Yearly Status Report - 2018-2019

Part A	
Data of the Institution	
1. Name of the Institution	**ZEAL COLLEGE OF ENGINEERING AND RESEARCH, NARHE, PUNE**
Name of the head of the Institution	**Dr. Ajit Madhukarrao Kate**
Designation	**Principal**
Does the Institution function from own campus	**Yes**
Phone no/Alternate Phone no.	**02067206106**
Mobile no.	**9822014351**
Registered Email	**principal.zcoer@zealeducation.com**
Alternate Email	**ajit.kate@zealeducation.com**
Address	**S. No. 39, Narhe, Pune**
City/Town	**Pune**
State/UT	**Maharashtra**
Pincode	**411041**

2. Institutional Status

Affiliated / Constituent	**Affiliated**
Type of Institution	**Co-education**
Location	**Semi-urban**
Financial Status	**private**
Name of the IQAC co-ordinator/Director	**Dr. Pralhad Prabhakar Walvekar**
Phone no/Alternate Phone no.	**02067206133**
Mobile no.	**8975760046**
Registered Email	**iqac.zcoer@zealeducation.com**
Alternate Email	**pralhad.walvekar@zealeducation.com**

3. Website Address

Web-link of the AQAR: (Previous Academic Year)	https://zcoer.in/wp-content/uploads/2021/08/Final_AQAR_2017_18.pdf

4. Whether Academic Calendar prepared during the year

4. Whether Academic Calendar prepared during the year	**Yes**
if yes,whether it is uploaded in the institutional website: Weblink :	https://zcoer.in/academic-calendar/

5. Accrediation Details

Cycle	Grade	CGPA	Year of Accrediation	Validity	
				Period From	Period To
1	**A**	**3.04**	**2017**	**27-Nov-2017**	**26-Nov-2022**

6. Date of Establishment of IQAC

6. Date of Establishment of IQAC	**15-Jun-2016**

7. Internal Quality Assurance System

Quality initiatives by IQAC during the year for promoting quality culture		
Item /Title of the quality initiative by IQAC	Date & Duration	Number of participants/ beneficiaries
Conduction of employability test	**26-Mar-2019** **07**	**2321**

8. Provide the list of funds by Central/ State Government- UGC/CSIR/DST/DBT/ICMR/TEQIP/World Bank/CPE of UGC etc.

Institution/Department/Faculty	Scheme	Funding Agency	Year of award with duration	Amount
NIL	NIL	NIL	2019 0	0

View File

9. Whether composition of IQAC as per latest NAAC guidelines:	Yes
Upload latest notification of formation of IQAC	View File
10. Number of IQAC meetings held during the year :	2
The minutes of IQAC meeting and compliances to the decisions have been uploaded on the institutional website	Yes
Upload the minutes of meeting and action taken report	View File
11. Whether IQAC received funding from any of the funding agency to support its activities during the year?	No

12. Significant contributions made by IQAC during the current year(maximum five bullets)

Research file preparation by faculty for embedding research environment Mini projects beyond curriculum

View File

13. Plan of action chalked out by the IQAC in the beginning of the academic year towards Quality Enhancement and outcome achieved by the end of the academic year

Plan of Action	Achivements/Outcomes
To prepare a research file by faculty for embedding research environment, To carry out Mini projects beyond curriculum	Number of publications increased, Projects by students increased and quality learning achieved
View File	

14. Whether AQAR was placed before statutory body ?	No
15. Whether NAAC/or any other accredited body(s) visited IQAC or interacted with it to assess the functioning ?	No
16. Whether institutional data submitted to AISHE:	Yes
Year of Submission	2019
Date of Submission	07-Jan-2019
17. Does the Institution have Management Information System ?	Yes
If yes, give a brief descripiton and a list of modules currently operational (maximum 500 words)	The institute has a Management Information System namely Mastrcloud ERP. Following are the details of various modules, submodules and various faces available therein. 1) Academic: Registration Facility to complete New student registration process with merit list 2) Academic: Collect Fees: Collect Fees Regular student's admission process, Fees Collection, Fees Refund 3) Academic: Receipts Admission cancellation, Fees receipt cancel and reprint, Student Course Change, Fees type change, Student type change, Online payment request 4) Academic: Data Entry Student Information, Student Subject Updation, Roll number updation, Student data bulk updation, Student documents receipt, Student status, Outstanding Fees Reminder, Bulk SMS/Email, Send Notification 5) Academic: Student Reports Admission Reports: Online Registration, Provisional Admission Report, Student Status Report, Course and fees change type report, Course wise strength report, Student details export to excel, Admission Position report, Attendance Sheet, SMS send report, Student fee type student type report, Certificate Reports: Student ID Card generation, Duplicate TC report, Attempt certificate report, NOC certificate report, Date of Birth certificate report, Bonafide certificate report, Bonafide and course completion certificate, Estimate

certificate report, Character/ Attendance Certificate, Address proof certificate, TC issued report, Issued certificate report, Documents submitted report, Demand letter, Sports Bonafide, MIS Reports: Student MIS, Student wise report, Management MIS report, Course wise MIS report, University Reports: University Report, Caste Category wise MIS report, University Examination List Report, Student Graphical Reports: Student Graphical Strength Report, Student Graphical Fees, Collection Report 6) Academic: Fees reports 7) Attendance: Registration 8) Attendance: Reports 9) Examination: Preexam 10) Examination: Result Process 11) Examination: Reports 12) Examination: Statistical Reports 13) Payroll: Basic details 14) Payroll: Monthly work 15) Payroll: Income tax transaction 16) Payroll: Configuration, 17) Payroll: Reports 18 Establishment: Leave transaction, application, Attendance, reports, configuration 19) Feedback: Transactions, reports 20) Mastersoft Cloud: Mobile App 21) Student Diary Cloud: Mobile App

Part B

CRITERION I – CURRICULAR ASPECTS

1.1 – Curriculum Planning and Implementation

1.1.1 – Institution has the mechanism for well planned curriculum delivery and documentation. Explain in 500 words

Following are some of the qualitative changes that have been incorporated in A.Y. 2018-19 to previous mechanism for well-planned curriculum delivery and documentation. 1. The academic activities are also communicated to students and parents through social media platform like whatsapp. This initiative has helped to reach students more effectively. 2. The course objectives and outcomes are added in course file. It was brought to the notice of all students in the first lecture of the course. 3. The content beyond syllabus was identified based on improvement of professional competence, market demand and real-life applications. 4. AMC monitored the academic activities on day -to-day basis to ensure the execution of timetable in digital form also.

1.1.2 – Certificate/ Diploma Courses introduced during the academic year

Certificate	Diploma Courses	Dates of Introduction	Duration	Focus on employ ability/entrepreneurship	Skill Development
NIL	NIL	Nil	0	NIL	NIL

1.2 – Academic Flexibility

1.2.1 – New programmes/courses introduced during the academic year

Programme/Course	Programme Specialization	Dates of Introduction

Nill	NIL	Nill
View File		

1.2.2 – Programmes in which Choice Based Credit System (CBCS)/Elective course system implemented at the affiliated Colleges (if applicable) during the academic year.

Name of programmes adopting CBCS	Programme Specialization	Date of implementation of CBCS/Elective Course System
Nill	NIL	Nill

1.2.3 – Students enrolled in Certificate/ Diploma Courses introduced during the year

	Certificate	Diploma Course
Number of Students	Nil	Nil

1.3 – Curriculum Enrichment

1.3.1 – Value-added courses imparting transferable and life skills offered during the year

Value Added Courses	Date of Introduction	Number of Students Enrolled
Software Development Workshop	08/09/2018	42
Certification in Python	16/01/2019	23
Micrisoft MTA Python Certification (98-38) Program	26/12/2018	37
Computer Aided Manufacturing (CAM) –CNC Programming , Simulation Manufacturing	22/08/2018	30
Computer Aided Design (CAD) – Unigraphics 9.0	22/08/2018	25
Computer Aided Engineering (CAE) – Ansys 13.0	22/08/2018	24
Japanese Language	06/08/2018	2
Automation Robotics	22/08/2018	30
Vibration Analysis using FFT Analyzer	22/08/2018	18
Induction motor design	16/08/2019	96
View File		

1.3.2 – Field Projects / Internships under taken during the year

Project/Programme Title	Programme Specialization	No. of students enrolled for Field Projects / Internships
BE	Mechanical	10
BE	Civil	16
BE	Electrical	6
BE	Computer	13
View File		

1.4 – Feedback System

1.4.1 – Whether structured feedback received from all the stakeholders.

Students	Yes
Teachers	No
Employers	Yes
Alumni	Yes
Parents	Yes

1.4.2 – How the feedback obtained is being analyzed and utilized for overall development of the institution? (maximum 500 words)

Feedback Obtained

Following is the qualitative change that was introduced and implemented in A.Y. 2018-19 in addition to previous mechanism of feedback analysis and utilization in overall development of institute. In order to check content delivery in class room, it was decided to monitor class room teaching and seek live feedbacks. In this respect, it was decided to prepare a committee of two members for taking live feedbacks wherein one member should be from parent Department. The committee members completed monitoring of class room teaching of all faculty members and the report was discussed with the concerned teacher in presence of HOD for continual improvement.

CRITERION II – TEACHING- LEARNING AND EVALUATION

2.1 – Student Enrolment and Profile

2.1.1 – Demand Ratio during the year

Name of the Programme	Programme Specialization	Number of seats available	Number of Application received	Students Enrolled
BE	Mechanical Engineering Second shift	120	22	22
BE	Mechanical Engineering First shift	120	64	64
BE	Information Technology	60	55	55
BE	E&TC Engineering	120	33	33
BE	Electrical Engineering First shift	60	38	38
BE	Computer Engineering Second shift	60	54	54
BE	Computer Engineering First shift	60	60	60
BE	Civil Engineering	60	49	49
[View File](#)				

2.2 – Catering to Student Diversity

2.2.1 – Student - Full time teacher ratio (current year data)

Year	Number of students enrolled in the institution (UG)	Number of students enrolled in the institution (PG)	Number of fulltime teachers available in the institution teaching only UG courses	Number of fulltime teachers available in the institution teaching only PG courses	Number of teachers teaching both UG and PG courses
2018	2880	209	154	17	24

2.3 – Teaching - Learning Process

2.3.1 – Percentage of teachers using ICT for effective teaching with Learning Management Systems (LMS), E-learning resources etc. (current year data)

Number of Teachers on Roll	Number of teachers using ICT (LMS, e-Resources)	ICT Tools and resources available	Number of ICT enabled Classrooms	Numberof smart classrooms	E-resources and techniques used
195	195	Nill	45	45	Nill

[View File of ICT Tools and resources](#)

[View File of E-resources and techniques used](#)

2.3.2 – Students mentoring system available in the institution? Give details. (maximum 500 words)

Following are the qualitative changes that was introduced and implemented in A.Y. 2018-19 in addition to previous mechanism of Students mentoring system available in the institution. 1. Guardian Faculty Member (GFM) system was effectively utilized for improvement of student attendance in this academic year. GFMs were able to establish communication with students with less attendance which has resulted in improvement of overall attendance. 2. GFM has counselled the students about the requirement of professional skills from industry. This has resulted in increased participation in skill development programs.

Number of students enrolled in the institution	Number of fulltime teachers	Mentor : Mentee Ratio
3089	195	1:16

2.4 – Teacher Profile and Quality

2.4.1 – Number of full time teachers appointed during the year

No. of sanctioned positions	No. of filled positions	Vacant positions	Positions filled during the current year	No. of faculty with Ph.D
194	195	Nill	72	22

2.4.2 – Honours and recognition received by teachers (received awards, recognition, fellowships at State, National, International level from Government, recognised bodies during the year)

Year of Award	Name of full time teachers receiving awards from state level, national level, international level	Designation	Name of the award, fellowship, received from Government or recognized bodies
Nill	NIL	Nill	NIL

[View File](#)

2.5 – Evaluation Process and Reforms

2.5.1 – Number of days from the date of semester-end/ year- end examination till the declaration of results during the year

Programme Name	Programme Code	Semester/ year	Last date of the last	Date of declaration of

				semester-end/ year-end examination	results of semester-end/ year- end examination
BE	CE	I/2018	29/12/2018	12/02/2019
BE	CO	I/2018	29/12/2018	12/02/2019
BE	EE	I/2018	29/12/2018	12/02/2019
BE	ETC	I/2018	29/12/2018	12/02/2019
BE	IT	I/2018	29/12/2018	12/02/2019
BE	ME	I/2018	29/12/2018	12/02/2019

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2.5.2 – Reforms initiated on Continuous Internal Evaluation(CIE) system at the institutional level (250 words)

Following is the reform that was introduced and implemented in A.Y. 2018-19 in addition to previous mechanism of Continuous Internal Evaluation(CIE) system at the institutional level. The number of questions in assignment were reduced to not more than five to avoid simply copying answers from books. The questions were also changed from traditional to new pattern where students have to think about the application of concepts in real time.

2.5.3 – Academic calendar prepared and adhered for conduct of Examination and other related matters (250 words)

Being an affiliated institute to Savitribai Phule Pune University (SPPU), the academic calendar of the institute is prepared before commencement of each semester of every academic year in accordance with academic calendar of SPPU. However, SPPU does not provide complete academic calendar at the beginning of each semester of academic year. Generally, the schedules of formative and summative examinations are provided at a later stage. Accordingly, Institute has to adjust the examination and other activity schedules.

2.6 – Student Performance and Learning Outcomes

2.6.1 – Program outcomes, program specific outcomes and course outcomes for all programs offered by the institution are stated and displayed in website of the institution (to provide the weblink)

https://zcoer.in/po-pso-and-co/

2.6.2 – Pass percentage of students

Programme Code	Programme Name	Programme Specialization	Number of students appeared in the final year examination	Number of students passed in final year examination	Pass Percentage
MBA	MBA	MBA	43	32	74.42
ME	BE	Mechanical Engineering	259	242	93.44
IT	BE	Information Technology	63	60	95.24
E&TC	BE	E&TC Engineering	59	44	74.58
EE	BE	Electrical Engineering	147	114	77.55
CO	BE	Computer	179	177	98.88

| CE | BE | Civil Engineering | 64 | 59 | 92.19 |

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2.7 – Student Satisfaction Survey

2.7.1 – Student Satisfaction Survey (SSS) on overall institutional performance (Institution may design the questionnaire) (results and details be provided as weblink)

NIL

CRITERION III – RESEARCH, INNOVATIONS AND EXTENSION

3.1 – Resource Mobilization for Research

3.1.1 – Research funds sanctioned and received from various agencies, industry and other organisations

Nature of the Project	Duration	Name of the funding agency	Total grant sanctioned	Amount received during the year
Major Projects	730	ASPIRE, Savitribai Phule Pune University	300000	0
Major Projects	730	Board of College and University Development, Savitribai Phule Pune University	100000	34500

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3.2 – Innovation Ecosystem

3.2.1 – Workshops/Seminars Conducted on Intellectual Property Rights (IPR) and Industry-Academia Innovative practices during the year

Title of workshop/seminar	Name of the Dept.	Date
Intellectual Property Rights	All Departments	04/08/2018

3.2.2 – Awards for Innovation won by Institution/Teachers/Research scholars/Students during the year

Title of the innovation	Name of Awardee	Awarding Agency	Date of award	Category
NIL	NIL	NIL	Nill	NIL

View File

3.2.3 – No. of Incubation centre created, start-ups incubated on campus during the year

Incubation Center	Name	Sponsored By	Name of the Start-up	Nature of Start-up	Date of Commencement
0	NIL	NIL	Collabspotty website	Website for entrepreneurs to meet and share ideas.	02/02/2019

View File

3.3 – Research Publications and Awards

3.3.1 – Incentive to the teachers who receive recognition/awards

State	National	International
0	0	0

3.3.2 – Ph. Ds awarded during the year (applicable for PG College, Research Center)

Name of the Department	Number of PhD's Awarded
Mechanical	Nill
ETC	Nill

3.3.3 – Research Publications in the Journals notified on UGC website during the year

Type	Department	Number of Publication	Average Impact Factor (if any)
International	IT	19	5.91
International	CIVIL	5	3
International	MECHANICAL	8	0.98
International	ELECTRICAL	3	6.85
International	COMPUTER	25	0
International	ETC	22	0
International	MBA	1	1.52
National	MBA	3	1.5

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3.3.4 – Books and Chapters in edited Volumes / Books published, and papers in National/International Conference Proceedings per Teacher during the year

Department	Number of Publication
ELECTRICAL	2
CIVIL	2
ETC	6
MECHANICAL	2
IT	14
COMPUTER	29

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3.3.5 – Bibliometrics of the publications during the last Academic year based on average citation index in Scopus/ Web of Science or PubMed/ Indian Citation Index

Title of the Paper	Name of Author	Title of journal	Year of publication	Citation Index	Institutional affiliation as mentioned in the publication	Number of citations excluding self citation
FWFusion: Holoentropy SP-Whale optimisation-based fusion model for	H. V. Patil S.D. Shirbahadurkar	Sadhana Academy Proceedings in Engineering Sciences - Springer,	2018	0	Department of ETC, Zeal Education Society, Pune, India	13

magnetic resonance imaging multimodal image fusion						
Speacker identification of whispering speech: an investigation on selected timbrel features KNN distance measures	V.M. Sardar S.D .Shirbahad urkar	Internationational Journal of Speech Technology	2018	0	Department of E TC, Zeal College of Engineering, S.P. Pune University, Pune, India	1
Experimental Investigation Of An Aluminium Thermosyphon At Normal Operating Conditions	Mutalikdesai Sachin V., A. M. Kate	Journal of Thermal Engineering	2018	0	Zeal College of Engineering and Research	Nill
Stress Analysis of Carbon Fiber Reinforced Composite Laminate with Different Centrally Located Cutouts	Abhijit M Kasar	Materials Today Proceedings Elseveir, 16(2019), 592-597	2019	0	Zeal College of Engineering and Research	Nill
Thermal Power Plant Condenser Fault Diagnosis Using Coordinated Condition Monitoring Approach	Hanumant P. Jagtap	Instrumentation Mesure Métrologie Journal, Vol. 18, No. 3, June, 2019, pp. 223-235	2019	0	Zeal College of Engineering and Research	Nill
Study of mechanical and sliding	Parmeshwar P Ritapure	Tribology in industry	2019	0	Zeal College of Engineering and	Nill

Title of the Paper	Name of Author	Title of journal	Year of publication	h-index	Number of citations excluding self	Institutional affiliation as mentioned in
wear behavior of Al-25Zn alloy/SiC/ Graphite novel hybrid composites for plain bearing application		41(3) (2019)375-38			Research	
SiC contents and pin temperature effect on tribological properties of Al25Zn/SiC composites	Parmeshwar P Ritapure	International Journal of Refractory Metals Hard Materials 82 (2019) 234-244	2019	0	Zeal College of Engineering and Research	1
Effect of novel flow divider type turbulators on fluid flow and heat transfer	Chandrakant L Prabhune	Thermal Science and Engineering Progress, 9 (2019),322-331	2019	0	Zeal College of Engineering and Research	3
Speech Synthesis using Syllable for Marathi Language	P.M.Ghate S.D.Shirbahadurkar	Information and Communication Technology for Competitive Strategies	2018	0	Zeal College of Engineering Research PuneIndia	1
Naturalness improvement in Text to Speech system for Marathi Language using Syllable Unit	S.D.Shirbahadurkar	IEEE	2018	0	Zeal College of Engineering Research SPPU, Pune (Maharashtra) India	Nill

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3.3.6 – h-Index of the Institutional Publications during the year. (based on Scopus/ Web of science)

Title of the Paper	Name of Author	Title of journal	Year of publication	h-index	Number of citations excluding self	Institutional affiliation as mentioned in

					citation	the publication
Providing Security in Vehicular Adhoc Network using Cloud Computing by secure key Method	Dr.Prasad S.Halgaonkar	International Conference on Information, Communication, Engineering and Technology	2018	2	3	Zeal College of Engineering and Research
Block Chain for Secure Energy Trading on Solar System	Dr.Prasad S.Halgaonkar	International Journal of Innovative Technology and Exploring Engineering	2019	Nill	Nill	Zeal College of Engineering and Research
Retrieving Real Time Data Through IOT Devices and Storing Securely on Cloud Using Li-Fi	Dr. Swapnaja A. Ubale	International Conference for Convergence in Technology (I2CT),	2018	2	1	Associate Professor, Zeal College of Engineering and Research
Attribute-based encryption along with data performance and security on cloud storage	Dr. Swapnaja A. Ubale	International Conference on Information, Communication, Engineering and Technology (ICICET)	2018	2	1	Associate Professor, Zeal College of Engineering and Research
Experimental Investigation Of An Aluminium Thermosyphon At Normal Operating Conditions	Mutalikdesai Sachin V., A. M. Kate	Journal of Thermal Engineering	2018	Nill	Nill	Zeal College of Engineering and Research

Stress Analysis of Carbon Fiber Reinforced Composite Laminate with Different Centrally Located Cutouts	Abhijit M Kasar	Materials Today Proceedings Elseveir, 16(2019), 592-597	2019	Nill	Nill	Zeal College of Engineering and Research
Thermal Power Plant Condenser Fault Diagnosis Using Coordinated Condition Monitoring Approach	Hanumant P. Jagtap	Instrumentation Mesure Métrologie Journal, Vol. 18, No. 3, June, 2019, pp. 223-235	2019	2	Nill	Zeal College of Engineering and Research
Study of mechanical and sliding wear behavior of Al-25Zn alloy/SiC/Graphite novel hybrid composites for plain bearing application	Parmeshwar P Ritapure	Tribology in industry 41(3) (2019)375-38	2019	Nill	Nill	Zeal College of Engineering and Research
SiC contents and pin temperature effect on tribological properties of Al25Zn/SiC composites	Parmeshwar P Ritapure	International Journal of Refractory Metals Hard Materials 82 (2019) 234-244	2019	1	1	Zeal College of Engineering and Research
Effect of novel flow divider type turbulators on fluid flow	Chandrakant L Prabhune	Thermal Science and Engineering Progress, 9 (2019),322-331	2019	1	3	Zeal College of Engineering and Research

and heat transfer	

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3.3.7 – Faculty participation in Seminars/Conferences and Symposia during the year :

Number of Faculty	International	National	State	Local
Attended/Seminars/Workshops	4	10	5	25
Presented papers	69	1	Nill	Nill
Resource persons	Nill	2	2	6

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3.4 – Extension Activities

3.4.1 – Number of extension and outreach programmes conducted in collaboration with industry, community and Non- Government Organisations through NSS/NCC/Red cross/Youth Red Cross (YRC) etc., during the year

Title of the activities	Organising unit/agency/ collaborating agency	Number of teachers participated in such activities	Number of students participated in such activities
Blood Donation Camp	ZCOER NSS	5	224
Eco friendly Ganesh Visarjan	ZCOER NSS	5	20
Tree Conservation at Hutatma Divas , swami narayan temple	ZCOER NSS	9	75
Svachhata Abhiyaan at ZCOER	NSS ZCOER Team and Faculties	10	50
Ashadhi Ekadashi Dindi	ZCOER NSS,SPPU	2	25

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3.4.2 – Awards and recognition received for extension activities from Government and other recognized bodies during the year

Name of the activity	Award/Recognition	Awarding Bodies	Number of students Benefited
NIL	NIL	NIL	Nill

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3.4.3 – Students participating in extension activities with Government Organisations, Non-Government Organisations and programmes such as Swachh Bharat, Aids Awareness, Gender Issue, etc. during the year

Name of the scheme	Organising unit/Agency/collaborating agency	Name of the activity	Number of teachers participated in such activites	Number of students participated in such activites
Swachh Bharat,	ZCOER NSS,SPPU	Svachhata Abhiyaan at ZCOER	20	50

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3.5 – Collaborations

3.5.1 – Number of Collaborative activities for research, faculty exchange, student exchange during the year

Nature of activity	Participant	Source of financial support	Duration
Mechatol Engg. Solution : Industrial Sponsored Project Training	12	Institute	180
Advance Measuring Instruments, Kolhapur: Training and advanced MQC GDT	14	Institute	3
Telecom Sector Skill Council Faculty Development Program in association with CDAC-Pune, in Internet of Things domain	5	Institute	5
Visited to Hongkong University	1	Self	2
eSim workshop by IIT Bombay at APCOER,Pune	3	Self	1
AICTE sponcered FDP on machine Learning in the area of Artificial Intellegence at cummins COE,pune	1	Self	1
FDP on "Cyber Security"	10	Institute	6

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3.5.2 – Linkages with institutions/industries for internship, on-the- job training, project work, sharing of research facilities etc. during the year

Nature of linkage	Title of the linkage	Name of the partnering institution/ industry /research lab with contact details	Duration From	Duration To	Participant
Faculty Development Program	Telecom Sector Skill Council Faculty Development Program in association with CDAC-	CDAC-Pune	10/06/2019	15/06/2019	5

| Industry Institute Interaction | Internship | Advance Measuring System, Kolhapur | 11/12/2019 | 13/12/2019 | 25 |

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3.5.3 – MoUs signed with institutions of national, international importance, other universities, industries, corporate houses etc. during the year

Organisation	Date of MoU signed	Purpose/Activities	Number of students/teachers participated under MoUs
Advance Measuring System, Kolhapur	28/11/2019	Industry Training, Visit, Workshop, Expert Lecture	25
Redhat	28/02/2019	Training Course and Accreditation Certificate	16

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CRITERION IV – INFRASTRUCTURE AND LEARNING RESOURCES

4.1 – Physical Facilities

4.1.1 – Budget allocation, excluding salary for infrastructure augmentation during the year

Budget allocated for infrastructure augmentation	Budget utilized for infrastructure development
55	52.35

4.1.2 – Details of augmentation in infrastructure facilities during the year

Facilities	Existing or Newly Added
Others	Newly Added
Number of important equipments purchased (Greater than 1-0 lakh) during the current year	Newly Added

No file uploaded.

4.2 – Library as a Learning Resource

4.2.1 – Library is automated {Integrated Library Management System (ILMS)}

Name of the ILMS software	Nature of automation (fully or patially)	Version	Year of automation
AutoLib	Fully	AutoLib-NG	2012

4.2.2 – Library Services

Library Service Type	Existing		Newly Added		Total	
Text Books	26940	10470558	510	267493	27450	10738051
	2036	2178770	346	263717	2382	2442487

Reference Books						
e-Books	11733	2489350	Nill	Nill	11733	2489350

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4.2.3 – E-content developed by teachers such as: e-PG- Pathshala, CEC (under e-PG- Pathshala CEC (Under Graduate) SWAYAM other MOOCs platform NPTEL/NMEICT/any other Government initiatives & institutional (Learning Management System (LMS) etc

Name of the Teacher	Name of the Module	Platform on which module is developed	Date of launching e-content
NIL	NIL	NIL	Nill

View File

4.3 – IT Infrastructure

4.3.1 – Technology Upgradation (overall)

Type	Total Computers	Computer Lab	Internet	Browsing centers	Computer Centers	Office	Departments	Available Bandwidth (MBPS/ GBPS)	Others
Existing	1262	33	1262	1	1	18	1049	250	0
Added	25	0	25	0	0	0	25	0	0
Total	1287	33	1287	1	1	18	1074	250	0

4.3.2 – Bandwidth available of internet connection in the Institution (Leased line)

250 MBPS/ GBPS

4.3.3 – Facility for e-content

Name of the e-content development facility	Provide the link of the videos and media centre and recording facility
Springer E-Book	https://link.springer.com/search?facet-content-type=%22Book%22&showAll=false
J-Gate (JET)	https://jgateplus.com/home/
National Digital Library (NDL)	https://ndl.iitkgp.ac.in/
NPTEL Video / Notes Access and Download	http://172.16.1.20/localguru/

4.4 – Maintenance of Campus Infrastructure

4.4.1 – Expenditure incurred on maintenance of physical facilities and academic support facilities, excluding salary component, during the year

Assigned Budget on academic facilities	Expenditure incurred on maintenance of academic facilities	Assigned budget on physical facilities	Expenditure incurredon maintenance of physical facilites
280	251.1	215	195.46

4.4.2 – Procedures and policies for maintaining and utilizing physical, academic and support facilities - laboratory, library, sports complex, computers, classrooms etc. (maximum 500 words) (information to be available in institutional Website, provide link)

The estate manager was appointed in this academic year to look after the maintenance and utilization of physical, academic and support facilities -

laboratory, library, sports complex, computers, classrooms, Gymnasium, canteen, music and dance studio etc. The verification of deadstock and consumable registers was carried out. Obsolete and non-working beyond maintenance equipments/instruments/computers were written off.

In Process

CRITERION V – STUDENT SUPPORT AND PROGRESSION

5.1 – Student Support

5.1.1 – Scholarships and Financial Support

	Name/Title of the scheme	Number of students	Amount in Rupees
Financial Support from institution	NIL	0	0
Financial Support from Other Sources			
a) National	Rajarshi Chhatrapati Shahu Maharaj Shikshan Shulkh Shishyavrutti Yojna(EBC)	1062	46517078
b)International	NIL	Nill	0
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5.1.2 – Number of capability enhancement and development schemes such as Soft skill development, Remedial coaching, Language lab, Bridge courses, Yoga, Meditation, Personal Counselling and Mentoring etc.,

Name of the capability enhancement scheme	Date of implemetation	Number of students enrolled	Agencies involved
Aptitude and Soft Skills training programme	02/07/2018	1900	Gyanteerth Academy
Employability Skill Development Programme	04/02/2019	41	Zensar Technologies
View File			

5.1.3 – Students benefited by guidance for competitive examinations and career counselling offered by the institution during the year

Year	Name of the scheme	Number of benefited students for competitive examination	Number of benefited students by career counseling activities	Number of students who have passedin the comp. exam	Number of studentsp placed
2018	Guidence From API Salunkhe	122	122	29	29
2018	guidence From API mahagade	131	131	29	29
2018	Guidence from PSI	80	80	29	29

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5.1.4 – Institutional mechanism for transparency, timely redressal of student grievances, Prevention of sexual harassment and ragging cases during the year

Total grievances received	Number of grievances redressed	Avg. number of days for grievance redressal
Nill	Nill	Nill

5.2 – Student Progression

5.2.1 – Details of campus placement during the year

On campus			Off campus		
Nameof organizations visited	Number of students participated	Number of stduents placed	Nameof organizations visited	Number of students participated	Number of stduents placed
AmaZon (OC)	78	13	GlobalStep	21	2

View File

5.2.2 – Student progression to higher education in percentage during the year

Year	Number of students enrolling into higher education	Programme graduated from	Depratment graduated from	Name of institution joined	Name of programme admitted to
2019	7	Engineering	Computer	Master of Science in Data Analytics at National College of Ireland	Master of Science

View File

5.2.3 – Students qualifying in state/ national/ international level examinations during the year (eg:NET/SET/SLET/GATE/GMAT/CAT/GRE/TOFEL/Civil Services/State Government Services)

Items	Number of students selected/ qualifying
Any Other	23
GATE	19
GRE	2
CAT	3
Civil Services	1

View File

5.2.4 – Sports and cultural activities / competitions organised at the institution level during the year

Activity	Level	Number of Participants
"Cultural Competetion-Dance,Singing,Music Band, Drama,Poetry, Standup-Comedy"	Inter-College	2500
"Navratri Dandiya	Inter-College	1500

Event"		
"Viveksindhu" Speaker Competetion	State Level	500
Ranangan-2018	Instituite level	254
View File		

5.3 – Student Participation and Activities

5.3.1 – Number of awards/medals for outstanding performance in sports/cultural activities at national/international level (award for a team event should be counted as one)

Year	Name of the award/medal	National/ Internaional	Number of awards for Sports	Number of awards for Cultural	Student ID number	Name of the student
2019	Firodiya Karandak	National	1	15	1170397, 1170300, 1180698	Yash Todkar, Kanak Moghe, Aadesh Chavan
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5.3.2 – Activity of Student Council & representation of students on academic & administrative bodies/committees of the institution (maximum 500 words)

The various activities related to students are coordinated under Student Council. The secretary and members decided the coordinators for the various activities carried out in the campus. The student council members put up the issues/problems of the students to Principal/Campus director following the proper protocol. The issues/problems raised by the students were resolved by authority at the earliest. The activities carried out in the campus are – 1. Nirmaan 2. Talentron 3. Annual Sports (Rangaan) 4. Teachers Day celebration 5. Engineer's day celebration 6. Farewell program 7. Alumni meet Convocation ceremony and many more.

5.4 – Alumni Engagement

5.4.1 – Whether the institution has registered Alumni Association?

Yes

the institution has registered Alumni Association. The registration number is as follows. MH/2099/2016/Pune Dated 22/12/2016 Vision: "To be recognized as, one of the best alumni community, where every member contributes for diverse needs amp interests of community." Mission: "To establish cluster of alumni for interpersonal amp communal benefits of all existing amp aspiring members of the community by providing them platform to be connected with one another for sharing of valuable thoughts, updates in profession amp being a real friend for lifetime." Objectives and Functions: Recognition of Alumni Working in different industrial domains amp bringing in continuous communication with them. Registration of Alumni Association amp formation of governing body for the same. Guidelines of IQAC and submission of AQAR for Affiliated/Constituent Colleges Page 37 Collection of funds for strengthening association and making it capable to stand in reference of needy ones. Arranging Annual function for sharing of deep emotions about Alma Mater amp putting innovative ideas before the management for overall improvement. Creation of alumni web portal amp maintaining the database of respective pass-out batches. Sharing of community updates through social networking. Looking for contribution of alumni members to enhance practical knowledge of students and imbibe them with advanced technologies being used in industry.

5.4.2 – No. of enrolled Alumni:
837

5.4.3 – Alumni contribution during the year (in Rupees) :
0

5.4.4 – Meetings/activities organized by Alumni Association :
1

CRITERION VI – GOVERNANCE, LEADERSHIP AND MANAGEMENT

6.1 – Institutional Vision and Leadership

6.1.1 – Mention two practices of decentralization and participative management during the last year (maximum 500 words)

Following is the reform that was introduced and implemented in A.Y. 2018-19 in addition to previous practices. 1) The induction program for first year engineering was organized at institute level. While induction program was conducted for Direct Second Year students at Department level. 2) Departments have been given liberty to conduct Unit Tests as per the convenience with reference to syllabus completion.

6.1.2 – Does the institution have a Management Information System (MIS)?

Yes

6.2 – Strategy Development and Deployment

6.2.1 – Quality improvement strategies adopted by the institution for each of the following (with in 100 words each):

Strategy Type	Details
Curriculum Development	Being the affiliated institute, the institute implements the curriculum prescribed by Savitribai Phule Pune University (SPPU), Pune.
Teaching and Learning	Monitoring of class room teaching and seeking live feedbacks has been started to strengthen the teaching learning process.
Examination and Evaluation	The institute is bound to follow all procedures of examination and evaluation as defined by affiliating University and cannot have own procedures.
Research and Development	Preparation of research file by each faculty which contains documentation of all research activities carried out by individual faculty member(s). The close monitoring of every individual's research file is done by Dean, RD. Accordingly necessary Guidelines of IQAC and submission of AQAR for Affiliated/Constituent Colleges Page 39 support has been extended to strengthen the research.
Library, ICT and Physical Infrastructure / Instrumentation	No new strategies are adopted as the existing facilities are more than

	adequate and utilised almost optimally.
Human Resource Management	The existing mechanism is continued
Industry Interaction / Collaboration	Institute has decided to strengthen industry institute interaction by ? Increasing number of MoUs and taking periodic feedback for its execution. ? Conducting HR meets to develop the interaction with nearby industries for improvement in placement, quality of project work, revenue generation through consultancy. ? Increasing number of industrial visits by students and faculty members
Admission of Students	The existing mechanism is continued

6.2.2 – Implementation of e-governance in areas of operations:

E-governace area	Details
Planning and Development	Academic planning, student daily and monthly attendance, teaching plan, students attendance monitoring, student feedback
Administration	Human Resource Module, online leave applications and approval, employee attendance, time sheet
Finance and Accounts	Employee payroll for present days and salary sheet preparation
Student Admission and Support	Student and parent information details, ID card generation, student login for attendance, fees paid status, learning material
Examination	Preparation of examination time table, allocation of class rooms

6.3 – Faculty Empowerment Strategies

6.3.1 – Teachers provided with financial support to attend conferences / workshops and towards membership fee of professional bodies during the year

Year	Name of Teacher	Name of conference/ workshop attended for which financial support provided	Name of the professional body for which membership fee is provided	Amount of support
2019	Dr. Ritapure P. P.	conference on Material, Manufacturing and Modelling (ICMMM 2019) organized by Mechanical Engineering Department of Vellore Institute of Technology, Vellore,	NIL	6840

| | | Tamilnadu from 29-31 March, 2019. | | | | |

6.3.2 – Number of professional development / administrative training programmes organized by the College for teaching and non teaching staff during the year

Year	Title of the professional development programme organised for teaching staff	Title of the administrative training programme organised for non-teaching staff	From date	To Date	Number of participants (Teaching staff)	Number of participants (non-teaching staff)
2019	Telecom Sector Skill Council Faculty Development Program in association with CDAC-Pune, in Internet of Things domain	NIL	10/06/2019	15/06/2019	5	1
2019	Faculty Development Program on Cyber Security	NIL	03/06/2019	08/06/2019	10	1

6.3.3 – No. of teachers attending professional development programmes, viz., Orientation Programme, Refresher Course, Short Term Course, Faculty Development Programmes during the year

Title of the professional development programme	Number of teachers who attended	From Date	To date	Duration
Internet of Things application Development using Raspberry-Pi and Python Programming	2	02/12/2019	13/12/2019	10
Faculty Development Program on Machine Learning, Deep Learning with Artificial	8	09/12/2019	13/12/2019	5

Intelligence				

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6.3.4 – Faculty and Staff recruitment (no. for permanent recruitment):

Teaching		Non-teaching	
Permanent	Full Time	Permanent	Full Time
116	195	37	121

6.3.5 – Welfare schemes for

Teaching	Non-teaching	Students
Employee insurance scheme	Employee insurance scheme	1. Karmveer Bhaurao Patil Earn and Learn Scheme under SPPU. 2. Special Guidance Scheme for first year engineering Students.

6.4 – Financial Management and Resource Mobilization

6.4.1 – Institution conducts internal and external financial audits regularly (with in 100 words each)

The institute has a mechanism for internal and external audit as follows. Mechanism for internal audit: ? The board of trustees of Zeal Education Society appoints internal auditors for conducting internal audits of its institutes. ? The team of one institute conducts audit for the other institute. The audit report is submitted to Principal and management. ? The Principal and accountant take care of doing compliance of the objections raised if any. Mechanism for external audit: The statutory audit is conducted once every year by registered Chartered Accountant firm. External Auditor: MVSK Associates, Chartered accountant, Flat No. 07, Saraswati Heights, Behind Cafe Goodluck, Deccan Jimkhana, F. C. Road, Pune - 411004. Last Date of Audit: 20.10.2019

6.4.2 – Funds / Grants received from management, non-government bodies, individuals, philanthropies during the year(not covered in Criterion III)

Name of the non government funding agencies /individuals	Funds/ Grnats received in Rs.	Purpose
NA	0	NA

View File

6.4.3 – Total corpus fund generated

0

6.5 – Internal Quality Assurance System

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

Audit Type	External		Internal	
	Yes/No	Agency	Yes/No	Authority
Academic	No	Nill	Yes	Academic Monitoring Committee
Administrative	No	Nill	No	Nill

6.5.2 – Activities and support from the Parent – Teacher Association (at least three)

As there is no statutory provision of affiliating University and State

Government of Maharashtra to have official parent teacher association, the institute does not have official Parent-Teacher Association. However, a parent meet is organized once in semester and their feedback is taken.

6.5.3 – Development programmes for support staff (at least three)
The institute supports to participate in 1. Hands-on training 2. Seminar on ethical and Universal values 3. Yoga sessions

6.5.4 – Post Accreditation initiative(s) (mention at least three)
1. Online feedback system 2. Live feedback of classroom teaching 3. Establishment of Zeal Intellectual Property Facilitation Center

6.5.5 – Internal Quality Assurance System Details

a) Submission of Data for AISHE portal	Yes
b)Participation in NIRF	Yes
c)ISO certification	No
d)NBA or any other quality audit	No

6.5.6 – Number of Quality Initiatives undertaken during the year

Year	Name of quality initiative by IQAC	Date of conducting IQAC	Duration From	Duration To	Number of participants
2019	Conduction of employability test	26/03/2019	26/03/2019	03/04/2019	2321
2019	Mini Project Competition	16/02/2019	16/02/2019	08/04/2019	900
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CRITERION VII – INSTITUTIONAL VALUES AND BEST PRACTICES

7.1 – Institutional Values and Social Responsibilities

7.1.1 – Gender Equity (Number of gender equity promotion programmes organized by the institution during the year)

Title of the programme	Period from	Period To	Number of Participants	
			Female	Male
"Svaccha Vari, Svastha Vari, Nirmal Vari,Harit Vari" Organised by SPPU NSS	23/06/2019	23/06/2019	10	43
Tree Conservation Event	30/01/2019	30/01/2019	20	25
Blood Donation camp	15/02/2019	15/02/2019	50	150

7.1.2 – Environmental Consciousness and Sustainability/Alternate Energy initiatives such as:

Percentage of power requirement of the University met by the renewable energy sources
Percentage of power requirement of the College met by the renewable energy

sources A 120kW Solar system is installed in September 2017 as a part of alternate energy initiative. Percentage of power requirement of the College met by the solar system is 40-42.

7.1.3 – Differently abled (Divyangjan) friendliness

Item facilities	Yes/No	Number of beneficiaries
Physical facilities	Yes	Nill
Provision for lift	Yes	Nill
Ramp/Rails	Yes	Nill
Braille Software/facilities	No	Nill
Rest Rooms	Yes	Nill
Scribes for examination	Yes	Nill
Special skill development for differently abled students	No	Nill

7.1.4 – Inclusion and Situatedness

Year	Number of initiatives to address locational advantages and disadvantages	Number of initiatives taken to engage with and contribute to local community	Date	Duration	Name of initiative	Issues addressed	Number of participating students and staff
2018	1	1	07/12/2018	10	Zeal Maths Olympiad Examination	Add on facilities available, skill development. Music and dance studios, incubation centre	1450

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7.1.5 – Human Values and Professional Ethics Code of conduct (handbooks) for various stakeholders

Title	Date of publication	Follow up(max 100 words)
In process	Nill	In process

7.1.6 – Activities conducted for promotion of universal Values and Ethics

Activity	Duration From	Duration To	Number of participants
Ashadhi Ekadashi Dindi	09/07/2018	09/07/2018	25
Svachhata Abhiyaan	02/10/2018	02/10/2018	50
Tree Conservation at Hutatma Divas, at Swami Narayan	28/07/2018	28/07/2018	75

temple			
Eco friendly Ganesh Visarjan	23/09/2018	23/09/2018	20
Blood Donation Camp	04/09/2018	04/09/2018	224
[View File](#)			

7.1.7 – Initiatives taken by the institution to make the campus eco-friendly (at least five)
1. Energy conservation by installation of 120 KW solar system 2. Tree plantation program 3. Cleanliness drive 4. Paper waste management 5. solid waste management

7.2 – Best Practices

7.2.1 – Describe at least two institutional best practices
1) Monitoring of class room teaching and seeking live feedbacks: In order to check content delivery in class room, it was decided to monitor class room teaching and seek live feedbacks. In this respect, it was decided to prepare a committee of two members for taking live feedbacks wherein one member should be from parent Department. The guidelines are provided to committee members as follows. 1. Total time allocated per class will be 20 Min a. 5 min Observation. b. 10 Min Question Answer. c. 5 min Student Interaction. 2. Total of 10 students will be questioned from each class, selection criteria as mentioned below a. Three students from front benches. b. Four students from Middle benches. c. Three students from back benches. 3. Ask a question and see how many students raise their hands to respond. 4. Minimum of 6 out of 10 students are expected to answer correctly. 5. Teaching Assessment of faculty by evaluators must take at least once in a semester, twice if the feedback is low for first time. 6. After evaluation, original copy should be provided to HOD and other copy should be given to faculty for continual improvement. The committee members completed monitoring of class room teaching of all faculty members and the report was discussed with the concerned teacher in presence of HOD for continual improvement. 2) Establishment of Zeal Intellectual Property Facilitation Center (ZIPFC): The economic policy and the signing of agreement on trade related aspects of intellectual rights by India and other member countries of World Trade Organization (WTO) lead to the beginning of a new era. The advancements in the IPR have been vital and now India recognizes product patents in every field of technology. The movements have such that there have been almost three amendments in Patent Acts through legislation. Furthermore, India now has a new Industrial Design Legislation, new Trademark law, new amended Copyrights act whereas Performers Rights have been increased from 25 to 50 years. At this juncture, it is quite important that the industrial fraternity, academicians, scientistsas well as individual citizen remain updated with recent developments in the field of IPR. More so, it is crucial as an empowerment tool for the Micro, Small and Medium Enterprises (MSMEs) which contributes significantly to the manufacturing output, employment and exports whilst rendering consistently higher growth rate compared to the overall industrial sector. The lack of information and knowledge to protect intellectual property seemingly ails this sector to a great extent. Hence, a step in this direction has been taken by establishing an Intellectual Property Facilitation Centre (IPFC) at Zeal Education Societys, Zeal College of Engineering Research, Narhe, Pune for assisting MSMEs. The principal objectives of ZIPFC are : To encourage creative and innovative research leading to the generation of new ideas and inventions. To facilitate the transfer of ZIPFC – developed research results and new ideas and inventions. To provide faculty members, staff and students of Zeal Education Society(ZES) assistance in assessing the patentability and commercial potential of their Inventions. To

train faculty members, staff and students about provisional patent filing procedures in India. To make faculty members, staff and students familiar with basic Patent filing process make them aware about the various requirements/data to be provided for filling of patents. To facilitate the filing of applications and licensing where prima facie the ZES finds it patentable. Services provided by ZIPFC: ZIPFC shall guide and help the faculty members and students of ZES in patentability assessment and to apply for various IPRs such as Inventions, Designs and other creative work. The faculty members students desirous of filing a patent or for any other IPR application would be given the necessary advice and guidance by the FC. Free patent search and filing assistance to government departments, government institutions and academic bodies. Supply of full text patent documents Awareness through seminars, lectures and workshops Analysis of patent information Technical, financial and legal assistance for filing patent, copyright design, trade mark etc. On chargeable basis for industries and private entrepreneurs. Composition of ZIPFC/IPR cell: Principal - Chairman Dean (Research and Development) - Coordinator In charge (ZIPFC) - Co-coordinator Dean (Academics) - Member Concerned HOD - Member Accounts Officer - Member There are six types of intellectual property you can use to protect your ideas: Services provided by ZIPFC The inventors would be required to cooperate with the IPR cell to expedite furnishing of information for timely actions since delay would mean payment of extra fee to the patent office. Any work sought to be filed by a faculty member and/or students arising out of RD work will be filed in joint names as inventors or authors. After filing of the application for IP protection, the inventors shall inform the IPR cell of any further development, if any in the related R D work. The ZIPFC and inventors in collaboration with RD Cell shall work together for commercialization of the newly created knowledge. As a result, faculty members and students have filed 16 and 22 patents respectively.

Upload details of two best practices successfully implemented by the institution as per NAAC format in your institution website, provide the link
https://zcoer.in/best-practices/

7.3 – Institutional Distinctiveness

7.3.1 – Provide the details of the performance of the institution in one area distinctive to its vision, priority and thrust in not more than 500 words

Institute focuses on imparting value added education in addition to curricula prescribed by affiliating University. The institute used to arrange training in the recently acknowledged technology, aptitude and soft skill. The institute has conducted employability test (AMCAT) of all students to identify skills that need to be improved. An external agency (Gyantirtha Academy) has been hired to impart aptitude and soft skills to students. The sessions are incorporated in regular academic time table. This has increased placement and entrepreneurs among the students.

Provide the weblink of the institution
https://zcoer.in/institutional-distinctiveness/

8.Future Plans of Actions for Next Academic Year

1. To provide Python training to students across all departments to increase placements 2. To provide training of Japanese language to maximum number of students for exploring increased placement opportunities in Japanese companies 3. To extend external relations and outreach to institutes of high repute. 4. To establish startup and innovation cell 5. To avail programs in emerging areas at UG and PG level