



|| JAI SRI GURUDEV ||

Sri Adichunchanagiri Shikshana Trust (R)

# SJC Institute of Technology, Chickballapur

## Department of Civil Engineering



**Hearty Welcome to  
NBA Committee Members**

**Dr. G Narayana**  
Professor & Head  
Dept. of Civil Engineering

# Introduction

## HOD Profile

## Department Profile

## Department Achievements

## Faculty Achievements

## Students Achievements



SJCIT - CED

<b>QUALIFICATION</b>	B.E. (Civil), M.E. (Construction Technology) PhD (Civil-Structural Engineering ), Bangalore University		
<b>DATE OF BIRTH</b>	09-01-1973		
<b>EXPERIENCE</b>	Teaching - 23 Yrs	<b>Industry</b>	02 years
<b>AREA OF INTEREST</b>	Soil–Structure Interaction, Construction Technology, Structural Engg.		
<b>PATENTS</b>	02 (Applied)		
<b>PUBLICATIONS</b>	40+	<b>SCOPUS INDEXED</b>	09
<b>CONFERENCES</b>	94+	<b>INTERNATIONAL CONFERENCES</b>	02
			Istanbul – Turkey (2019) Cape Town – South Africa (2013)
<b>M Tech Projects Guided</b>	56	<b>RESEARCH SCHOLORS</b>	06
<b>ASSOCIATION WITH PROFESSIONAL BODIES</b>	<b>Fellow Member:</b> Association of Consulting Civil Engineers (ACCE) <b>Life Member:</b> Indian Society for Technical Education <b>Life Member:</b> Indian Concrete Institute <b>Fellow Member:</b> Institution of Engineers <b>Life Member:</b> Indian Society of Earthquake Technology <b>Professional Engineer:</b> Structural Engineers Society		
<b>Interaction with outside world</b>	Paper Setter for MGNREGA, AE, Senior Geologist		
<b>University Assignments</b>	<b>BOE/BOS :</b> VTU, REVA, NMIT, Presidency, PESU		
<b>Technical Consultant</b>	Consultant for various projects of Government Dept.s such as PWD, PMGSY, Minor irrigation, Town Municipal Council, etc.		



**Dr. G NARAYANA**

M.E, Ph.D

Professor & Head  
Department of Civil Engg.  
SJCIT, Chickballapur



[hodcivil@sjcit.ac.in](mailto:hodcivil@sjcit.ac.in)



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# Introduction

HOD Profile

Department Profile

Department Achievements

Faculty Achievements

Students Achievements



SJCIT - CED

<b>Department Establishment</b>	<b>1986 - 87</b>
<b>Approved by</b>	<b>AICTE, New Delhi.</b>
<b>Recognized by</b>	<b>Government of Karnataka</b>
<b>Affiliation</b>	<b>Visvesvaraya Technological University , Belagavi.</b>
<b>Intake</b>	<b>120</b>

## INFRASTRUCTURE FACILITIES

<b>Class Rooms</b>	<b>06</b>	<b>Staff Rooms</b>	<b>13</b>
<b>Seminar hall</b>	<b>01</b>	<b>Dept. Library</b>	<b>01</b>
<b>Laboratories</b>	<b>09</b>	<b>Model Room</b>	<b>01</b>
<b>HOD Chamber</b>	<b>01</b>	<b>Project Lab</b>	<b>01</b>
<b>Meeting Room</b>	<b>01</b>	<b>R&amp;D</b>	<b>01</b>



## TEACHING STAFF

	2020-21	2019-20	2018-19
<b>No. of Faculty</b>	<b>28</b>	<b>29</b>	<b>30</b>
<b>No. of Professors</b>	<b>02</b>	<b>02</b>	<b>03</b>
<b>No. of Assoc. Professors</b>	<b>03</b>	<b>03</b>	<b>03</b>
<b>No. of Asst. Professors</b>	<b>23</b>	<b>24</b>	<b>24</b>
<b>No. of Ph.D.</b>	<b>03</b>	<b>03</b>	<b>04</b>

## NON TEACHING STAFF

<b>No. of Lab Instructors</b>	<b>06</b>
<b>No. of Attender/Helper</b>	<b>03</b>

# Department Level Achievements

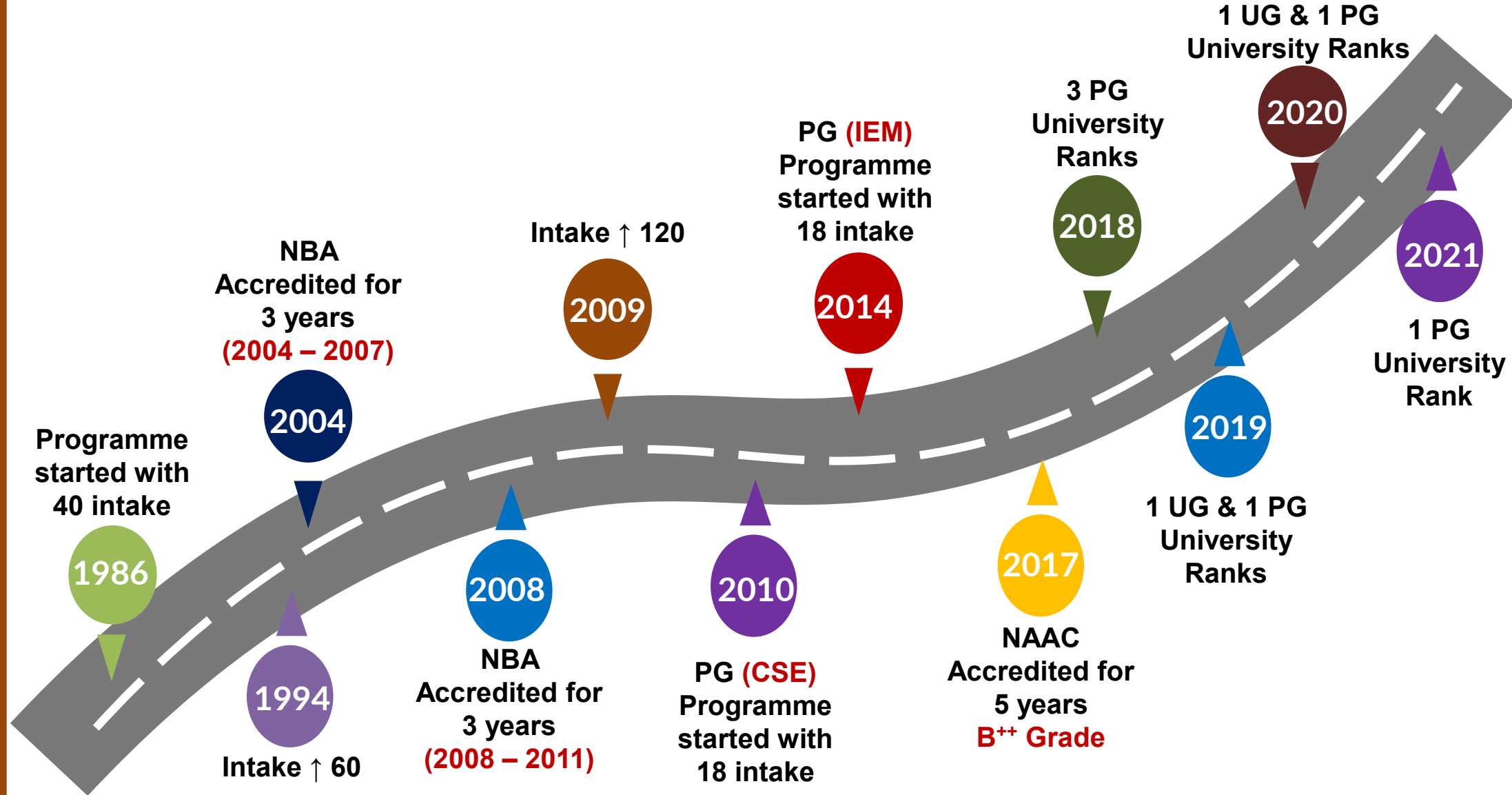
HOD Profile

Department Profile

Department Achievements

Faculty Achievements

Students Achievements



# Department Level Achievements

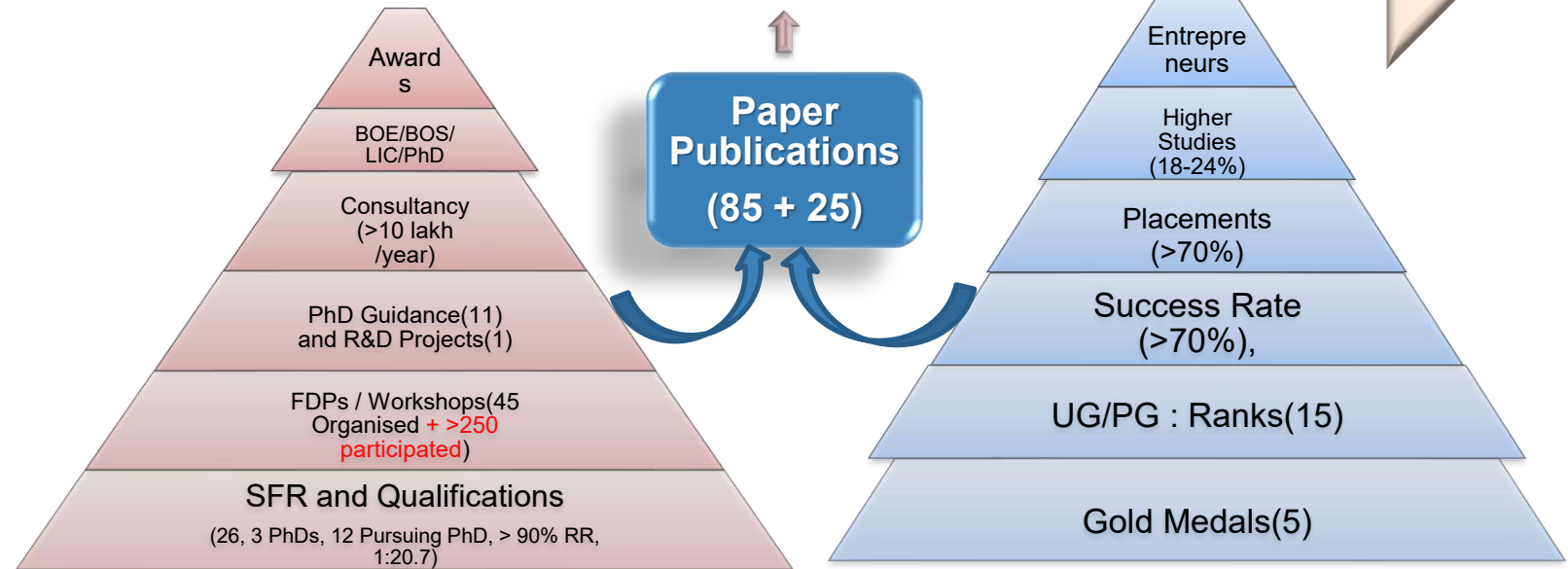
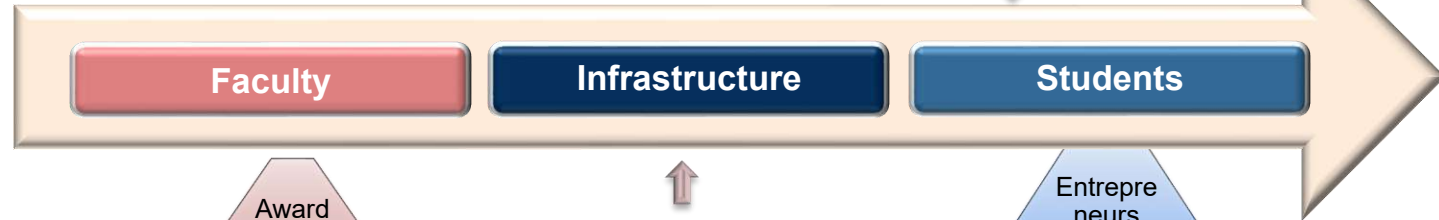
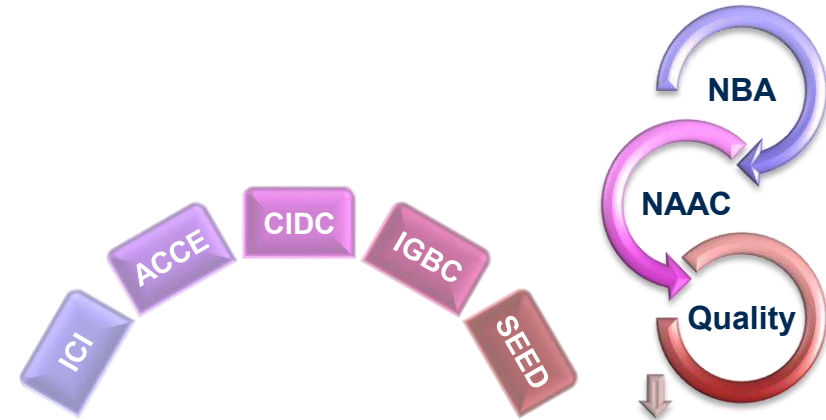
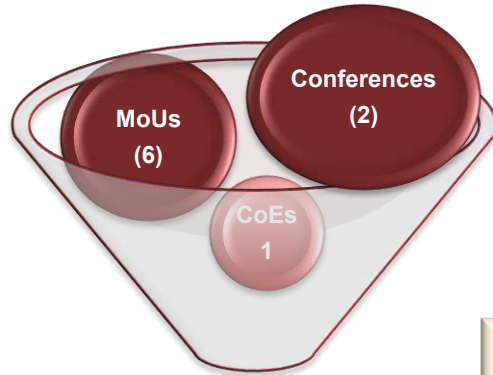
HOD Profile

Department Profile

Department Achievements

Faculty Achievements

Students Achievements



# Faculty / Student's Achievements

HOD Profile

FDP's / Workshops / Conference / Seminars Attended **>250**

FDP's / Workshops / Conference / Seminars Organised **45**

**Societal Cause** **10**

Interaction with Outside World / MoUs **10**

**Funded Projects** **10**

**Consultancy** **>10 Lakh/Year**

**LIC / BOS / BOE** **02**

**Awards** **15**

**Publications** **85**

**University Ranks** **15**

**Gold Medals** **05**

**Placements** **>70%**

**Sports** **05**

**Cultural** **05**

**Internships** **>10 Lakh/Year**

**Higher Studies** **20%**

**Success Rate** **>70%**

**Publications** **25**

Department Profile

Department Achievements

Faculty Achievements

Students Achievements



# Department Level Achievements

Vision & Mission

PEOs

PSOs

## Institution

Vision

*Preparing Competent Engineering and Management Professional to Serve the Society*

Mission

- ❖ Providing Students with a Sound Knowledge in Fundamentals of their branch of Study.
- ❖ Promoting Excellence in Teaching, Training, Research and Consultancy.
- ❖ Exposing Students to Emerging Frontiers in various domains enabling Continuous Learning.
- ❖ Developing Entrepreneurial acumen to venture into Innovative areas.
- ❖ Imparting Value based Professional Education with a sense of Social Responsibility

## Department

Vision

*Building Competent Civil Engineers with a Societal Perspective*

Mission

- ❖ Providing Conducive Learning Environment focusing on Planning, Analysis, Design and Detailing of Sustainable Infrastructure
- ❖ Imparting Training, Research and Consultancy in Collaboration with Research Institutes and Industries
- ❖ Equipping Students with Employability Skills through Internships, Industrial Interactions and Field Visits
- ❖ Exploring Comprehensive Environmental Aware Solutions for Various Fields of Civil Engineering with Multidisciplinary Approach
- ❖ Imbibing Lifelong Learning, Professionalism and Ethics among Civil Engineering Students



# Department Level Achievements

Vision  
&  
Mission

PEOs

PSOs

## Program Educational Objectives (PEOs)

**PEO 1:** Succeed in their professional career in industries / public sector / as Entrepreneur

**PEO 2:** Engage in continuous learning to be competitive in ever changing world

**PEO 3:** Design cost effective and sustainable civil engineering structures conforming to standards

## Program Specific Outcomes (PSOs)

**PSO 1:** Apply Civil Engineering knowledge in Analysis, Design, Laboratory Investigations & Construction Aspects

**PSO 2:** Solve Problems in various fields of Civil Engineering with appropriate Construction Materials & Technology



# Criterion-2 Program Curriculum & TLP

Curriculum

Curriculum Compliance

Process to identify gaps

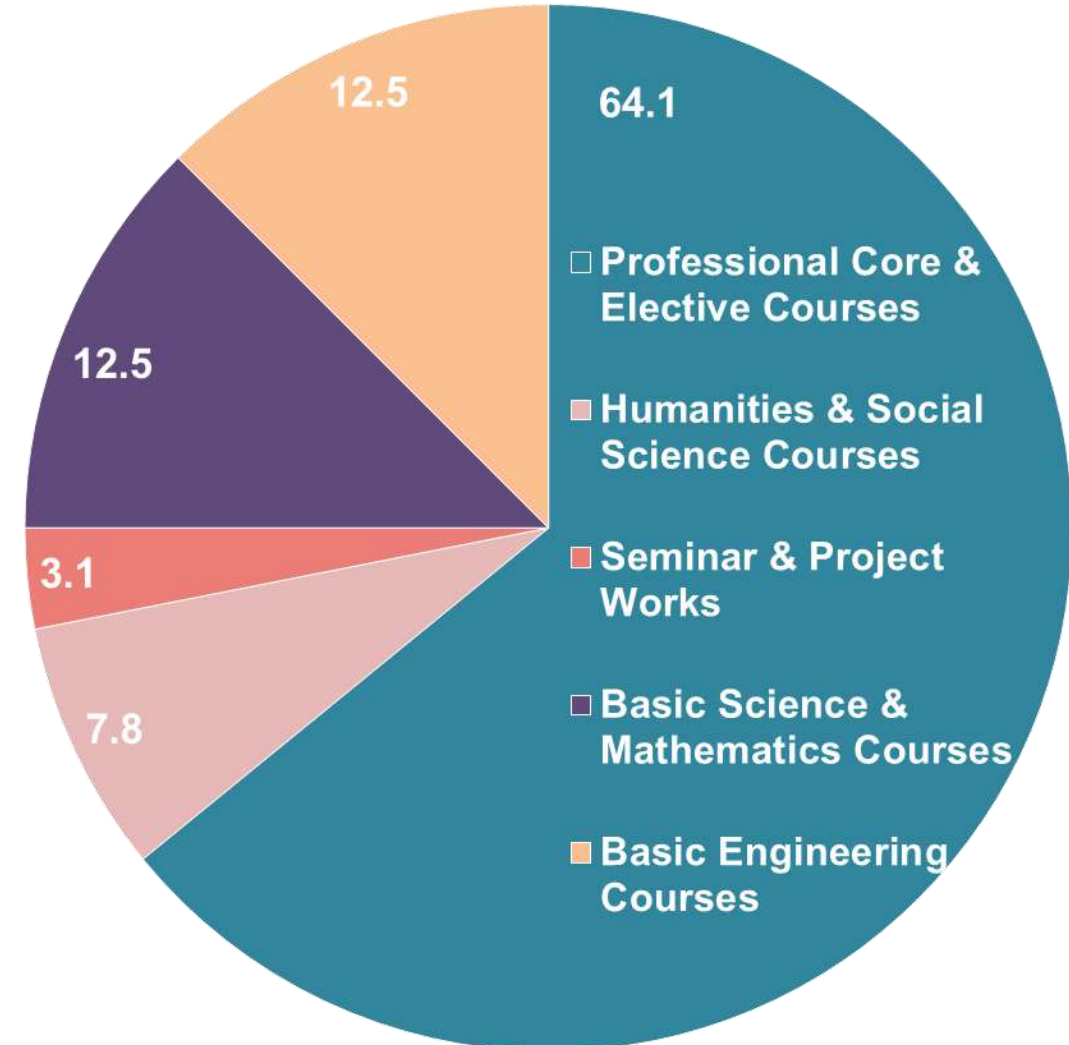
Teaching Learning Process



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## VTU SCHEMES OF STUDY

Scheme	Year of Study	Semester	Evaluation
2015	2015-19	Graduated	80 (SEE) + 20 (CIE)
2015	2016-20		
2017	2017-21	Graduated	60 (SEE) + 40 (CIE)
2018	2018-22	VII	60 (SEE) + 40 (CIE)
2018	2019-23	V	
2018	2020-24	III	



# Criterion-2 Program Curriculum & TLP

Curriculum

Curriculum Compliance

Process to identify gaps

Teaching Learning Process

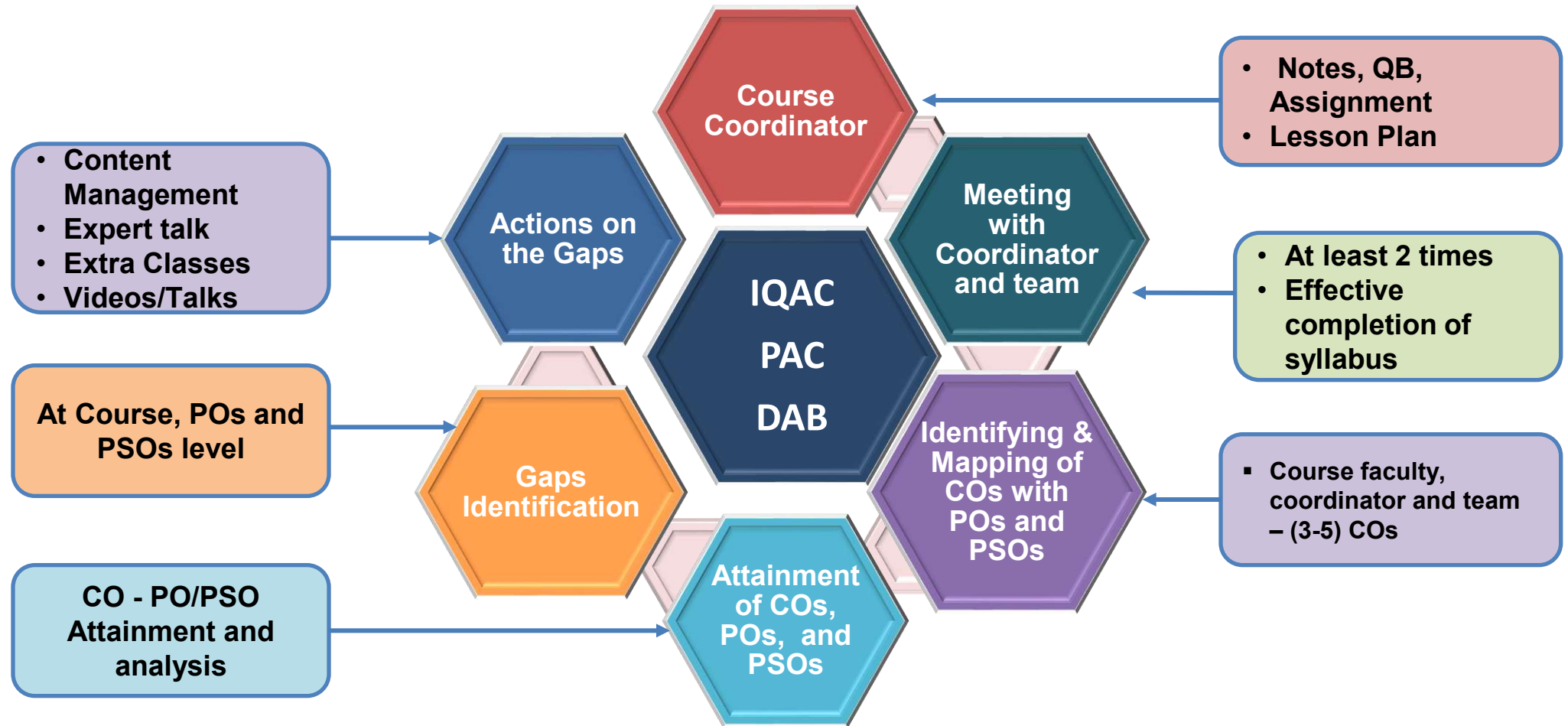


Figure : Compliance of the University Curriculum with POs and PSOs



# Criterion-2 Program Curriculum & TLP

Curriculum

Curriculum Compliance

Process to identify gaps

Teaching Learning Process

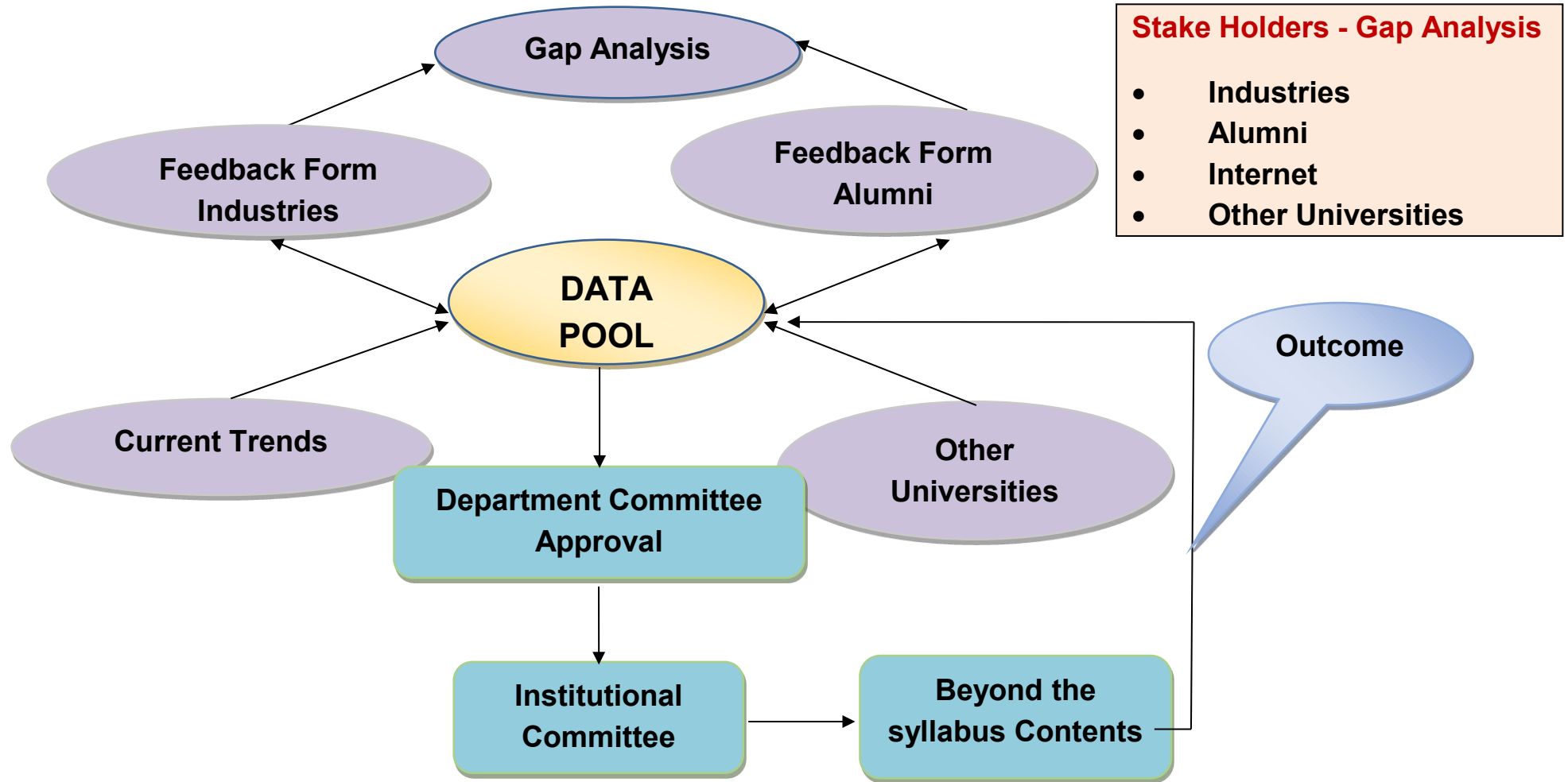


Figure : Process to Identify the Curriculum Gaps



# Criterion-2 Program Curriculum & TLP

Curriculum

Curriculum Compliance

Process to Identify gaps

Teaching Learning Process

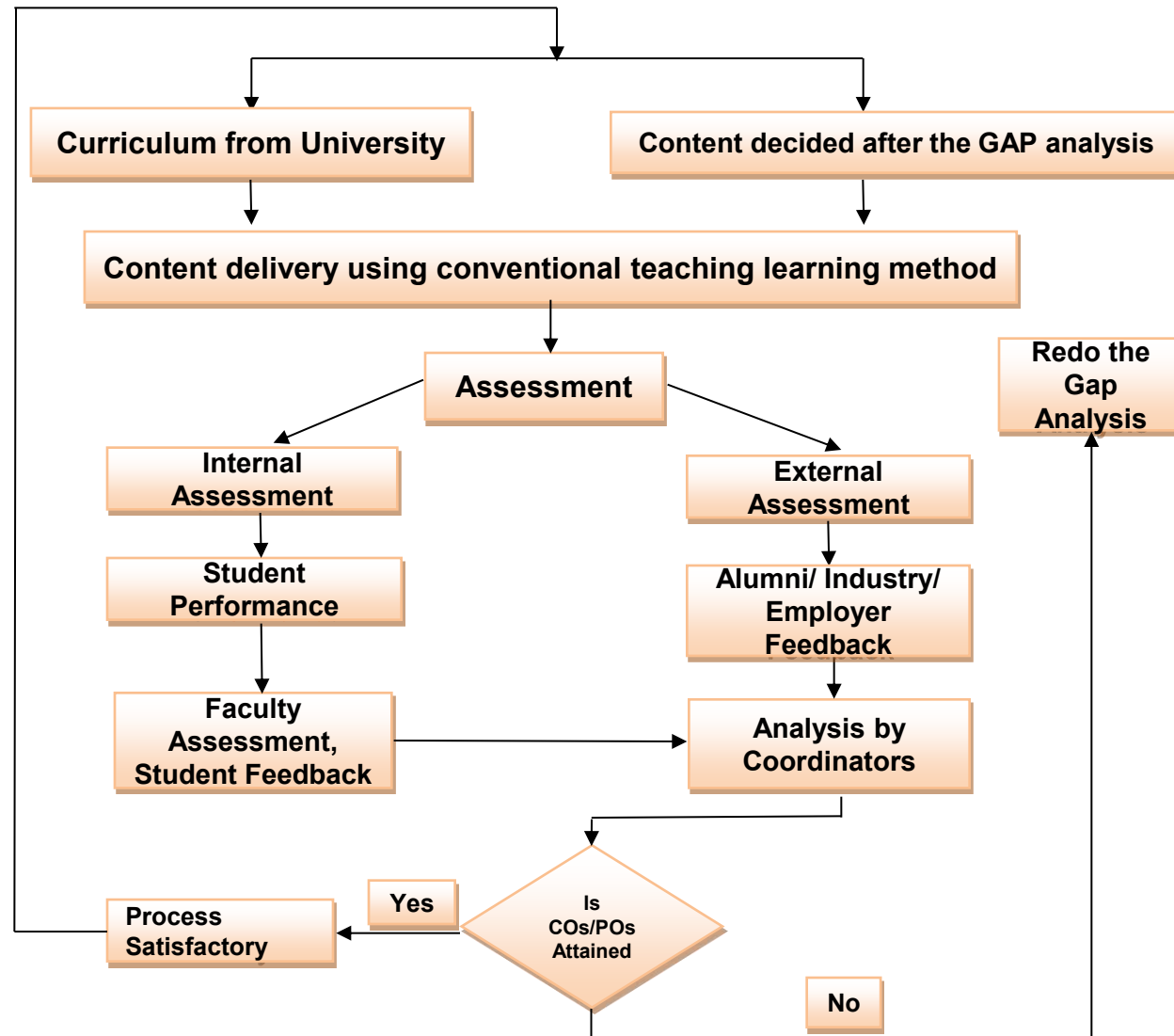


Figure : Process for Assessment on Gap Analysis



# Criterion-2 Program Curriculum & TLP

Curriculum

Curriculum Compliance

Process to identify gaps

Teaching Learning Process

Teaching & Learning Quality

Improve Quality of Teaching-Learning

- Calendar of Events
- **Induction Programme**
- Preparation of Notes, QB
- **SMS on attendance, performance**
- Counseling
- **Extra classes**
- Recognition of weak / bright students
- **Feedback**
- Analysis/Actions

Quality of IA QP, Assignment, Quiz, Evaluation

- Standard Template for QP
- **Covering CBLs and COs**
- QP scrutiny
- **HOD Approval**
- Exercise Problems
- **Standard assignment questions**
- Scheme and Solutions for QP
- **CIE books scrutiny**
- Evaluation in Lab
- **Academic Audit by IQAC**

Quality of Student Projects

- Identification / Allocation of Projects
- **Synopsis Submission**
- Screening of Synopsis
- **Evaluation of Project work at two phases**
- Weekly Monitoring by Guide, Coordinator & HoD
- **Project Open House Project exhibition**
- Evaluation by Industry experts
- **Best Project Awards**

Industry Interactions

- Inviting Experts on various occasions
- **Training to Faculty**
- NPTEL
- **CoE in Software's**
- AutoCADD, E Tabs, StaDD Pro
- **Certification Programs**
- Technical Talks
- **Student Mentoring Program**
- Industrial visits
- **Internships**
- Employability Sessions
- **Workshops on latest trends**
- STTPS



# Criterion-2 Program Curriculum & TLP

Curriculum

Curriculum Compliance

Process to identify gaps

Teaching Learning Process

Collaboration  
(Industrial /Institutional)  
- MoU



Sl. No.	Name of the company with address	Year MOUs	Activity conducted
1.	CIDC, New Delhi	04/12/2021	Intenship,FDP
2.	Edu CADD Learning Solution	02/11/2021	Modern Tool Usage
3	Sir M V Institute of Engineering Skills	24/02/2021	Industry Setup laboratory
4	Indian Green Building Council (IGBC) Student Chapter	05/09/2018	To enable a sustainable built environment
5	Prayojana construction Management Training Institute, Bangalore	06/03/2018	Internship & employability
6	EDUCAD, Jayanagar Branch	12/03/2018	Software training (Modern tool usage)
7	Association of Consulting Civil Engineers (India)	12/08/2016	Student mentoring program
8	Bhabha Atomic Research Centre Mumbai	28/06/2016	Technology Transfer
9	Bright Infotech	02/04/2016	Software Training
10	ICI Student Chapter	Feb /2014	Technical talks & Construction site visits



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# Criterion-3 Course Outcome, PO & PSO

Process to define CO

CO-PO/PSO Mapping

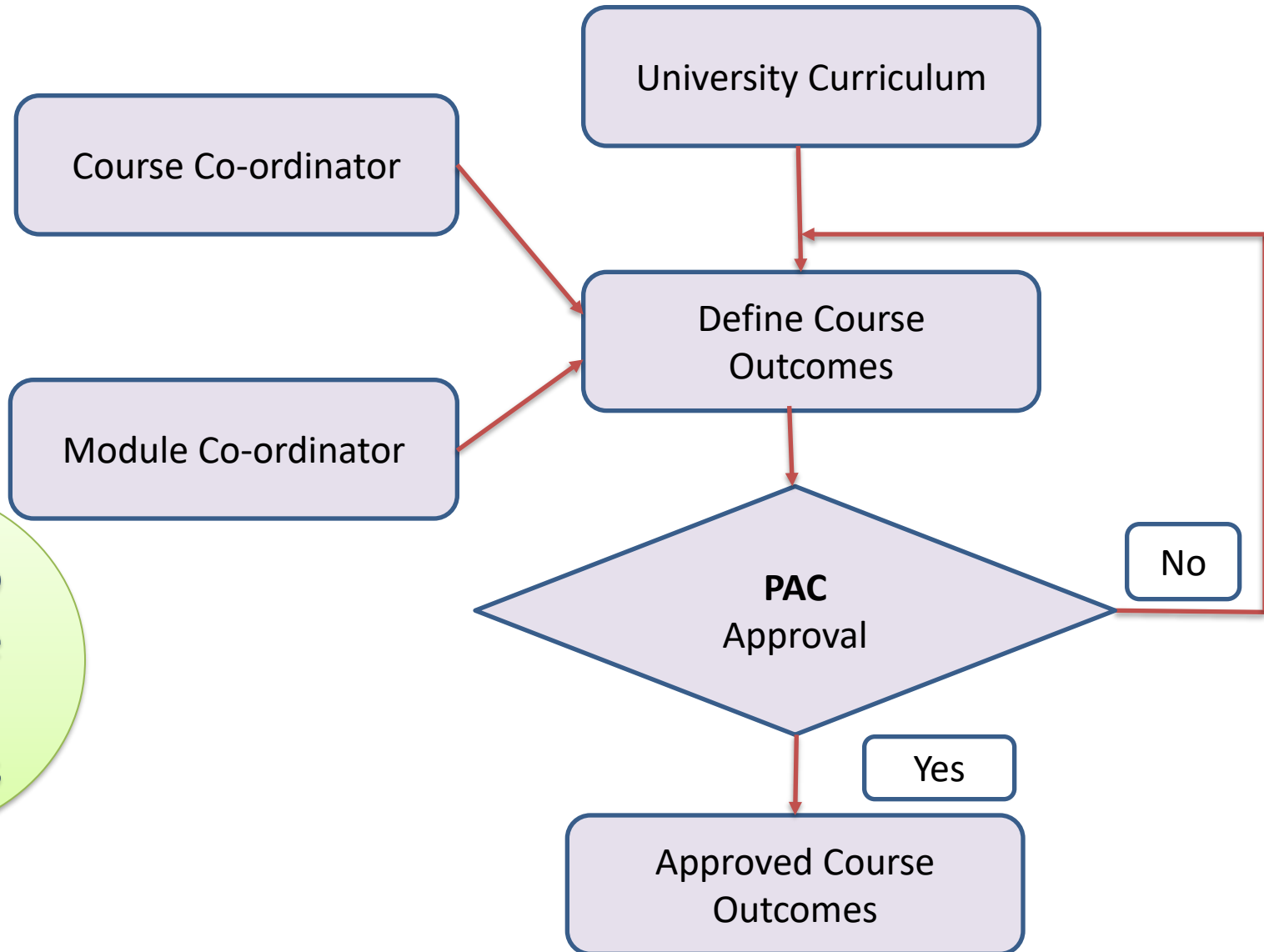
Process for PO/PSO Attainment

CO-PO/PSO Attainment



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Process to define the Course Outcomes



# Criterion-3 Course Outcome, PO & PSO

CO, PO and PSO Mapping

Course Code: **17CV32**

Course Name: **Strength of Materials [17CV32]**

CO1: Interpret the stresses and strains for different materials

CO2: Apply the concept for compound stresses, thick and thin cylinders

CO3: Analyze the statically determinate beams

CO4: Assess the members subjected to torsion and failure theories

CO5: Analyze compression members subjected to axial loads

Process to  
define CO

CO-PO/PSO  
Mapping

Process for  
PO/PSO  
Attainment

CO-PO/PSO  
Attainment

CO/PO	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2
C202.1	3	2	-	-	-	1	-	1	-	-	-	1	2	1
C202.2	2	3	1	-	-	-	-	-	-	-	-	-	2	1
C202.3	3	3	1	-	1	-	-	-	-	-	-	2	2	1
C202.4	2	1	1	-	-	-	-	-	-	-	-	-	2	1
C202.5	2	3	1	-	-	-	-	-	-	-	-	1	2	1
<b>C202 Avg</b>	<b>2.4</b>	<b>2.4</b>	<b>1.0</b>	<b>-</b>	<b>1.0</b>	<b>1.0</b>	<b>-</b>	<b>1.0</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>1.33</b>	<b>2.0</b>	<b>1.0</b>





# Criterion-3 Course Outcome, PO & PSO

Test #			TEST-1				
Q #			Q1	Q2	Q3	Q4	Q5
CO #			CO1	CO1	CO2	CO2	CO1
Sub Q #			1 OR 2	3 OR 4	5 OR 6	7 OR 8	9 OR 10
Max. Marks			10	10	10	10	10
1	ABILASH K R	1SJ17CV001	9	10	10	10	
2	AKSHAY N HADIMANI	1SJ17CV002	10	10	8	10	10
3	ALIASGAR KHOJA	1SJ17CV003	10	7	10	10	10
4	ANKITHA REDDY R	1SJ17CV004	10	10	10	10	8
5	ARCHANA B C	1SJ17CV005	8	10	9	8	8

Assignment	End Term				Course End Survey				
	Internal	Total	External	Total	Q1	Q2	Q3	Q4	Q5
10	30	40	60	100	CO1	CO2	CO3	CO4	CO5
10	22	32	41	73	3	3	2	3	3
10	15	25	44	69	3	2	2	3	2
10	15	25	40	65	3	3	3	3	3
10	27	37	52	89	2	2	2	2	2
10	26	36	45	81	3	3	3	3	3

Process to define CO

CO-PO/PSO Mapping

Process for PO/PSO Attainment

CO-PO/PSO Attainment

$(\text{Obtained Marks} / \text{Max. Marks}) * 100$

IF (%>=70,Level 3, >=60,2, >=50,1,<50,0)

IF (%>=60,Level 3, >=50,2, >=40,1,<40,0)

90	100	100	100	0
100	100	80	100	100
100	70	100	100	100
100	100	100	100	80
80	100	90	80	80

SUM

3	3	3	3	0
3	3	3	3	3
3	3	3	3	3
3	3	3	3	3
3	3	3	3	3
SUM	15	15	15	12

SUM

Assignment			SEE		
10	100	3	41	68	3
10	100	3	44	73	3
10	100	3	40	67	3
10	100	3	52	87	3
10	100	3	45	75	3
SUM		15			15

Levels	15	15	15	15	12
No. of Students Attended	5	5	5	5	4



# Criterion-3 Course Outcome, PO & PSO

CO Attainment Table

	40	50	10	
	CIE	SEE	CES	ATTIN
CO1	2.80	1.20	2.60	2.0
CO2	0.80	1.20	2.50	1.20
CO3	1.20	1.20	2.40	1.30
CO4	2.00	1.20	2.40	1.60
CO5	1.90	1.20	2.40	1.60

Process to define CO

CO-PO/PSO Mapping

Process for PO/PSO Attainment

CO-PO/PSO Attainment



$$\text{Attainment} = 0.4 \cdot \text{CIE} + 0.5 \cdot \text{SEE} + 0.1 \cdot \text{CES}$$

$$\text{Attainment} = 0.4 \cdot 2.80 + 0.5 \cdot 1.20 + 0.1 \cdot 2.60$$

$$\text{PO} = \text{CO Attained value} \cdot \text{CO PO Matrix value}$$

CO - PO/PSO - MATRIX

CO/PO/PSO	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2
C202.1	3	2	-	-	-	1	-	1	-	-	-	1	2	1
C202.2	2	3	1	-	-	-	-	-	-	-	-	-	2	1
C202.3	3	3	1	-	1	-	-	-	-	-	-	2	2	1
C202.4	2	1	1	-	-	-	-	-	-	-	-	-	2	1
C202.5	2	3	1	-	-	-	-	-	-	-	-	1	2	1
<b>C202 Avg</b>	<b>2.4</b>	<b>2.4</b>	<b>1.0</b>	<b>-</b>	<b>1.0</b>	<b>1.0</b>	<b>-</b>	<b>1.0</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>1.33</b>	<b>2.0</b>	<b>1.0</b>

CO - PO/PSO - ATTAINMENT

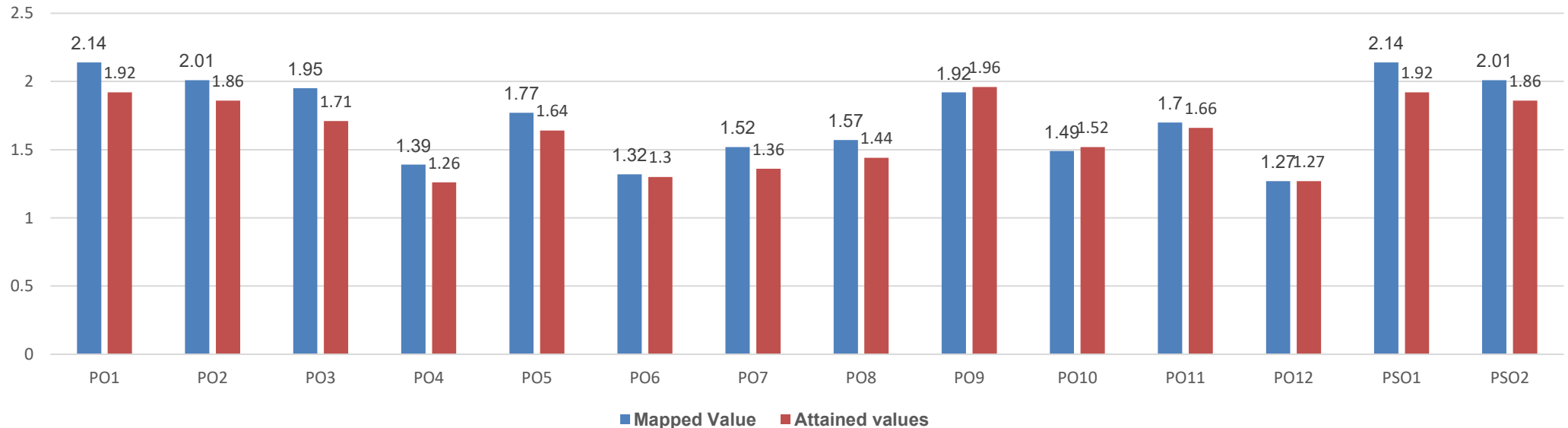
CO ATTAINED VALUE	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2
2	6	4				2		2				2	4	2
1.2	2.4	3.6	1.2										2.4	1.2
1.3	3.9	3.9	1.3		1.3							2.6	2.6	1.3
1.6	3.2	1.6	1.6										3.2	1.6
1.6	3.2	4.8	1.6									1.6	3.2	1.6
<b>SUM</b>	<b>18.7</b>	<b>17.9</b>	<b>5.7</b>		<b>1.3</b>	<b>2</b>		<b>2</b>				<b>6.2</b>	<b>15.4</b>	<b>7.7</b>
<b>ATTAINED</b>	<b>1.25</b>	<b>1.19</b>	<b>0.48</b>		<b>0.43</b>	<b>0.67</b>		<b>0.67</b>				<b>0.69</b>	<b>1.03</b>	<b>0.51</b>

# Criterion-3 Course Outcome, PO & PSO

## Attainment of CO-PO & PSO for AY 2017-21

2017-21	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2
Mapped Value	2.14	2.01	1.95	1.39	1.77	1.32	1.52	1.57	1.92	1.49	1.70	1.27	2.14	2.01
Attained values	1.92	1.86	1.71	1.26	1.64	1.30	1.36	1.44	1.96	1.52	1.66	1.27	1.92	1.86

### PO AND PSO ATTAINMENT



Process to define CO

CO-PO/PSO Mapping

Process for PO/PSO Attainment

CO-PO/PSO Attainment



# Criterion-4

# Student's Performance

## STUDENTS ENROLLMENT

Item (Information to be provided cumulatively for all the shifts with explicit headings, wherever applicable)	CAY (2020-21)	CAY m1 (2019-20)	CAY m2 (2018-19)
Sanctioned intake of the program ( <i>N</i> )	120	120	120
Total number of students admitted in first year <i>minus</i> number of students migrated to other programs/ institutions plus no. of students migrated to this program ( <i>N1</i> )	42	56	107
Number of students admitted in 2nd year in the same batch via lateral entry ( <i>N2</i> )	0	20	20
Separate division students, if applicable ( <i>N3</i> )	0	0	0
Total number of students admitted in the Program ( <i>N1 + N2 + N3</i> )	<b>42</b>	<b>76</b>	<b>127</b>
Enrolment Ratio= $N1/N$	0.35	0.47	0.89
<b>Average Enrolment Ratio</b>	<b>0.5695= 56.95 %</b>		

Enrolment Ratio

Success rate

Academic performance

After graduation

News letter

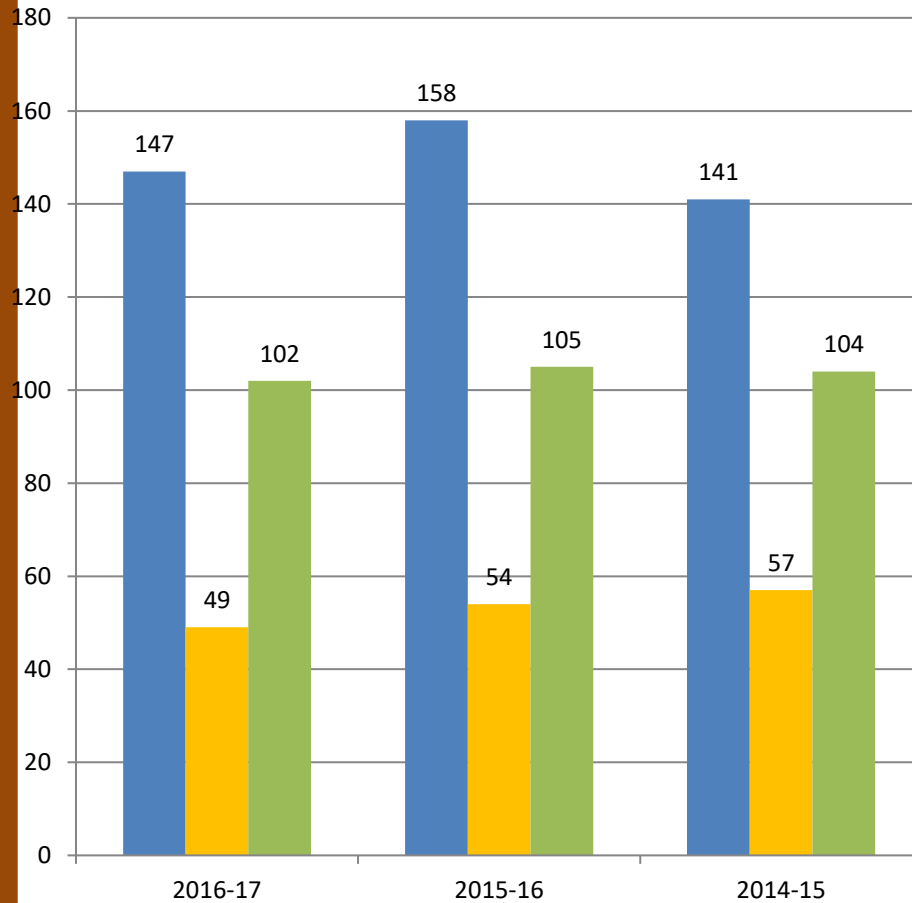


Students activities

# Criterion-4

# Student's Performance

## Success Rate of Students within Stipulated Period of Study



■ Total number of students

■ Number of students graduated without backlogs

■ Number of students graduated with and without backlogs

Average SI = 0.36

Success rate without backlogs =  $0.36 * 25 = 9$

Average SI = 0.70

Success rate with backlogs =  $0.70 * 15 = 10.45$

Enrolment Ratio

Success rate

Academic performance

After graduation

News letter



Students activities

# Criterion-4

# Student's Performance

## ACADEMIC PERFORMANCE IN THIRD YEAR

Academic Performance	CAYm1 2019-20 (2017-18)	CAYm2 2018-19 (2016-17)	CAYm3 2017-18 (2015-16)
Mean of CGPA or Mean Percentage of all successful students (X)	7.69	6.88	7.35
Total no. of successful students (Y)	99	106	111
Total no. of students appeared in the examination (Z)	99	111	111
API = $X * (Y/Z)$	7.69	6.57	7.35
<b>Average API = <math>(AP1 + AP2 + AP3)/3</math></b>	<b>7.20</b>		
<i>Academic Performance = 1.5 * Average API</i>	<i>1.5 * 7.20 = 10.8</i>		

## ACADEMIC PERFORMANCE IN SECOND YEAR

Academic Performance	CAYm1 2019-20 (2018-19)	CAYm2 2018-19 (2017-18)	CAYm3 2017-18 (2016-17)
Mean of CGPA or Mean Percentage of all successful students (X)	7.04	6.40	6.12
Total no. of successful students (Y)	102	99	111
Total no. of students appeared in the examination (Z)	105	114	123
API = $X * (Y/Z)$	6.84	5.56	5.52
<b>Average API = <math>(AP1 + AP2 + AP3)/3</math></b>	<b>5.97</b>		
<i>Academic Performance = 1.5 * Average API</i>	<i>1.5 * 5.97 = 8.96</i>		

Enrolment  
Ratio

Success rate

Academic  
performance

After  
graduation

News letter

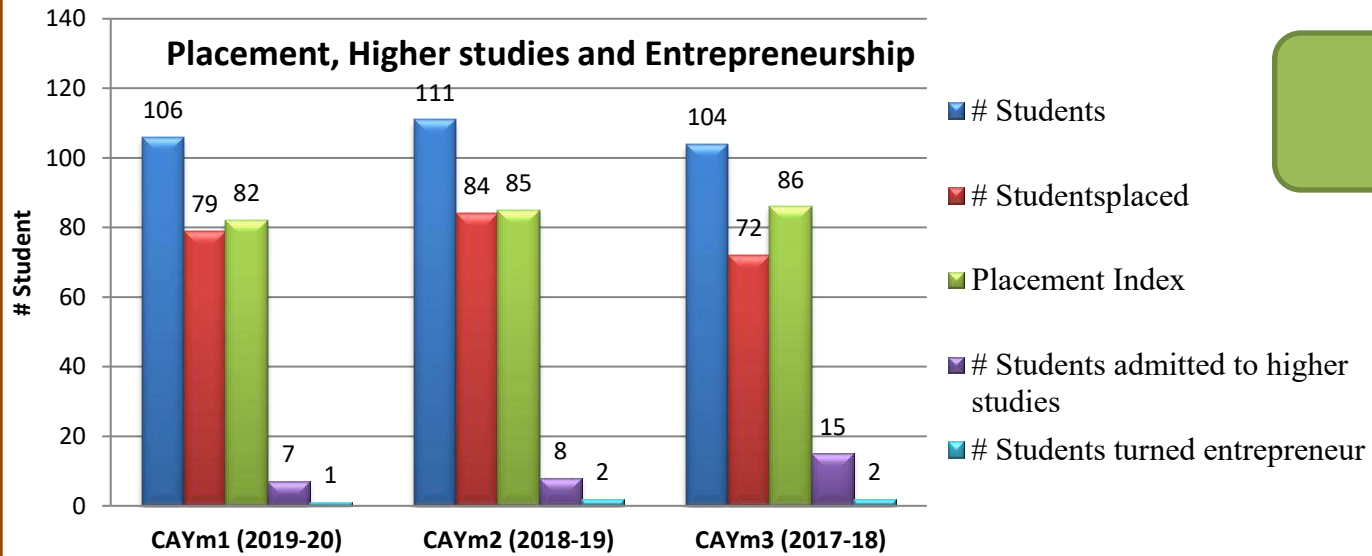


Students  
activities

# Criterion-4

# Student's Performance

Item	CAYm1 (2019-20)	CAYm2 (2018-19)	CAYm3 (2017-18)
Total No. of Final Year Students (N)	106	111	104
No. of students placed in companies or Government Sector (x)	79	84	72
No. of students admitted to higher studies with valid qualifying scores (GATE or equivalent State or National Level Tests, GRE, GMAT etc.) (y)	07	08	15
No. of students turned entrepreneur in engineering/technology (z)	01	02	02
$x + y + z =$	87	94	89
Placement Index : $(x + y + z) / N$	0.82	0.85	0.86
Average placement = $(P1 + P2 + P3) / 3$	<b>0.84</b>		
<b>Assessment Points = <math>40 * \text{Average Placement}</math></b>	<b><math>40 * 0.84 = 33.73</math></b>		



**Placement, Higher studies and Entrepreneurship**

**Assessment Points = 33.73**

Enrolment Ratio

Success rate

Academic performance

After graduation

News letter



Students activities

# Criterion-4

# Student's Performance

## College Magazine and News Letter



Enrolment Ratio

Success rate

Academic performance

After graduation

News letter

Students activities

# Criterion-4

# Student's Performance

## Students Activities

- Organizing Conference, Technical Talks and Workshops.
- Professional Societies – IGBC , ICI , ACCE
- Project Exhibition.
- Participation in Sports and Cultural evets.
- Students participation in inter and intra institutions activities.

Enrolment  
Ratio

Success rate

Academic  
performance

After  
graduation

News letter

Students  
activities

# Criterion-4

# Student's Performance

Enrolment  
Ratio

Success rate

Academic  
performance

After  
graduation

News letter



Students  
activities

SJCIT - CED

## Student Chapter Activities

### MANTHANA – National Conference



### INNERVE – Technical Fest





# Criterion-5 Faculty Information & Contribution

Faculty List

SFR &  
Qualification

FCP  
Retention

FDP

R & D

Consultancy

Faculty  
Appraisal



SJCIT - CED

Sl. No.	Name of the Faculty	Designation	Qualification	Joining Date	Experience	Specialization
1	Dr. G Narayana	Prof. & HOD	Ph.D	15/10/1998	24	Construction Technology/ Structural Engineering
2	Dr. Sidde Gowda	Professor	Ph.D	06/02/1991	31	MURP
3	Dr. G Ranganatha Gowda	Asso. Prof.	Ph. D	01/07/1996	33	Geology
4	Mr. Ravindra M V	Asso. Prof.	(Ph.D)	09/06/2012	18	Environmental Engineering
5	Mr. Shashi Kumar A	Asso. Prof.	(Ph.D)	08/07/2011	17.5	Structural Engineering
6	Mrs. Sharada S A	Asst. Prof.	ME	09/06/2012	16	Structural Engineering
7	Mr. Kiran K M	Asst. Prof.	(Ph.D)	29/12/2011	11.5	Geotechnical Engineering
8	Mr. Manjunath K A	Asst. Prof.	(Ph.D)	17/02/2012	11.5	Earth Quake Engineering
9	Ms.Vathsala.M.N	Asst. Prof.	(Ph.D)	19/09/2011	10.6	Environmental Engineering
10	Mr. Raghu K	Asst. Prof.	(Ph.D)	04/06/2012	12.5	CAD Structures
11	Mrs. Chandrakala S	Asst. Prof.	M.Tech	08/08/2012	12	Structural Engineering
12	Mr. Rajeeva S J	Asst. Prof.	(Ph.D)	08/08/2012	10	Transportation (Rastha)
13	Mr. Arun Kumar C J	Asst. Prof.	(Ph.D)	01/08/2013	11.5	Structural Engineering
14	Mrs. Bhavya S	Asst. Prof.	(Ph.D)	10/02/2014	10	Structural Engineering
15	Mr. Shashi Kumar N V	Asst. Prof.	(Ph.D)	21/07/2014	9	Structural Engineering

# Criterion-5 Faculty Information & Contribution

Faculty List

SFR &  
Qualification

FCP  
Retention

FDP

R & D

Consultancy

Faculty  
Appraisal



SJCIT - CED

Sl. No.	Name of the Faculty	Designation	Qualification	Joining Date	Experience	Specialization
16	Mr. Ravi Kiran B	Asst. Prof.	M.Tech	02/08/2014	9	Structural Engineering
17	Mr. Manjunatha N	Asst. Prof.	M.Tech	04/08/2014	9	Transportation
18	Mr. Sathish Y A	Asst. Prof.	(Ph.D)	27/07/2015	11.5	Transportation
19	Mr. Kamath G M	Asst. Prof.	(Ph.D)	29/07/2015	8	Environmental Engineering
20	Mr. Ravindranath C	Asst. Prof.	(Ph.D)	01/08/2015	8	Water Resources Engineering
21	Ms. Sushma M	Asst. Prof.	M.Tech	01/08/2015	8	Remote Sensing and GIS
22	Mrs. Ankitha V	Asst. Prof.	M.Tech	01/08/2016	6	Water Resources Engineering
23	Mr. Suhas K B	Asst. Prof.	(Ph.D)	03/02/2017	5	Construction Technology
24	Mr. Mohan N	Asst. Prof.	(Ph.D)	09/02/2017	5.5	Transportation
25	Mr Sachin H R	Asst. Prof.	M.Tech	02/02/2017	5	Highway Engineering
26	Mr. Chethan G N	Asst. Prof.	M.Tech	24/04/2017	5	Infrastructure Engineering and Management
27	Mr Rakesh M R	Asst. Prof.	M.Tech	03/10/2017	5	Structural Engineering
28	Mr Anjeneya Murthy	Asst. Prof.	(Ph.D)	01/02/2017	18	Structural Engineering

# Criterion-5 Faculty Information & Contribution

Faculty List

SFR & Qualification

FCP Retention

FDP

R & D

Consultancy

Faculty Appraisal



SJCIT - CED

## Student Faculty Ratio

Year	CAY (2020-21)	CAYm1 (2019-20)	CAYm2 (2018-19)
Total No. of Students in the Department(S)	507	514	532
No. of Faculty in the Department (F)	26	27	28
Student Faculty Ratio (SFR)	19.50	19.03	19.00
Average SFR	<b>19.18</b>		

## Faculty Qualification

	X	Y	F	$FQ = 2.5 \times [(10X + 4Y) / F]$
2020-21 (CAY)	2	24	25	11.60
2019-20 (CAYm1)	2	25	25	12.00
2018-19 (CAYm2)	3	25	27	12.50
Average FQI				<b>12.03</b>

## Faculty Cadre Proportion

Year	Professors		Associate Professors		Assistant Professors	
	Req F1	Available	Req F2	Available	Req F3	Available
CAY (2020-21)	2	2	5	0	16	23
CAYm1(2019-20)	2	2	5	0	17	24
CAYm2 (2018-19)	2	3	5	0	17	24
Average Numbers	RF1=2	AF1=2.33	RF2=5	AF2=0	RF3=16.67	AF3=23.67

**Faculty Cadre Proportion = 22**

## Faculty Retention

Description	2020-21	2019-20
No of Faculty Retained	25	26
No. of faculty in base year CAYm2 2018-19	27	27
% of Faculty Retained	93	96
Average Percentage Faculty Retention	<b>94.50</b>	

# Criterion-5 Faculty Information & Contribution

Faculty List

SFR & Qualification

FCP Retention

FDP

R & D

Consultancy

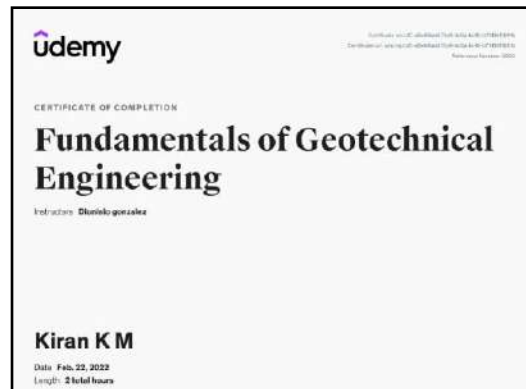
Faculty Appraisal



SJCIT - CED

## PARTICIPATION OF FACULTY MEMBERS IN FDP / TRAINING ACTIVITIES/STTP

Year	2019-20	2018-19	2017-18
Sum	94	88	103
RF=Number of Faculty required to comply with 20:1 Student-Faculty ratio as per 5.1	25.35	25.70	26.60
Assessment=3×(Sum/0.5RF) (Marks limited to 15)	22.25	20.54	23.46
Average assessment over three years (Marks limited to 15)	<b>22.08</b>		



# Criterion-5 Faculty Information & Contribution

Faculty List

SFR & Qualification

FCP Retention

FDP

R & D

Consultancy

Faculty Appraisal

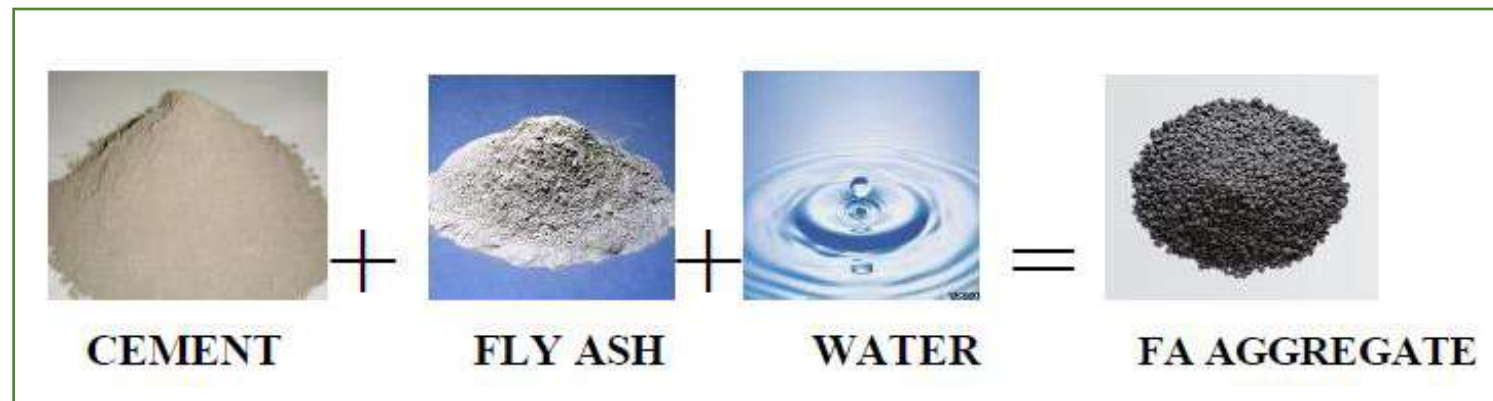


SJCIT - CED

R & D Center Establishment year	No. of Research Guide	No. of Scholars registered	Patents Applied
2012	02	11	02

## Patents

Sl. No.	Name of the Guide	Name of the Student	Title of the research work	Application No.
1	Dr. G Narayana	Mr. Naveen M P	Manufacturing Process of Geopolymer Aggregate	201741013352
2	Dr. G Narayana	Mr. Naveen M P	Method of producing Alkali Activated fine and coarse aggregate(AAC) of various sizes	202241009021



# Criterion-5 Faculty Information & Contribution

**Table : Research activities at SJCIT Research Center**

SI No	Guide	Name of the research scholar	Year of Registration	University	Status		
					Course work completed Y/N	Comprehensive viva voce completed Y/N	Final thesis submitted Y/N
1	Dr. G Narayana	Mr. Shashi Kumar A	2013	VTU	Y	Y	N
		Mr. Rajeeva S J	2015	VTU	N	N	N
		Mrs. Shilpa B R	2015	VTU	Y	Y	N
		Mr. K Raghu	2016	VTU	Y	Y	N
		Mr. Naveena M P	2016	VTU	Y	Y	N
		Mr. Kamath G M	2017	VTU	Y	Y	N
2	Dr. Sidde Gowda	Mr. Sathish Y A	2015	VTU	Y	Y	N
		Mr. Ravindra S L	2015	VTU	Y	Y	N
		Jyothi M R	2018	VTU	Y	Y	N
		Mr Suhas K B	2019	VTU	Y	Y	N
		Pasupula Madan Mohan Reddy	2019	VTU	Y	Y	N

Faculty List

SFR & Qualification

FCP Retention

FDP

R & D

Consultancy

Faculty Appraisal

# Criterion-5 Faculty Information & Contribution

Table : Details Of Ph.D. Pursuance By The Department Faculties

Sl. No.	Name of the research scholar	Guide	University	Status		
				Course work completed Y/N	Comprehensive viva voce completed Y/N	Final thesis submitted Y/N
1	Mr. M V Ravindra	Dr. H S Nanda	VTU	Y	Y	N
2	Mr. Shashi Kumar A	Dr. G Narayana	VTU	Y	Y	N
3	Mr. Kiran K M	Dr. M B Ananthaiah	VTU	Y	Y	N
4	Mr. Manjunath K A	Dr. S Rajendra	VTU	Y	N	N
5	Ms. Vathsala M N	Dr. Maya Nayak	VTU	Y	N	N
6	Mr. K Raghu	Dr. G Narayana	VTU	Y	Y	N
7	Mr. Rajeeva S J	Dr. G Narayana	VTU	N	N	N
8	Mr. Arun Kumar C J	Dr. S Rajendra	VTU	Y	Y	N
9	Mrs. Bhavya S	Dr. M B Ananthaiah	VTU	Y	N	N
10	Mr. Shashi Kumar N V	Dr. Gandarappa B M	VTU	Y	Y	N
11	Mr. Sathish Y A	Dr. Sidde Gowda	VTU	Y	Y	N
12	Mr. Ravidranath C	Dr. Veerappa Devaru	VTU	Y	Y	N
13	Mr. Kamath G M	Dr. Y Ramalinga Reddy & Dr. G Narayana	VTU	Y	Y	N
14	Mr. Mohan N	Dr. Sowmya	VTU	Y	N	N
15	Mr Suhas K B	Dr. SiddeGowda	VTU	Y	Y	N

Faculty List

SFR & Qualification

FCP Retention

FDP

R & D

Consultancy

Faculty Appraisal

# Criterion-5 Faculty Information & Contribution

Faculty List

SFR & Qualification

FCP Retention

FDP

R & D

Consultancy

Faculty Appraisal

SJCIT - CED

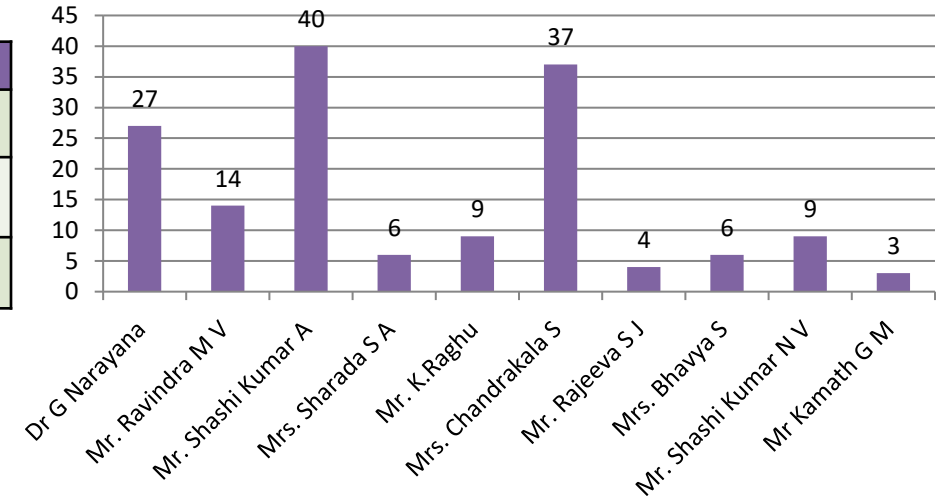
## Funded Projects

Sl. No.	Academic Year	Funding Agency	Total Amount [Rs]
1	2020-21	KSCST	19000.00
2	2019-20	KSCST	22500.00
3	2017-18	KSCST	5000.00

## Academic Research

Year	No. of publications
2020-21	22
2019-20	15
2018-19	24

## Citations



Sl. No.	Name of the Faculty	Title of the Project	Funding Agency	Amount	Duration
1	Ms. Vathasala M N	Air conditioning by geothermal heat pump	New Age Incubation Network	Rs 1,88,000	2018-19
2	Mr.Rajeeva S J	Pradhan Mantri Kaushal Vikas Yojana for Technical Institutes Mason Training Program	PMKVY	3,54,780	2017-18

**Total Amount Funded Projects During assessment period = 5,78,280**

# Criterion-5 Faculty Information & Contribution

Faculty List

SFR &  
Qualification

FCP  
Retention

FDP

R & D

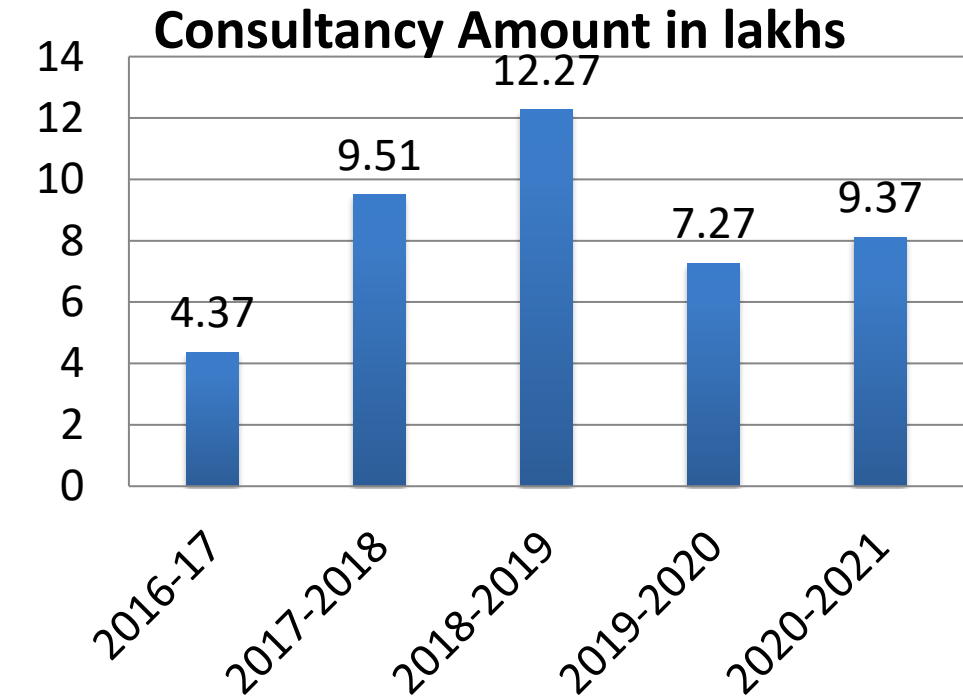
Consultancy

Faculty  
Appraisal

SJCIT - CED

## Agencies

- **Zilla Panchayat Engg.:** Subdivision Kolar, Chickballapur, Chintamani, Shidlaghatta, Bagepalli, Gudibande, Devanahalli, Srinivaspura, Malur, Mulbagilu, Gowribidanur, Bangarpet, Bangalore etc.
- **Public work Department :** Chickballapur District.
- **Town municipal Council**
- **TAPCMC- Chickballapur.**
- **Karnataka Urban Water Supply and Drainage Board**
- **Karnataka Slum clearance board.**



# Criterion-5 Faculty Information & Contribution

Faculty List

SFR &  
Qualification

FCP  
Retention

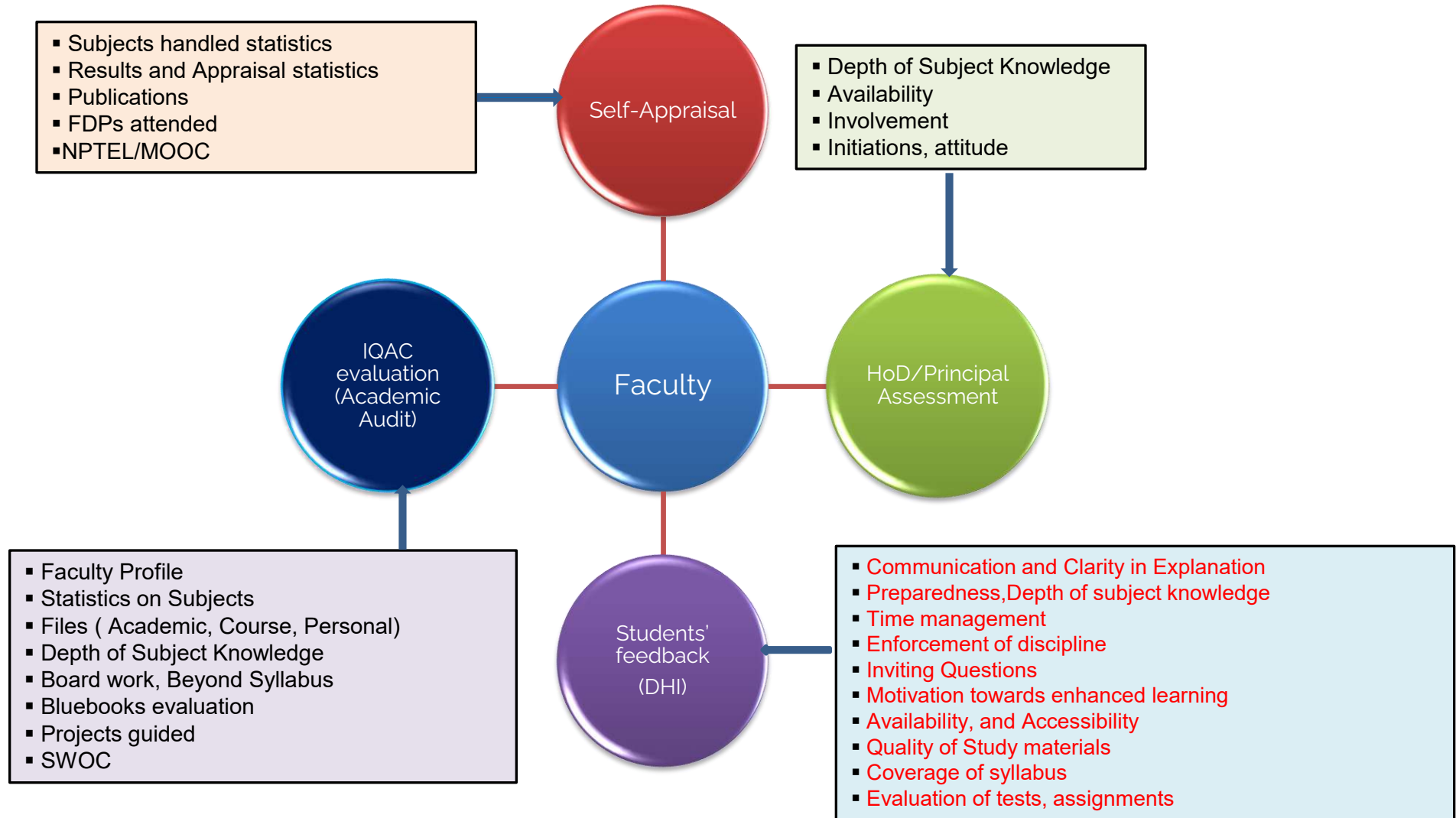
FDP

R & D

Consultancy

Faculty  
Appraisal

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# Criterion-6 Facilities & Technical Support

## Teaching Laboratories



**Material Testing Laboratory**  
Carpet area 147 Sq m



**Surveying Laboratory**  
Carpet area 47.60 Sq m

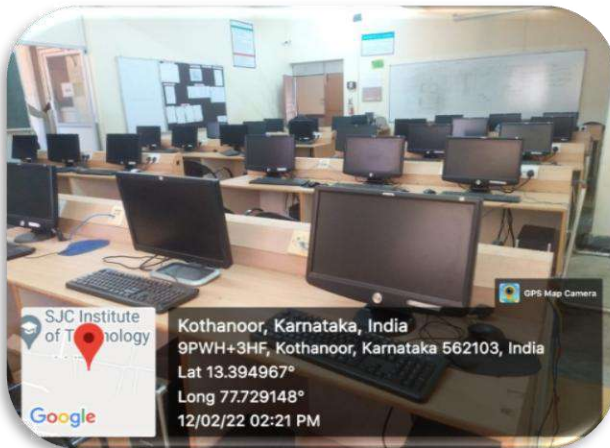


**Environmental Engineering Lab**  
Carpet area 147 Sq m



**Fluid Mechanics and Hydraulic Machines Laboratory**  
Carpet area 273.84 Sq m

## Other facilities



**CAD Laboratory**  
Carpet area 71.92 Sq m



**Concrete and Highway Material Testing Laboratory**  
Carpet area 147 Sq m



**Geotechnical Engineering Laboratory**  
Carpet area 147 Sq m

# Criterion-6 Facilities & Technical Support

Teaching Laboratories



Loading Frame



NDT Equipment's



Profometer

additional facilities



Ultrasonic Pulse Velocity Test



Shake Table



Rebound Hammer

# Criterion-7 Continuous Improvement

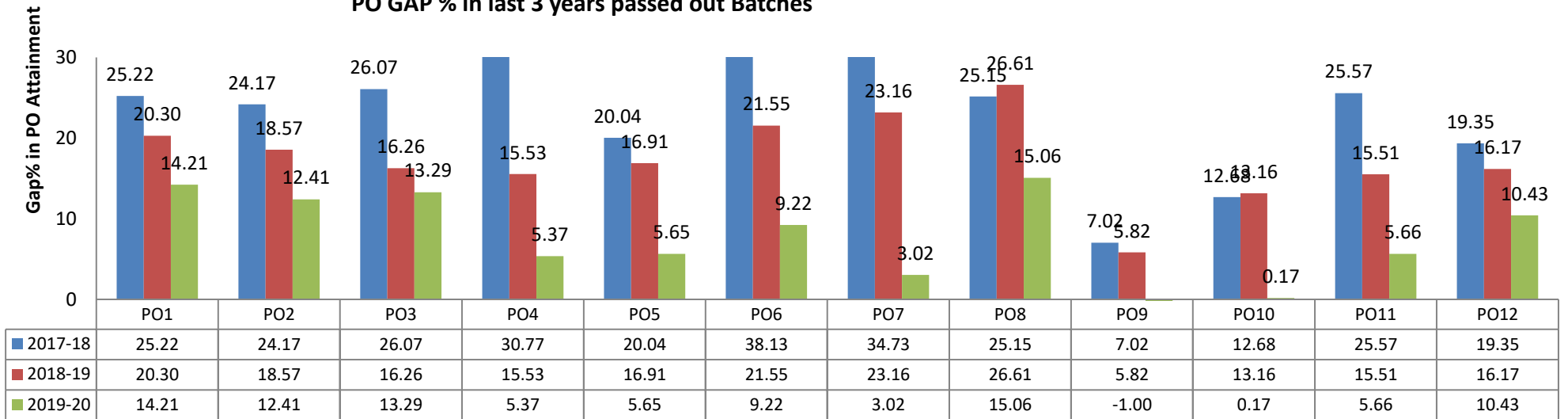
POs/PSOs Attainment

Academic Audit

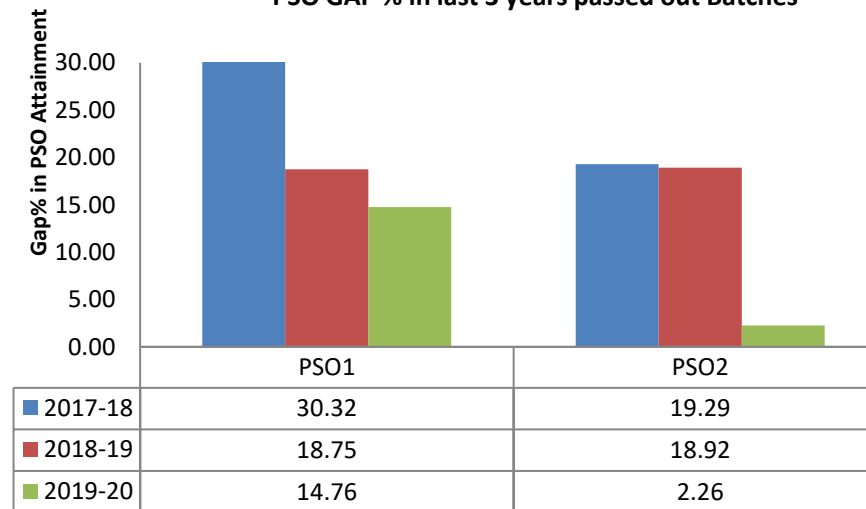
Quality improvement

Opening and closing rank

PO GAP % in last 3 years passed out Batches



PSO GAP % in last 3 years passed out Batches



# Criterion-7

# Continuous Improvement

POs/PSOs  
Attainment

Academic  
Audit

Quality  
improvement

Opening and  
closing rank

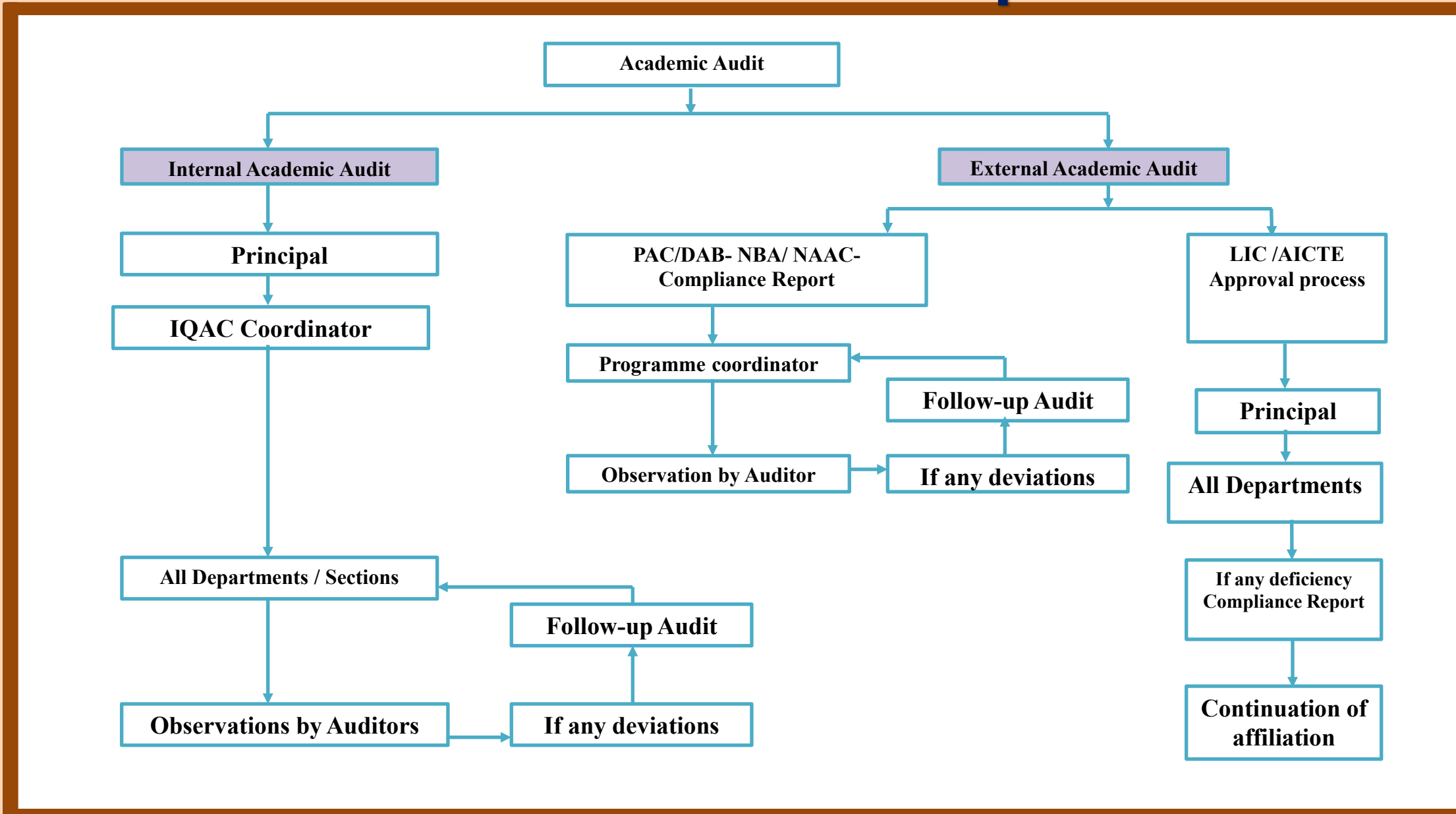
POs	Target Level	Attainment Level	Observations
<p><b>PO1: Engineering knowledge:</b> Apply the knowledge of mathematics, science, engineering fundamentals, and an engineering specialization to the solution of complex engineering problems.</p>			
PO1	2.09	1.79	<p><b>Observation:</b> Target of about 86% is attained. However, following observations were made:</p> <ul style="list-style-type: none"> <li>14% of gap because of students lack of applying knowledge in the subjects strength of materials, Design of RC Structural Elements, Design of Pre-stressed Concrete Elements in solving complex engineering problems.</li> </ul>
<p><b>Action:</b> Attainment level is lesser than target fixed. Efforts are made to improve further.</p> <ul style="list-style-type: none"> <li>Arranged expert lecture on “Basic Mechanics of Materials” by Dr. T.Munikenche Gowda, Director R &amp; D centre BGS.</li> <li>Organized an expert lecture on “Recent development in remedial engineering for concrete structures” in association with ICI, Bengaluru centre, Karnataka, Resource person: Mr. M N Ramesh, Director, Talrak Construction Chemicals Pvt. Ltd., Bengaluru.</li> <li>Conducted expert lecture on “Analysis of determine structures” by Prof. K T Sathish Chandra.</li> </ul>			

**POs Attainment Levels and Actions for Improvement**



# Criterion-7

# Continuous Improvement



POs/PSOs Attainment

Academic Audit

Quality improvement

Opening and closing rank



# Criterion-7

# Continuous Improvement

## Quality of Student Admission

Item			CAY (2020-21)	CAYm1 (2019-20)	CAYm2 (2018-19)
National Level Entrance Examination		No. of Students Admitted	--	--	-
		Opening Score/Rank	--	--	-
		Closing Score/Rank	--	--	-
State/Institution Level Entrance Examination/Others	CET	No. of Students Admitted	24	38	62
		Opening Score/Rank	30866	27359	21506
		Closing Score/Rank	153255	92207	95578
	COMEDK	No. of Students Admitted	Nil	Nil	Nil
		Opening Score/Rank	Nil	Nil	Nil
		Closing Score/Rank	Nil	Nil	Nil
	Management	No. of Students Admitted	12	16	43
	SNQ	No. of Students Admitted	6	6	6
	Lateral Entry Details	Diploma CET	No. of Students Admitted	12	13
Opening Score/Rank			1303	4930	1657
Closing Score/Rank			16288	15963	19293
Average CBSE/ Any other Board Result of Admitted Students (physics, Chemistry and Mathematics)			66.58%	72.29%	69.99%

PO PSO  
Attainment

Academic  
Audit

Quality  
improvement

Opening and  
closing rank



SJCIT - CED

## Best Practices in the Department

Curriculum Gap Analysis and Planning, students' project work will be **reviewed** periodically

Tutorial Classes are conducted

Student **Performances** are monitored and analysed regularly through **Proctoring System**

**Student Centric Activities** are done regularly

Content **Beyond Syllabus** through Seminars, Flipped class, Project based learning, Workshops, Technical Talks, Industrial Visits, Regular aptitude and communication skill training are conducted.

**Student Feedback System** (End of the Semester – **Online**) is followed



# Best Practices in the Department

**MOUs** with industries are executed and activities are conducted

Student **Co-curricular** and **extra curricular** activities are encouraged

Encouraging **Bright Students** in the Department

**Certification** Programs for the faculty and Students (**MOOC, NPTEL Courses**)

Use of innovative teaching methods like **flipped classroom**, Activity based learning, **Think–Pair-Share**

Conducting **guest lectures, workshops** and **seminars** to bridge the curricular gaps



# Outcome Based Education

- Is a **Student-centered instruction model** that focuses on measuring **student performance** through **Outcomes or Graduate Attributes**
- **Outcomes** include **Knowledge, Skills and Attitudes (KSA)**
- **It's not what we teach but it's what our students have learnt and are able to do**
- **“Knowing what we want to achieve and then taking the steps to do so”**
  - **Example: Mother wants to prepare a Sāmbhar, she has a picture of it in mind and then she collects and assembles the materials & tools, and begins a step-by-step process to prepare it.**

**NO OBE = NO Accreditation**

**“A process that involves the restructuring of curriculum, assessment and reporting practices in education to reflect the achievement of high order learning and mastery rather than the accumulation of course credits”**

**- Tucker, 2004**



# Outcome Based Education

Starting with a **clear picture** of what is important for students to be **able to do...**

Then, organizing the curriculum, delivery and assessment to make sure learning happens...

## Why OBE ?

- **Globalization** has brought in a **clear shift** from education as **transmission of expert knowledge** to education as **building learner competencies** including **learning to learn** and **life long learning**.

That means focus will have to be on

- **Understanding fundamentals** very well, and **learning new skills/competencies** that would enable individuals to cope with the demands of the rapidly changing workplace.
- **Prepare global engineers** who will have to **solve problems** and shoulder **challenges** which are not even known today!!

Why  
Outcome  
Based  
Education ?



SJCIT - CED

# Outcome Based Education

**OBE**  
(Education)



What the student should be able to do?

**OBC**  
(Curriculum)



How to make the student achieve the outcome?

**OBLT**  
(Learning & Teaching)



How to measure what the student has achieved?

**OBA**  
(Assessment)

Attributes

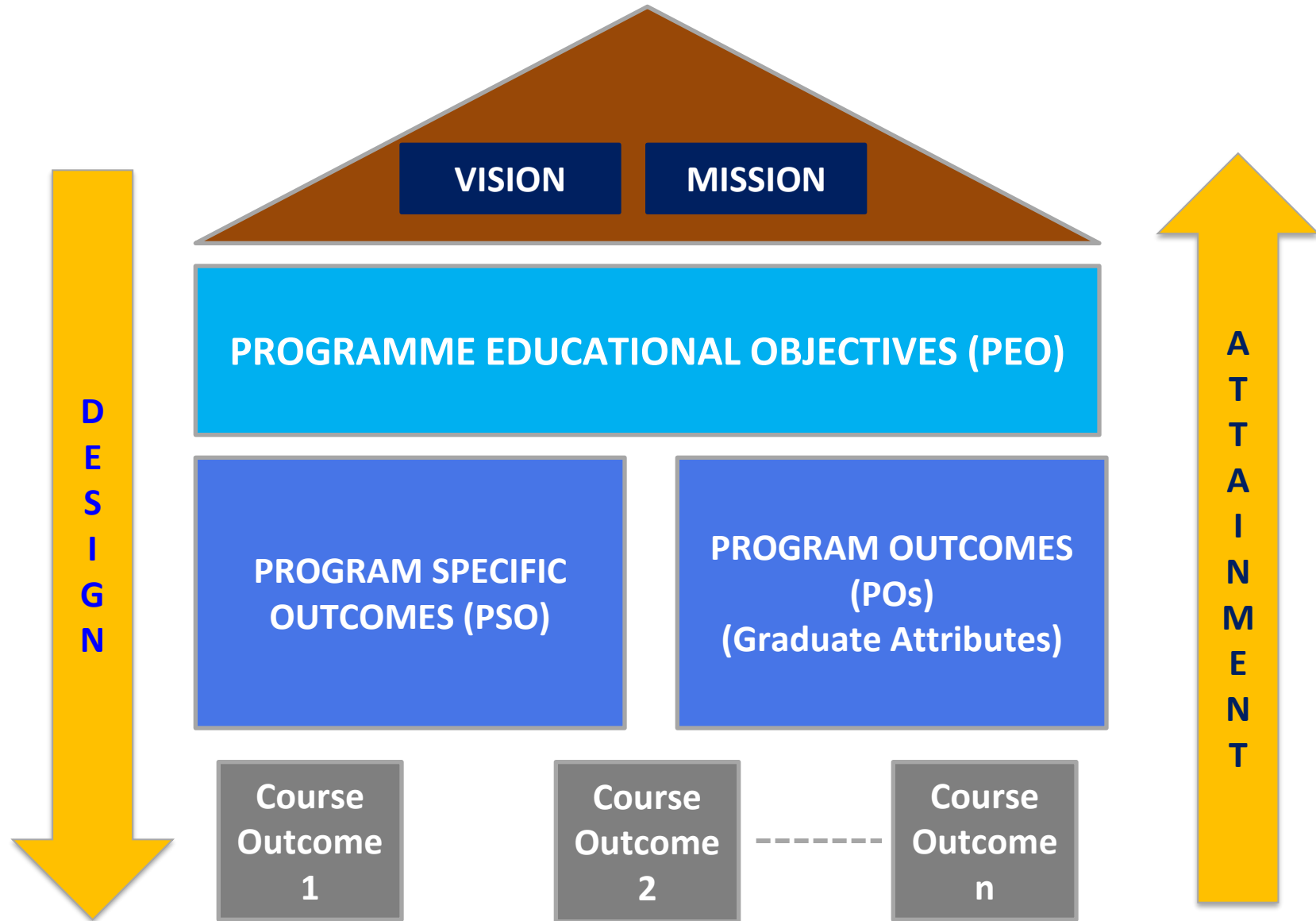


Stages of  
Output  
Based  
Education



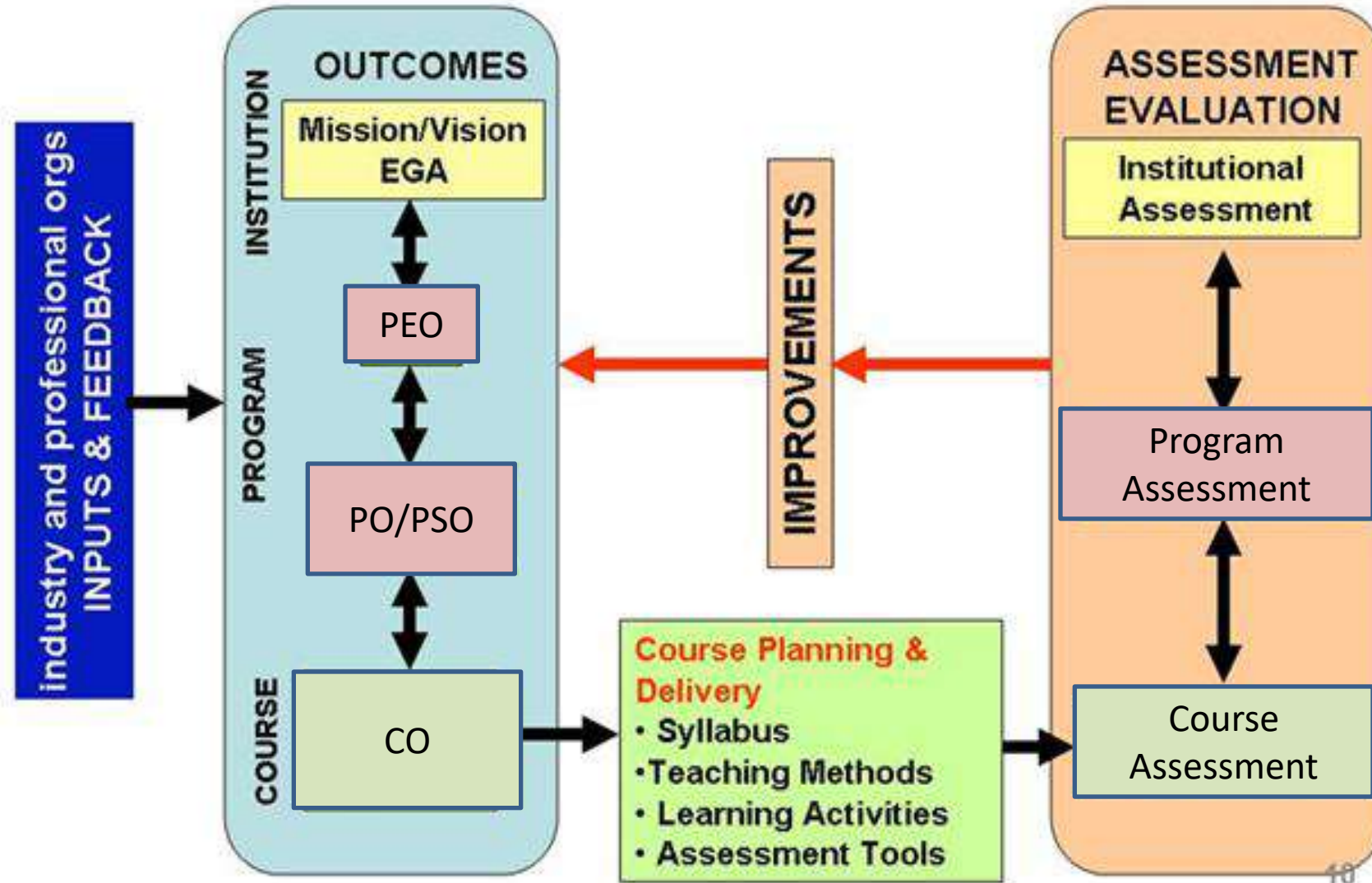
# Outcome Based Education

KEY Stones  
of OBE



# Outcome Based Education

## The OBE Framework



# Outcome Based Education

SUBJECT CODE	SUBJECT	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2
<b>Core Contemporary – Basics Courses</b>															
C111	Elements of Civil Engineering and Mechanics	✓	✓	✓									✓	✓	✓
C202	Strength of materials	✓	✓	✓		✓	✓		✓				✓	✓	✓
C204	Basic Surveying	✓	✓	✓		✓			✓				✓	✓	✓
C205	Engineering Geology	✓	✓				✓	✓	✓				✓	✓	✓
C206	Building Materials & Construction	✓	✓				✓	✓	✓				✓	✓	✓
C207	Material Testing Laboratory	✓	✓				✓	✓	✓	✓	✓			✓	✓
C208	Basic Surveying Practice	✓	✓	✓		✓	✓		✓	✓	✓		✓	✓	✓
C212	Concrete Technology	✓	✓	✓	✓	✓	✓		✓				✓	✓	✓
C214	Advance Surveying	✓	✓	✓		✓			✓				✓	✓	✓
C216	Engineering Geology Lab	✓	✓		✓	✓	✓	✓	✓	✓	✓		✓	✓	✓
<b>Core Contemporary Courses – Analysis and design of Structures</b>															
C301	Design of RC Structural Elements	✓	✓	✓	✓		✓		✓	-	-	-	✓	✓	✓
C210	Analysis of Determinate Structures	✓	✓	✓	-	-	-	-	✓	-	-	-	-	✓	-
C302	Analysis of Indeterminate Structures	✓	✓	✓	-	-	-	-	-	-	-	-	✓	✓	✓
C306	Masonry Structures	✓	✓	✓	-	-	-	-	✓		-	-	✓	✓	✓
C309	Concrete & Highway Materials Lab	✓	✓	✓	-	✓	-	✓	✓	✓	✓	-	✓	✓	✓
C311	Design of steel structural elements	✓	✓	✓	✓	-	-	-	✓	-	-	-	✓	✓	-
C317	Finite Element Method	✓	✓	-	-	✓	-	-	-	-	-	-	✓	✓	✓

Curriculum mapping for attaining the POs and PSOs (2017-21)



# Outcome Based Education

## Expectations from Students - OBE

- ❖ **Students are expected to be able to**
  - Do more challenging tasks than memorize and reproduce
  - **Think creatively, research, question, compare and contrast, make decisions**
  - Work in a team professionally
  - **Write project proposals and complete them**
  - Analyze case studies and make presentations on these
  - **Communicate fluently on their stands**
  - Use modern tools
  - **Pursue higher studies**

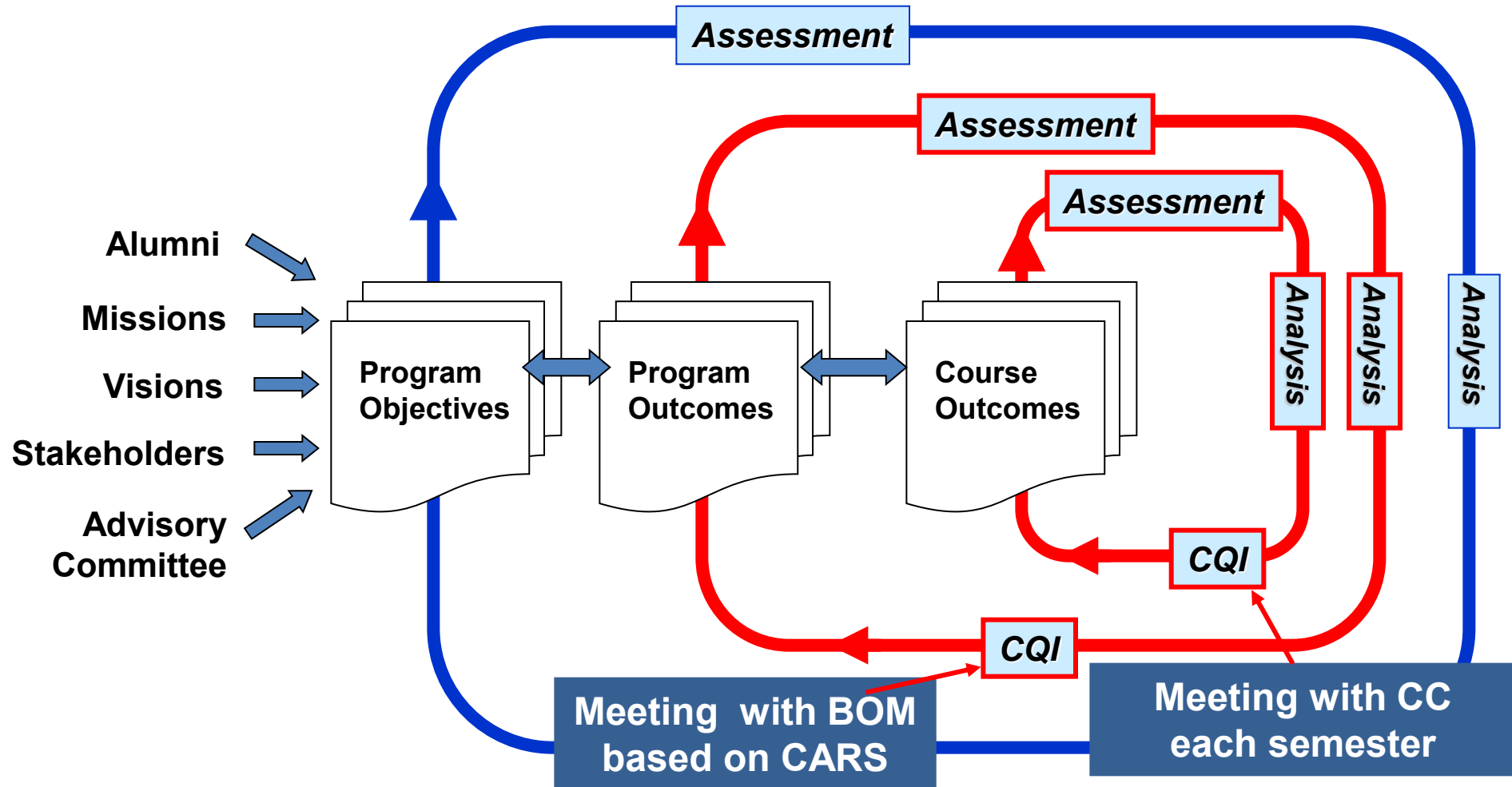
## Benefits of OBE to Students

- ❖ **Industry/Stakeholders ready**
- ❖ **Continuous Quality Improvement (CQI)**
- ❖ **International Recognition/Mobility**
- ❖ **Develop Professionalism**

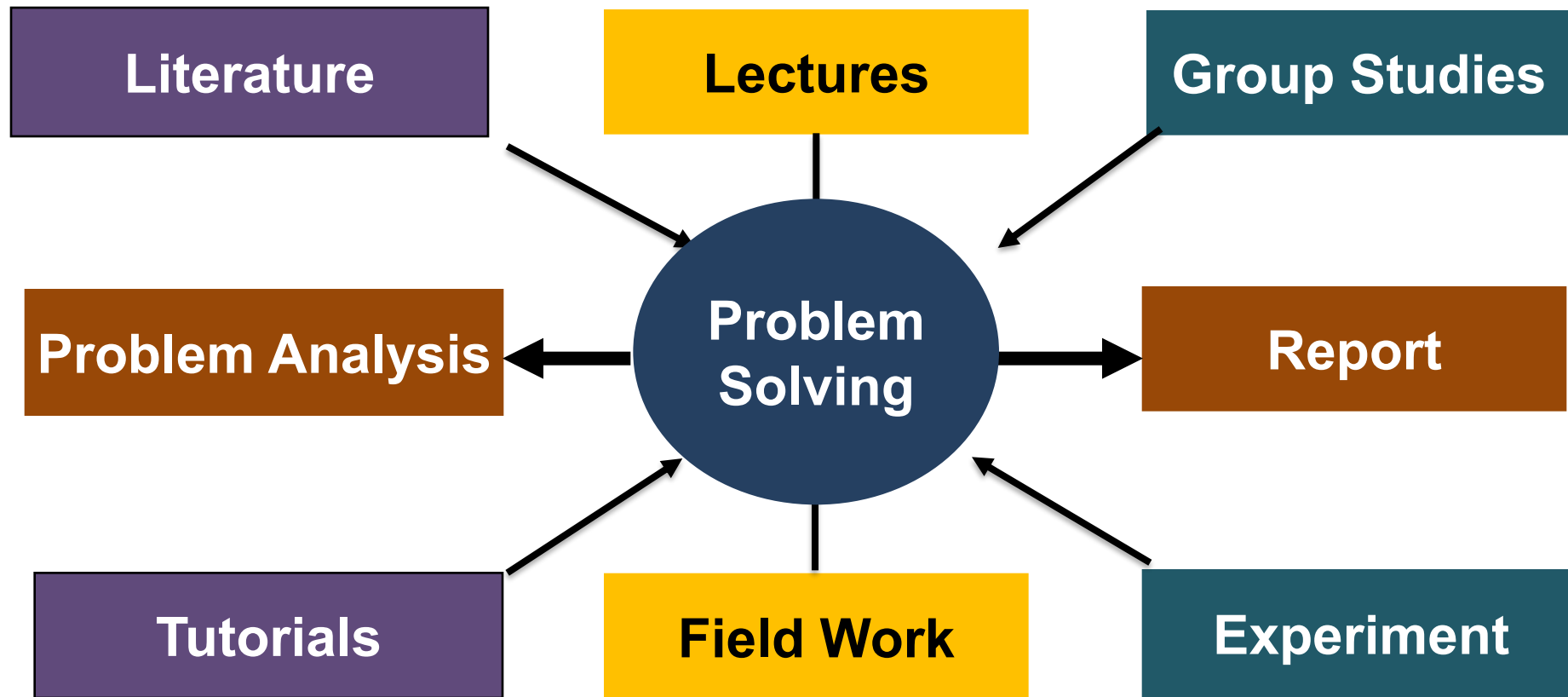


# Outcome Based Education

Closing the Quality Loop



# Outcome Based Education



Problem  
Analysed for  
Project Work  
in OBE



# Outcome Based Education

SJCIT/NBA/ COURSE/ 2020-21		SJC INSTITUTE OF TECHNOLOGY Chickballapur - 562 101 Department of Civil Engineering																			
Course Information																					
Programme Name:		Civil Engineering																			
Academic Year:		2020-21			Semester:		8		Section:		A & B		Subject Type:			Theory					
Course Title:		DESIGN OF PRESTRESSED CONCRETE ELEMENTS																			
Course Instructor Name:				Mrs SHARADA S A & Mrs. CHANDRAKALA S										Class Strength:							
Subject Code:		17CV82			Course No:		2		Course ID:			C412			98						
Scheme of Teaching & Marks																					
Contact Hr/Week:		4		Lecture Hours (Hr.):				4				Tutorials (Hr.):				0					
Max.CIE Marks:		40		Max. SEE Marks:				60				Total Max.Marks:				100					
Min.CIE Marks:		19		Min.SEE Marks:				21				Total Min.Marks:				40					
Final CIE (IA) Marks:		40		Assignment Marks:				10				Test Marks:				30					
Threshold Values for Attainment Calculation												Final CO Attainment									
Attainment level		3		%		2		%		1		%		( Percentage Contribution, %)							
Internal Assessment		>=		70		>=		60		>=		50		CIE		40		SEE		50	
SE Examination		>=		60		>=		50		>=		40		-		-		CES		10	
Statements of Course Outcomes										No.of CO's				4		Target(%)					
C412.1		Identify the requirement of PSC members & apply the principles of prestressing												60							
C412.2		Analyze PSC elements for stresses, Losses and deflection												60							
C412.3		Analyze and design PSC elements for flexure and shear as per Codal provisions												60							
C412.4		Design PSC element for different requirement in a team setting												60							
Semester End Exam. (SEE) Target(%)						75						Course End Survey(CES) Target (%):						75			
CO-PO Mapping Table (In the scale of 3)												CO-PSO Mapping Table									
CO/PO		1	2	3	4	5	6	7	8	9	10	11	12	CO/PSO		1	2	3	4		
C412.1		2	2						2				1	C412.1		1	1				
C412.2		1	3	2					2				1	C412.2		2					
C412.3		2	3	3					2				1	C412.3		2	2				
C412.4		1	2	3					2				1	C412.4		2	2				
Total		6	10	8					8				4	Total		7	5				

(a) Summary Sheet to display CO, CO-PO Mapping and CO / PO targets for Attainment

2017-21



# Outcome Based Education

SJCIT/NBA/ CIE-MARKS/ 2020-21	S J C INSTITUTE OF TECHNOLOGY Chickballapur - 562 101 Department of Civil Engineering										S J C INSTITUTE OF TECHNOLOGY Chickballapur - 562 101 Department of Civil Engineering										S J C INSTITUTE OF TECHNOLOGY Chickballapur - 562 101 Department of Civil Engineering									
Course Title:	DESIGN OF PRESTRESSED CONCRETE ELEMENTS										DESIGN OF PRESTRESSED CONCRETE ELEMENTS										DESIGN OF PRESTRESSED CONCRETE ELEMENTS									
Subject Code:	17CV82	Semester & Section				8 - A&B	No.Studen ts	98	17CV82	Semester & Section				8 - A&B	No.Stude nts	98	17CV82	Semester & Section				8 - A&B	No.Stude nts	98						
Course Instructor Name:	Mrs SHARADA S A & Mrs. CHANDRAKALA S				Course ID:	C412					Mrs SHARADA S A & Mrs. CHANDRAKALA S				Course ID:	C412					Mrs SHARADA S A & Mrs. CHANDRAKALA S				Course ID:	C412				
	Test No: 01										Test No: 02										Test No: 03									
Ref-Question Number:	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30
	CIE Marks Entry Format For the Academic Year - 2020-21										CIE Marks Entry Format For the Academic Year - 2020-21										CIE Marks Entry Format For the Academic Year - 2020-21									
Questions	1,2	3,4	5,6	7,8	9,10	A1	A2				1,2	3,4	5,6	7,8	9,10	A3					1,2	3,4	5,6	7,8	9,10	A4				
Main Question No.	1	2	3	4	5	6	7				1	2	3	4	5	6					1	2	3	4	5	6				
Mapped CO-No.	1	2	1	2	2	1	2				2	2	3	3	3	3					3	3	4	3	4	4				
Sl.	USN/Q-Marks										USN/Q-Marks										USN/Q-Marks									
1	1SJ17CV001	10	10	10	10	10	10	10			10	10	10	10	10	10					10	10	10	10	10	10				
2	1SJ17CV002	10	4	8	10	2	10	10			10	8		10	9	10					7	8	4	9	8	10				
3	1SJ17CV003	10	5	7	10	6	10	10			10	8	10	10	10	10					7	10	6	9	10	10				
4	1SJ17CV004	4	4	8	10	10	10	10			10	8	10	3	10	10					8	6	7	10	10	10				
5	1SJ17CV005	8	4	7	8	6	10	10			10	8	5	8	10	10					6	7	9	8	10	10				
6	1SJ17CV006	10	5	7	10	10	10	10			10	8	6	10	10	10					6	10	7	10	9	10				
7	1SJ17CV007	7	2	8	10	6	10	10			10	8	4	10	10	10					6	10	5	9	8	10				
8	1SJ17CV008	10	5	6	10	10	10	10			10	8	8	10	10	10					5	10	7	10	10	10				
9	1SJ17CV009	10	5	8	10	10	10	10			10	8	10	7	10	10					6	10	9	10	10	10				
10	1SJ17CV010	10	6	8	10	10	10	10			10	8	10	8	10	10					8	10	9	10	10	10				

(b) Sample Snapshot showing Quiz, Assignment & Continuous Internal Evaluation marks entry sheet 2017-21



# Outcome Based Education

SJCIT/NBA/ SEE-MARKS/ 2020-21		SJC INSTITUTE OF TECHNOLOGY Chickballapur - 562 101 Department of Civil Engineering						
Course Title		DESIGN OF PRESTRESSED CONCRETE ELEMENTS				Course Code	C412	
Subject Code		17CV82	Semester	8	Section	A & B	Emp.ID	815/956
Faculty Name		Mrs. SHARADA S A & Mrs. CHANDRAKALA S				No.students	98	
		Format for Entry of Semester End Examination Marks				40	60	100
Sl. No.	USN	NAME				CIE	SEE	Total
1	1SJ17CV001	ABILASH K R				33	21	54
2	1SJ17CV002	AKSHAY N HADIMANI				32	27	59
3	1SJ17CV003	ALIASGAR KHOJA				36	29	65
4	1SJ17CV004	ANKITHA REDDY R				34	32	66
5	1SJ17CV005	ARCHANA B C				33	21	54
6	1SJ17CV006	ARUN M				36	41	77
7	1SJ17CV007	BASAVARAJ SINGRY				33	29	62
8	1SJ17CV008	BHARATHREDDY V				36	29	65
9	1SJ17CV009	BHAVANA T N				36	29	65
10	1SJ17CV010	CHAITHANYA K R				38	47	85

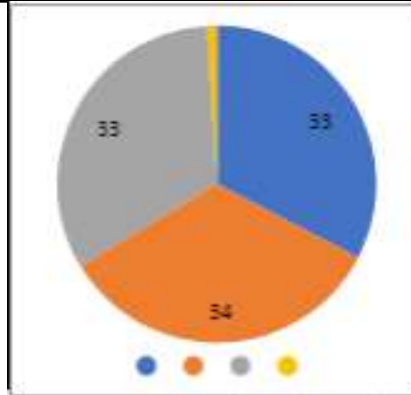
(c) Sample snapshot of Continuous Internal Evaluation & Semester End Examination marks 2017-21



# Outcome Based Education

(d) Sample snapshot of result analysis of the course 2017-21

SJCIT/NBA/SEE-REPT/2020-21	S J C INSTITUTE OF TECHNOLOGY Chickballapur - 562 101 Department of Civil Engineering									
Course Title	DESIGN OF PRESTRESSED CONCRETE ELEMENTS					Course Code	C412			
Subject Code	17CV82	Semester	8	Section	A & B	Emp.ID	815			
Faculty Name	Mrs. SHARADA S A & Mrs CHANDRAKALA					No.students	98			
<b>Result Analysis of Subject Code -17CV82 - for the Academic year 2020-21</b>										
<b>Result Analysis of Section: 8 - A &amp; B</b>										
		No. Students	Pass	%	Fail	%				
		98	97	99	1	1				
<b>Class Analysis of Section: 8 - A &amp; B</b>										
		No. Students	98	%	Grade Point					
		FCD	32	33	10,9,8					
		FC	33	34	7					
		SC	32	33	6,4					
		FL	1	1	0					
<b>Max. and Avg. Marks</b>										
		CIE	AVG	SEE	AVG	TOT	AVG			
		40	33	60	32	100	66			
<b>CO Attainment in SEE</b>										
<b>Sum_AT</b>	169									
<b>T_students</b>	98									
<b>ANALYSIS OF GRADE POINT AND GRADE LETTER</b>										
<b>Avg.ATNT</b>	1.7	Grade Letter	S	A	B	C	D	E	F	
<b>Sum_AT(=3)</b>	34	Grade Point	10	9	8	7	6	4	0	
<b>AT(=3)%</b>	35	No.of Students		10	22	33	32			
<b>Attainment</b>	NO	% of Students		10	22	34	33			
<b>CIE and SEE correlation Coefficient</b>							0.32			
<b>Course Coordinator Remarks on Semester End Results for the Academic Year2020-21</b>										

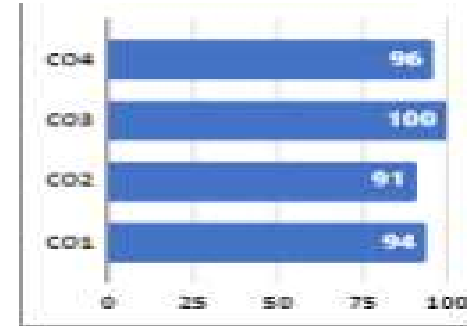


# Outcome Based Education

SJCIT/NBA/ CO-REPT/ 2020-21	SJC INSTITUTE OF TECHNOLOGY Chickballapur - 562 101 Department of Civil Engineering						
Course Title	DESIGN OF PRESTRESSED CONCRETE ELEMENTS					Course Code	C412
Subject Code	17CV82	Semester	8	Section	A & B	Emp.ID	815
Faculty Name	Mrs. SHARADA S A & Mrs CHANDRAKALA					No.students	98

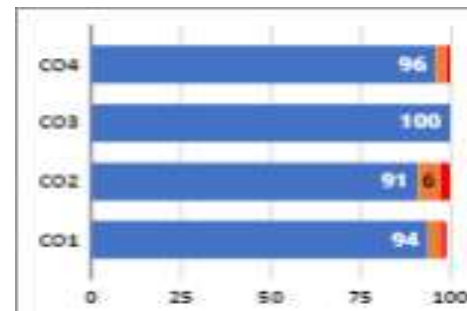
*CO Attainment from -, in the Subject: 17CV82-Based on: TYPE-1, Academic Year 2020-21*

Sl. No.	CO Number	Sum	T_Std	Av-AT	TS(=3)	AT,%	Ac_AT	ATNT
CO1	C412.1	285	98	2.9	92	94	2.8	YES
CO2	C412.2	282	98	2.9	89	91	2.7	YES
CO3	C412.3	294	98	3	98	100	3	YES
CO4	C412.4	289	98	3	94	96	2.9	YES



*Distribution of CO Attainment from -, in Subj: 17CV82-Based on: TYPE-1, ACDY:2020-21*

Sl. No.	CO Number	3	%	2	%	1	%
CO1	C412.1	92	94	4	4	1	1
CO2	C412.2	89	91	6	6	3	3
CO3	C412.3	98	100		0		0
CO4	C412.4	94	96	3	3	1	1



(e) Sample snapshot of attainment of the Course Outcomes 2017-21



# Outcome Based Education

PO Total Attainment (CAY: 2017-21 Batch)

Courses/POs	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
<b>I SEMESTER</b>												
C101	1.20	1.10	1.28	0.55	0.55	--	--	--	--	--	--	--
C102	2.00	1.73	0.67	--	--	--	--	--	--	--	--	--
C103	0.96	0.96	0.96	0.8	--	--	--	--	--	--	--	0.64
C104	3.00	2.00	2.00	1.0	--	--	--	2.0	2.0	--	--	--
C105	1.62	1.62	1.80	--	--	--	--	--	--	--	--	--
C106	2.00	2.00	2.00	1.0	2.0	--	--	--	--	--	--	2.0
C107	2.00	1.73	0.67	--	--	--	--	--	--	--	--	--
C108	0.71	1.33	0.53	1.07	--	0.53	1.6	--	--	--	--	--
<b>II SEMESTER</b>												
C109	1.70	1.42	1.59	0.71	1.0	--	--	--	--	--	--	--
C110	1.0	0.67	0.33	--	--	--	--	--	--	--	--	--
C111	1.13	1.32	1.70	--	--	--	--	--	--	--	--	1.0
C112	3.0	1.60	--	--	--	--	--	--	--	--	--	--
C113	2.4	1.84	1.31	--	--	--	--	--	--	--	--	--
C114	3.0	2.0	--	--	--	--	--	2.0	2.0	--	--	1.0
C115	3.0	2.0	1.0	--	--	--	--	--	--	--	--	--
<b>III SEMESTER</b>												
C201	1.54	1.40	1.63	0.98	1.16	--	--	--	--	--	--	--
C202	1.25	1.19	0.48	--	0.43	-	--	0.67	--	--	--	0.69
C203	1.22	1.06	1.37	-	1.47	1.47	0.77	--	--	--	--	0.73
C204	0.93	0.95	0.63	-	0.63	--	--	0.81	--	--	--	0.59
C205	1.95	1.27	-	-	0.65	0.65	0.65	--	--	--	--	0.64
C206	1.05	0.99	-	-	--	--	--	0.79	--	--	--	0.66
C207	2.88	1.20	-	-	1.20	1.20	1.20	1.44	0.96	--	--	0.96
C208	1.80	1.58	0.90	-	0.90	--	--	0.90	1.80	0.90	--	0.90
<b>IV SEMESTER</b>												
C209	1.24	1.12	1.31	0.79	0.93	--	--	--	--	--	--	--
C210	0.77	1.22	0.55	-	--	--	--	0.60	--	--	--	0.55
C211	1.24	1.31	1.28	-	--	--	--	1.49	--	--	--	0.73

C212	1.60	1.43	1.82	0.74	0.8	--	--	1.83	--	--	--	0.73
C213	1.53	1.38	1.37	1.20	--	0.97	0.69	0.69	--	--	--	1.38
C214	1.06	0.90	0.60	-	1.2	--	--	0.60	--	--	--	0.60
C215	1.81	1.81	1.81	-	--	--	--	0.90	2.03	1.81	--	0.90
C216	1.43	1.63	-	1.09	1.36	0.82	0.82	0.82	0.82	0.82	--	0.82
<b>V SEMESTER</b>												
C301	0.96	1.12	1.11	0.55	--	--	--	1.51	--	--	--	0.57
C302	1.88	1.25	0.63	-	--	--	--	--	--	--	--	0.63
C303	1.04	1.55	1.25	0.95	--	1.13	1.13	0.64	--	--	--	1.28
C304	1.47	-	-	-	2.945	--	--	1.31	0.33	0.33	--	0.74
C305	1.82	1.68	1.15	-	--	--	--	0.75	--	--	--	0.75
C306	2.80	1.4	1.8	-	--	--	--	1.87	--	--	--	0.93
C307	2.09	1.28	0.77	0.73	--	--	--	0.92	--	--	--	0.77
C308	1.57	1.96	-	1.57	--	1.18	1.2	0.98	0.98	1.57	--	1.77
C309	1.92	1.73	1.92	-	0.96	1.28	1.3	2.11	1.15	0.96	--	1.2
<b>VI SEMESTER</b>												
C310	1.44	1.60	-	-	--	--	--	0.83	--	--	0.8	0.8
C311	1.288	2.00	2.63	0.9	--	--	--	1.80	--	--	--	0.9
C312	2.08	1.46	1.5	-	--	--	--	1.11	--	--	2.5	1.04
C313	2.26	2.03	1.36	0.83	--	1.37	1.37	1.42	--	--	--	0.83
C314	2.61	2.85	2.37	-	--	1.90	1.90	1.66	--	--	--	0.97
C315	1.67	1.67	-	-	--	1.33	1.33	0.83	--	--	--	1.67
C316	1.3	1.22	-	-	--	--	--	1.14	--	--	0.73	0.93
C317	1.92	2.82	--	0.93	--	--	--	--	--	--	--	0.9
C318	0.95	1.43	1.91	-	2.86	--	--	0.95	0.95	0.95	1.90	0.95
C319	1.50	1.87	1.50	0.83	1.56	0.94	0.94	0.94	2.24	1.31	0.94	1.87
<b>VII SEMESTER</b>												
C401	1.82	1.82	2.17	-	--	1.62	1.62	0.81	--	--	--	0.8
C402	0.60	1.20	1.80	0.50	2.1	--	--	1.2	1.4	--	--	0.6
C403	2.15	1.53	-	-	--	0.77	0.77	2.3	--	--	--	1.15
C404	1.40	0.93	0.93	0.93	--	--	--	--	1.87	--	--	0.93

C405	2.05	1.26	-	-	--	--	--	0.79	--	0.77	--	0.78
C406	1.75	1.45	-	-	0.87	--	--	1.32	--	--	--	0.88
C407	1.46	1.46	-	-	2.92	1.95	1.95	2.43	2.92	0.97	--	0.97
C408	0.98	-	-	-	2.96	--	--	2.17	0.98	0.98	--	0.99
C409	2.0	2.66	2.5	2.33	1.67	1.0	1.0	1.33	3.0	1.75	2.0	1.75
<b>VIII SEMESTER</b>												
C410	1.30	1.85	-	0.92	--	--	--	1.85	--	0.93	1.87	0.93
C411	1.15	1.92	2.05	-	--	--	--	1.53	--	--	--	0.77
C412	1.73	2.57	2.3	0.90	--	0.90	0.90	1.67	--	--	--	0.90
C413	2.03	2.03	1.83	1.37	--	--	--	1.02	--	--	--	1.32
C414	3	2.00	1.5	2.00	2.00	1.00	1.00	2.00	2.5	2.50	2.00	2.50
C415	3	1.50	2.33	2.67	2.00	2.00	2.00	2.67	3.0	3.00	1.33	2.50
C416	2	2.50	--	--	--	2.00	2.00	--	3.00	2.33	2.33	--
Direct	1.71	1.58	1.47	1.08	1.51	1.25	1.28	1.30	1.75	1.38	1.64	1.05
Indirect Assessm	2.75	3.00	2.67	2.00	2.17	1.50	1.67	2.00	2.83	1.83	1.75	2.20
Overall attainment (20% direct + 20% Indirect)	1.92	1.86	1.71	1.26	1.64	1.30	1.35	1.44	1.96	1.47	1.66	1.28

**Record of  
PO-PSO Attainment  
(2017-2021)**

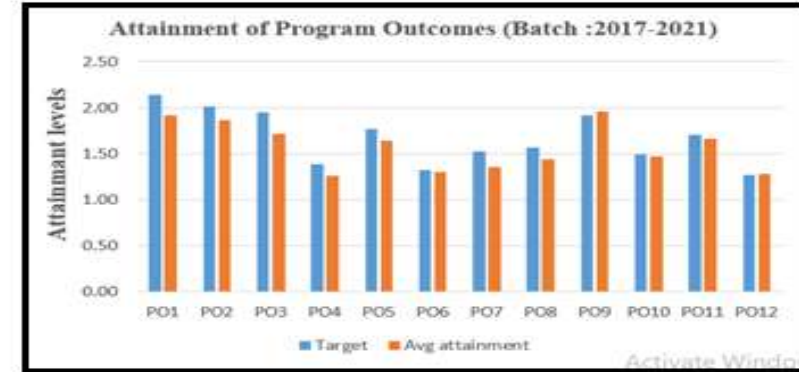


# Outcome Based Education

PO Direct Attainment (CAY: 2017-21 Batch)

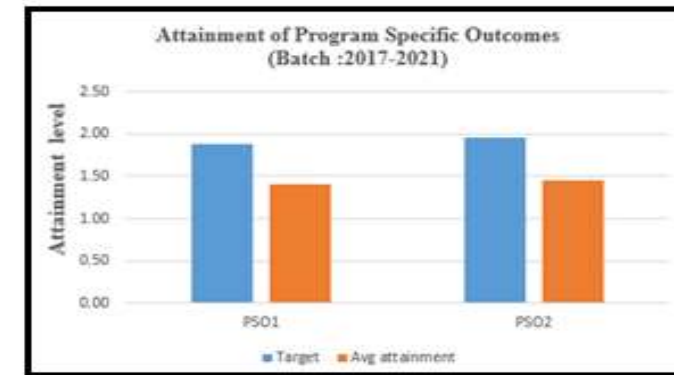
Courses	PSO1	PSO2	Courses	PSO1	PSO2
<b>I SEMESTER</b>			<b>II SEMESTER</b>		
C101	1.1	1.1	C109	1.4	1.4
C102	1.33	0.67	C110	0.33	0.33
C103	0.4	0.4	C111	0.93	0.5
C104	2.0	2.0	C112	1.0	3.0
C105	-	-	C113	-	-
C106	1.0	1.0	C114	2.0	2.0
C107	2.0	2.0	C115	-	-
C108	-	-			
<b>III SEMESTER</b>			<b>IV SEMESTER</b>		
C201	1.4	1.4	C209	1.12	1.12
C202	1.03	0.51	C210	0.99	0.92
C203	1.69	0.77	C211	1.45	0.75
C204	0.95	0.89	C212	1.21	0.73
C205	1.29	0.99	C213	1.38	0.87
C206	0.79	1.06	C214	0.75	1.21
C207	1.92	1.92	C215	1.81	-
08	1.58	0.90	C216	1.02	1.22
<b>V SEMESTER</b>			<b>VI SEMESTER</b>		
C301	0.98	1.1	C310	2.39	2.4
C302	1.25	-	C311	2.70	2.9
C303	1.39	1.25	C312	2.50	2.5
C304	1.31	1.31	C313	2.45	2.43
C305	0.73	1.43	C314	2.82	2.83
C306	1.87	1.87	C315	2.50	2.50
C307	0.9	-	C316	2.03	2.20
C308	2.55	0.98	C317	2.85	2.83
C309	2.16	1.92	C318	1.90	1.90
			C319	2.06	1.31
<b>VII SEMESTER</b>			<b>VIII SEMESTER</b>		
C401	1.82	1.21	1.85	1.48	1.85
C402	1.2	1.25	1.34	1.34	1.34
C403	1.53	0.77	1.73	1.80	1.73
C404	2.1	0.93	1.62	1.60	1.62
C405	0.78	-	2.66	2.00	2.66
C406	1.97	0.87	1.75	2.75	1.75
C407	1.46	2.92	2.25	2.50	2.25
C408	1.97	0.98	<b>Average</b>	1.45	1.34
C409	1.75	2.75	<b>Overall</b>	1.58	1.52

PO attainment	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
Target	2.14	2.01	1.95	1.39	1.77	1.32	1.52	1.57	1.92	1.49	1.70	1.27
Avg. attainment	1.92	1.86	1.71	1.26	1.64	1.30	1.35	1.44	1.96	1.47	1.66	1.28



Program Specific Outcomes Attainment (2017-2021):

POs/ attainment	PSO1	PSO2
Target	1.82	1.65
Avg. attainment	1.58	1.52



Record of  
PO / PSO  
Direct  
Attainment



# Outcome Based Education

## ❖ Internal Quality Assurance Cell(IQAC)

- OBE assessment and evaluation at institutional level
- Program wise assessment semester/year
- Continuous improvement initiatives

## ❖ Department Advisory Board

- Review of the attainment of PEO,PO and suggest improvements

## ❖ Program Coordinator

- Interacting with course coordinators towards attainment of POs and review/update the changes required for curriculum contents

## ❖ Course Coordinator

- Assess the attainment of COs and review/update the course delivery and assessment methods

Administrative  
Support for  
OBE



SJCIT - CED

## Strengths



- Faculty Competence
- Good Infrastructure
- Successful Alumni
- Publications by Students & Faculty
- Disciplined and Decentralized Work Culture
- Industry-Institution Interactions

## Weakness



- Funded Projects and Patents
- Book writing
- Industry Specific Labs
- Limited diversity/depth of course offerings/ research areas
- Curriculum Design by University
- Student Exchange Program

## Opportunity



- Brilliant career opportunities for graduates.
- Splendid Opportunities for Interdisciplinary Research
- Excellent Opportunities for Funded Projects through VTU/VGST/ AICTE/DST
- Skill Based Learning

## Challenges



- Striking a balance between Academic, Research and Consultancy work
- Achieving 100% Placements and admission
- Publishing Papers at Reputed/Indexed Journal
- Obtaining Patents

## Future Plans

- Further improving the **placements opportunities**, to have tie-up with industries for better employability for students
- **Promoting study-abroad and student exchange programme** for higher semester students
- Encouraging the students to become **entrepreneurs**
- Motivate students to learn any one current technology and implement their innovative concepts in their projects
- Strengthening of linkages with VTU, DST, VGST and AICTE for contributing towards the productive socio-economic growth of our nation and to have **research tie-ups** with internationally reputed institutions such as IISc, IIIT-B etc.
- To ensure that every faculty member is a doctoral and postdoctoral fellow, **patenting the innovative research work** carried out in the department
- Establishing **industry / academic interactions** or collaborations with regional / national / international bodies to increase the number of industry consultancy projects



## Future Plans



# Short Term Goals

- To upgrade and strengthen all the laboratories.
- To take-up design projects in collaboration with professional organizations.
- To involve the students in skill development programs.
- MOU's with leading industries and foreign universities.



## Long term goals

- To make efforts in upgrading the department to be one of the top most in the field of civil engineering.
- To involve the department in the policy making process in governmental and professional bodies like, Institution of Engineers, Indian Road Congress etc.
- To aim at making the department autonomous by improving the standards both academic and otherwise.
- To Take part in the nation building by involving our personnel in planning and design of Infrastructural Improvements.



**Thank You...**

