



**G. H. Raisoni Educational and Medical Foundations**  
**G. H. Raisoni College of Engineering and Management**  
Gat No. 1200, Domkhel Road, Wagholi, Pune – 412207  
Phone No: +91-9604787185/186  
E-mail ID: ghrcem.pune@raisoni.net, Website: www.ghrcem.raisoni.net



# Annual Quality Assurance Report (AQAR)

## Submitted to

National Assessment and Accreditation Council (NAAC)  
Bangalore - 560 072 (Karnataka)

# The Annual Quality Assurance Report (AQAR) of the IQAC

## Part - A

AQAR for the year

2016-17

### I. Details of the Institution

1.1 Name of the Institution

G.H.Raisoni College of Engineering and Management

1.2 Address Line 1

Gat No. 1200

Address Line 2

Domkhel Road, Wagholi,

City/Town

Pune

State

Maharashtra

Pin Code

412207

Institution e-mail address

ghrcem.pune@raisoni.net

Contact Nos.

+91-960478785/186

Name of the Head of the Institution:

Dr. J. B. Sankpal

Tel. No. with STD Code:

+91-960478785/186

Mobile

+91-9403402200

Name of the IQAC Co-ordinator:

Mr. Pravin N. Matte

Mobile:

+91-9922944973

IQAC e-mail address:

pravin.matte@raisoni.net

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 <sup>st</sup> Cycle	B	2.30	2014	2019
2	2 <sup>nd</sup> Cycle	NA	NA	NA	NA
3	3 <sup>rd</sup> Cycle	NA	NA	NA	NA
4	4 <sup>th</sup> Cycle	NA	NA	NA	NA

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)

- i. AQAR 2014-15 Submitted to NAAC on 30-06-2015 (DD/MM/YYYY)
- ii. AQAR 2015-16 Submitted to NAAC on 06-07-2016 (DD/MM/YYYY)
- iii. AQAR \_\_\_\_\_ (DD/MM/YYYY)
- iv. AQAR \_\_\_\_\_ (DD/MM/YYYY)

### 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)

NA

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

Savitribai Phule Pune University,  
Ganeshkhind, Pune - 411 007.

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

Autonomy by State/Central Govt. / University

Autonomy by UGC and SP Pune  
University

University with Potential for Excellence

NA

UGC-CPE

NA

DST Star Scheme

NA

UGC-CE

NA

UGC-Special Assistance Programme

NA

DST-FIST

NA

UGC-Innovative PG programmes

NA

Any other (*Specify*)

NA

UGC-COP Programmes

NA

## 2. IQAC Composition and Activities

2.1 No. of Teachers	12
2.2 No. of Administrative/Technical staff	01
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	Nil
2.7 No. of Employers/ Industrialists	01
2.8 No. of other External Experts	Nil
2.9 Total No. of members	17
2.10 No. of IQAC meetings held	04

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

- (i) Seminar on Patent Drafting and Filing
- (ii) Workshop on formation of COs, POs and PSO.
- (iii) Seminar on mapping of COs, POs and PSO.

## 2.14 Significant Activities and contributions made by IQAC

1. Guidelines for improvement of teaching and learning process.
2. Guidelines for personality development activities and improvement of communication skill.
3. Examination Process and Cell under Autonomy.
4. Departmental Industry Advisory Board and Interaction with industry.
5. CoCube Test
6. Support for Research

## 2.15 Plan of Action by IQAC/Outcome

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

Plan of Action	Achievements
<ol style="list-style-type: none"> <li>1. Conduct personality development and communication skill programme.</li> <li>2. Guidelines for improvement of teaching learning process.</li> <li>3. Examination Process and Cell under Autonomy.</li> <li>4. Departmental Industry Advisory Board and Interaction with industry.</li> </ol>	<ol style="list-style-type: none"> <li>1. Improvement in campus placement.</li> <li>2. Improvement in academic results.</li> <li>3. Less time for result declaration Under autonomy.</li> </ol>

\* Attach the Academic Calendar of the year as Annexure (I).

Yes

2.15 Whether the AQAR was placed in statutory body

Yes  No

Management  Yes

Syndicate  NA

Any other body  NA

Provide the details of the action taken

The report was placed before the Board. The Board get following instructions.

1. Skill-based learning
2. Involvement of industry resource person and increase interaction between industry and institute
3. To strength the teaching Learning Process.

## 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	02	00	02	00
PG	07	00	07	00
UG	06	00	06	00
PG Diploma	00	00	00	00
Advanced Diploma	00	00	00	00
Diploma	00	00	00	00
Certificate	00	00	00	00
Others	00	00	00	00
<b>Total</b>	<b>15</b>	<b>00</b>	<b>15</b>	<b>00</b>
Interdisciplinary	00	00	00	00
Innovative	00	00	00	00

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

##### (ii) Pattern of programmes:

Pattern	Number of programmes
Semester	15
Trimester	00
Annual	00

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.

Yes

#### **1. Electronics and Telecommunication Engineering:**

- The Syllabus has been revised for TE E&TC 2015 pattern.  
(Revision in syllabus in 2017-18) include salient features
- Subjects and topic included in the TE E&TC subjects is as given below

##### i) Mechatronics

- concept and key elements of Mechatronics system, representation into block diagram
- principles of sensors their characteristics
- Various data presentation and data logging systems
- Concept of actuator
- Syllabus also includes case studies of Mechatronics systems

ii) **Microcontrollers and Mechatronics Lab**

In the **microcontroller subject** along with PIC, 8051 is also included, which contains equal weightage of both controllers **Microcontroller Lab includes** Simple programmes on

- Memory transfer.
- Parallel port interacting of LEDES—Different programs (flashing, Counter, BCD, HEX, Display of Characteristic)
- Waveform Generation using DAC
- Interfacing of Multiplexed 7-segment display (counting application)
- Interfacing of LCD to 8051 (4 and 8 bit modes)
- Interfacing of Stepper motor to 8051- software delay using Timer
- Interfacing button, LED, relay & buzzer
- Interfacing 4X4 keypad and displaying key pressed on LCD.
- Generation of square wave using timer with interrupt
- Interfacing serial port with PC both side communication.
- Interfacing EEPROM 24C128 using SPI to store and retrieve data
- Interface analog voltage 0-5V to internal ADC and display value on LCD
- Generation of PWM signal for DC Motor control.

**Mechatronics Lab contains**

- Servomotor position control using photo electric pickup
- Position and velocity measurement using encoders
- Study of liquid flow measurement.
- Study on the application of data acquisition systems for industrial purposes.
- Interfacing of any 2- sensors with data acquisition systems.
- Study of Hydraulic Trainer.
- Study of Pneumatic Trainer.
- Study of Electro-Pneumatic Trainer.
- Study of Electro-Hydraulic Trainer.
- Demonstration of any one case study

iii) **Electronics System Design**

- This subject is included with an objective to design working, reliable and electronic system to meet specifications so that students should
  - Inculcate circuit designing skills and ability and to use modern design tools.
  - Enhance employability based on knowledge and understandings of electronic system design.
- Learn basics of database systems used in design / simulation software.
- Create an interest in the field of electronic design as a prospective career option.

iv) **Business Management**

- This subject contains awareness about various domains in Business Management to promote Entrepreneurship

v) **System Programming and Operating Systems**

- Instead of 5th semester , this subject is shifted to 6th semester

vi) **Audit Course 3 and 4**

- To meet the needs of ever growing industry with respect to language support. Japanese language is introduced in Audit Course 3



## **2. Civil Engineering:**

- The Syllabus and rules and regulations has been revised for SE CIVIL 2015 pattern. (Revision in rules and regulation in 2016-17) Include salient features
- From A Y 2016-17 Pune University offered the credit system which is one of the major changes.
- Audit course 1- Awareness to Civil Engineering Practices and Audit course 2- Road Safety Management are included in new syllabus.
- For Strength of Material and Concrete Technology subject practical scheme of 2 Hrs is included.
- There are minor changes in the teaching and practical scheme for Building Technology and Materials subject i.e. 3 Hrs to 4 Hrs for teaching scheme and 4 Hrs to 2 Hrs for practical scheme.
- Soft Skill subject is shifted in 2nd semester instead of 1st semester.
- In new syllabus, teaching scheme for Structural Analysis I is 3 Hr theory and 1Hr Tutorial instead of 4 Hrs Theory
- (Revision in Syllabus in 2016-17) Include salient features:

### **i) For Surveying subject following chapter are included**

- Introduction to SBPS, SBPS systems - GPS, GLONASS, Galileo, GAGAN, BeiDou and their features, Segments of SBPS (Space, Control and User), applications of SBPS in surveying (in unit no. 6).
- Surveying using total station - Construction, types, principle features, field equipment, method of use, introduction to various special functions available in a total station such as remote elevation measurements, remote distance measurements and co-ordinate stake out (these content is shifted in unit no. 5 comparing with previous syllabus)
- Finding horizontal and vertical distance using Tachometer (practical is included).

### **ii) For Geotechnical Engineering subject following term work is included**

- Water content determination by any two methods  
a) Oven drying method, b) Infra-red moisture method  
Collection of sample soil investigation report for any construction project and write report about interpretation of index properties of soil.
- Assignments on “Flow net construction for sheet pile or earthen dam”.

### **iii) For Fluid Mechanics I subject following term work is included**

- Developing a demo model related to any fluid flow phenomenon (physical model/ soft model).
- Assignment on drawing of flow net graphically.

### **iv) For Architectural Planning and Design of Buildings subject following content and term work is included**

- Introduction to Green Buildings: salient features, benefits, planning concepts (site selection, orientation, sun path and wind diagram etc.), Rating systems (LEED, GRIHA etc.)
- Report file: It shall consist of data given for the project, Planning considerations and line plans, Design calculations

## **3. Information Technology:**

- The Syllabus has been revised for TE IT 2015 pattern. (Revision in syllabus in 2016-17) Include salient features
- a) Credit based system is introduced in TE IT 2015 pattern.
- b) Software Engineering subject is replaced by Software Engineering & Project management,

topics related to agile development, extreme programming are added. Recent trends in Software engineering & project management is added.

c) Human Computer Interaction subject is introduced.

d) Audit Course is introduced with options for first semester

- Green Construction & Design
- Leadership and Personality Development
- Professional Ethics and Etiquettes
  - Digital & Social Media Marketing
  - Audit Course 4 - III: Sustainable Energy System is introduced,
  - To demonstrate an overview of the main sources of renewable energy.
  - To understand benefits of renewable and sustainable energy systems.
  - In Semester II, Cloud Computing & Big Data & Analytics is introduced.
  - Software Laboratories for Big data & analytics is introduced.

#### 4. **Mechanical Engineering:**

- The Syllabus has been revised for BE Mechanical 2012 pattern. (Revision in syllabus in 2015-16) include salient features
- New electives are included in the final Year BE Mechanical subjects which are as given below.

##### i) **Gas Turbine Propulsion**

- Subject includes evolving Aircraft propulsion and Rocket Propulsion and environmental issues related to gas Propulsion
- Analysis of shaft power cycle with ideal and practical cycles.
- Latest development of combustion chambers and combustion process in gas turbine.

##### ii) **Operation Research**

- Study of various quantitative methods and operation research techniques.
- Advances in various OR methods such as linear programming, Simplex method and decision theory are included.
- Detail study of Transportation model along with its various methods.
- Game theory and Investment analysis along with their detail sub methods are included.
- Inventory control along with replacement analysis along with their latest methods is included.
- Various queuing models, sequencing models and network models with their latest methods are also included.

##### iii) **Advanced Manufacturing Processes**

- Advanced metal forming processes such as flow forming and shear spinning are included.
- Various advanced welding, casting and forging processes are added.
- Advanced techniques for material processing such as shape tube electrolytic machining is added.
- Advanced micromachining processes are added.
- The advanced topics such as additive manufacturing processes and various new measurement techniques in micromachining are also included.

##### iv) **Industrial Engineering**

- Introduction to industrial engineering and productivity with advanced topics such as productivity models and productivity improvement programmers.
- New topics such as synthetic motion study are included.
- New work measurements and time study techniques are included

- Advanced topics such as supply chain management and logistics management are included.
- The new techniques of facility design and industrial safety are introduced.
- Examination pattern of BE Mechanical has been changed to In Sem - 30 marks & End Sem - 70 marks pattern.
- Refrigeration and air conditioning of TE is shifted in first Sem of BE.
- Industrial fluid power of BE Sem-I is shifted to I-Sem of TE with subject title changed as Hydraulics & Pneumatics.
- Project stage-I in I-Sem has allotted 50 marks as term work.
- Project stage -II term work marks increased from 100 to 150
- The Syllabus has been also revised for SE Mechanical 2015 pattern.  
(Revision in syllabus in 2016-17) salient features of syllabus are as follows
  - Changed to credit system.
  - For Manufacturing process-I, 50 marks is added to TW.
  - Fluid Mechanics is replaced with Strength of Material.
  - Soft skill subject is shifted to sem-II.
  - Work shop practice - II is removed from sem-I.
  - Structure Audit Course is added in sem-I without credits.
  - For Theory of machine - I, 25 marks is reduced in oral.
  - For Engineering Metallurgy, 25 marks is reduced in oral.
  - For Applied Thermodynamics, 50 marks oral is replaced with practical and 25 marks is removed from TW.
  - For Fluid Mechanics, 50 marks oral is replaced with practical.

**5. Computer Engineering Department:**

- The Syllabus has been revised for SE Computer 2015 pattern.  
(Revision in syllabus in 2016-17) include following salient features
  - The syllabus of SE Computer 2015 remains almost same of 2008 Pattern. The only thing which is different is the introduction of Audit Courses.
  - There are two audit courses one per semester. In semester 1 it is Road Safety and in semester 2 Humanities and Social Sciences.

**6. F.Y.B.Tech:**

The Syllabus has been revised for F.Y.B.Tech. (University to Autonomous)  
Salient features are:

**(a) Advanced topic included in the F.Y.B.Tech subjects which is as given below**

**(i) Environmental Studies and Professional Ethics**

- Subject includes Fundamental Concepts of Environmental systems
- Fundamental concepts from the social sciences and humanities underlying environmental thought and governance are included.
- Latest topics like Green building, Effects of Global warming, Impacts of climate change are included.

**(ii) Mini Modelling**

- Subject explores different phase of model development.
- Students will learn various techniques of model development.
- Student shall be able to develop the skills of planning and designing to develop a working Mini Model.
- Implement knowledge of concepts learnt and workshop practices to prepare a model.
- Use innovative ideas and convert these into physical models.

**8. F.Y.M.Tech**

• **Civil (Structural Engineering):**

- i. Audit course is introduced.
- ii. In semester examination changed from 50 marks to 40 marks and end semester examination changed from 50 marks to 60 marks.
- iii. Changes in credits of elective subjects from five to two.
- iv. As per Autonomy syllabus all theory subjects have been introduced in First and Second Semester only. In third and fourth semester students can focus on project work.

- **Heat Power Engg. and CAD ME:**

- i. The software base subject (CFD) require for project work has been included.
- ii. To enhance the technical skill sets, audit course has been introduced in first semester.
- iii. All core theory subjects are included in first and second semester. Only seminars of project work included in second and fourth semester. The students can get more time for focusing on project work.
- iv. In third semester, technical writing subject enhance the technical writing skill which is used for Writing Seminar and Project Report and Research Paper.

- **Computer Engg.**

- i. Previously bucket track is not followed but it was implemented for elective and core subjects.
- ii. Audit course is introduced.
- iii. In semester examination changed from 50 marks to 40 marks and end semester examination changed from 50 marks to 60 marks.

- **E&TC (VLSI and Embedded Systems):**

- i. Audit course is introduced.
- ii. In semester examination changed from 50 marks to 40 marks and end semester examination changed from 50 marks to 60 marks.

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

**NIL**

## Criterion – II

### II. Teaching, Learning and Evaluation

2.1 Total No. of permanent faculty

Total	Asst. Professors	Associate Professors	Professors	Others
191	116	01	02	72

2.2 No. of permanent faculty with Ph.D.

07

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
116	NIL	01	32	02	12	72	NIL	191	Nil

2.4 No. of Guest and Visiting faculty and Temporary faculty

NIL

NIL

NIL

2.5 Faculty participation in conferences and symposia:

No. of Faculty	International level	National level	State level
Attended Seminars/ Workshops	39	24	03
Presented papers	36	24	-
Resource Persons	07	02	04

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

- Academic Monitoring Scheme
- Mentoring of junior faculties by senior faculties
- Industrial visits
- Teacher Guardian Scheme
- Conduction of Expert/Guest Lectures for students
- Innovative projects/research papers by students
- Lectures of 50 min. for teaching the topic and remaining 10 min for discussion of multiple choice questions
- Exhaustive question answer bank for every subject
- Several practice sessions were conducted to cover every possible MCQ
- Prepared course material specially designed for students in question answer format
- Compulsorily writing practice conducted in the classroom for every subject
- Focused on week students
- Special classes on Communication and Personality Development students
- Workshops and Guest Lectures for the new technologies as per industry demands
- Case study based methods for new technologies as per industry demands
- Hands on practical experience given in labs and industrial visits
- Attending SPPU faculty development programmes
- Conducting workshop/seminars/conferences for faculties and students

- ICT facilities are good in institute which is employed for teaching learning. Number of innovative ways are adopted for teaching learning by faculty like:
  - Availability of NPTEL resources
  - Use of MOOCs
  - Use of audio visual aids
  - AIMS module (Academic Information Management System Module)
  - Learning with multimedia
    - Digital Library
    - Language Lab
    - Virtual Lab
    - Self-assessment and self-learning modules
- Overall teaching learning process is good and adequate in the institute.

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)

- Exclusive examination cell is established since the adoption of progressive autonomy by the institute from the year 2016-17.
- Under autonomy examination, 60-40 pattern is adopted for B.Tech and M.Tech students, End semester examination is of 60 marks and 40 marks for continuation evaluation through TAE and CAE. 20 marks are allocated to TAE and 20 marks for CAE.
- End Semester Examination is conducted after the semester completion.
- Seven TAE for 20 marks and 03/04 CAE for 20 marks conducted throughout the semester. Marks gain by the students in TAE and CAE are uploaded in the AIMS software within a deadline.
- Evaluated answer sheets are shown to the students after each CAE and ESE.
- For the Courses running under SPPU, though university conducts final and end semester examinations, mid semester examinations examination/surprise tests are carried out for internal term work mark as a part of continuous assessment.
- Use of AIMS software for exam related activities.
- Summer term and vacation exam for backlog students after 20-25 days of result declaration.

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

13

26

23

2.10 Average percentage of attendance of students

76.28%

2.11 Course/Programme wise Distribution of pass percentage:

Title of the Programme	Total no. of students appeared	Division				
		Distinction %	I %	II %	III %	Pass %
Computer	147/147	44.2	47.6	4.1	-	-
Information Tech.	56/56	14.3	46.4	19.7	-	-
E&TC	117/117	48.7	29.9	1.7	-	-

Title of the Programme	Total no. of students appeared	Division				
		Distinction %	I %	II %	III %	Pass %
Electronics	5/5	0	40.0	20.0	-	-
Mechanical	184/184	26.1	37.5	16.3	-	-
Civil	145/145	31.0	42.1	15.2	0	0

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

- Through weekly report on conduct of classes/practical's and coverage of syllabus.
- Academic monitoring report by Dean Academics/HOD.
- Through Teacher Guardian Scheme.
- Feedback received from stakeholders.
- Course files and laboratory manual prepared by teachers.
- Result analysis.
- Internal and external academic audit.

## 2.13 Initiatives undertaken towards faculty development

<i>Faculty / Staff Development Programmes</i>	<i>Number of faculty benefitted</i>
Refresher courses	03
UGC - Faculty Improvement Programme	04
HRD programmes	02
Orientation programmes	08
Faculty exchange programme	00
Staff training conducted by the university	12
Staff training conducted by other institutions	23
Summer / Winter schools, Workshops, etc.	43
Others	12

## 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	03	NIL	NIL	72
Technical Staff	00	NIL	NIL	35

## Criterion – III

### 3. Research, Consultancy and Extension

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

1. To promote the research, IQAC made proposals for monetary assistance and incentive research paper presentation/publication in International Conferences and publication by students and faculty members.
2. Faculty given guidance and encouragement for registering for Ph.D and for publishing research papers.
3. At least two compulsory research paper publications for Post Graduate students before submission of project dissertation.
4. Innovative awards and TRPCS (Paper Presentation) Competitions conducted for faculty and PG students.
5. Guidance and motivational workshop and seminars conducted by experts on advances in technologies.
6. Research centre established under Savitribai Phule Pune University for the subject E&TC and Mechanical Engineering. 13 Research scholars are pursuing Ph.D. (09 in E&TC Engg and 04 in MECH Engg).
7. Special incentives are provided to faculty and students for various R&D activities that include financial support for attending technical activities like conferences, FDP, workshops and seminars in premier institutes and financial incentives for publishing papers, filing patents, R&D funded projects etc.
8. Additional performance-based incentives have been proposed for faculty.
9. Every department has constituted Departmental Industry Advisory Board (DIAB) for interaction with industry experts.
10. Financial support for organizing workshops, seminars and conferences (National and International) is provided.
11. Recognized as SIRO under Department of Science Technologies GOI.
12. Interaction with Armament Research and Development establishment Pashan, Pune under DRDO.

#### 3.2 Details regarding major projects

	<b>Completed</b>	<b>Ongoing</b>	<b>Sanctioned</b>	<b>Submitted</b>
<b>Number</b>	NIL	NIL	NA	NA
<b>Outlay in Rs. Lakhs</b>	NA	NA	NA	NA

#### 3.3 Details regarding minor projects

	<b>Completed</b>	<b>Ongoing</b>	<b>Sanctioned</b>	<b>Submitted</b>
<b>Number</b>	00	04		00
<b>Outlay in Rs. Lakhs</b>	NIL	4.90		00



### 3.4 Details on research publications

	International	National	Others	Total
Peer Review Journals	34	00	00	34
Non-Peer Review Journals				
e-Journals	34	00	00	34
Conference proceedings	26	01	00	27

### 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	Nil	Nil	Nil	Nil
Minor Projects	Nil	Nil	Nil	Nil
Interdisciplinary Projects	Nil	Nil	Nil	Nil
Industry sponsored	Nil	Nil	Nil	Nil
Projects sponsored by the University/ College	2016-2018	BCUD, SPPU, Pune	Rs. 4,90,000	Rs. 2,45,000
Students research projects (other than compulsory by the University)	Nil	Nil	Nil	Nil
Any other(Specify)	Nil	Nil	Nil	Nil
<b>Total</b>				Rs. 2,45,000

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

ii) Without ISBN No.

3.8 No. of University Departments receiving funds from

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

3.9 For colleges Autonomy  CPE  DBT Star Scheme   
INSPIRE  CE  Any Other (specify)

3.10 Revenue generated through consultancy

**3.11 No. of conferences organized by the Institution**

Level	International	National	State	University	College
Number	01	01	00	00	00
Sponsoring agencies	BCUD, SPPU, Pune	BCUD, SPPU, Pune	00	00	00

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

**3.13 No. of collaboration** 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	Nil
	Granted	Nil
International	Applied	Nil
	Granted	Nil
Commercialised	Applied	Nil
	Granted	Nil

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

Total	International	National	State	University	Dist	College
NIL	NIL	NIL	NIL	NIL	NIL	NIL

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

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

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

JRF  SRF  Project Fellows  Any other

### 3.21 No. of students Participated in NSS events:

University level	50	State level	Nil
National level	Nil	International level	Nil

### 3.22 No. of students participated in NCC events:

University level	NA	State level	NA
National level	NA	International level	NA

### 3.23 No. of Awards won in NSS:

University level	Nil	State level	Nil
National level	Nil	International level	Nil

### 3.24 No. of Awards won in NCC:

University level	NA	State level	NA
National level	NA	International level	NA

### 3.25 No. of Extension activities organized

University forum	Nil	College forum	28		
NCC	NA	NSS	06	Any other	02

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

As per Institute social responsibility, institute has organized various activities under NSS and Department of Students Affairs like

- **N.S.S. VISHESH SHRAM SANSKAR SHIBIR:** The Special Winter Camp (Vishesh Shram Sanskar Shibir) under "NSS" (Savitribai Phule Pune University) was organized from **2<sup>nd</sup> January 2017 to 8<sup>th</sup> January 2017** at "BHAWADI" village, Taluka - Haveli, District Pune. The main objective of the camp was "SWACHH VA SWASTH BHARAT ABHIYAN ". In this camp various activities like surveying the Village Area (Regarding Hygiene Facilities Available, Personal Hygiene), Created Awareness in Nearby Areas, Tree Plantation and their benefits, Ladies Empowerment, Village Cleanliness, Importance of Water Conservation and Health.
- **PLASTIC KACHARA MUKT ABHIYAN:** One day (2<sup>nd</sup> Aug 2016) cleanliness program at GHRCEM College campus, Pune. The programme was started with "**Oath on cleanliness**". The theme of the program was "**How to Control the use of Plastics and its Decomposition**". NSS Volunteers and students were participated in the program. NSS volunteers, students and the faculty members taken participation in Swachhata Abhiyan at College Campus and nearby area.
- **SCIENCE DAY CELEBRATION:** Science Day was celebrated on the prime occasion of birth anniversary of great scientist late. Dr. C. V. Raman. On this occasion Dr.

Leena Bokil was the chief guest. She has worked as a scientist in NASA addressed N.S.S. volunteers & F.Y. Students. She told the importance of science in day to day life. On the thoughts of "**Learning Engineering by Doing Engineering**".

- **ROAD SAFETY ABHIYAN:** The Road Safety Programme was organized by Department of N.S.S. at Wagholi Ahmednagar highway , Pune on "6th October 2016". The Students response was good over 40 N.S.S. volunteers had participated. N.S.S. volunteers prepared charts related to Road Safety like "Use of Helmet", "Don't drink during Driving", "Use Public Transports" etc. Volunteers welcomed the bikers with Helmet with Roses & gave Pamphlet to the ones without Helmet. They also created awareness of safety rules for the people driving four wheeler. They spread the messages regarding road safety rules among villagers.
- **BLOOD DONATION CAMP:** Blood Donation Campus was organized on "22 September 2016" in co-operation with Pune Blood Bank, Hadapsar at GHRCEM, Pune. The response was overwhelming; over 120 students had participated and 96 students donated their blood in the blood donation cam

## 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	5 Acre	NIL	--	5 Acre
Class room UG	22	--	--	22
Class room PG	03	--	--	03
Laboratories	63	--	--	63
Seminar Halls	08	--	--	08
No. of important equipments purchased ( $\geq$ 1-0 lakh) during the current year.	NIL			
Value of the equipment purchased during the year (Rs. in Lakhs)	Rs. 3.39/- (in Lakhs)			
Others				
Tutorial UG	07	--	--	07
Tutorial PG	10	--	--	10
Workshop	01	--	--	01

#### 4.2 Computerization of administration and library

- AIMS (Academic Institute Management System) for academic
- Library Software (Softlib) is used.
- Daily book issue - return
- OPAC for search
- Newly added books entry

#### 4.3 Library services:

	Existing		Newly added		Total	
	No.	Value (in Lakhs)	No.	Value (in Lakhs)	No.	Value (in Lakhs)
Text Books	12547	46.0	24	13150	12571	46.0
Reference Books	6641	30.0	17	9420	6658	30.5
e-Books	-	-	-	-	-	-
Journals	75	1.5	44	1.0	44	1.0
e-Journals	03	8.5	03	8.5	03	8.5
Digital Database	Nil	-	Nil	-	Nil	-
CD & Video	1527	-	240	-	1767	-
Others (specify)	647	-	74	-	721	-

#### 4.4 Technology up gradation (overall)

	<b>Total Computers</b>	<b>Computer Labs</b>	<b>Internet</b>	<b>Browsing Centres</b>	<b>Computer Centres</b>	<b>Office</b>	<b>Depart-ments</b>	<b>Others</b>
Existing	834	29	40 MBPS 20 MBPS	01	01	01	07	--
Added	--	-	40 MBPS	-	-	-	-	-
<b>Total</b>	<b>834</b>	<b>29</b>	<b>100 MBPS</b>	<b>01</b>	<b>01</b>	<b>01</b>	<b>07</b>	<b>-</b>

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

1. Virtual Laboratory access of COEP through Nodel Centre of GHRCEM is established and training is given to all the faculty members and students.
2. Internet Security Sophos Firewall installation.
3. Campus Antivirus Server Sophos
4. Academic Institute Management Systems (AIMS) training sessions were provided to faculty members.
5. Monthly training is provided to lab assistant for working with upgraded software and tools.

#### 4.6 Amount spent on maintenance in lakhs:

(i) ICT	79.12
(ii) Campus Infrastructure and facilities	79.59
(iii) Equipments	2.24
(iv) Others	43.48
<b>Total:</b>	<b>204.44</b>

## Criterion – V

### 5. Student Support and Progression

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

- IQAC contributes enhancing the awareness about the students support systems through
  - Moral & Ethical Education Programs (Social Skills)
  - Life skills and Soft skills programs.
  - Institutional Social Responsibility
  - Imparting Employability Skills Programs.
  - Professional society chapters for Co-curricular activities, Co-curricular activities, Memberships of Professional Societies by faculty.
  - Students' Cultural, Sports Clubs and Forums
  - Student Charter and Discipline
- Various activities were conducted to impart the moral, ethical and technical values like,
  - Special guidance scheme under which we are conducting 36 sessions for Engineering students on English grammar, effective communication, personality development, team building.
  - Ethical Education Programmes, Guest speech on ethical education, Plastic Nirmulan Abhiyan, Slum area visit near Wagholi area
  - Workshop on patent drafting and filing
  - Workshop and seminar on IoT, Smart City.
  - Tech Spark event organized by Dept. of E&TC Engg., it consisted of Technical and Non-technical event such as Aptitude Test and GD, Chess, Carom, Treasure Hunt, Box Cricket and Roborace.
  - Activities related to Communication skills and Aptitude.
  - Seminar on Leadership and Social Entrepreneurship
  - Science Day Celebration and Guest Lecture on “Career Opportunities in Engineering

#### 5.2 Efforts made by the institution for tracking the progression

Tracking is done by:

1. Administrative Office
2. Registrar, Student Affairs, HODs, Deputy Director, Director, Central and Departmental Committee etc.
3. Student's association member's department wise ISTE student chapter, Anti-Ragging Committee, College Coordination Committee.
4. Various committees like Board of Studies, Departmental Industry Advisory Board, Academic Council, Governing Body etc. and institute level committees.

5.3 (a) Total Number of students

UG	PG	Ph. D.	Others
2099	123	13	00

(b) No. of students outside the state

111

(c) No. of international students

00

Men	No	%	Women	No	%
	1842	82.34		395	17.65

Last Year						This Year					
General	SC	ST	OBC	Physically Challenged	Total	General	SC	ST	OBC	Physically Challenged	Total
1910	134	00	478	00	2522	1358	104	04	511	00	1977

Demand ratio: **1.590**

Dropout % : **0.02577**

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

FACE Training Session

1. To improve the Quantitative Aptitude and Reasoning, Skills of student institute has arranged 48 hours progression training workshop with FACE Training Institute in college campus in very affordable fees.
2. This programme is focusing on mainly quantitative, analytical and soft skill development of students, which helpful prior to facing the interview for recruitment process.
3. This programme had organized for final year students and 525 students were registered for the same.
4. Students of FE have undertaken Online Pre-assessment from co-cubes. From this assessment students came to know about their aptitude skills and area of improvements.
5. G.H.Raisoni Academy for Human Excellence had organized "REACH – MOCK GD & PI Assessment Programme" for B.E students in January 2017.

No. of students beneficiaries

525

#### 5.5 No. of students qualified in these examinations

NET	NIL	SET/SLET	NIL	GATE	08	CAT	NIL
IAS/IPS etc	NIL	State PSC	NIL	UPSC	NIL	Others	NIL

#### 5.6 Details of student counselling and career guidance

1. Implementation of Teacher guidance scheme. In this scheme, a batch of 20 students is assigned to each teacher guardian. Teacher guardians discuss the issues of academics, infrastructure, theory and practical subjects, personal etc. Also, parents/guardians are informed about the progress of wards from time to time by Teacher Guardian.
2. Students of BE - CS/IT visited Barclays office in Pune. During this visit Barclays experts shared their views on market scenario and also took Mock interviews for the students
3. Students attended the seminar and were informed about study opportunities in Jackson Ville University along with other universities in USA. Students were also guided with procedure and other related details to apply for Study in USA.
4. Guidance on placement for TE and BE students by experts.
5. Sessions by G.H.Raisoni Academy for Human Excellence on Aptitude and communication skills enhancement.
6. 75 Students of final year engineering has undertaken free co-cubes employability test. This test will help the students to know their whereabouts during the placement interviews.



No. of students benefitted

All

### 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
48	425	47	05

### 5.8 Details of gender sensitization programmes

1. Anti-Ragging Committee
2. Anti-Ragging Squad
3. Female Redressal Cell

### 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 (in Rs.)
Financial support from institution	278	2707688
Financial support from government	720	52037324
Financial support from other sources	NIL	NIL
Number of students who received International/ National recognitions	NIL	NIL

### 5.11 Student organised / initiatives

Fairs : State/ University level  National level  International level

Exhibition: State/ University level  National level  International level

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:** To achieve excellent standards of quality education by keeping pace with rapidly changing technologies and to create technical manpower of global standards with capabilities of accepting new challenges.

**Mission:** Our efforts are dedicated to impart quality and value based education to raise satisfaction level of all stake holders. Our strength is directed to create competent professionals. Our endeavor is to provide all possible support to promote research and development activities

#### **6.2 Does the Institution has a management Information System**

Yes, the institution has management information system. Our administrative department looking after student section, examination section, accounts section, admission cell, purchase etc. is maintained by MIS. The Library is also using MIS for its functioning.

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

##### **6.3.1 Curriculum Development**

- Feedback from stakeholders taken for updation required in curriculum.
- GHRCEM has received Autonomy from the year 2016-17. Under the Board of Studies each department has got academic freedom to design curriculum.
- Presently, First Year Engineering curriculum has been designed in the institution itself and it is taught. Subsequently curriculum for higher classes has been designed by departmental BoS.
- Teaching staff participated in development of curriculum for Savitribai Phule Pune University SE and BE Course.

##### **6.3.2 Teaching and Learning**

- Identification of difficult subjects experienced by students and subjects in which result are low. Arranging extra and expert lectures for these subjects.
- Strict academic monitoring by department HODs and Central Academic monitoring under supervision Dean Academics.
- Seven Teacher Assessment Evaluation (TAE) is introduced for the continuous assessment of students in the F.Y.B.Tech and F.Y.M.Tech.
- Also, 03/04 Continuous Assessment Evaluation (CAE) is introduced to evaluate students learning under autonomy.
- Mini Modelling is introduced in F.Y.B.Tech to learn by practically doing.
- Learning through participation in curricular and co-curricular activities.

### 6.3.3 Examination and Evaluation

- End semester evaluation is started immediately after the examination over.
- Results are declared within weeks' time.
- Evaluated answer sheets are shown to the students.
- For the Courses running under SPPU, though university conducts final and end semester examinations, mid semester examinations examination/surprise tests are carried out for internal term work mark as a part of continuous assessment.
- Major Projects of ME students are monitored by RRC of institute and at department level by Departmental Research Committees.

### 6.3.4 Research and Development

- Research Centre has been established under SPPU.
- Research Advisory Board has been constituted and research committees formed to systematically carry out research activities.
- RRC and Departmental Research committees ensure quality of ME research projects by taking periodic reviews and giving guidelines for improvement.
- R&D and PG department conduct the Seminar/Workshop/Guest Lectures to promote the research activities amongst the students and the faculty members.
- Guidelines for the promotion of R&D activities is prepared and distributed amongst the students and faculty members.
- Funding provided to the students for projects and research paper publications.
- Encourage students to exhibits their model in competitions organized by the reputed institutes and industries and financial support is provided to attend these event.
- Efforts were undertaken to improve the numbers of industry sponsored projects to have better interaction with industry.

### 6.3.5 Library, ICT and physical infrastructure / instrumentation

- To increase the number of reference books.
- To add more number of reference manuals.
- Make library database available in the campus.
- Issue extra books to selected deserving students as incentive.
- Add books and magazines pertaining to personality development and competitive examinations like GATE, CAT and Civil services.
- Use CCTV cameras for monitoring of class rooms and labs as part of academic monitoring.

### 6.3.6 Human Resource Management

- Detainment of faculty for QIP conducted under AICTE and SPPU.
- Additional incentives for faculties presenting papers in National and International Conferences and publications in reputed journals.
- Conduction of faculty development programme for overall development like Soft Skill, Teaching Methodology etc.
- **Faculty centric:** Motivation/promotion/Incentive for higher studies, Incentive for grants received/other contributions, Financial assistance for paper presentation, On-duty leaves/financial support to participate in seminars and workshops outside the institute, Best Teacher Award, Monetary incentives to functional heads/PG coordinators, Induction programme, Expert lecture for faculty, Laptop and Data card, Simcards, Loans and advances, accident insurance, concession in fees for self/wards/spouse, subsidized transport and canteen facilities etc.
- **Staff Centric:** Skill Enhancement Training, Pillars, Leave encashment facility, LIC, Accident Insurance, Loans and advances, Concession/Scholarship in fees for self/wards/spouse, Subsidized Canteen facilities and Transport facilities etc.
- **Student Centric:** G. H. Rasoni gold medals for University toppers, Toppers awards, Earn and learn scheme, Add- on courses, Motivational talks and workshops, Forum to interact with alumni, Need base concession in fees, Merit based scholarship, Financial support for participation in technical, cultural and sports activities, Accidental insurance policy, Medclaim for residential student, Free Health Check-up etc.

### 6.3.7 Faculty and Staff recruitment

- Faculty and staff recruited in transparent manner by giving advertisement in newspaper as per the guidelines given by SP Pune University before commencement of academic year.
- Faculty selected as per norms and criteria of AICTE.
- If a vacancy arises during the semester it is filled from the local selection panel.

### 6.3.8 Industry Interaction / Collaboration

- As per AICTE norms about 20% faculties from industry are involved in teaching and learning process.
- Experts from Industry invited for guidance of major projects/sponsorship.
- Experts are invited for workshop and seminar on specialized and advanced topics.
- Experts are taken on committees like Board of Studies, DIAB, Academic Council and Governing Body etc.
- MOUs are done with industries for collaborative work.
- Organized Industrial visits for the students to give exposure to understand industrial process and work culture.

### 6.3.9 Admission of Students

- Besides advertisements in the newspaper for admission, the college website highlights the important features.
- College conduct technical project and paper competition “PAROKSHA” for Engineering Diploma students to attract good material for admission.
- Seminars are conducted in Junior Colleges for giving the information about the courses conducted and facilities.
- Facilitation Centre (FC) authorized by Directorate of Technical Education, Mumbai (MS).

### 6.4 Welfare schemes for

Teaching	16
Non-teaching	12
Students	04

### 6.5 Total corpus fund generated

NIL

### 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	Dr. B. B. Ahuja Dr. B. N. Chaudhary Dr. S. N. Sapali Dr. D. M. Sutaone Dr. S. S. Bhosale Dr. Sunil B. Mane Dr. P. B. Nagarnaik Dr. Bhavana Butey	Yes	Dr. R. R. Arakerimath
Administrative	Yes	Kirtane and Pandit Associates, Chartered Accountant	Yes	Mr. D. C. Ghogare

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

For UG Programmes

Yes

No

 NA

For PG Programmes

Yes

No

 NA

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

- Institute has received progressive autonomy in academic year 2016-17.
- Separate Examination infrastructure created to conduct the examination work for autonomous courses.
- Various facilities like Spot Valuation, use of examination automation software for smooth functioning of exam related work.
- Involvement of external examiners for
  - (i) Theory paper setting and evaluation
  - (ii) Practical evaluation.
- Formation of various committees like Examination, Grade Moderation, Grievance Redressal etc.
- On time processing and declaration of result.
- Vacation exam

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

- University has nominated members on Governing Body, Academic Council and Examination Committee etc.
- The Hon'ble members interact with the institute during the meetings and suggest guidelines for improvement.

### 6.11 Activities and support from the Alumni Association

**Activities:** Under Alumni Association many activities have been taken so that the interaction & collaboration between Alumni, Students and Faculties is possible. Activities like **Alumni Meet**, **Alumni Guidance Lecture**, **Expert Lecture by Alumni**, **Coffee Cup Meet**, **Department level farewell and Alumni Meet** have been taken which provides the platform to create strong bonding between Alumni, Students and Faculties.

**Support:**

1. Alumni Association provides all kind of support to conduct above activities successfully.
2. Alumni Association provides financial support to make the event possible. In addition to that it provides required resources to make the activities successful.
3. Under the roof of Alumni Association database of Alumni information is kept in hard copy as well as in online format.

### 6.12 Activities and support from the Parent - Teacher Association

- Parents meet in mid semester and end semester to have the interaction with parents on progress of their ward.
- Through TG scheme also teacher guardians are in contact with parents, their ward's attendance, academics, university result, behaviour is informed to parents by TGs. Feedback taken from these meetings conveyed to the concerning authorities for further action.
- They were informed about the class attendance and university result of their wards by respective teacher guardian. Teacher guardian suggested the parents how to help their wards to study and score the marks. The parents gave a very good feedback for the programme as well as about the involvement and dedication of faculty members in all the academics as well as co-curricular activities for the development of student technically and socially.

### **6.13 Development programmes for support staff**

- Monthly important functionaries meetings were conducted.
- Two Days workshop on Ms-Excel for teaching and non-teaching staff.
- Health Awareness Camp organized for teaching and non-teaching staff.
- Communication and personality development workshop for non-teaching staff members.

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

- Tree Plantation and landscaping is done in the college campus area.
- Precipitant are separated from the sewage water and water is reutilized for gardening.
- Use of Solar Power.
- Initiative towards generative awareness among students and staff regarding energy conservation, Swachha Bharat Abhiyan, Plastic Kachara Abhiyan, Road Safety Abhiyan etc.

## 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.

- Our G.H.Raisoni College of Engineering and Management, Wagholi, Pune received progressive autonomy from the academic year 2016-17.
- Under autonomous status First Year B.Tech syllabus is designed as per the need of the industry. The evaluation process is adopted to evaluate and develop fundamental knowledge of students. Teacher assessment evaluation (TAE) and continuous assessment evaluation (CAE) and 40% weightage is given. End semester examination has 60% weightage.
- **Formation of separate Examination Cell :**
  - (i) To conduct the Internal/ External Theory and Practical Examinations.
  - (ii) To prepare and schedule Time Table for the above-mentioned exams in advance and inform the students about the same.
  - (iii) To ensure that all the question papers are prepared well in advance.
  - (iv) To collect all the answer scripts and the supporting documents required.
  - (v) To arrange for External/Internal Valuation of Exams.
  - (vi) To publish the results and take necessary steps for the conduct of supplementary exams in time.
  - (vii) To address the grievances/ complaints of the students and staff concerning exam-related issues.
- **Formation of Planning and Evaluation Committee :**
  - (i) To design various strategic plans for the overall requirements and the development of the College. This includes infrastructural and instructional necessities as per the required norms.
  - (ii) To evaluate the performances of the staff through Feedback Mechanism.
  - (iii) To study IQAC activities and to give feedback on the performance audit conducted by IQAC.
  - (iv) To monitor the progress in carrying out the decisions taken by Board of Management and to plan for future requirements.
- **Formation of Board of Studies (Department-wise):**
  - Streamline and coordinate teaching, research, extension, outreach and other academic activities in the department.
  - Prepare syllabi for various courses keeping in view the objectives of the college, interest of the stakeholders and national requirement for consideration and approval of the Academic Council.
  - Suggest methodologies for innovative teaching and evaluation techniques.
  - Suggest panel of names to the Academic Council for appointment of examiners.
  - To promote extension, outreach and field activities for societal benefit and development.
  - To propose projects relating to the inter-disciplinary and multi-disciplinary subjects that may be useful for industrial, technological, agricultural, social and economic development.
  - To organize and coordinate examinations and assessment of students



- **Formation of Academic Council:**
  - Streamline the academic and research activities at the institute
  - Scrutinize and approve the proposals with regard to
    - Curricular structure and courses of study
    - Academic regulations
    - Curricula, syllabi and modifications thereof, Instructional and evaluation arrangements, methods, procedures relevant thereto etc.,
    - Provided that where the Academic Council differs on any proposal, it will have the right to return the matter for reconsideration to the Board of Studies concerned or reject it, after giving reasons to do so.
  - Make regulations regarding the admission of students to different programmes of study in the college.
  - Make regulations for sports, extra-curricular activities, and proper maintenance and functioning of the play grounds and hostels.
  - Recommend to the Governing Body proposals for institution of new programmes of study.
  - Recommend to the Governing Body institution of scholarships, studentships, fellowships, prizes and medals and to frame regulations for the award of the same.
  - Advise the Governing Body on suggestions(s) pertaining to academic affairs made by it.
  - Perform such other functions as may be assigned by the Governing Body.
  - Estimate the workload, recommended the staffing pattern and creation of posts - teaching and non-teaching (Technical and administrative) for the institutions
  - Evaluation and examination policies and rules.
  - Recommended proposals for creating and upgrading technical infrastructure such as equipment, library and computing facilities on a continuous basis.
  - Advice governing council on provisions for meeting the general and specific conditions laid down by the governing body (AICTE/UGC), state government (DTE) and affiliating body (SPPU)

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

1. Academic audit for all staff.
2. Minutes of regular meetings of Governing Body, Board of Studies, HODs and faculty meeting were drafted and submitted to the all concerned members.

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

**Best Practice I**

1. Title of Practice I: Conduction of TAE parameters subject-wise.
2. The Goal: The goals are to increase student's involvement and self-learning of individual subjects.

**Best Practice II**

1. Title of Practice II: Meetings of mathematics teachers with senior teachers and HODs of concerned departments.
2. The Goal: The goal is to make fundamental concept of mathematics sound and improve results.

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

## Annexure I



### G. H. Rasoni College of Engineering & Management, Wagholi, Pune.

(An Autonomous Institute affiliated to Savitribai Phule Pune University)

#### Autonomy Calendar for SEM- II (YR 2016-17)



Sr. No.	Month	Autonomy Calendar – Activity	B. Tech.-F.Y./MCA-I/ M. Tech.-I
1	NOV	Workload distribution, requirement planning and stationary/equipment requirement	10/11/16
2		Departmental portfolio - Class teachers, Project coordinator, Teacher guardians and other activity in-chargee	11/11/16
3		All Calendar finalization	12/11/16
4		PG / BOS Meeting	19 & 26/11/16
5		Preparation of Time Table and departmental planning	28/11/16
6		HOD meeting for review of dept. activity	30/11/16
7		Preparation of lab manuals, course files etc. and R&D Targets planning	30/11/16
8	DEC	Updation of Teaching Plans/faculty Diar/laboratory equipments-repairs	5/12/16
9		Preparation of students list & attendance record, AIMS – entry of database	12/12/16
10		External audit	12-16/12/16
11		FY, M.Tech Syllabus Handbook, Updation of college Website, Activities	14-15/12/16
12	JAN	<b>Start of classes –Sem. II</b>	<b>4/1/17</b>
13		Formation of project groups/ seminars / TGS	3/1/17
14		HOD meeting for review of dept. activity	4/1/17
15		<b>Academic Counseling meeting</b>	<b>Jan 2017</b>
16		<b>Internal Audit-1</b>	<b>7-14/12/17</b>
17		TAE-1	16-1/1/17
18		HOD meeting for review of dept. activity-Mentors/TGS	18/1/17
19	Stake holder meeting-1	20-21/1/17	
20	FEB	Monthly attendance compilation & AIMS / Academic diary Review/R&D	2/2/17
21		TAE-2	6-8/2/17
22		HOD meeting for review of dept. activity	15/2/17
23		<b>GB Meeting 1</b>	<b>4 Feb 2017</b>
24		Internal faculty Audit	16-17/2/17
25		CAE-1	13-15/2/17
26	TAE-3	20-22/2/17	
27	MAR	HOD meeting for review of dept. activity	1/3/17
28		Internal audit-2	3-11/3/17
29		Exam form link open.	6/3/17
30		CR Meeting for exam TT	7/3/17
31		CAE-2	8-10/3/17
32		HOD meeting for review of dept. activity	15/3/17
33		TAE-4	13-15/3/17
34		Exam time table display (online/offline).	20/2/17
35	TAE-5	27-29/3/17	
36	APRIL	HOD meeting for review of dept. activity	6/4/17
37		CAE-3	11-13/4/17
38		Practical Exam Time Table Display	6-4-2017
39		TAE-6	10-12/4/17
40		Academic faculty Audit-3	<b>10-14/4/17</b>



**G. H. Raisoni College of Engineering & Management,  
Wagholi, Pune.**

(An Autonomous Institute affiliated to Savitribai Phule Pune University)



**Autonomy Calendar for SEM- II (YR 2016-17)**

Sr. No.	Month	Autonomy Calendar – Activity	B. Tech.-F.Y./MCA-I/ M. Tech.-I
41	APRIL	HOD meeting for review of dept. activity	12/4/17
42		Distribution of Hall tickets to the departments.	17/4/17
43		<b>TAE-7</b>	<b>17-19/4/17</b>
44		HOD meeting for review of dept. activity	19/4/17
45		<b>Term End</b>	22/4/17
46		HOD meeting for review of dept. activity-Acad Calendar	26/4/17
47		<b>Oral/Practical, Seminar, Project Presentation, Submission ESE.</b>	<b>26/4/17 to 29/4/17</b>
48	MAY	<b>Planning for Academic calendar</b>	<b>2/5/17</b>
49		<b>ESE Theory Exam.</b>	<b>2/5/17 to 11/5/17</b>
50		Paper showing in the department.	11/5/17 to 15/5/17
51		Open House Grievances.	17/5/17
52		HOD meeting for review of dept. activity	10/5/17
53		Declaration of ESE Final Results.	20/5/17
54		<b>Summer Term (Remedial)</b>	<b>22/5/17 to 29/6/17</b>
55		<b>Summer Vacation</b>	<b>As per RGI</b>
56	JUNE	HOD meeting for review of dept. activity	14/6/17
57		<b>GB meeting</b>	<b>10 June 17</b>
		Practical Vacation Exam	30/6/17 & 1/7/17
58		HOD meeting for review of Exams	30/6/17
59	July	<b>Theory Vacation /Summer term Exam</b>	<b>03/7/17 to 12/7/17</b>
60		Vacation exam Result Declaration.	19/7/17
61		<b>Start of the SEM – III.</b>	<b>03/7/17</b>

**List of holidays:** 25/12/2016 (Christmas), 19/02/2017 (Chhatrapati Shivaji Maharaj Jayanti), 14/03/2017 (Holi Second Day), 28/03/2017 (Gudi Padwa), 14/04/2017 (Ambedkar Jayanti)

	December					January					February					March					April					May					June										
Mon	5	12	19	26		2	9	16	23	30	6	13	20	27	8	13	20	27	3	10	17	24	1	8	15	22	29	5	12	19	26	5	12	19	26						
Tue	6	13	20	27		3	10	17	24	31	7	14	21	28	7	14	21	28	4	11	18	25	2	9	16	23	30	6	13	20	27	6	13	20	27						
Wed	7	14	21	28		4	11	18	25		1	8	15	22	1	8	15	22	29	5	12	19	26	3	10	17	24	31	7	14	21	28	7	14	21	28					
Thu	1	8	15	22	29	5	12	19	26		2	9	16	23	2	9	16	23	30	6	13	20	27	4	11	18	25		1	8	15	22	29	1	8	15	22	29			
Fri	2	9	16	23	30	6	13	20	27		3	10	17	24	3	10	17	24	31	7	14	21	28	5	12	19	26		2	9	16	23	30	2	9	16	23	30			
Sat	3	10	17	24	31	7	14	21	28		4	11	18	25	4	11	18	25	1	8	15	22	29	6	13	20	27		3	10	17	24		3	10	17	24				
Sun	4	11	18	25		1	8	15	22	29	5	12	19	26	5	12	19	26	2	9	16	23	30	7	14	21	28		4	11	18	25		4	11	18	25				
Week	1	2	3	4	5	1	2	3	4	5	6	1	2	3	4	5	6	1	2	3	4	5	6	1	2	3	4	5	6	1	2	3	4	5	6	1	2	3	4	5	6

**Dr. R. B. Arakerimath**  
Dean Academics

**Dr. R. S. Bichkar**  
Dean R & D



**Dr. Amol Pote**  
In-charge Director

Sr. No.	Months	SPPU Academic Calendar - ACTIVITY	SE-BE/MCA-2/M.E-2
1	Nov 2016	Workload distribution, requirement planning and stationary/equipment requirement	10/11/16
2		Dept portfolio - Class teachers, Project coordinator, Teacher guardians and other activity in-charges	11/11/16
3		All Calendar finalization	12/11/16
4		DIAB/R&D Review Meeting	18/11/16
5		Preparation of Time Table and departmental planning	28/11/16
6		HOD meeting for review of dept. activity	30/11/16
7		Preparation of lab manuals, resource files etc. and R&D Target planning	30/11/16
8	Dec 2016	Update of Teaching plans/faculty Diary/laboratory equipments-repairs	5/12/16
9		Preparation of students list & attendance record, AIMS – entry of database	12/12/16
10		External Audit	12/12/16
11		Start of classes –Sem. II	15/12/16
12	Jan 2017	Monthly attendance compilation & AIMS / Academic diary Review/R&D	2/1/17
13		Formation of project groups/ seminars / submission of synopsis/TGS	3/1/17
14		Probable dates of Declaration of Result: SE/TE/B.E	As per SPPU
15		HOD meeting for review of dept. activity	4/1/17
16		Internal Audit-1	7-14/1/17
17		Insem and Unsem SPPU exam – I	As per SPPU
18		HOD meeting for review of dept. activity-Mentors/TGS	10/1/17
19	Dept PTM/Alumni meets-1	20-21/1/17	
20	Feb 2017	Monthly attendance compilation & AIMS / Academic diary Review/R&D	2/2/17
21		HOD meeting for review of dept. activity/TGS	15/2/17
22		GB Meeting-1	4Feb 2017
23		Internal faculty Academic Audit	16-17/2/17
24		Journal/Project/Seminar Reviews-	20-21/2/17
25		Mid Term Exams	23-25/2/17
26		Review of Student activities and Professional society	28/2/17
27	Mar 2017	HOD meeting for review of dept. activity/TGS	1/3/17
28		Monthly attendance compilation & AIMS / Academic diary Review/R&D	2/3/17
29		Exam form link open.	6/3/17
30		Internal Audit-2	3-11/3/17
31		HOD meeting for review of dept. activity/TGS	15/3/17
32		Online SPPU Exam – 2	As per SPPU
33		HOD meeting for review of dept. activity/TGS	22/3/17
34		Journal/Project/Seminar Reviews	27-28/3/17
35		Review of Practical and Extra activities	29/3/17
36		Dept PTM/Alumni meets	24-25/3/17
37		Distribution of Hall tickets to the departments.	As per SPPU
38	HOD meeting for review of dept. activity/TGS	29/3/17	
39	April 2017	Monthly attendance compilation & AIMS / Academic diary Review/R&D	1/4/17
40		Term End	3/4/17
41		Faculty Audit-3	10-14/4/17

Sr. No.	Months	SPPU Academic Calendar - ACTIVITY	SE-BE./MCA-2/ M.E-2
42	April 2017	HOD meeting for review of dept. activity- Academic Calendar	28/4/17
43		Oral/Practical, Seminar, Project Presentation, Submission ESE.[PG]	26/4/17 to 29/4/17
44	May 2017	ESE Theory Exam.	2/5/17 to 11/5/17
45		HOD meeting for review of dept. activity	10/5/17
46	June 2017	Summer Vacation	As per RGI
47		HOD meeting for review of dept. activity	14/5/17
48		GB meeting-2	16/June 17
49		Review of Theory exams and planning for next semi	28/5/17
50		Start of the SEM – II.	15/6/17


List of holidays: 26/12/2016 (Christmas), 19/02/2017 (Chhatrapati Shivaji Maharaj Jayanti), 14/03/2017 (Holi Second Day),  
28/03/2017 (Gudi Padwa), 14/04/2017 (Ambedkar Jayanti )

	December					January					February					March					April					May					June				
Mon	5	12	19	26		2	9	16	23	30	6	13	20	27	6	13	20	27	3	10	17	24	1	8	15	22	29	5	12	19	26				
Tue	6	13	20	27		3	10	17	24	31	7	14	21	28	7	14	21	28	4	11	18	25	2	9	16	23	30	6	13	20	27				
Wed	7	14	21	28		4	11	18	25		1	8	15	22	1	8	15	22	29	5	12	19	26	3	10	17	24	31	7	14	21	28			
Thu	1	8	15	22	29	5	12	19	26		2	9	16	23	2	9	16	23	30	6	13	20	27	4	11	18	25	1	8	15	22	29			
Fri	2	9	16	23	30	6	13	20	27		3	10	17	24	3	10	17	24	31	7	14	21	28	5	12	19	26	2	9	16	23	30			
Sat	3	10	17	24	31	7	14	21	28		4	11	18	25	4	11	18	25	1	8	15	22	29	8	13	20	27	3	10	17	24				
Sun	4	11	18	25		1	8	15	22	29	5	12	19	26	5	12	19	26	2	9	16	23	30	7	14	21	28	4	11	18	25				
Week	1	2	3	4	5	1	2	3	4	5	1	2	3	4	5	1	2	3	4	5	1	2	3	4	5	1	2	3	4	5	1	2	3	4	5

  
Dr. R. R. Arakerimath  
Dean-Academics.

  
Dr. R. S. Bichkar  
Dean R & D



  
Dr. Amol Pote  
In-charge Director

**G. H. Raisoni College of Engineering and Management,  
Wagholi , Pune – 412207**

**(An Autonomous Institute & Affiliated to Savitribai Phule Pune University, Pune)**

E- mail: director\_ghrcemp@raisoni.net

Website: www.ghrcem.raisoni.net

**ACADEMIC CALENDAR 2016-2017 UG (SECOND SEMESTER F.Y. B. TECH.)**

Month	Date	Event
DECEMBER	5 - 14	• End Semester Exam (ESE)-Theory.
	6 - 16	• ESE Paper Checking.
	12 - 16	• External Audit
	11 & 18	• Paper Showing.
	19	• Sem-II, Workload distribution, Nomination of TT In-charge,CT, Mini Project Co-ordinator, TGs.
	20	• Declaration of ESE final Result.
JANUARY	2	• Commencement of Classes of 2nd semester.
	3 - 6	• Formation of Project Groups (Mini & Micro level).
	3	• First Meeting of Class Teachers/Subject Co-ordinators/Lab in Charge.
	6	• First Meeting of CRs & LR.s.
	7	• Activity 1: Workshop on HTML. ( Section A, C, E, G )
	7 - 14	• Internal Audit – I
	14	• Activity 2: Workshop on HTML. ( Section B, D, F )
	12-17	• Re-exam for ESE.
	13-18	• Re-exam paper checking.
	17-18	• Paper Showing.
	18-19	• Practical Exam
	23	• Re-exam result declaration.
	21	• Activity 3: Vocab Wizard ( Section A - G )
	28	• Activity 4: Phonetics ( Section A, C, E, G )
	30	• Entry of TAE marks of all subjects in MIS.
31	• Submission of monthly performance review, Average attendance to Dean Academics.	
FEBRUARY	1	• Display Attendance for month of January. • Submission of Monthly Performance. • First TG Letter to Parents.
	2 - 3	• First Assessment of Mini Model.
	3	• Second Meeting of Class Teachers/Subject Co-ordinators/Lab in Charge.
	4	• Activity 5: Workshop on Brain Machines and Arduino Workshop ( Section A – G )
	6	• Second Meeting of CRs & LR.s.
	11	• Activity 6: "Panache" ( Personality Contest ) ( Section A – G ).
	13 – 15	• CAE-I ( Unit-I & II )
	17	• Display of Result of CAE-I.
	18	• Activity 7: Workshop on Robotics ( Section A – G )
	20 – 24	• Remedial classes for students scored less than 8 marks in CAE-I.
25	• Activity 8: Exhibition of mini models, projects & charts on "Science	

		<b>Day" ( Section A – G ).</b>	
	27	<ul style="list-style-type: none"> <li>• Student Feed Back-1<sup>st</sup>.</li> <li>• Entry of CAE &amp; TAE marks of all subjects in MIS.</li> </ul>	
	28	<ul style="list-style-type: none"> <li>• Submission of monthly performance review, Average attendance to Dean Academics.</li> </ul>	
<b>MARCH</b>	1	<ul style="list-style-type: none"> <li>• Display Attendance for month of February.</li> <li>• Submission of Monthly Performance.</li> <li>• Second TG Letter to Parents.</li> </ul>	
	2 - 3	<ul style="list-style-type: none"> <li>• <b>Second Assessment of Mini Model.</b></li> </ul>	
	3	<ul style="list-style-type: none"> <li>• Third Meeting of Class Teachers/Subject Co-ordinators/Lab in Charge.</li> </ul>	
	6	<ul style="list-style-type: none"> <li>• <b>Third Meeting of CRs &amp; LR.</b></li> </ul>	
	3 – 11	<ul style="list-style-type: none"> <li>• <b>Internal Audit - 2</b></li> </ul>	
	8 - 10	<ul style="list-style-type: none"> <li>• <b>CAE-II ( Unit-III &amp; IV )</b></li> </ul>	
	11	<ul style="list-style-type: none"> <li>• <b>Activity 9: "Success Sagas" ( Section A – G )</b></li> </ul>	
	14	<ul style="list-style-type: none"> <li>• <b>Display of Result of CAE-II.</b></li> </ul>	
	14-17	<ul style="list-style-type: none"> <li>• <b>Remedial classes for students scored less than 8 marks in CAE-II.</b></li> </ul>	
	18	<ul style="list-style-type: none"> <li>• <b>Activity 10: Guest lecture ( Resume it ) ( Section B, D, F )</b></li> </ul>	
			<ul style="list-style-type: none"> <li>• <b>Activity 11: Book Review ( Section A, C, E, G )</b></li> </ul>
	25	<ul style="list-style-type: none"> <li>• <b>Activity 12: Guest Lecture ( Industrial Person ). ( Section B, D, F )</b></li> </ul>	
	30	<ul style="list-style-type: none"> <li>• Entry of CAE &amp; TAE marks of all subjects in MIS.</li> </ul>	
	31	<ul style="list-style-type: none"> <li>• Submission of monthly performance review, Average attendance to Dean Academics.</li> </ul>	
<b>APRIL</b>	1	<ul style="list-style-type: none"> <li>• Display Attendance for month of March.</li> <li>• Submission of Monthly Performance.</li> <li>• Provisional Detention List.</li> <li>• Third TG Letter to Parents.</li> </ul>	
	3	<ul style="list-style-type: none"> <li>• Final Meeting of Class Teachers/Subject Co-ordinators/Lab in Charge.</li> </ul>	
	3 - 4	<ul style="list-style-type: none"> <li>• <b>Final Assessment of Mini Model.</b></li> </ul>	
	5	<ul style="list-style-type: none"> <li>• Student Feed Back-2<sup>nd</sup>.</li> </ul>	
	6	<ul style="list-style-type: none"> <li>• <b>Fourth Meeting of CRs &amp; LR.</b></li> </ul>	
	8	<ul style="list-style-type: none"> <li>• <b>Activity 13: Phonetics ( Section B, D, F )</b></li> </ul>	
	10 – 14	<ul style="list-style-type: none"> <li>• <b>Internal Audit – 3</b></li> </ul>	
	11-13	<ul style="list-style-type: none"> <li>• <b>CAE-III ( Unit-V &amp; VI ).</b></li> </ul>	
	15	<ul style="list-style-type: none"> <li>• <b>Activity 14 :Old Age Home visit(A,C,E,G)/ Industrial Visit(B,D,F).</b></li> </ul>	
	17	<ul style="list-style-type: none"> <li>• <b>Display of Result of CAE-II.</b></li> </ul>	
	17-19	<ul style="list-style-type: none"> <li>• <b>Remedial classes for students scored less than 8 marks in CAE-III.</b></li> </ul>	
	20-21	<ul style="list-style-type: none"> <li>• <b>Improvement Test for Poor performer (CAE – IV)</b></li> </ul>	
	21	<ul style="list-style-type: none"> <li>• Entry of CAE &amp; TAE marks of all subjects in MIS.</li> <li>• Final Detention List.</li> </ul>	
	22	<ul style="list-style-type: none"> <li>• <b>End of Classes.</b></li> </ul>	
26-29	<ul style="list-style-type: none"> <li>• End semester exam (ESE)-Practical (Journal Submission).</li> </ul>		
<b>MAY</b>	2-11	<ul style="list-style-type: none"> <li>• <b>End Semester Exam (ESE)-Theory.</b></li> </ul>	
	3-13	<ul style="list-style-type: none"> <li>• <b>ESE Paper Checking.</b></li> </ul>	
	11-15	<ul style="list-style-type: none"> <li>• <b>Paper Showing.</b></li> </ul>	
	20	<ul style="list-style-type: none"> <li>• <b>Declaration of ESE final Result.</b></li> </ul>	
	25/5 – 25/6	<ul style="list-style-type: none"> <li>• <b>Summer Term</b></li> </ul>	
<b>JUNE</b>	5	<ul style="list-style-type: none"> <li>• Sem-I, Workload distribution, Nomination of TT In-charge,CT, Mini</li> </ul>	

## Annexure II

### Best Practice-1

#### The Content:

In traditional teaching learning process students involvement is not sufficient. Engineering concept can be understood in better way by implementation doing the things on own. Now days, It is necessary to increase the participation in teaching learning process. Hence, Teacher Assessment Evaluation (TAE) is assigned subject-wise.

#### 1. Practice:

- i. Seven TAE parameters are framed year-wise.
- ii. Different TAE parameters are Presentation on Technical topic, Poster Presentation, Report Writing, Mini Modelling, Industrial Visit, Co-curricular and Extracurricular Activities, Attendance, Technical Quiz etc.
- iii. Rubrics are formed for each TAE parameters.
- iv. TAE parameters are conducted as per the schedule given in Academic Calendar.
- v. Performance in TAE is shown to individual students by respective faculty members.
- vi. Finally out of seven TAE best of five TAE parameter performance is evaluated for 20 marks.

#### 2. Evidence of Success:

- Observed increase in student's involvement and self-learning approach in individual students.
- Subject-wise comparative improvement in result.
- 

#### 3. Problems encountered & Resources required:

- Conduction of all seven TAE per subject overburdens students. Hence, decided to combine some TAE parameters like mini modelling, presentations in a group instead of individual students.

### Best Practice - 2

#### The Content:

Mathematics is the basis of most of the engineering subjects. It is included in the curriculum of first year engineering and higher engineering courses. Some topics and theorem are useful for particular branch. Department-wise different topics are required. It is observed that students found this subject difficult and results are poor.

#### 1. Practice:

It has been therefore decided to organize meetings of Mathematics teachers with some senior teachers and HOD's of engineering branches to which Mathematics is taught. One HOD may be nominated by the principal as In-charge of the activity of organizing meetings and maintaining record of minutes. In this meeting, they are expected to discuss and share topics such branch.

- Requirement of specific topics for each branch.
- Engineering applications.
- Topics on which more stress should be given.
- Question banks
- Use of online resources
- Use of Audio and Video teaching aids.
- Organization of guest lectures by external resource person.

#### 2. Evidence of Success:

The basic concept of mathematics got cleared and comparative improvement in results.

#### 3. Problems encountered & Resources required:

Unavailability of adequate time for conducting content beyond the syllabus and is overcome by keeping the time table flexible



#### 7.4 Contribution to environmental awareness / protection

- Trees planted, green lawn developed
- Posters for environmental awareness displayed.
- Workshop on Energy Conservation
- Re-use of water
- Swachha Bharat Abhiyan

#### 7.5 Whether environmental audit was conducted?

Yes

No

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

##### SWOC ANALYSIS

GHRCEM Pune, belongs to a very well established strongly emerging educational group. It is strategically located at educational hub of India. The students are coming from rural part of Maharashtra and therefor pose some challenges. On this background SWOC analysis of the institute is given below.

##### Strengths:

- The institute is managed and governed by RGI, a reputed and strong group in engineering education.
- Pragmatic and progressive management, providing financial support for quality of education.
- The infrastructure of the institute is very good for quality teaching learning process.
- Teaching learning process evolved since its inception has matured. The teaching learning process is agile and dynamically adjusts to changing environment.
- Laboratories are well equipped with instruments trainers, software's and computing facilities.
- Orientation of institute towards Research and emphasis on overall development of faculty for quality through research activity and upgrading knowledge & skills.

##### Weaknesses:

- Comparatively number of faculty, particularly doctorates are less.
- Inadequate industrial connect, communication skill of students and low placement record.

##### Opportunities:

- Pune being educational and IT/Engineering industry hub, therefore, more opportunities for industry interaction and job opportunities to students.
- Pune and nearby Mumbai has R&D Organizations, IIT, DIAT and reputed universities/COEP for research collaboration.
- Industry experts are available for enhancement of skills, updating and upgrading of knowledge of the faculty.
- Undertaking industry based and industry related projects by UG and PG students to improve the quality of projects.

##### Challenges:

- Majority of the students are from rural background and hence lack communication skills. They require tremendous effort to develop communication skills and personality development which is a challenge.
- Students with weak academic base are admitted and raising their level to national/global level is a challenge.
- Hunting, employing and retaining qualified and experienced faculty is a challenge.

## **8. Plans of institution for next year**

1. The institute is planning & preparing for NBA Accreditation of atleast 03 departments.
2. We are recognized research Centre of Scientific Industrial Research Organization (SIRO) of Govt of India. We will take action to continue further as SIRO research Centre.
3. Efforts to increase consultancy.
4. Strengthen the Research and Incubation Centre activities.
5. Enhance Industry institute interaction.

**Name: Prof. Pravin Matte**  
**IQAC Coordinator, GHRCEM**

**Name: Dr. Jaywant B. Sankpal**  
**Director, GHRCEM**

\*\*\*