

## Department of Engineering Science

Academic Year – 2020-21	Class: First Year      Division: C
Semester – II	Date : 23/06/2021
CO : CO1, CO2, CO3, CO4, CO5, CO6	PO: PO1, PO2, PO3, PO4, PO12

### Innovative Teaching Methods

#### Title of Innovation method/activity: Laboratory Based Concept Learning

1. **Name of Faculty:** Ms. Nayana R. Kakad

2. **Subject:** Programming and Problem Solving

3. **Objective of Method:**

- To improve Programming Logic
- Improve Self Learning

4. **Topic Covered through Group Discussion Activity:**

In this method topics related to Python programming concepts are given to the students.

5. **Description of method with Benefits :**

In this method students are asked to provide solution to the given problem statements using the concepts of programming language. Staff will discuss or will ask questions on the concepts related to the problem statements. At the end students will upload executed program on Google Classroom.

**The method Impact:**

This activity enhances student's programming skills. It helped students in increasing learning motivation, analyzing the programming concept in details. Confidence level of the students gets improved with the help of this activity.

**Roles and Responsibilities**

• **Teacher**

- Assign problem statement to the students.
- Develop awareness among students about implementation of programs.
- Discuss topic with students or ask questions to the students during implementation of program.
- Prepare assessment methodology.

**Student**

- Go through the assigned topic.
- Implement the programming concept.
- Prepare and upload one file which contains program code with the output on Google Classroom.
- During implementation discuss about topic with the teacher.

## 6. Assessment Tools & Rubrics:

Sr. No.	Portfolio	Marks
A	Program Execution	
	i. Complete execution	5
	ii. Partial execution	3
	iii. Program with error	1
B	Understanding	
	i. Topic Knowledge	5
	ii. Question Answering	5
C	Timely Completion	
	i. Within time	5
	ii. Delay	3

## 7. Evaluation Sheet :

Roll No.	Name of Student	A	B	C	Total Marks Obtained
1	Vedant Patil	5	10	5	20
2	Yashwant Patil	5	10	5	20
3	Pawar Aishwarya Avinash	5	10	5	20
4	Kushal Bhagwat Pawar	5	7	3	15
5	Pawar Sanket Vijayrao	5	7	5	17
6	Shantanu Pawar	5	5	5	15
7	Vaishnavi Shrirang Pawar	5	10	5	20
8	Ojaswini Anil Potdar	5	7	3	15
10	Rane Umesh Virendra	5	10	5	20
11	Sathe Prathamesh Shashank	5	10	5	20
12	Shewale Pranjal Vijay	5	10	5	20
13	Sayali Ratan Shriwastav	5	10	5	20
15	Aishwarya Arun Sutrave	5	7	5	17
16	Takne Chetna Laxmikant	5	10	5	20
17	Siddhi Mukesh Tandale	5	7	5	17
18	Jajwalya Tarle	5	7	5	17
19	Geeta Kishor Thombare	5	7	5	17
20	Uphade Abhishek Sunil	2	9	5	16
21	Pragati Sandip Vaishnav	5	8	5	18
22	Prajwal Kishore Vispute	5	10	5	20
23	Vishal Ankush Warde	5	7	3	15
25	Patil Harshali Jitendra	5	7	5	17
27	Yashwardhan Patil	5	7	5	17
28	Om Anil Rajole	5	7	5	17
29	Pranjal Shashikant Randhir	5	7	5	17
30	Janavhi Prakash Salunke	5	10	5	20
32	Sangle Sakshi Gorakshnath	5	10	5	20
35	Arjun Singh	5	7	3	15

36	Sonawane Abhishek Shriram	5	10	5	20
46	Sajid Shaikh	5	10	5	20
54	Yuvraj Hiren Pagar	5	7	5	17

SN	Result Analysis	
1	Total Student Present Student	32
2	Number of Student Scoring above 60%	--
3	Percentage of student Scoring above 60%	100

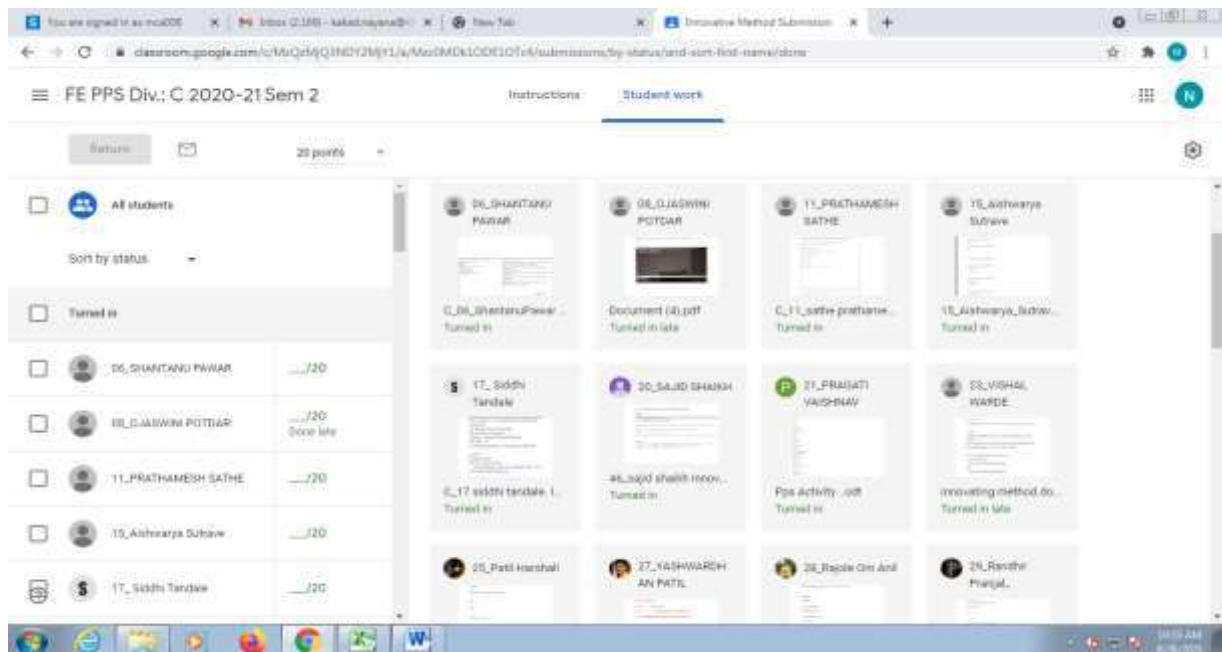
### 8. Impact Analysis :

Questions	Excellent	Good	Average
Q1. Did you understand and cover the objective of the activity?	81.82	15.15	3.03
Q2. Are the contents covered relevant to the syllabus?	78.79	21.21	0
Q3. Does this help to learn new concepts?	81.82	18.18	0
Q4. Would you like to participate in this activity again?	93.94 (Yes)	6.06 (No)	-----

PO Mapped	Yes	NO
PO1	100.00	0.00
PO2	96.97	3.03
PO3	100.00	0.00
PO4	93.94	6.06
PO12	100.00	0.00

## 9. Activity Picture

### Screen shots of Google Classroom



### Sample Program:

Name: Geeta Kishor Thombare

Roll no. : 19

Topic: To accept list of N integers and partition list into two sub lists.

```
Code: a=[]
n=int(input("Enter number of elements:"))
for i in range(1,n+1):
    b=int(input("Enter element:"))
    a.append(b)
even=[]
odd=[]
for j in a:
    if(j%2==0):
        even.append(j)
    else:
        odd.append(j)
print("The even list",even)
print("The odd list",odd)
```

Output:

Enter number of elements:3

Enter element:1

Enter element:5

Enter element:6

The even list [6]

The odd list [1, 5]

**10. For review and critique contact: e-mail address of faculty and HOD**

[kakad.nayana@kbtcoe.org](mailto:kakad.nayana@kbtcoe.org)

[hod.enggsci@kbtcoe.org](mailto:hod.enggsci@kbtcoe.org)

Ms. N. R. Kakad  
**Subject In charge**

Mr. S. P. Jadhav  
**Module Coordinator**

Ms. J. J. Nerkar  
**HOD**