initiatives. Its success depends upon the sense of belongingness and participation it can inculcate in all the constituents of the institution. It will not be yet another hierarchical structure or a record-keeping exercise in the institution. It will be a facilitative and participative voluntary system/unit/organ of the institution. It has the potential to become a vehicle for ushering in quality enhancement by working out planned interventionist strategies to remove deficiencies and enhance quality like the "Quality Circles" in industries.

Objective

The primary aim of IQAC is

- To develop a system for conscious, consistent and catalytic action to improve the academic and administrative performance of the institution.
- To promote measures for institutional functioning towards quality enhancement through internalization of quality culture and institutionalization of best practices.

Strategies

IQAC shall evolve mechanisms and procedures for

- a) Ensuring timely, efficient and progressive performance of academic, administrative and financial tasks;
- b) The relevance and quality of academic and research programmes;

- c) Equitable access to and affordability of academic programmes for various sections of society;
- d) Optimization and integration of modern methods of teaching and learning;
- e) The credibility of evaluation procedures;
- f) Ensuring the adequacy, maintenance and proper allocation of support structure and services;
- g) Sharing of research findings and networking with other institutions in India and abroad.

Functions

Some of the functions expected of the IQAC are:

- a) Development and application of quality benchmarks/parameters for various academic and administrative activities of the institution;
- b) Facilitating the creation of a learner-centric environment conducive to quality education and faculty maturation to adopt the required knowledge and technology for participatory teaching and learning process;
- c) Arrangement for feedback response from students, parents and other stakeholders on quality-related institutional processes;
- d) Dissemination of information on various quality parameters of higher education;
- e) Organization of inter and intra institutional workshops, seminars on quality related themes and promotion of quality circles;
- f) Documentation of the various programmes/activities leading to quality improvement;
- g) Acting as a nodal agency of the Institution for coordinating quality-related activities, including adoption and dissemination of best practices;
- h) Development and maintenance of institutional database through MIS for the purpose of maintaining /enhancing the institutional quality;
- i) Development of Quality Culture in the institution;
- j) Preparation of the Annual Quality Assurance Report (AQAR) as per guidelines and parameters of NAAC, to be submitted to NAAC.

Benefits

IQAC will facilitate / contribute

- a) Ensure heightened level of clarity and focus in institutional functioning towards quality enhancement;
- b) Ensure internalization of the quality culture;
- b) Ensure enhancement and coordination among various activities of the institution and institutionalize all good practices;
- c) Provide a sound basis for decision-making to improve institutional functioning;
- d) Act as a dynamic system for quality changes in HEIs;

- e) Build an organised methodology of documentation and internal communication.

Composition of the IQAC

IQAC may be constituted in every institution under the Chairmanship of the Head of the institution with heads of important academic and administrative units and a few teachers and a few distinguished educationists and representatives of local management and stakeholders.

The composition of the IQAC may be as follows:

1. Chairperson: Head of the Institution
2. A few senior administrative officers
3. Three to eight teachers
4. One member from the Management
5. One/two nominees from local society, Students and Alumni
6. One/two nominees from Employers /Industrialists/stakeholders
7. One of the senior teachers as the coordinator/Director of the IQAC

The composition of the IQAC will depend on the size and complexity of the institution. It helps the institutions in planning and monitoring. IQAC also gives stakeholders or beneficiaries a cross-sectional participation in the institution's quality enhancement activities. The guidelines given here are only indicative and will help the institutions for quality sustenance activities.

The membership of such nominated members shall be for a period of two years. The IQAC should meet at least once in every quarter. The quorum for the meeting shall be two-third of the total number of members. The agenda, minutes and Action Taken Reports are to be documented with official signatures and maintained electronically in a retrievable format.

It is necessary for the members of the IQAC to shoulder the responsibilities of generating and promoting awareness in the institution and to devote time for working out the procedural details. While selecting these members several precautions need to be taken. A few of them are listed below:

- ♦ It is advisable to choose persons from various backgrounds who have earned respect for integrity and excellence in their teaching and research. Moreover, they should be aware of the ground realities of the institutional environment. They should be known for their commitment to improving the quality of teaching and learning.
- ♦ It would be appropriate to choose as senior administrators, persons in charge of institutional services such as library, computer center, estate, student welfare, administration, academic tasks, examination and planning and development.
- ♦ The management representative should be a person who is aware of the institution's objectives, limitations and strengths and is committed to its improvement. The local society

representatives should be of high social standing and should have made significant contributions to society and in particular to education.

The role of coordinator

The role of the coordinator of the IQAC is crucial in ensuring the effective functioning of all the members. The coordinator of the IQAC may be a senior person with expertise in quality aspects. She/he may be a full-time functionary or, to start with, she/he may be a senior academic /administrator entrusted with the IQAC as an additional responsibility. Secretarial assistance may be facilitated by the administration. It is preferable that the coordinator may have sound knowledge about the computer, its various functions and usage for effective communication.

Operational Features of the IQAC

Quality assurance is a by-product of ongoing efforts to define the objectives of an institution, to have a work plan to achieve them and to specify the checks and balances to evaluate the degree to which each of the tasks is fulfilled. Hence devotion and commitment to improvement rather than mere institutional control is the basis for devising procedures and instruments for assuring quality. The right balance between the health and growth of an institution needs to be struck. The IQAC has to ensure that whatever is done in the institution for “education” is done efficiently and effectively with high standards. In order to do this, the IQAC will have to first establish procedures and modalities to collect data and information on various aspects of institutional functioning.

The coordinator of the IQAC and the secretary will have a major role in implementing these functions. The IQAC may derive major support from the already existing units and mechanisms that contribute to the functions listed above. The operational features and functions discussed so far are broad-based to facilitate institutions towards academic excellence and institutions may adapt them to their specific needs.

The institutions need to submit yearly the Annual Quality Assurance Report (AQAR) to NAAC. A functional Internal Quality Assurance Cell (IQAC) and timely submission of Annual Quality Assurance Reports (AQARs) are the Minimum Institutional Requirements (MIR) to volunteer for second, third or subsequent cycle’s accreditation. During the institutional visit the NAAC peer teams will interact with the IQACs to know the progress, functioning as well quality sustenance initiatives undertaken by them.

The Annual Quality Assurance Reports (AQAR) may be the part of the Annual Report. The AQAR shall be approved by the statutory bodies of the HEIs (such as Syndicate, Governing Council/Board) for the follow up action for necessary quality enhancement measures.

The Higher Education Institutions (HEI) shall submit the AQAR regularly to NAAC. The IQACs may create its exclusive window on its institutional website and regularly upload/ report on its activities, as well as for hosting the AQAR.

The NAAC Accredited institutions need to submit only the soft copy as word file (.doc/.docx) through e-mail (capuaqar@gmail.com). The file name needs to be submitted with Track ID of the institution and College Name or EC number. For example MHCOGN16601-Samudra Arts and Science College, Taliamegu-Maharashtra.doc or EC_32_A&A_143 dated 3-5-2004-Samudra Arts and Science College, Taliamegu-Maharashtra.doc. The Higher Education Institutions need not submit the printed/hard copy to NAAC. The acknowledgements would be sent to the institutions through e-mail.

The Annual Quality Assurance Report (AQAR) of the IQAC

All NAAC accredited institutions will submit an annual self-reviewed progress report to NAAC, through its IQAC. The report is to detail the tangible results achieved in key areas, specifically identified by the institutional IQAC at the beginning of the academic year. The AQAR will detail the results of the perspective plan worked out by the IQAC. (Note: The AQAR period would be the Academic Year. For example, July 1, 2012 to June 30, 2013)

Part – A

AQAR for the year (for example 2013-14)

2017-18

I. Details of the Institution

1.1 Name of the Institution

Universal College of Engineering

1.2 Address Line 1

Universal College of Engineering,
Kaman Bhiwandi Road,

Address Line 2

Kaman, Vasai East. Dist.
Palghar

City/Town

Kaman Vasai East

State

Maharashtra

Pin Code

401212

Institution e-mail address

cd.ucoe@universal.edu.in

Contact Nos.

9029144325

Name of the Head of the Institution:

Dr. Jitendra B. Patil

Tel. No. with STD Code:

0250-6962458

Mobile:

Name of the IQAC Co-ordinator:

Mobile:

IQAC e-mail address:

1.3 NAAC Track ID (For ex. MHCOGN 18879)

OR

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)

1.5 Website address:

Web-link of the AQAR:

For ex. <http://www.ladykeanecollege.edu.in/AQAR2012-13.doc>

1.6 Accreditation Details

Sl. No.	Cycle	Grade	CGPA	Year of Accreditation	Validity Period
1	1 st Cycle	B+	2.51	2018-19	5 Years
2	2 nd Cycle				
3	3 rd Cycle				
4	4 th Cycle				

1.7 Date of Establishment of IQAC : DD/MM/YYYY

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

Not Applicable

1.9 Institutional Status

University State Central Deemed Private

Affiliated College Yes No

Constituent College Yes No

Autonomous college of UGC Yes No

Regulatory Agency approved Institution Yes No

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

Type of Institution Co-education Men Women

Urban Rural Tribal

Financial Status Grant-in-aid UGC 2(f) UGC 12B

Grant-in-aid + Self Financing Totally Self-financing

1.10 Type of Faculty/Programme

Arts Science Commerce Law PEI (Phys Edu)

TEI (Edu) Engineering Health Science Management

Others (Specify)

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

University of Mumbai

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

Autonomy by State/Central Govt. / University

University with Potential for Excellence UGC-CPE

DST Star Scheme UGC-CE

UGC-Special Assistance Programme DST-FIST

UGC-Innovative PG programmes Any other (*Specify*)

UGC-COP Programmes

Ranked No. 1 in
INDIA among TOP
EMERGING PRIVATE
ENGINEERING
INSTITUTE, By Times
of India

2. IQAC Composition and Activities

2.1 No. of Teachers	<input type="text" value="6"/>
2.2 No. of Administrative/Technical staff	<input type="text" value="2"/>
2.3 No. of students	<input type="text" value="1"/>
2.4 No. of Management representatives	<input type="text" value="1"/>
2.5 No. of Alumni	<input type="text" value="1"/>
2.6 No. of any other stakeholder and community representatives	<input type="text" value="1"/>
2.7 No. of Employers/ Industrialists	<input type="text" value="1"/>
2.8 No. of other External Experts	<input type="text" value="2"/>
2.9 Total No. of members	<input type="text" value="15"/>
2.10 No. of IQAC meetings held	<input type="text" value="4"/>

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

2.12 Has IQAC received any funding from UGC during the year? Yes No
 If yes, mention the amount

2.13 Seminars and Conferences (only quality related)

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

Total Nos. International National State Institution Level

(ii) Themes

2.14 Significant Activities and contributions made by IQAC

Ucoe organized several experiential learning activities for the students which are mentioned below:

- 1) A Bridge course was organized in the year 2017 for the new entrants before the commencement of their semester with a motive to build the gap between the pre-university subjects and to infuse considerable interest for the upcoming engineering subjects. The program consisted of activities related to core engineering topics as well as personality and grooming sessions which kindled their enthusiasm, self –confidence and active participation of the students.
- 2) The students and faculties of UCoe are exceptionally committed in framing, understanding and implementing the basics of Smart farming Techniques in the campus.
- 3) Tanatrotsav - a technical event organized by Ucoe with a motive to provide students a platform to exhibit their knowledge and innovative ideas.
- 4) Various workshops were conducted which provided students hands on experiences to bridge the gap between industry and academia.

2.15 Plan of Action by IQAC/Outcome

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

Sr No	Suggestion	Source	Criteria Addressed	Status as on August 2018
1	Result analysis to be used as a tool in identifying those areas, where more emphasis is to be laid to enhance quality and quantity of results.	IQAC	2	Adopted
2	New and reasonable benchmarks to be set up with a view to provide quality enhancement and improved results.	IQAC	6	Adopted
3	Continuous assessment needs to be more structured and streamlined to fully comply with university norms as well as increased effectiveness.	HOD's	2	Adopted
4	Remedial coaching to be provided for students joining late, participating in sports and cultural events representing the college team.	HOD's	2	Adopted
5	Laboratory Manuals to be designed for newly introduced subjects in new syllabus so as to serve as a useful guide to understand the experiments and their practical utility.	IQAC	2	Adopted
6	Technical events to be made more frequent with maximum participation from all departments.	IQAC	7	In Progress
7	Encourage faculty members to author research papers and contribute to reputed journals.	HOD's	3,6	Adopted
8	Institute to provide infrastructural support in conducting research-oriented projects and programs.	FACULTY	4	Established E-Yantra & Robotics Lab
9	Industrial Visits in addition to the mandatory one in the curriculum, needs to be undertaken with a view to increase Industry-academia interaction.	FACULTY	3	Partially adopted and Exploring the possibility further

10	Transportation facility needs to be addressed for better and satisfactory service.	STUDENTS	6	New Contractor appointed with preconditions
11	Internships to be encouraged and MOU to be signed with new companies	TPO & IQAC	5	In Progress
12	Campus Interviews and Pool campus interviews need to be addressed on a priority basis in view of the present employment scenario.	STUDENTS	5	In Progress
13	International conference or mega events to be conducted to encourage students and faculties to compete in such events.	HOD's	7	Exploring IEEE conference
14	More emphasis on Faculty Development Program, curriculum revision meetings and deliberations on teaching learning methods.	IQAC	6,2	STTP and Workshops attendance increased
15	Enrolling for NPTEL courses to be encouraged for both student and teachers.	IQAC	2	In Progress
16	Explore possibilities of Minor Research Project funding from University. Research activities to be enhanced.	HOD's	3	In Progress
17	Final year projects should address real life situations and can be Interdisciplinary keeping in view the recent amendment in syllabus providing Department Level Electives and Interdisciplinary Electives.	IQAC	3	Addressed and possibilities explored
18	Cadre ratio needs to be addressed to fulfil the requirements of norms and facilitate accreditation process.	IQAC	2	In Progress
19	Sustaining the growth trend and exploring new avenues for quality improvement with greater stress on Teaching Learning and all-round development of the students.	IQAC	3,2	Continuous efforts are On
20	Addressing Green Initiatives and indulging in Social Welfare programs for villagers.	IQAC	7	Tree plantation drive in and around campus conducted. Organic/Smart Farming implemented

21	To facilitate the availability of research papers , it is suggested to explore online availability of Previous papers in all streams	HOD's	3	Online access is provided through NDL
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** Attach the Academic Calendar of the year as Annexure.*

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

Provide the details of the action taken

Administration	Recommendation	To Set Up Robotics Laboratory and Robotics Klub
	ATR	Permission granted to set up Lab
	Recommendation	Drinking water to be conserved and Rain Water Harvesting to be implemented for tackling water shortage.
	ATR	Go ahead for Rain Water Harvesting System
	Recommendation	A small plot of Land in the Backyard to be allocated for Organic/ Smart farming
	ATR	Go ahead at the Kaman River side end. No existing trees to be cut down
Teaching Learning Process	Recommendation	International conference or mega events to be conducted to encourage students and faculties to compete in such events.
	ATR	Go ahead for Hosting of IEEE during this year.

Part – B

Criterion – I

I. Curricular Aspects

1.1 Details about Academic Programmes

Level of the Programme	Number of existing Programmes	Number of programmes added during the year	Number of self-financing programmes	Number of value added / Career Oriented programmes
PhD				
PG				
UG	5	NA	NA	NA
PG Diploma				
Advanced Diploma				
Diploma				
Certificate				
Others				
Total	5	NA	NA	NA
Interdisciplinary				
Innovative				

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

(ii) Pattern of programmes:

Pattern	Number of programmes
Semester	ODD SEMESTER: 40 EVEN SEMESTER: 43
Trimester	NA
Annual	NA

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

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

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

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

As Institute is affiliated to University Of Mumbai, Institute follows the syllabus prescribed by university.

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

Centre: CESA- Computer Engineering Students' Association, introduced with an aim to identify gaps between academic knowledge and industry standards and to develop and sharpen technical skills of the students.

Criterion – II

2. Teaching, Learning and Evaluation

2.1 Total No. of permanent faculty

Total	Asst. Professors	Associate Professors	Professors	Others
112	110	01	01	00

2.2 No. of permanent faculty with Ph.D.

04

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
06	00	01	00	01	00	00	00	08	00

2.4 No. of Guest and Visiting faculty and Temporary faculty

00	00	00
----	----	----

2.5 Faculty participation in conferences and symposia:

No. of Faculty	International level	National level	State level
Attended	112	00	00
Presented papers	60	00	00
Resource Persons	01	00	13

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

The Institute employs different methods of teaching-learning with an emphasis on making the whole course student-centric. Methodologies concentrate on experiential learning, participative learning and problem solving. Our teaching process is not only restricted to a traditional chalk and board method but also ranges beyond the book and urges student to think out of the box. In our lesson plans we have implemented open classrooms, multimedia, short term training programmes, workshops and guest lecturers of various streams. A bridge course was conducted for the newly admitted students which provided them hands- on experience to understand their forthcoming subjects in engineering.

The faculties are well qualified and easily approachable, intending to make the students comfortable with subject related doubts. Class tests and tutorials are conducted to know how well the students have understood the subjects and to track their progress. English communication and Presentation skills are given crucial position in the academics. Students, especially from vernacular background face various ordeals and difficulties in learning English language. Hence, workshops and communication skills sessions are conducted on the same to strengthen student's command of English communication. In order to understand the student's progress different peer group studies, library hours, interactive classroom teaching sessions, course exit surveys and student teacher

survey forms is regularly executed. Students are encouraged to participate in competitions like **Smart India Hackathon, Tantrotsav**, Transform Maharashtra, IIT tech fests, etc.

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

Odd Semester: 66 Days
Even Semester: 57 Days

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

Multiple Choice Questions
Double Valuation and photocopy already in university protocol

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

00	01	Paper Setting -04
----	----	-------------------

2.10 Average percentage of attendance of students

87.34%

2.11 Course/Programme wise distribution of pass percentage :

Title of the Programme	Total no. of students appeared	Division				
		Distinction %	I %	II %	III %	Pass %
Civil Engineering	133	15.04	35.34	34.59	2.3	0
Computer Engineering	126	16.66	42.06	33.33	1.59	0
Information Technology	68	16.17	27.94	39.71	11.76	0
Electronics and Telecommunication Technology	57	3.5	21.05	43.86	3.51	0
Electronics Engineering	25	12	24	48	4	0

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

- The Institution decided to hold an event annually named as ‘Tantrotsav’ to bridge the gap between students’ theoretical and practical knowledge.
- Academic monitoring was envisaged twice a semester wherein faculty classroom lectures were reviewed by the HoD/Principal with constructive feedback for improvement.
- All the departments strictly followed the academic calendar and conducted remedial lectures to compensate for the lectures missed due to activities, non-instructional days and/or holidays.
- All faculties were instructed to prepare Course plan, Lab plan, lecture notes etc.

2.13 Initiatives undertaken towards faculty development

<i>Faculty / Staff Development Programmes</i>	<i>Number of faculty benefitted</i>
Refresher courses	--
UGC – Faculty Improvement Programme	NA
HRD programmes	--
Orientation programmes	20
Faculty exchange programme	5
Staff training conducted by the university	--
Staff training conducted by other institutions	1
Summer / Winter schools, Workshops, etc.	6
Others	5

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	15	00	00	00
Technical Staff	22	00	00	00

Criterion – III

3. Research, Consultancy and Extension

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

To nurture the research culture, IQAC has been engaged in various initiatives in providing research facilities to conduct research and development activities in equivalence with larger institutions in the country. IQAC has set-up a Research committee, to authenticate the research work and check plagiarism. IQAC takes a keen interest to boost the research attitude by providing a paper presentation and project exhibition platform.

IQAC also continuously scrutinizes the Entrepreneurship cell (E-cell) activities, which dedicatedly host various workshops, speaker sessions for aspiring Entrepreneurs and support them by providing necessary resources such as mentoring, consultancy, guidance and other physical resources.

IQAC along with Training and placement cell takes initiative to form tie-ups with various industries, in order to upgrade industry-academics practices. Also, IQAC encourages Faculty coordinators to organize the various educational events like paper presentation, expert lectures, and field trips. These activities provide productive engagement between the faculties and students for their overall growth and development, and thus help in cultivating research attitude amongst students.

3.2 Details regarding major projects

	Completed	Ongoing	Sanctioned	Submitted
Number	01	00	00	00
Outlay in Rs. Lakhs	2.20	00	00	00

3.3 Details regarding minor projects

	Completed	Ongoing	Sanctioned	Submitted
Number	00	04	00	00
Outlay in Rs. Lakhs	00	0.16 on-going project	00	00

3.4 Details on research publications

	International	National	Others
Peer Review Journals	00	00	00
Non-Peer Review Journals	00	00	00
e-Journals	20	00	00
Conference proceedings	40	00	00

3.5 Details on Impact factor of publications:

Range Average h-index Nos. in SCOPUS

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

Nature of the Project	Duration Year	Name of the funding Agency	Total grant sanctioned	Received
Major projects	1	Vidya Vikas Education Trust	1	Rs.2.2 Lacs
Minor Projects	1	Vidya Vikas Education Trust	4	Rs.16,613
Interdisciplinary Projects	--	--	--	--
Industry sponsored	--	--	--	--
Projects sponsored by the University/ College	--	--	--	--
Students research projects <i>(other than compulsory by the University)</i>	--	--	--	--
Any other(Specify)	--	--	--	--
Total			05	2,36,613

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

ii) Without ISBN No.

3.8 No. of University Departments receiving funds from 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)

3.10 Revenue generated through consultancy

3.11 No. of conferences organized by the Institution

Level	International	National	State	University	College
Number	1	--	--	--	--
Sponsoring agencies	Vidya Vikas Education Trust	--	--	--	--

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

3.13 No. of collaborations International National Any other

3.14 No. of linkages created during this year

3.15 Total budget for research for current year in lakhs :

From Funding agency From Management of University/College
 Total

3.16 No. of patents received this year

Type of Patent		Number
National	Applied	NA
	Granted	
International	Applied	NA
	Granted	
Commercialised	Applied	NA
	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
NA						

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

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

3.20 No. of Research scholars receiving the Fellowships (Newly enrolled + existing ones):- Not Applicable

JRF SRF Project Fellows Any other

3.21 No. of students Participated in NSS events: Not Applicable

University level State level
 National level International level

3.22 No. of students participated in NCC events: Not Applicable

University level State level

3.23 No. of Awards won in NSS: Not Applicable

National level International level

University level State level

National level International level

3.24 No. of Awards won in NCC: Not Applicable

University level State level

National level International level

3.25 No. of Extension activities organized

University forum College forum

NCC NSS Any other

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

- Blood Donation Camp
- Joy Of Giving
- Cleanliness Drive
- Tree Plantation

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	4.5 acres	-	Vidya Vikas Education Trust	4.5 acres
Class rooms	26	-	Vidya Vikas Education Trust	26
Laboratories	47	1	Vidya Vikas Education Trust	48
Seminar Halls	4	-	Vidya Vikas Education Trust	4
No. of important equipments purchased (\geq 1-0 lakh) during the current year.	16	2	Vidya Vikas Education Trust	18
Value of the equipment purchased during the year (Rs. in Lakhs)	1002.11 lakhs	20.16 lakhs	Vidya Vikas Education Trust	1022.34lakhs
Others	--	--	--	--

4.2 Computerization of administration and library

Library has e-Granthalaya, software to manage procurement of books. Every book is barcoded to make the procurement easier. Open Access control (OPAC) helps the students to search the books that are available in the library. Students have access to laptops in the library to access e-books. A hard disk worth total 10TB storage is available where NPTEL lectures are stored for the students to access. 10 laptops are dedicated for the library administration purpose.

4.3 Library services:

	Existing		Newly added		Total	
	No.	Value (in lacs)	No.	Value (in lacs)	No.	Value (in lacs)
Text Books	10589	67.60 lakhs	1134	3.44 lakhs	11723	71.04 lakhs
Reference Books	1242	5.88 lakhs	130	1.10 lakhs	1372	6.98 lakhs
e-Books	00	00	02	Open Source	02	Open Source

Journals	04	0.13250	60	1.83	64	1.96 lakhs
e-Journals	3	3.81	02	4.82	05	8.63 lakhs
Digital Database	05	Open Source	05	Open Source	10	Open Source Database
CD & Video	10 TB	0.28780	00	00	10TB	0.28780
Others (specify)						
Magazines	28	0.45134	17	0.28036	45	0.73170
Newspapers	06	0.27422	06	0.05838	12	0.33260
Digital Library Laptops	10	1.90	2	0.38160	12	2.28
Project reports	175	in-house projects	121	In-house projects	296	In-house projects

4.4 Technology up gradation (overall)

	Total Computers	Computer Labs	Internet	Browsing Centres	Computer Centres	Office	Departments	Printers	Projectors	CCT V
Existing	544	20	Wi-Fi campus wide,32 mbps	0	1	7	23	20	30	76
Added	30	-	Wi-Fi campus wide,50 mbps	1	-	1	03	10	6	-
Total	574	20	Wi-Fi campus wide,50 mbps	1	1	8	26	30	36	76

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

Wi-Fi is available to both teachers and students. A bandwidth of 50 mbps is available across the campus. Every classroom and laboratory is equipped with a wall mounted projector and a speaker. Students are encouraged to give power point presentations. Google classroom is used by both teachers and students as an ICT tool.

4.6 Amount spent on maintenance in lakhs :

i) ICT	13.57
ii) Campus Infrastructure and facilities	127.61
iii) Equipments	9.18
iv) Others	3.52
Total :	153.90

Criterion – V

5. Student Support and Progression

5.1 Contribution of IQAC in enhancing awareness about Student Support Services

In order to foster the spirits of students in the first year of engineering and to abide the norms and regulations of the college in balance with academic expectations an orientation programme was conducted to the newly admitted students by Dr.Jitendra.B.Patil in the academic year 2017-18. An add on bridge course was initiated to introduce the curriculum by integrating hands on activities to understand their forthcoming subjects in engineering. A considerable number of 201 students participated in the programme.

Training and Placement officer engaged students with career guidance. A library session was organized to introduce access to library resources. Educational tours were also incorporated which provided students with a convenience to learn in an informal environment focusing different aspects of engineering academics.

5.2 Efforts made by the institution for tracking the progression

Progression of students in attendance and academic performance is monitored regularly and a well-defined mechanism was developed and placed in the system. Defaulter list was displayed and the same is conveyed to the parents through phone call/SMS. Students are encouraged to participate in various IIT competition, workshops, product exhibitions and fairs. Feedback from employers during the time of placement and after 6 months of joining is analysed and monitored by TPO and necessary suggestions and improvement are conveyed to IQAC. Institute takes efforts to help students pursuing higher education and also keeps a record of it. Guidance for competitive exam and placement training is given to all students. Details of qualifying students is maintained with TPO.

5.3 (a) Total Number of students

UG	PG	Ph. D.	Others
1509	00	00	00

(b) No. of students outside the state

34

(c) No. of international students

00

Men	No	%	Women	No	%
	1241	82.23		268	17.76

		Last Year(2016-17)							This Year(2017-18)				
General	SC	ST	OBC	Others	Physically Challenged	Total	General	SC	ST	OBC	Others	Physically Challenged	Total
1336	35	00	100	14	00	1485	1345	37	1	108	18	00	1509

Demand ratio - 58.10% Dropout % - 5.15%

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

The competitive examination cell at the college is functional and helps students to prepare for taking up UGC-CSIR, Gate, GMAT, GRE, ILETS, CAT, TOFEL, Civil Services - IAS, IPS, IFS, Central/State services examination - WAPCOS, MPSC, UPPSC. We have a core team comprising of Incharge (TPO), faculties as members and student representatives from student cell from each department. The activities and infrastructure such as competitive examination books, computers and other learning resources are maintained by incharge and student representatives.

No. of students beneficiaries

33

5.5 No. of students qualified in these examinations

NET	00	SET/SLET	00	GATE	01	CAT	00
IAS/IPS etc	00	State PSC	00	UPSC	00	Others	33

5.6 Details of student counselling and career guidance

Student mentor system effectively functions and provides personal attention and counselling to individual students. Special counselling sessions are conducted as and when need arises. Career guidance and support is provided by placement and training cell. Expert invited lectures regarding the career prospects and skills are organized by institution. The placement cell collects information from all students and maintains a database. It helps students in resume building and skill development to face interviews. Updated information about employment opportunities would be provided to all students. The students who get registered for placement gets sponsored training/coaching from the institution. Counselling Cell is established in the campus to support our students for their psychological wellbeing and to maintain ethical values in the society.

No. of students benefitted

112

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
00	144	112	03

5.8 Details of gender sensitization programmes

Year	Title of the programme	Date and Duration	Number of participants by Gender	
			Male	Female
2017-18	Self-Awareness and Hygiene Camp	16th Sept 2017	0	60
	Girls Marathon	23rd December 2017	0	45
	Drama on Women Empowerment	5th January 2018	3	4
	International Women Day Celebration	8th March 2018	2	105

5.9 Students Activities

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

State/ University level National level International level

No. of students participated in cultural events

State/ University level National level International level

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

Sports : State/ University level National level International level

Cultural: State/ University level National level International level

5.10 Scholarships and Financial Support

	Number of Students	Amount
Financial support from institution	03	1.66240 (Lacs)
Financial support from government	140	69.67282(Lacs)
Financial support from other sources	00	00

Number of students who received International/ National recognitions	00	00
--	----	----

5.11 Student organised / initiatives

Fairs : State/ University level National level International level

Exhibition: State/ University level National level International level

5.12 No. of social initiatives undertaken by the students

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

Criterion – VI

6. Governance, Leadership and Management

6.1 State the Vision and Mission of the institution

VISION OF INSTITUTE:

To be a forerunner in rendering quality technical education with a multifaceted, research-oriented approach, aspiring for excellence of students in the professional and social realm which spans across wide

MISSION OF INSTITUTE:

- > To boost holistic development of the students with an emphasis on technical education inclining towards socially relevant research.
- > To promote a learning ambience which further enhances innovation, creativity, team spirit, rational and scientific temperament thus making them successful world citizens of present and future.
- > To yield efficient professionals with the highest level of ethics and leadership skills, well equipped to face the Industry demands, and diverse horizon of opportunities.

6.2 Does the Institution has a management Information System

Currently our institute has a partial management information system named Applane which handles the admission process of students and maintains a database reference of fees paid.

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

6.3.1 Curriculum Development

The faculty members of the institute participate in the workshops arranged by the University (BoS) for syllabus revision thereby contributing to its development, finalization and implementation. After finalization of the revised syllabus, workshops are organized to study and understand the amendments. Our faculty members attend the same to familiarize themselves about the changes. The Institute follows structured strategy plan for effective implementation of the curriculum prescribed by the University for various Programs.

Action Plan

- Preparation of academic calendar at Institute level in consonance with the academic calendar of the University.
- Distribution of workload to faculties, based on core competency and experience in the subjects.
- Continuous up-gradation of Course Files / Laboratory Manuals.
- Arrangement of various Guest Lectures by Expert Faculty/Industrial personnel aimed at Student-Industry interaction and first-hand information on practical application of the theory.
- Monthly analysis of the attendance to ensure minimum 75% as per University regulations.
- Mentors take care of mentees overall performance and guide them for the improvement academic and overcoming weaknesses.
- Parents meet with concerned faculty is organized to give the parents an overview of their ward's performance.
- Before availing any kind of leave, faculty makes alternate arrangement to Conduct Lecture / Practical, in his / her absence.

Deployment of Action Plan

As per the suggestions received from IQAC, before the commencement of each semester, an Orientation program is conducted by Campus Director /Principal to appraise the faculty members to execute the action plan according to the guidelines. Later each Head of the Department conducts a departmental level meeting to discuss the line of action in implementing the Action Plan as per the specific requirements of the department. Discussions are focused on Academic calendar, Time Table, Course Files, Organizing Industrial Visits, Expert Lectures and other Curricular and Co-curricular activities and the role of individual faculties in implementing the action plan.

6.3.2 Teaching and Learning

The college employs different methods of Teaching-Learning with an emphasis on making the whole course student-centric. Methodologies concentrate on experimental learning, participative learning and problem solving. Our teaching process is not only restricted to a traditional chalk and board method but also ranges beyond the book and impels student to think out of the box. We have implemented in our lesson plans open classrooms, short term training programmes, workshops and guest lectures on various streams. These programs are conducted by eminent personalities who are leaders and specialists in their domain. Internship is provided right from the First Year to furnish students with hands on practical knowledge of the real-life application of knowledge gained in the class room. An E-Cell, a Robotics Club, E-Yantra and Remote Learning Center have been established after entering an MOU with IIT Bombay. This helps the students to get an understanding on a comprehensive level and to think creatively.

To summarize, the institute always encourages the students to think critically and decisively with its learning methods that are a balance of experimental learning, participative learning and problem solving, aiming at molding them to be the future leaders.

6.3.3 Examination and Evaluation

- A preliminary examination is conducted for the first year students, at the end of semester, in addition to two internal assessment tests.
- Timely assessment of tests is done, and the results are displayed on the notice boards.
- Term work evaluation is obtained on continuous basis. Hence, providing students an opportunity/scope to improve his/her performance at an early stage of semester.
- Theory examinations and practical/oral examinations are conducted as per Mumbai University schedule and rules.
- The Faculty members are involved in examination duties such as question papers setting and invigilation of theory examinations. Faculty members are also approved examiners/moderators for online as well as offline answer-book assessment work.
- The Faculty members visits other colleges as Subject Expert for conducting Practical/Oral Examination.

6.3.4 Research and Development

- All faculty members are encouraged and provided support by the Institute to involve in Research and Development activities in their own field. Based on the feasible research proposals, the Management encourages undertaking the project and provides finance wherever necessary.
- Faculties are encouraged to participate in Conferences and Workshops to update their knowledge. Institute sponsors the faculties for the same in the form of On Duty leave and in deserving cases the delegate fee is sponsored.
- IQAC members attend lectures delivered by the in-house/external faculties and suggest improvements in their content delivery methods. Report is submitted for facilitating follow-up.
- IQAC has initiated various Co-Curricular and Extra-Curricular activities, Inter and Intra-college events in the institute. A few to mention are Robotics, VYRO, STTP, Conferences, Organic Farming and many other initiatives.

6.3.5 Library, ICT and physical infrastructure / instrumentation

- The institute follows the norms and specifications laid down by the All India Council for Technical Education (AICTE) for creating infrastructure that facilitates effective teaching and learning. All classrooms, laboratories, tutorial rooms and seminar halls are equipped with necessary infrastructure. All the classrooms are equipped with a wall mounted projector and audio-video capability for effective student's interactive sessions. All the departments have Laboratories of adequate equipment and infrastructure which helps students in developing practical skills needed for the industry. The institute has an instructional area of 9683 square meters, administrative area of 1040 square meters and amenities area of 855 square meters. The institute provides R.O purified drinking water throughout the campus. CCTV Cameras are installed on all floors for security purposes.
- Our institute has adequate area for outdoor and indoor activities. An area of 2250 square meters is dedicated for the outdoor activities. Indoor games like table tennis, carrom, and chess are played in a Gymkhana.
- 100 % of classrooms and seminar halls are ICT-enabled.
- The Library is automated using Integrated Library Management System. The library has a dedicated committee with Principal as the Chair Person and the Librarian as Secretary and all HOD'S and one member of each department as members of the committee. Student's book cards and books are barcoded for transaction purpose. The Library has an adequate number of books to cater to the student's need. The Library has a stacking capacity of 22,000 books. Newspaper and journal stand in the library provide access to news, research and other information to students and faculty. Previous year question papers of every stream are made available to students and faculty. Faculty and students have access to NPTEL videos. This institution uses e-

6.3.6 Human Resource Management

Orientation programme is conducted for all staff (especially newly joined) before the start of new academic year.

Staff Development Programmes are conducted every year. A total of number 12 programmes conducted in the Academic Year 2017-18.

Promotion of Research

- Financial Assistance is provided to Faculties for attending conferences and workshop in India and abroad.
- Duty Leave provided to the teachers for paper presentation and attending its related activities
- Duty Leave provided to the teachers for paper presentation and attending its related activities
- National Level Paper Presentation and Poster Presentation Competition is organised for Teachers and students.

Mr. Joel Philip, Asst. Professor, Department of Information Technology, received grant of \$5000 (3.25 INR in lakhs) from Microsoft Azure in the year 2017 for the project titled "Signature Verification SaaS Application using Tablet PC" for a period of 1 year.

Performance Appraisal Process

- Staff member is selected and appointed after conducting Demo Lecture and Personal Interviews
- Teachers are oriented about the teaching pedagogy, culture and appraisal system by the Principal and Head of the Department
- Lecture of the staff is observed by the HOD twice in a semester and by the Principal once in a semester with feedback taken from the student
- Feedback and guidance as required is given to the staff after every observation
- At the end of the academic year
 - Staff submits the Self-Assessment Form (SAF)
 - Feedback is taken from the students
- HoD records his/her feedback on SAF
- Principal records his observations on the SAF
- Feedback is communicated to the staff by the Principal, HOD, Campus Director, HR and Group Director
- Guidance, if required, is provided

6.3.7 Faculty and Staff recruitment

Pre-Recruitment Process

- Calculation of Workload
- Identifying the expertise required from the faculty
- Submitting the copy of the Draft advertisement for approval of the University
- Publishing the approved advertisement in two national level newspapers

Pre-Interview Process

- Proper documentation, classification and record of applications received
- Seeking University Nominee on the Selection Committee
- Forming the Selection Committee as per norms of the University and AICTE
- Qualified candidates are called for Demo lecture.
- Conduct of Demo Lectures of the applicants and evaluation by at least one external subject expert and one internal subject expert (usually HOD)

Interviews and Post-Interview Process

- Selection Committee gives the list of candidates recommended for appointment after personal interview from amongst the qualified candidates
- Appointment of the candidates as per the report of the selection committee
- Appointment of the candidates reported to the University for their approval
- Approval informed to the faculty concerned.

6.3.8 Industry Interaction / Collaboration

The Institute has a practice of encouraging student's participation for Internships to experience the industry environment and help in increasing their employability skills. The Institute has started this practice since its inception of first batch itself (A.Y. 2012-16). Universal College of Engineering also provides aptitude and soft skill training to the students. Other activities such as Expert Lectures, Seminars and Training Programs by Industry personnel are arranged to offer a scope for Student-Industry interaction and understanding corporate culture.

6.3.9 Admission of Students

- Admission enquiry is registered online with contact details.
- Proper counselling is given to candidates for branch selection.
- Explanation of admission procedure is given clearly and stepwise.
- Walk through the college building is carried out of admission seekers followed by a meeting with principal.
- Candidates who have enrolled for admission enquiry are informed over the phone about CAP round.
- Parents/ students are advised to get their certificates verified from nearest FC centre.

6.4 Welfare schemes for

Teaching	<ul style="list-style-type: none"> • Sanitary Pad Vending Machine for women • In-campus Nationalized Bank and ATM facility • Free transport facility • Preference in admission and Concession in fees for wards of employees in Sister Institution of the Group • Sponsorship / Financial Assistance for Staff for participation in Workshops, Seminar and conferences and/or presentation of research papers in India and abroad Outdoor FDP for staff • 24 *7 security in the campus • Premises under CCTV surveillance
Non- Teaching	<ul style="list-style-type: none"> • Sanitary Pad Vending Machine for women • In-campus Nationalized Bank and ATM facility • Free transport facility • Preference in admission and Concession in fees for wards of employees in Sister Institution of the Group • 24 *7 security in the campus • Premises under CCTV surveillance
Students	<ul style="list-style-type: none"> • Sanitary Pad Vending Machine for women • In-campus Nationalized Bank and ATM facility • Transport facility • 24 *7 security in the campus • Premises under CCTV surveillance

6.5 Total corpus fund generated

5.48, 221 Lacs

6.6 Whether annual financial audit has been done

Yes No

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

Audit Type	External		Internal	
	Yes/No	Agency	Yes/No	Authority
Academic	Yes	Prof. Jaysankaran Natesan	Yes	HOD
Administrative	Yes	Prof. Jaysankaran Natesan	Yes	HOD

6.8 Does the University/ Autonomous College declares results within 30 days? Not Applicable

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?

Not Applicable

6.11 Activities and support from the Alumni Association

During Alumni meet, the graduated students shared the challenges faced by them in their project works, career guidance, interview techniques, placement activity, software training, usefulness of internship, industry academia interaction and other initiatives which were beneficial in enriching their knowledge. The performance of our past students prompted 'SportsTech' to recruit the students of our next batch. Coincidentally the campus recruitment team consisted of our own students as selectors! In short, our senior students act as a bridge between the college and industry.

Our alumni also conduct workshops for the students.

6.12 Activities and support from the Parent – Teacher Association

In the Parent-Teacher Interaction Meeting held on 28th May 2017, parents had suggested to improve transport facilities. The institution considered this suggestion and changed the service provider.

Another suggestion was regarding drinking water shortage during summers. The institution decided to buy packaged drinking water in future whenever there's a shortage of in-house drinking water.

One more suggestion was made regarding promotion of research activities among faculty members and students. As a result, the college decided to encourage faculty members to take up minor and major research projects with students.

6.13 Development programmes for support staff

Sr. No.	Title	Date / Duration	Participants
1	Girls Marathon	23 rd December 2017	45
2	International Women Day Celebration	8 th March 2018	107
3	Training of VIVA software for Exam deputed staff	21 st April 2018	All exam-deputed staff
4	Fire-fighting workshop	8 th June 2018	All staff
5	International Yoga Day Celebration	21 st June 2018	All staff

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

Sr. No.	Title	Date / Duration
1	Tree Plantation Activity	26 th Jan 2017
2	Organic Farming Vegetables grown in the farm are used by the in-house canteen	July 2017 onwards
3	Paper-less administration <ul style="list-style-type: none"> • Use of Management software Applane for student records • Use of VIVA software for exam records • Use of e-Granthalaya software for library management 	July 2013 onwards
4	Waste Management Dry and wet waste is separated. Wet waste is put in compost pit for turning it into organic compost.	July 2017 onwards
5	Rain water harvesting system	July 2013 onwards

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.

An innovation in terms of bridge course has been introduced to smoothen the transition of first year students towards technical education. The gap is filled by triggering analytical mind of students through specially designed courses like google doodle, model making, poster designing etc. Tantrotsav is an intra-collegiate tech-fest to ignite technical intelligence of students, which provides them the opportunity to apply technical knowledge into real life application. This competition helped us to identify technically skilled students, who were then motivated and mentored to participate in various intercollegiate events at prestigious institutes. This practice has helped students in gaining exposure to national level competency and recent advancements.

Innovation is perceived via various Projects designs like smart drip irrigation, solar car and smart dustbin which had won best innovation award at melting pot, Goa. Sanitary pad recycling mechanism designed by our students was among the finalists for Swachatha Hackathon and was awarded by honourable Chief minister Devenrda Fadanvis.

EYanta laboratory under the guidance of IIT-Bombay faculties is regularly utilized for robotics projects and simulations. Faculty designed add on courses on Robotics under E yantra are made available to the interested students.

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

Recommendation: Availability of adequate drinking water should be available during summer

ATR: Rain water harvesting system is put into service and being constantly maintained for recharging campus bound wells.

Recommendation: Promote research activities among students and faculties for innovation bound goals

ATR: Faculties are motivated to apply for various project grants with the help of research assistants i.e. BE students

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

7.3.1. Best Practice 1:

Title: Organic farming

7.3.1.1. Objective of the Practice

- To have locational knowledge of soil fertility in campus.
- To apply technical knowledge for agricultural benefits
- For Solid and wet waste management and recycling of decomposable raw material
- Designing and Modelling projects, research data for agriculture use
- To provide internship to interested students

7.3.1.2. The Context

- Organic farming is the special initiative taken by college faculty members by utilizing locational advantage of the college. The use of technology in farming in making bio compost, drip irrigation, organic soil manure and android app for buyer seller is an example of student's technical involvement in real life application. Also various industrial visits have helped them surveying and gathering the data for their further research work.
- The uses of organic products in our canteen have improved health and green practice like organic farming has added a feather on the cap.
- The wet waste collected in dustbins in the campus is recycled through compost pit and utilized as organic manure in organic farm.
- An Awareness was created by the student interns about Dry & Wet waste.
- Dustbin kept in Canteen.

7.3.1.3. Evidence of Success

- Students under the guidance of faculties have developed a *UCoE Organic Farming APP* which is available at *Google play store*, where one can find the details about the activities taken by the college in the field of agriculture and can place orders for fresh vegetables if required.
- As an outcome, the produced vegetables were sold to the faculties and in the canteen. The revenue generation was a motivation and capital for the upcoming activities.

- In order to promote technology based agricultural practices, Smart Drip irrigation project was successfully installed and applied successfully.
- A successful industrial visit at Navsari was organised by the group where they learnt many new techniques to prepare of land before agriculture

7.3.1.4. Problems Encountered and Resources Required:

- Preparation of land: The land which was made available was barren land since long time. As a result the team had work hard to bring back the quality of the soil. Also they cleaned up the land for better usage.
- Lack of Skilled manpower: The team comprises of engineering students who were not skilled personnel as far as agricultural activities are concerned. They had to visit several farmers and gain knowledge from skilled gardeners before farming.
- In order to bring back the quality of the land they had to use much kind of raw agents like cow dung, cow urine, wet biodegradable waste etc. The team also took a lot of efforts in sapling preparation.

7.3.2. Best Practice 2

Title: Internship and Pre-placement Training.

7.3.2.1. Objective of the Practice

- To update and train the students with latest technical developments in industry.
- To help them acquire necessary skills for employment, innovation ability and developing aptitude towards research.
- To get industry exposure in the overall career development of the student.
- To encourage its students for internships and value added training programs.
- Provide the better employment opportunities.
- Providing a cutting edge over other college students during the pool campus recruitment drive.

7.3.2.2. The Context

- In addition to the domain knowledge of the Engineering profession, other skills and abilities such as communication skills, leadership, innovation, team building are required to become successful in the career, which are not directly covered in the

curriculum. To address this challenge, Universal College of Engineering has taken an appreciable initiative in connecting with professional trainers who have designed unique courses and test series on Innovation, Employability Skills Enhancement and Career Building focusing on Self Awareness, Professional Skills, Innovation and Communication skills.

- The second step of experiential learning was internships and sponsored projects from industry. To enrich the practical knowledge of the students, institute motivated the students offered internships & industrial visits right from first year of Engineering and this training, helped in improving the perspective, by bridging the gap between Industry and academia.
- Internship is provided to interested candidates who register their names. During internship, the students get stipend/travelling allowances as provided by some companies. A team of professional trainers have been appointed to train students for better employment opportunities. The 40-hour course grooms the students learn Corporate and Business Ethics and motivate the students to write Effective Resume, and communicate well during Group Discussions and Interviews.

7.3.2.3. Evidence of Success

- The number of students going for internship and placement has steadily increased over the years.
- Students are assessed on the basis of Mock interviews and group discussion sessions to understand the impact of the program.
- There are noticeable changes in the overall personality of the students after completing the course.

7.3.2.4. Problems Encountered and Resources Required:

This internship program is conducted during summer to avoid interrupting the academic schedule of the students. Students are less motivated to attend the program because of its schedule coinciding with the vacation. Appointment of a specialist faculty is necessary to look after the smooth conduct of this program.

7.3.3. Best Practice 3

Title: *Tantrotsav*

7.3.3.1. Objective of the Practice

- To provide a platform to the students to demonstrate their technical skills through competitions.
- To motivate students to participate in state, national and international level competitions organised by various prominent institutions across India.
- To establish a competitive culture where students can participate and get exposure to various forms of events and competitions, right from their first year of Engineering.

7.3.3.2. The Context

The main intention in carrying out the intercollegiate tech festival was encourage students and improve their application of theoretical knowledge for engineering challenges. Events like Bridge making, High Rise Structures (Chimney), Railway station & Yard planning, Airport Planning and Town Planning were the highlights of the event. Winners were then motivated to participate in National Events at prestigious institutes and have brought laurels to college

7.3.3.3. Evidence of Success

Year 2017

Sr. No.	Department	Participated students
1	Civil	502
2	Comps/IT	158
3	EXTC/ETRX	113

Year 2018

Sr. No.	Department	Participated students
1	Civil	679
2	Comps/IT	231
3	EXTC/ETRX	156

- The increase in participation is the first measure of success.
- Followed by the event in 2017, the shortlisted students did participate in various competitions where they won several prizes. *The details are attached in Annexure I.*

7.4.3.4. Problems Encountered and Resources Required:

- Initially it was difficult to train the students for such prime competitions.
- The inertia of the students to travel to remotely located campuses, for these competitions, was a hurdle in the beginning.
- Funding for the equipment, consumables, travelling etc. were some of the issues in the beginning that were addressed later by the college.

**Provide the details in annexure (annexure need to be numbered as i, ii,iii)*

7.4 Contribution to environmental awareness / protection

- Green practice like bio-compost Preparation has helped campus remain clean and canteen waste and all wet waste of college is utilized to make organic manure helpful for organic plant in our campus. green Practices like dustbins for collecting wet and solid waste are placed at appropriate location.
- Students doing project on Preparation of bio-compost have won prizes in project exhibitions. Projects like solar traffic signal have helped campus being green.
- Rain water harvesting is successfully implemented and used in campus.

7.5 Whether environmental audit was conducted? Yes No

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

Institutional Strength

- Fully equipped Laboratories with state-of-art equipment and machinery as per prescribed academic requirements.
- Industrial visits and in-plant training organized regularly, to expose students to real-time work environment/culture and latest trends.
- Well-equipped library with adequate number of books, National/International journals, technical magazines and E-Library facility.
- Internship for students is organized by the college since its inception.

- Encouraging students to participate in various all India level competitions and consistently winning accolades.
- Mentoring students during major competitions.
- Association with Professional bodies like IEEE, IETE, ISA, CSI to enhance technical knowhow and technological advancements.
- Research papers published in leading journals regularly by faculty members and students of final year.
- STTP on Soft Skills and Business communication, conducted regularly.
- Preparing students for competitive exams and placements through professional consultants.
- Regularly conducting Aptitude test, Mock interviews and GD, providing guidance through Professional agencies preparing students face interviews confidently.
- Dedicated Training & Placement Cell. Transparency in administrative process BE Students encouraged to take up live real life problems as projects.
- Encouraging Students to participate in Government initiative projects, Swaattch Bharat Abhiyan, Transform Maharashtra.
- Providing technical support to nearby villages to mitigate their problems.
- Establishment of The Social Cell since 2015, to make students socially conscious. Joy of Giving, Blood Donation conducted by IETE and IEEE student chapters.
- Hosting Technical Events/Tech Fest to attract competition from other colleges and gauge our performance vis-à-vis other students.

Institutional Weakness

- Improvements required in consultancy and extension activities.
- Shortage of highly experienced PhD. Faculty to enhance research activities.
- Non availability of MoUs or collaboration with Industries and or institutes of national and international fame.
- Research and Incubation Center.
- No autonomy in designing the syllabus or conducting examinations due to affiliation to University.

Institutional Opportunity

- Encouraging faculties to pursue doctoral research.
- Providing support to enhance faculty qualifications, international certifications.

- Regularly Conducting Faculty Development Programs, STTP Alumni and parent feedback to explore grey areas.
- Introducing Online certification courses
- Guidance in pursuing Higher studies in Indian as well as abroad.
- Conducting Training programs to make students Industry ready
- Opportunity for faculty to enhance their qualification or pursue specialized courses.
- Students get the updated knowledge and tips to perform well in entrance exams from young faculty.
- More attention to individual student
- Providing scope for research work and research paper presentation for students
- Participation in different co-curricular activities
- Use of Information & Communication Technologies for flexibility in teaching-learning and content delivery system.
- Collaborations with National & International professional bodies
- Encouraging students to lead in innovation and entrepreneurship
- Encouraging faculties to constantly upgrade their knowledge in their domain.
- Publication of Institute's In-house journal, disseminating all information about activities of different departments.

Institutional Challenge

- Rapid changes in technology leading to gap in curriculum and industry requirements.
- Exploring strong placement opportunities in the core sector.
- To cope up with the frequent changes in government policies from time to time.
- Keep constant improvement and innovativeness to thwart Competition from Institutes coming up in the neighborhood region.
- Changing trends in educations and employment scenario.
- Less number of leading companies including MNCs for student internships and placement.
- Efficacious collaboration with NITs, IITs and Industries
- Versatile training systems to enhance employability.

8. Plans of institution for next year

As far as criterion VII is concerned, following are some of the plans that we are looking forward to implement:

A. Social Outreach:

- i. We are planning to open a standalone/ mobile centre for nearby village students to guide them for various forms filling activities and counselling for their careers.
- ii. We are planning to call local SME people for demonstrating or exhibiting their art, during certain events in the college, so that they can generate revenues for them, as well as their art will be recognized widely. For Example: *Warli painting* and *handicrafts*.
- iii. More social activities can be undertaken by forming N.S.S. unit and bring it to the main stream by taking up multiple drives like cleanliness, street plays, anti-pollution awareness drives etc.

B. Environment Consciousness:

- i. Plantation drives will be organized in vicinity areas outside the campus twice a year on national celebrations' days. Plantation inside the campus is a regular practice that we have been following; this time our plan is to spread awareness about plantation and its good effects on human being, among the vicinity people.
- ii. We have started using the concept of 'paperless office', through which we have developed a tradition of sharing electronic documents with each other via Cloud systems like Google Drives etc. We are in the process of buying and setting up server based Moodle systems for sharing data with students, aiming for quick reach to the students and avoid use of papers for prints.

C. Energy Conservation:

- i. A major step that we are planning for is to install Solar panels for electricity production that can light up classrooms, laboratories and corridors. This will enable saving in grid-supplied electricity and can make the campus self-sufficient in upcoming future for energy.
- ii. In line with the same initiative, a case study will also be carried out to study the feasibility of the Wind power plant in the campus for electricity generation.

- iii. CFL are being replaced by LEDs to avoid over consumption of the electricity. Old circuits and faulty power points and equipment are being replaced to save the electricity. The overall plan is to save as much energy as possible, so that the sufficient amount of electricity can be saved or will be returned to the power grid, which can be supplied to other areas, lowering the load on power grid to some extent.

D. Best Practices:

- i. Setting up research centre for all year students, right from FE is plan furtherance. Here carefully selected step by step courses will be provided to the deserving students. This will be helpful in bridging the gap between industry and education. Also more attention can be drawn towards research area by motivating students through such cell.
- ii. The incubation centre for carrying out various innovative activities is all set to be into practice.
- iii. In line with the bridging the gap initiative, add on courses (paid) will be offered to the students through Expert industry resource persons. Such courses will be a choice based selection by the students.

Name Mr. Sudarshan Ashan

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Signature of the Coordinator, IQAC

Signature of the Chairperson, IQAC

Abbreviations:

CAS	-	Career Advanced Scheme
CAT	-	Common Admission Test
CBCS	-	Choice Based Credit System
CE	-	Centre for Excellence
COP	-	Career Oriented Programme
CPE	-	College with Potential for Excellence
DPE	-	Department with Potential for Excellence
GATE	-	Graduate Aptitude Test
NET	-	National Eligibility Test
PEI	-	Physical Education Institution
SAP	-	Special Assistance Programme
SF	-	Self Financing
SLET	-	State Level Eligibility Test
TEI	-	Teacher Education Institution
UPE	-	University with Potential Excellence
UPSC	-	Union Public Service Commission
