

## **College of Engineering Chandwad**



6.5.1: Internal Quality Assurance Cell (IQAC) has contributed significantly for institutionalizing the quality assurance strategies and processes. It reviews teaching learning process, structures & methodologies of operations and learning outcomes at periodic intervals and records the incremental improvement in various activities

SN	Description	Link
1	IQAC Significant Contribution	<u>Click</u>
2	IQAC Teaching Learning Process Review	<u>Click</u>
3	IQAC Learning Outcome Review Record and Incremental Improvement Record	Click







### IQAC Significant Contribution - Index

SN	Academic Year	Link
1	2021-22	Click
2	2020-21	<u>Click</u>
3	2019-20	<u>Click</u>
4	2018-19	<u>Click</u>
5	2017-18	Click







#### IQAC Learning Outcome Review Record and Incremental Improvement Record

SN	Description	Link
1	IQAC Learning Outcome Review Record	
1a	Learning Outcome Record	<u>Click</u>
1b	Learning Outcome Review	Click
2	Incremental Improvement Record	Click



## **College of Engineering Chandwad**



## **Learning Outcome Review CO-Attainment Review**

#### SNJB's KBJ College OF ENGINEERING DEPARTMENT OF COMPUTER ENGINEERING

Course	Year	Attainment	Course Incharge	Module Coordinator	Observation	Action Taken/Plan	Attainment Observed in Next Batch 2019-23	Observation		
DELD	SE 2019-20	0.1		S.S. Wadnere	S.S. Wadnere	S.S. Wadnere	Attainment does not reach upto accepted value.	To take more practice in online examination and need to provide practice question banks for the same.	2.95	Improved
DSA	SE 2019-20	1.99	D.P.Pawar	Dr.M.R.Sanghavi		More focus on internal assessment	3	Improved		
COA	SE 2019-20	1.69	R.R. Bhandari	R.R. Bhandari	The Attainment is very less achieved Paper Checking was tough (unexpected).  Plan the New Strategy to Achieve Goal	Try to Improve Next Year, More Practice of End Sem is Planned More MCQ practise is Planned for next semester.	not include sylla			
ML			G.P.Dhomse	Dr.M.R.Sanghavi	Attainment Level reduced for internal exam for C410.1,C410.2,C410.3,C410.4,C410.5,&C410.6 University results are improved for INSEM & ENDSEM.	More Focus on internal assessment. Need to give Self learning assignments to students to improve the interest of students on some difficult topic which in turn helps to improve the attainment	If learning students to semester, so Attain level yet tobe compared to the com			
	Program C	oordinator		0487 8.BINS	Chandwad Chashull College	Head of Dept. HEAD Dept. of Computer Engineers of Enginee	reering			

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#### **PO Attainment Review**

SNJB's KBJ College OF ENGINEERING DEPARTMENT OF COMPUTER ENGINEERING

## **PO-PSO Attainment Analysis**

Batch	Program Outcomes											Program Specific Outcomes			
114 127	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO1	PO12	PSO	PSO	2 PSC
						20	18-22								
Mapping	1.97	1.92	1.84	1.84	1.81	1.64	1.5	1.54	1.93	1.83	1.66	1.53	1.86	1.66	1.5
Target Achieved	1.75	1.67	1.61	1.6	1.72	1.56	1.35	1.41	1.78	1.64	1.52	1.42	1.64	1.49	1.4
PO Attainment (%)	88.83	86.98	87.50	86.96	95.03	95.12	90.00		92.23	-				89.76	
A. Barrell		11.676			169	20	17-21						1	1	
Mapping	2.02	1.91	1.73	1.74	1.77	1.67	1.51	1.45	1.71	1.59	1.62	1.55	1.77	1.61	1.48
Target Achieved	1.56	1.54	1.45	1.45	1.50	1.41	1.27	1.24	1.49	1.47	1.42	1.29	1.51	1.40	1.27
PO Attainment (%)	77.23	80.52	84.05	83.10	84.97	84.67	83.84	85.66	87.02	92.20	87.90	83.23	85.08	86.83	85.81
	TEN					20	16-20			-					
Mapping	1.83	1.85	1.81	1.75	1.78	1.59	1.5	1.56	1.78	1.77	1.6	1.54	1.81	1.75	1.61
Target Achieved	1.54	1.56	1.47	1.43	1.47	1.34	1.31	1.41	1.61	1.67	1.35	1.27	1.51	1.48	1.30
PO Attainment (%)	84.15	84.32	81.22	81.71	82.58	84.28	87.33	90.38	90.45	94.35	84.38	82.47	83.43	84.57	80.75
						20	15-19								
Mapping	1.94	1.80	1.77	1.75	1.81	1.64	1.43	1.45	1.60	1.51	1.54	1.50	1.67	1.65	1.51
Target Achieved	1.55	1.44	1.43	1.45	1.53	1.40	1.18	1.33	1.44	1.36	1.33	1.26	1.35	1.32	1.23
PO Attainment (%)	79.90	80.00	80.79	82.86	84.53	85.37	82.52	91.72	90.00	90.07	86.36	84.00	80.84	80.00	81.46
3 1 1 1 1 1 1		1686				20	14-18								
Mapping	1.80	1.64	1.62	1.49	1.85	1.45	1.40	1.68	1.63	1.74	1.60	1.41	1.61	1.63	1.49
Target Achieved	1.22	1.16	1.26	1.09	1.43	1.06	0.92	1.53	1.51	1.67	1.35	1.10	1.19	1.21	1.17
PO Attainment	67.78	70.73	77.78	73.15	77.30	73.10	65.71	91.07	92.64	95.98	84.38	78.01	73.91	74.23	78.52
						20	13-17								1
Mapping	1.82	1.60	1.61	1.50	1.84	1.52	1.58	1.71	1.70	1.77	1.71	1.32	1.61	1.64	1.43
Target Achieved	1.32	1.24	1.26	1.17	1.48	1.30	1.18	1.37	1.47	1.50	1.35	1.09	1.22	1.25	1.09
PO Attainment (%)	72.53	77.50	78.26	78.00	80.43	85.53	74.68	80.12	86.47	84.75	78.95	82.58	75.78	76.22	76.22

Program Coordinator K.M.Sanghavi



Head of Dept Dr. M.R.Sanghavi

HEAD

Dept. of Computer Engineering SNJR's Collect of Engineering Heritiage Charters (Nashik)



## **College of Engineering Chandwad**



#### SNJB's Late Sau KBJ College of Engineering, Chandwad Department of Computer Engineering

Date: 14/06/2019

#### Minutes of Meeting

Draft of the meeting held on June 14th, 2019 from 02:00 to 04:00 am at Computer Center Lab , Computer Engineering Department.

Following staff members were present:

- 1. Dr. M.D. Kokate
- 2. Dr. M.R. Sanghavi
- 3. Prof. Mrs. K.M. Sanghavi
- 4. Prof. B.A. Khivsara
- 5. Mr. Yash Mutha

Agenda of the Discussion:

Meeting for policy formation of Academic Year 2019-20

#### Following points were discussed in the meeting:

Sr. No	Topics Discussed on	Remark	Task Allocated to staff	
1	Assignments should be through Google Classroom	► All types of assignments should be through Google Classroom mandatorily and also checking (tickmark) must be done	To all staff	
2	About Mentors in Project Development	All guides have to prepare milestone about their project with the help of students. Ex(Industry based / Product based/Business based/what students wants from project/job/innovation/marks/publications HOD/Project coordinator will decide Industry mentors (our Alumni) & allocate accordingly to your project topics.	To all staff	
3	Action Taken for last Academic Year 2018-19 to mitigate the GAPs	Events related to Ethics, Communication, Current technology and Career paths have been taken for students. To name a few Event:	To all Staff /MC	







## **College of Engineering Chandwad**

Threshold used to identify GAP is <=1.6 with respect to Program Articulation Matrix  DAB identified to focus more on PO6, PO7, PO8, No. 1, PO8, No. 1, PO9, PO9, PO9, PO9, PO9, PO9, PO9, PO9			<ol> <li>Cyber Security Awareness by the students for the student</li> <li>Awareness on Ethical Hacking</li> <li>Hands on training on Python</li> <li>Celebration of festival at orphan hostel as a social responsibility &amp; ethics</li> <li>Social Activity for Senior Citizens</li> <li>Distribution of needy materials to poor children at nearby rural area as a social responsibility &amp; ethics</li> <li>Digital Fast - No use of any Digital gadgets for particular period</li> <li>Also to find solutions for complex problems and Project Management- More efforts on Final Year Projects are taken.</li> </ol>	
Dept of Computer Engineering St. Clare Chandwar (Nashik)  Principal  PRINCIPAL  SNIB'S LATE SALL  PRINCIPAL	4	<=1.6 with respect to Program	DAB identified to focus more on PO6, PO7, PO8, PO9, PO11 and PO12	
Chandwa Chandwa (Nashiw)	Mi	SM/B's LAT	Dept of Computer Engineering St Chart in Ingineering IN age Chandwar (Nashik)  PRINCIPAL  ESAULUS NOW, CHAVARLALUJAIN  ESAULUS NOW, CHAVARLALUS NOW, CH	



## **College of Engineering Chandwad**



## SNJB's KBJ College OF ENGINEERING

### DEPARTMENT OF COMPUTER ENGINEERING

Course Outcome Attainment Observation Report, Batch 2018-22

Year	Attainment	Course Incharge	Module Coordinator	CIS link	Observation	Action Taken/Plan
SE 2019-20	0.1	S.S. Wadnere	R.R. Bhandari	Click Here	Attainment does not reach upto accepted value.	To take more practice in online examination and need to provide practice question banks for the same.
SE 2019-20	1.99	D.P.Pawar	Dr.M.R.Sanghavi	<u>Click Here</u>		More focus on internal assessment
SE 2019-20	1.69	R.R. Bhandari	R.R. Bhandari	Click Here	The Attainment is very less achieved Paper Checking was tough (unexpected).  Plan the New Strategy to Achieve Goal	Try to Improve Next Year, More Practice of End Sem is Planned More MCQ practise is Planned for next semester.
BE 2021-22	1.5	G.P.Dhomse	Dr.M.R.Sanghavi	Click Here	Attainment Level reduced for internal exam for C410.1,C410.2,C410.3. C410.4,C410.5,&C410.6 University results are improved for INSEM & ENDSEM.	More Focus on internal assessment. Need to give Self learning assignments to students to improve the interest of students on some difficult topic which in turn helps to improve the attainment level.
Program	Coordinator	,		S. Changing of English		Head D Dept.  I. of Computer Engineering  B's College of Engineering







	Sample of	Actions tak	en based on the results of evaluation of	of each of the POs & PSOs
PO/PSO	2016-20	2017-21	Action Taken	Glimpses of Action Taken
% Target	achieved	respect to I	Mapping	
			1. Sessions on Digital Fast, Webinar on Endless Possibilities for an Engineer are arranged to make the students aware of the health and safety issues.	S S S S S S S S S S S S S S S S S S S
PO	6 84.2	8 84.67	Societal, Health, and safety-related projects carried out by students for environmental up-gradation and fulfill societal needs.	
			3. As a student club activity, students have conducted seminars on cyber security awareness for primary students.	
			SKBJ College of Chandward In Ch	



#### **College of Engineering Chandwad**



SNJB's Late Sau KBJ College of Engineering, Chandwad Department of Computer Engineering

#### COURSE INFORMATION SHEET (CIS)

#### 1. Course Particulars

Course Title: Machine Learning	Level : UG	Academic Year: 2021-22		
Course Code: 410250	L:T:P: 03:00:00	Semester : EIGHT		
Pattern: 2015	Total Hours: 48	Class: BE		
Insem Marks: 30	Credits: 03			
EndSem Marks: 70				
Total Marks: 100				

2. Course Instructor: Mr. Ghanshyam P. Dhomse

#### 3. Prerequisite

CCode	Course Name	Description	Sem
410244(D)	Data Mining & WareHousing	To have an idea of basic Data mining Algorithms and Concepts	7
410243	Data Analytics	To have an idea of Data Analytics Tool	7

#### 4. Course Description

This course is designed

- To explore the Fundamental concept of machine learning with different application
- To understand Human Learning aspects and relate it to Machine learning concepts
- To understand the nature of the problem and apply machine learning algorithms.
- To find optimized solutions for given problems.

It will teach an approach on how to apply Machine Learning Algorithms available in Sci-kit tools on a given standard data set.

#### 5. Role of Course







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#### SNJB's Late Sau KBJ College of Engineering, Chandwad Department of Computer Engineering

ML is used in many real world applications, few of them are:

#### 1. Software/IT/Manufacturing Industry

Machine learning is essential for becoming a Data Scientist, Machine Learning Engineer, it is an important prerequisite for Artificial Intelligence, so lots of opportunities open for fresh graduates.

#### 2. Data Science

Machine learning and Statistics is an important subject to understand the application of Data Science in various areas.

#### 6. Modes of Content Delivery:

Blackboard Teaching/Zoo m meeting	Visual Aids	Google Classroo m Assignme nts	NPTEL Video	Presentat ion by Students	Guest / Expert Lecture	Group Discussion / Quiz	Case Study	Mini Project
Yes	Yes	Yes			1000	22		(

#### University Course Outcomes:

On completion of the course, student will be able to-

CO1: Distinguish different learning based applications

CO2: Apply diff preprocessing methods to prepare training data set for machine learning.

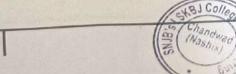
CO3: Design and implement supervised and unsupervised machine learning algorithm.

CO4: Learn different Classifier and SVM

CO5: Learn Decision Tree and Meta classifiers concepts

CO6: Correlate different Clustering techniques and Learn Deep Learning Concept

## Reformed Course Outcomes (CO):





## **College of Engineering Chandwad**



#### SNJB's Late Sau KBJ College of Engineering, Chandwad Department of Computer Engineering

Course Outcome	After successful completion of the course students should be able to	Bloom's Taxonomy	Targe t Set	Mapping with University CO's	Competencies
C410.1	CO1: Distinguish different learning based applications	2(Understa nd)	65%	CO1	Engg Knldg, Dsgn& Dev of Soln,complex prb soln, Engg & Society, Proj Mgmt,lifelong learning
C410.2	CO2: Apply diff preprocessing methods to prepare training data set for machine learning.	3 (Apply)	65%	CO2	Engg Knldg,anlyze prb, Dsgn& Dev of Soln,complex prb soln, modern tool ,Engg & Society, Proj Mgmt,lifelong learning
C410.3	CO3: Design and implement supervised and unsupervised machine learning algorithm.	3 (Apply)	65%	CO3	Engg Knldg,anlyze prb, Dsgn& Dev of Soln,complex prb soln, modern tool ,Engg & Society, Proj Mgmt,lifelong learning
C410.4	CO4: Learn different Classifier and SVM	2(Understa nd)	65%	CO3	Engg Knldg,anlyze prb, complex prb soln, modern tool ,Engg & Society, Proj Mgmt,lifelong learning
C410.5	CO5: Learn Decision Tree and Meta classifiers concepts	2 (Understan d)	65%	C04	Engg Knldg,anlyze prb, complex prb soln, modern tool ,Engg & Society, Proj Mgmt,lifelong learning
C410.6	CO6: Correlate different Clustering techniques and Learn Deep Learning Concept	3 & 4 (Apply, Analyze)	65%	CO5	Engg Knldg,anlyze prb, complex prb soln, modern tool ,Engg & Society, Proj Mgmt,lifelong learning

Justification of Threshold:- <u>View</u>







#### **College of Engineering Chandwad**



#### SNJB's Late Sau KBJ College of Engineering, Chandwad Department of Computer Engineering

Academi c Year	No. Of Students Appeared( X)	Total Marks Secured by All(Y)	Avg Marks( Y/X)	Target		% of students achievin g Tgt(Z/X)	Attained	This Years CO Tgt (2020-21)
2018-19	82	6089	74.26	50	74.26	90.56	3	55
2019-20	61	4295	70.41	55	59	96.72	3	65
2020-21	77	6689	86.87	65	77	100%	3	65 (2021-22)

#### Tools for Internal Assessment (Weightage = 20%):

Tools used: written test / midterm test, Assignment / Experiment Tool can be used for evaluating one or two CO's together.

#### University Examination Assessment (Weightage = 80%)

Attainment level 3 (High): 80% students score more than set target;

Level 2 (Medium): 70% students score more than set target;

Level 1 (Low): 60% students score more than set target.

#### 8. COs Attainment level (Direct Attainment):

10000000000000000000000000000000000000	Attainment Level (AL)	STORES.	CANCE.	SELECTION OF THE PARTY OF THE P	
AL3 (High)	80% students score more than 65% marks (Threshold)	out	of	the	relevant
AL2 (Medium)	70% students score more than 65% marks (Threshold)				relevan
AL1 (Low)	60% students score more than 65% marks (Threshold) maximum marks	out	of	the	relevan

## 9. Course Outcome Attainment (Direct Attainment):

				Internal A	ssessmer	nt			INSEM	END SEM
Course Attainment	Mock Inse m	Mock End Sem	CA	Mock Insem %	Mock End Sem %	CA %	Avg %	Avg	EXAM	EXAM
C410.1	0	3	3	52.86	94.12	100	82.326 66667	2	71/83= 85.54 %	
C410.2	0	2	3	12.86	77.94	98.78	63.193 33333	1.666 66666 7		45/83= 54.21
C410.3	0	0	3		69.12	100	65.896	1		

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## SNJB's Late Sau KBJ College of Engineering, Chandwad Department of Computer Engineering

C410.4				EXPENSIVE NO.	66667		(5.20)
C410.4	0	3	57.35	98.78	78.065	1.5	
C410.5	0	3	33.82	95.12	64.47	1.5	150000
C410.6	0	3	35.29	100	67.645	1.5	
	Average				70.266 11111	TOUR CHARLES	1.5
		Wei	ghtage (Direct)			20	80
		CO Attair	nment for Direct T	ools		1.505	
		Wei	ghtage (Common)			10	00
			1.5				
		3	3				

## 10. Mapping of Course Outcomes, Program Outcomes and Program Specific Outcomes (with correlation level):

CO No.	PO1	PO 2	PO 3	PO4	PO5	PO6	PO 7	PO 8	PO 9	PO 10	PO 11	PO 12	PSO 1	PSO 2	PSO 3
C410.1	3	3		2									1		
C410.2	2	2			2			1	2			1	2	2	2
C410.3	2	2	2		2		viv-I						2	2	2
C410.4	3	3	-/-	2	neque	Make		165	2		2		1		
C410.5	2	2	2	dishe	2	44		7/	150			4	2	2	2
C410.6	2	2	2	lis	2			N.	NE	1		183	2	2	2
C410	2.3	2.3	2	2	2	-	-	-	2	-	2	-	1.7	2	2

Correlation Level(CL): 1-Low; 2-Moderate; 3-High; - Not Applicable 10.1. Mapping of COs, POs and PSOs with Justification





## College of Engineering Chandwad



### SNJB's Late Sau KBJ College of Engineering, Chandwad Department of Computer Engineering

COs	After successful completion of the course students should be able to	Low (1)	Moderate (2)	High (3)
C410.1	Distinguish different learning based applications	PSO1	PO4	PO1 PO2
C410.2	Apply diff preprocessing methods to prepare training data set for machine learning.		PO1 PO2 PO5 PO9 PSO1 PSO2 PSO3	
C410.3	Design and implement supervised and unsupervised machine learning algorithm.		PO1 PO2 PO3 PO5 PSO1 PSO2 PSO3	
C410.4	Learn different Classifier and SVM	PSO1	PO4 PO9 PO11	PO1 PO2
C410.5	Learn Decision Tree and Meta classifiers concepts		PO1 PO2 PO3 PO5 PSO1 PSO2 PSO3	
C410.6	Correlate different Clustering techniques and Learn Deep Learning Concept	, Mer	PO1 PO2 PO3 PO5 PSO1 PSO2 PSO3	

#### 11. COs Feedback from Students:

1.1 COs Feedback Form (Indirect Assessment) : View

12. Summary of COs, POs and PSOs: 12.1 Summary of COs Attainment:

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## SNJB's Late Sau KBJ College of Engineering, Chandwad Department of Computer Engineering

Course	Direct Attainment (in terms of AL)	Target Achieved (Yes/No)	Observations/Actions for Improvement
CO410	1.50	No	Result for End Sem examination is reduced due to offline
Course	Indirect Attainment (in terms of AL)	Target Achieved	examination lack of writing practice.  Observations/Actions for Improvement
CO410	3	(Yes/No)	All CO's Attained
Carrie of the		ies	Good Result keep same practices for Next year

## 12.2 Summary of POs and PSOs Attainment:

Sum	nary	of P	Os/	PSO	s At	tair	me	nt /ir	n terr	ne of	ATA				
Course/Attainment	Program Dependent POs					Program Independent POs							PSOs		
CO405	PO 1	PO 2	PO 3	PO 4	PO 5	PO 6	PO 7	PO 8	PO 9	PO 10	PO	PO 12	PS O1	PS O2	PS 03
Direct CO-PO Attainment	1.2	1.2	1	1	1	0	0	0	1	0	1	0	0.9	1	1
Indirect CO-PO Attainment	2.3	2.3	2	2	2	0	0	0	2	0	2	0	0.9	1	7
Final CO-PO Attainment	1	1	1	1	1	0	0	0	1	0	1	0	1.7	1	1

Observation	Action Taken/Plan
<ol> <li>Attainment Level reduced for internal exam for C410.1,C410.2, C410.3. C410.4, C410.5, &amp; C410.6</li> <li>University results are improved for INSEM &amp; ENDSEM.</li> </ol>	More Focus on internal assessment.     Need to give Self learning assignments to students to improve the interest of students on some difficult topic which in turn helps to improve the attainment level.

Course Coordinator (CC

Module Coordinator (MC)

HOD

Prof. G.P. Dhomse

Dr. M. R. Sanghavi

Dr. M. R. Sanghavi

HEAD

Dept. of Computer English Programme SN.IB's College of Engineering Neurolayer Chandwar (Nashik)



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## **College of Engineering Chandwad**



#### **Incremental Improvement Record**

In comparison to the previous NAAC grading report, there was need for improvement in practical oriented courses, Training and Placements activities, pass percentage, skill-based, foreign language, and communication courses, competitive examinations, consultant activities, publications, digital programs, industrial training, guest lectures, and project-based learning.

#### The institution has made efforts to improve all aspects. Some of the progressive improvements are summarized in the table below:

	Details			Year		
	Details	21-22	20-21	19-20	18-19	17-18
T C 4	Budget Utilization	97.75	76.99	79.17	89.46	59.22
Infrastructure	Internet (in MBPS Leased Line)	300	100	100	100	100
	Enrollment Ratio (%)	89.06	88.24	94.37	84.95	91.79
	% of Students benefited by scholarships & free ships by government schemes	93.55	90.45	93.48	88.44	75.10
	% of students enrolled in Certificate/ Add-on/Value added programs	63.14	37.94	51.22	27.32	34.34
	Capacity building and skills enhancement initiatives	21	13	15	11	11
Student	Students benefited by guidance for competitive examination & career counseling	2109	1041	808	1043	939
	Avg. % of placement & Higher Studies of outgoing students	57.14	58.09	68.93	62.35	61.68





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	Details			Year		
	Details	21-22	20-21	19-20	18-19	17-18
	Number of students appearing in state/ national/ international level examinations (eg: JAM/CLAT/NET/ SLET/ GATE/ GMAT/CAT,GRE/ TOFEL/ Civil Services/ State government examinations) year wise during last five years	129	159	162	145	69
	Internship	393	360	440	225	213
Fogulty	Faculty with Ph.D./NET/SET	19	15	15	14	13
Faculty	Teaching & Non Teaching Staff participated in FDP	199	233	347	93	30
Research and	Paper Publication	10	8	6	6	40
Development	Patent Filed/ Publication	2	2	2	3	7
Result	Average Pass % of Final Year Students during Last Five Years	85.98	97.82	97.12	91.07	89.81
Extension	Number of Extension and Outreach Programmes	9	11	16	17	13
Activity & Collaboration	MoU	15	3	2	4	9

# ESTD - 1928

#### SNJB's Late Sau. KBJ

#### **College of Engineering Chandwad**



**Experiential Learning:** Courses that expose students to real-world issues, like PBL, internships, and projects, are observed in the curriculum. There has been a consistent increase in the quantity of value-added programs offered for students and the involvement of students has also been observed.

**T & P Activities:** An increase in the student's placement over time reflects an overall improvement in quality.

**Pass Percentage:** The passing percentage has increased as a result of the implementation of various quality measures.

**Skill Enhancement Courses:** Institute arranged numerous programs related to soft skills, language and communication skills, life skills, ICT and computing skills.

Guidance for Competitive Exams: The institute has executed a variety of activities that have steadily increased the number of students who have benefited from competitive examinations.

**Paper Publications in Quality Journals**: The improvement in quality publications such as is a consequence of policies introduced by the Research and Development Cell.

**Value-Added Certification Courses:** The institute acts as the nodal center for many e-learning platforms, including SWAYAM NPTEL and VLabs, which are beneficial to both students and professors. Faculty has developed a number of courses for the Udemy platform and also launched a YouTube channel, both of which are useful to not just the institute but individuals all over the world.

**Infrastructure:** The infrastructure, on the whole, is excellent, with a decent level of budget utilization and steady improvements in internet leased line bandwidth every year.

#### **Student's Enrollment:**

The student enrollment ratio has varied over the past five years but major improvements in the last few years. A high percentage of students, ranging from 75.10% to 93.55%, have benefited from scholarships and free ships through government schemes. The number of students enrolled in certificate/add-on/value-added programs is improving. Capacity building and skills enhancement initiatives have been implemented consistently. A significant number of students have received guidance for competitive examinations and career counseling, with a good number of beneficiaries.



## **College of Engineering Chandwad**



On average, a considerable percentage of outgoing students have secured placements or pursued higher studies and the number of students appearing in state/national/international level examinations has varied over the past five years, with the highest being 162 and the lowest being 69. Lastly, internship opportunities have been offered to students, with the number of beneficiaries ranging from 213 to 440.

**Quality Improvements by Faculty:** Few faculties are completing PhDs every year and many are improving their skills by attending various FDPs. Faculties and students have filed various Patents.

**Extension Activity & Collaboration:** MoUs can facilitate effective collaboration, while a robust number of extension and outreach programs can help institutions build strong relationships with stakeholders. However, success should not be solely measured by the number of agreements or activities, but also by evaluating the quality, impact, and relevance of each initiative.