Annual Report 2020-21

By- IQAC

1. ACADEMIC INFORMATION

Program code	Course code	Course Name	Year of introduction	Sanctioned intake
UG				
EN6315	631519110	Civil Engineering	2009	60
	631524210	Computer Science & Engineering	2009	60
	631529310	Electrical Engineering	2010	60
	631561210	Mechanical Engineering	2009	60
PG				
ME6315	631590410	Mechanical Engineering Design (PG)	2012	18

2. Students: A.Y. 2020-21 Number of student's Branch wise: Total Strength: 1214

Branch	First Year	Second year	Third Year	Final Year	M. Tech
Mechanical Engineering	10	47	66	129	13
Computer Science Engineering	49	69	68	54	--
Civil Engineering	13	63	73	112	--
Electrical Engineering	06	62	68	114	--
Electronics & Telecommunication Engg.	--	17	58	32	01
Automobile Engineering	--	18	34	39	--

3. Teachers

Number of teaching staff / full time teachers: 77

Designation	Total
Professor	01
Associate Professor	03
Assist. Professor	73

Branch	Number of Teachers
Mechanical Engineering	16
Computer Science Engineering	10
Civil Engineering	14
Electrical Engineering	10
Electronics & Telecommunication Engg.	08
Automobile Engineering	08
General	11
Total	**77**

4. Number of students enrolled in Certificate/ Value added courses: **137**

Name of Add on /Certificate /Value added programs offered and online MOOC programs like SWAYAM, NPTEL etc. programs offered	Year of offering	No. of times offered during the same year	Duration of course	Number of students enrolled in the year	Number of Students completing the course in the year
Induction Programme	2020-21	01.02.2021 to 21.02.2021	21 Days	78	78
Skill & Career Development	2020-21	22nd March - 3rd April 2021	Two weeks	36	36
TATA Technology Ready Engineer	2020-21	2020-21	Throughout the Academic Year	35	23

5. Percentage of students undertaking project work/field work/ internships: 60.11 %

Number of students undertaking project work/field work / internships: **702**

Sr. No.	Branch	Project Phase I & II	Industrial Training	Internship
1	Mechanical Engineering	**127**	**--**	**--**
2	Computer Science Engineering	**58**	**16**	**--**
3	Civil Engineering	**109**	**--**	**--**
4	Electrical Engineering	**84**	**68**	**62**
5	Automobile Engineering	**33**	**80**	**--**
6	Electronics & Telecommunication	**33**	**32**	**--**

6. Enrolment percentage : 31.78 %

Number of seats filled (first year admissions): **82**

Number of sanctioned seats: **258**

Programme name	Programme Code	Number of Students admitted	Number of seats sanctioned
Civil Engg	631519110	**13**	**60**
Computer Sci & Engg	631524210	**49**	**60**
Electrical Engg	631529310	**06**	**60**
Mechanical Engg	631561210	**10**	**60**
M.Tech Mech Engg Design	631590410	**04**	**18**
Total Admitted Students		**82**	**258**

7. Percentage of seats filled against reserved categories (SC, ST, OBC etc.) first year admission: 16.66 %

Number of actual students admitted from the reserved categories: **21**

Programme name	Programme Code	SC	ST	OBC	Others
Civil Engg	631519110	1	0	3	1
Computer Sci & Engg	631524210	5	0	3	5
Electrical Engg	631529310	0	0	0	1
Mechanical Engg	631561210	1	0	1	0
M.Tech Mech Engg Design	631590410	0	0	0	0
Number of actual students admitted from the reserved categories		**21**			

8. Number of seats earmarked for reserved category as per GOI/ State Govt rule: 126

Programme name	Programme Code	SC	ST	OBC	Others
Civil Engg	631519110	9	4	11	**6**
Computer Sci & Engg	631524210	9	4	11	**6**
Electrical Engg	631529310	9	4	11	**6**
Mechanical Engg	631561210	9	4	11	**6**
M.Tech Mech Engg Design	631590410	2	1	2	**1**
Number of seats earmarked for reserved category as per GOI/ State Govt rule		**126**			

9. Student Teacher Ratio

Student – Full time Teacher Ratio: 15.76 %

Number of Students	1214
Number of Teacher	77

10. Percentage of full time teachers with NET/SET/SLET/ Ph. D./D.Sc. / D.Litt./L.L.D.: 12.98 %

Number of full time teachers with NET/SET/SLET/Ph. D./ D.Sc. / D.Litt./L.L.D: **10**

Sr. No.	Name of full time teacher with Ph.D./D.M/M.Ch./D.N.B Superspeciality/D.Sc./D'Lit.	Qualification (Ph.D./D.M/M.Ch./D.N.B Superspeciality/ D.Sc./D'Lit.) and Year of obtaining
1	Shri. Vanarotti Mohan Bhimraiya	Ph.D
2	Shri. Koli Gajanan Chandrashekhar	Ph.D
3	Dr. Ghodake Shivaji Laxman	Ph.D
4	Dr. Sringeri Arvindkumar Ganeshaiah	Ph.D
5	Shri. Patil Vishal Subhashrao	Ph.D
6	Shri. Potdar Sachin Sitaram	Ph.D
7	Dr. Jadhav Sharad Tukaram	Ph.D
8	Dr. Manwade Karveer B	Ph.D
9	Dr. Bhosale Digvijay Gajanan	Ph.D
10	Dr. Ranjeet A. Ingavale	Ph.D

11. Passing Percentage of final year students: 96.33 %

Number of final year students who passed the university examination: **447**

Number of final year students who appeared for the university examination: **464**

Sr. No.	Program Name	Program Code	Number of students passed in final year examination	Number of final year students who appeared for the university examination	%
1	Automobile Engineering	631560210	36	37	97.30
2	Civil Engineering	631519110	106	109	97.25
3	Computer Engineering	631524210	53	53	100
4	Electrical Engineering	631537210	106	110	96.36
5	Electronics and Telecommunication	631529310	28	28	100
6	Mechanical Engineering	631561210	118	127	92.91
Number of final year students			**447**	**464**	**96.33**

12. Total number of workshops/seminars/conferences including programs conducted on Research Methodology, Intellectual Property Rights (IPR) and entrepreneurship: 09

Sr. No.	Name of the workshop/ seminar/ conference	Number of Participants
1	One day workshop on , ""“Mastering IPR-From Concept to Protection" Conducted by Civil Dept	15
2	One day workshop on , ""“IPR-A beginners Guide to Proteet Your Ideas" Conducted by Civil Dept	25
3	One day workshop on , ""“Seminar on Research Methodology " Conducted by CSE Dept	69
4	One day Seminar on IPR "Conducted by CSE Dept	64
5	One day workshop on , "Role of IPR & Patent for Everyday Life" Conducted by Electrical Dept	20
6	Workshop on "Intellectual property rights" Conducted by Mechanical Dept	15
7	Seminar on "Enforcement of IPR" Conducted by Mechanical Dept	25

13. Research Publications and Awards:

Number of research papers published: **42**

Sr. No	Title Of Paper	Name Of The Author/S	Department Of The Teacher
1	Synthesis And Characterization Of Macro Porous Gd2O3ZnO Nanocomposte Sensor For NO2 Gas Detection	Dr. S.S. Potdar	Basic Sciences & Humanities
2	Segmentation Of Pectoral Muscle From Digital Mammograms With Depth-First Search Algorithm Towards Breast Density Classification	Dr. Suhas G. Sapate	Computer Science And Engineering
3	CRM For Online Jewellery Shop	Ms.K.B.Kari	
4	Property Rent Sale Application	Ms.P.D.Patil	
5	Donation Through Watching Adds	Mr.S.S.Pujari	
6	Prediction Based Sugar Cane Farming In Western Maharashtra Using Data Mining	Mr.M.M.Hajare	
7	Multi-Channel Dense-Net Architecture For Classification Of Mammographic Breast Density In Breast Cancer Detection	Dr. Suhas G. Sapate	
8	IOT BASED POWER THEFT DETECTION AND TRACKING	Mr. P.P. Kulkarni, Mr. P.B. Gurav	Electrical
9	IOT BASED SOLAR PANEL MONITORING AND CONTROLLING	Mrs. D.M. Kerutagi	
10	IOT BASED TRANSFORMER PARAMETER Monitoring	Mr. P.P. Kulkarni	
11	Multifunctional Induction Machine	Mr. P.P. Kulkarni	
12	Water Management And Theft Detection System	Mr. N.S. Jadhav	
13	AUTOMATIC LIGHT SWITCHING AND TEMPERATURE BASED FAN SPEED CONTROL USING MICROWAVE, TEMPERATURE AND LDR SENSOR	Mr.Naik Y.R.	
14	SMART NOTICE BOARD USING RASPBERRY PI MODULE	Mr. P.P. Kulkarni	
15	GSM Based Automatic Energy Meter Reading And Instant Billing System	Mr.A. A. Toraskar	
16	AUTOMATIC PESTICIDE SPRAYING MACHINE	Mr. Metkari VT	
17	THREE PHASE FAULT ANALYSIS AND LOCATION DETECTOR WITH AUTO RESET ON TEMPORARY FAULT AND PERMANENT TRIP OTHERWISE	Mr.Naik Y.R.	
18	Iot BASED HAND SANITIZING MACHINE, BODY TEMPERATURE AND HEART RATE MONITORING UNIT WITH FACE DETECTION SYSTEM	Mr. Jadhav N.S.	

Sr. No	Title of paper	Name of the author/s	Department of the teacher
19	Fast Charging of Electric Vehicle	Mr. Redekar A.P.	Electrical
20	CURD OR YOGURT MAKER	Mr. Jadhav N.S.	
21	Solar Wind Hybrid Power Generation	Mr. A. A. Toraskar	
22	Voice Controlled Wheel Chair System Using Bluetooth	Mr. Bhandare A.M	
23	SMART DRYER	Mr. P.P. Kulkarni	
24	BASIC HELIOSTAT MODEL FOR SMALL SCALE INDUSTRY	Mr. Jadhav N.S.	
25	Smart Iot based chicks Brooding System	Mr. Bhandare A.M	
26	Automatic Gold Sphere Drill Machine	Mr. A. A. Toraskar	
27	R&D On Self-Chargeable Multi- Technologies Of E-Bike	Mr. Naik Y.R.	
28	Electrical Cultivator Or Tiller By Using The Solar Panel	Mr. Metkari V.T.	
29	Energy Audit And Recommendation To The Reduce Cost Of Electricity	Mr. Gurav P.B.	
30	Double Holder Welding Transformer	Mr. Gurav P.B.	
31	Surface Cleaning Dis-Infection Machine	Mr. Bhandare A.M	
32	Controlled Home Appliances Using Brain Detector	Mr. Gurav P.B.	
33	SMART EGG INCUBATOR	Mr. Metkari V.T.	
34	SMART HELMET BY USING MICROCONTROLLER	Mr. Naik Y.R.	
35	TRAFFIC SIGNAL MODIFICATION FOR THE EMERGENCY VEHICALES'	Mrs. Priyanka Sengupta	
36	THREE PHASE BLDC MOTOR CONTROLLING USING BOOST CONVERTER	Mrs. Priyanka Sengupta	
37	Active cooling system for efficiency improvement of PV panel and utilization of waste-recovered heat for hygienic drying of onion flakes	Dr. Vinayak H. Deokar	Mechanical
38	Enhancement of heat and mass transfer characteristics of metal hydride reactor for hydrogen storage using various nanofluids	Rahul U. Urunkar	
39	Design and Study of a Three-Wheeled Transport Vehicle's Front Helical Coil Suspension Spring	Prof. Koli G.C./Prof.Katkar Ajit Ashok	
40	Design and Development exp. set up for Plasma coating for textile roller drum	Prof.Katkar Ajit Ashok	
41	Optimization and Prediction on the Mechanical Behavior of Granite Particle Reinforced Al6061 Matrix Composites Using Deer Hunting Optimization Based DNN	Dr. Koli Gajanan C	
42	Simulation Modeling and Experimental Validation of Solar Photovoltaic PMBLDC Motor Water Pumping System	Dr. Vinayak H. Deokar	

14. Total number of books and chapters in edited volumes/books published and papers in national/ international conference proceedings**: 02**

Sl. No.	Name of the teacher	Title of the book/chapters published	Title of the paper
01.	Dr. Koli G C	--	Vibration Analysis of cantilever beam using Magneto Rheological Fluid
02	Dr. Koli G C	--	Design for Front Helical Coil Suspension Spring and Analysis of Three-Wheeled Passenger Vehicle

15. Number of extension and outreach Programs conducted in collaboration with industry, community, and Non- Government Organizations through NSS/ NCC etc., : **01**

Sr. No.	Name of the activity	Organising unit/ agency/ collaborating agency
1	Women in leadership: Achieving an equal future in a COVID 19 WORLD	Internal Complaint Committee, SETI, Panhla

16. Number of functional MoUs/linkages with institutions/ industries: : 08

Sr. No.	Name of the MoU / linkage	Name of the institution / industry with whom the MoU / linkage is made, with contact details
1	MOU with GTT Foundation	GTT Foundation, Pune
2	MOU with Tata Technologies, Pune	Tata Technologies, Pune
3	MOU with Tambave Services, Kolhapur	Tambave Services, Kolhapur
4	MOU with Mahatma Phule Magaswargya Sahakari Sut Girni Ltd. Vadgaon	Vadgaon
5	MOU with Hari Om Flexipack Industries, Kolhapur	Kolhapur
6	MOU with Wisdom Foundation, Kolhapur	Wisdom Foundation, Kolhapur
7	MOU with Yashswi Academy , Kolhapur	Yashswi Academy , Kolhapur
8	MOU with Walchand College of Engineering ,Sangli	Walchand College of Engineering ,Sangli

17. Student – Computer ratio- : 1.88

Number of computers available for students: **645**

18. Percentage of students benefited by scholarships and free ships : **80.31 %** (975/1214)

Name of the scheme	Government/ Non-government	Name of the individual/organisation	Number of students benefited
SC Scholarship	Government	Maharashtra Government DBT	144
ST Scholarship	Government	Maharashtra Government DBT	0
VJNT Scholarship	Government	Maharashtra Government DBT	72
SBC Scholarship	Government	Maharashtra Government DBT	13
OBC Scholarship	Government	Maharashtra Government DBT	128
Rajarshi Chhatrapati Shahu Maharaj Shikshan Shulkh Shishyavrutti Yojna	Government	Maharashtra Government DBT	618

19. Percentage of students benefitted by guidance for competitive examinations: 51.23 %

Number of students benefitted by guidance for competitive examinations and career counselling offered by the institution: **622**

Sr. No.	Name of Activity	Number of students Participated
1	Introduction to structure and pattern of various non technical competitive examinations	369
2	Exposure to career opportunities	253
Number of students benefitted by guidance for competitive examinations and career counselling		**622**

20. Percentage of placement: 15.52 %

Number of outgoing students placed: **70**

Number of outgoing student's: **451**

Sr. No.	Program Name	Number of outgoing students placed	Average Pay package (In INR per annum)
1	Computer Engineering	19	3.87
2	Electrical Engineering	18	1.4
3	Electronics and Telecommunication	01	3
4	Mechanical Engineering	32	1.62
	Number of outgoing students placed	**70**	**2.47**

21. Percentage of students qualifying in state/national/international level examinations :

Number of students qualifying in state/national/international level examinations: **02**

Registration number/roll number for the exam	Names of students qualified	Name of the qualifying exam
PN005157	SAGAVKAR PRIYANKA ASHOK	State government examinations
PN086215	PATIL AKSHAY BHALCHANDRA	State government examinations

22. Student Participation and Activities (Sports & Cultural):

Due to Covid no participation possible

23. Number of sports and cultural programs in which students of the Institution Participate: **07**

Date of event/activity (DD-MM-YYYY)	**Name of the event/activity**	**Name of the organising institution**	**Name of the student participated**
08/03/2021 and 09 /03/2021	Chess	Annual Sports	43
	Carom		70
	Kabaddi		83
	Football		88
	VOLLEYBALL		81
	Basketball		64
	Cricket		91

24. Percentage of teaching staff participating in Faculty development Programmes organized by the institution: **24.67 %**

Total number of teaching staff participating in Faculty development Programmes (FDP): 19

Sr. No.	Name of the participant	Title of the FDP /MDP/ professional development / administrative training program
1	Prof. S. B. Deshmukh	Digital Transformation & Pedagogies
		Recent trends in heat exchangers (RTHX 2020)
		Electro-Mechanical Systems
		Blended Learning and Flipped Classroom
		Alternate Fuels
		Emotional Intelligence
		Outcome Based Education (OBE) and Accreditation Process
		Teaching Learning Pedagogies
2	Prof. P.S.Atigre	Digital Transformation & Pedagogies
		Research at A Glance
3	Prof. A. N. Naik	Advanced Measurement Techniques
		Advances In Manufacturing & Materials
4	Prof.A.A.Katkar	Mechatronics Automation and Robotics
		Advances In Manufacturing & Materials
5	Prof. R. U. Urunkar	Digital Transformation & Pedagogies
		Augmented Reality & Virtual Reality
		Innovative & Inventive Problem Solving
6	Dr. S.G. Aravindakumar	Digital Transformation & Pedagogies
		Electro Mechanical Systems
7	Prof. G. C. Koli	Industrial Automation using CNC and Intelligent Systems
		Emerging Materials, Sensors and Devices for IoT and Industry 4.0
8	Mr. Arvind Madhukar Bhandare	Machine Learning & Its Applications
		Thrust areas for Research in Power and Energy Systems – A resource for beginners”
		Nearly Zero Energy Building nZEB
		Role of National education policy for national development
		Recent Advances I n health 5.0 in line with nep 2021
		Role of National education policy for national development
9	Mr Jadhav Nilesh Sharad	Academic transformation with secrets of empowerment
		Short Term Training Programme through ICT Mode on Renewable Energy Sources and Emerging Technologies
		Short Term Training Programme through ICT Mode on Solar Photo Voltic System

Sr. No.	Name of the participant	Title of the FDP /MDP/ professional development / administrative training program
10	Mr. Prasad Pradeep Kulkarni	Learn to Design your own Solar Home System.
		IoT Application Development Using Python" (SMART AGRICULTURE)
		Renewable Energy Sources and Emerging Technologies
		FDP on Design & Development of Automated system
11	Mr.Metkari Vishal Tukaram	One Week National Level Workshop on "Digital Transformation & Pedagogies"
12	Mr. Naik Yogesh R.	Six Days STTP on,"NovelDesign & Control Strategies & Innovative Technical Practices in Modern HV/LV switchgers"
		One week FDP on "Recent advances in Biomedical Applications & communications networks"
		One Week National Level Workshop on "Digital Transformation & Pedagogies"
13	Mr. Arvind Madhukar Bhandare	Machine Learning & Its Applications
		Thrust areas for Research in Power and Energy Systems – A resource for beginners"
		Recent Advances I n health 5.0 in line with nep 2021
		Nearly Zero Energy Building nZEB
14	Mr. Prasad Pradeep Kulkarni	One Week Faculty Development Program on "Augment Reality & Virtual Reality"
		Thrust areas for Research in Power and Energy Systems – A resource for beginners"
		Nearly Zero Energy Building nZEB
15	Prof.S.A.Babar	"Digital Transformation & Pedagogies"
		"Deep Learning Tools & Applications in Engineering & Science"
16	Prof. P. D. Patil	"Deep Learning Tools & Applications in Engineering & Science"
		"Digital Transformation & Pedagogies"
		Machine learning & It's Applications
		National education policy
17	Prof.M.M.Hajare	Interactive impactful E learning tech.
		Python for Data Science
18	Prof. S.S.Pujari	Python for Data Science
		Machine Learning & its applications
19	Dr. S.G. Aravindakumar	Environmental Sustainability and Green Energy

25. <u>Green Audit:</u> Conducted Successfully and Certificate Received.

Observations and Conclusions:

This section gives the overviews of all the audits.

1. Water Section:
Institute has provision of rain water harvesting; hence huge amount of water is conserved and saved. Another good point is that the rain water collected at various section and is used to ground.

2. Wastewater Section:
SETI doesn't have any wastewater treatment facility till now as all the waste is directly sent to sewers. But the institute has planned for CWs i.e. constructed wetland systems for both the grey and black water treatment. Institute has also planned for hazardous waste management. The waste water generated through chemistry lab will also be treated and then led of onto sewers.

3. Solid waste management:
Proper method such as separate bins for wet waste and dry waste which leads to source segregation is followed by SETI.

4. E-waste:
Electronic waste is generated from many sections viz. physics lab, computer lab and applied science section. Institute collets the E waste centrally and is send to vendors for proper disposal means.

5. Sustainable water practices:
Institute has a fresh source of water i.e. river water. Water is recycled and used.

6. Energy:
More number of solar panels can be installed for generation of green energy. Energy efficient equipment's can be used at various places too. Continues energy monitoring systems can be installed at places where high energy consumption takes place.

Use of LED bulds:

Institute has toatl light load connection of : 46500 watts

LED load connection is: 32300 watts

Light load other than LED: 14200 watts

Percentage of LED use in institute: 69.46%

Alternatice methods of energy:

Solar power plant at SETI

Capacity of plant: 70kw

Hybrid grid: (Solar + Wind): 50kw

Total capacity: 70+50 = 120 kw

Dr. G. C. Koli
Dean IQAC

Submitted to: Principal