



## Electronics & Telecommunication Engineering

Academic Year – 2019-2020	Class: Second Year
Semester – II	Date : 03/03/2020
CO:1,2.	PO: 1,2,3,5,9,12

### Innovative Teaching Methods

#### Title of Innovation method/activity: Project Based Learning

1. Name of Faculty: Ms. Tejaswini S. Deshmukh

2. Subject: Object Oriented Programming Language

3. Objective of Method:

1. Make the students familiar with basic concepts and techniques of object oriented programming in C++
2. Develop an ability to write programs in C++ and Java for problem solving

4. **Topic Covered through Activity:**

OOP concept using CPP.

5. **Description of method with Benefits (8 – 10 lines):**

Students work on a project over an extended period of time that engages them in solving a real-world problem. They demonstrate their knowledge and skills by creating a public product or presentation for a real audience.

As a result, students develop deep content knowledge as well as critical thinking, collaboration, creativity, and communication skills. Project Based Learning unleashes a contagious, creative energy among students and teachers.

#### **The method:**

1. An assigned task /activity is completed by a single or team of 2-4 students that form teams.
2. When teams finish their project, the teacher checks each group's final work.
3. Teacher will check whether code is running completely /partially /some errors present.
4. Teacher take oral to check student has understood the concept of project.

## **Roles and Responsibilities**

- **Teacher**
  - Provide the Introduction to all the topic.
  - Aware the student about the length, Breadth, Depth of Topic
  - Provide the Study Material and appropriate guide lines at every stage
  - Remain available all the time during all stages of process.
  - Prepare assessment methodology.
- **Student**
  - Go through all the material provided on particular topic
  - Once topic assigned understand and gain expertise on topic through collaboration.
  - Actively participate in group and contribute by means of discussion, hand-out
  - Share the expertise topic when joins a new group.
- **Group**
  - Develop the guidelines to establish group.(i.e. Decide the roll of all participants)
  - Every group should gain the expertise on particular topic.
  - Develop the guidelines with which every group member can share the topic they learn

## **6. Assessment Tools & Rubrics:**

### **1. Content Knowledge [3 Mark]**

- Demonstrate knowledge by answering all questions with explanation and elaboration.

### **2. Code Readability [3 Mark]**

- All Required comments are present.
- The program is correctly indented and identifiers are selected

### **3. Team Work [3 Mark]**

- Everyone is fully engaged with effective exchange of idea.

### **4. Delivery [3 Mark]**

- The program was delivered on time

<b>Criteria</b>	<b>Excellent -3</b>	<b>Good -2</b>	<b>Average-1</b>
<b>Content Knowledge</b>	Demonstrate knowledge by answering all questions with explanation and elaboration.	Is at ease with expected answer to all questions without elaboration.	Student answers partially. Student is able to answer only rudimentary question
<b>Code Readability</b>	All Required comments are present, the program is correctly indented and identifiers are selected	Some required comments are missing, or identifiers are inappropriate or statements are not correctly indented	Program is minimally commented; some identifiers are inappropriate or inconsistent indentation.
<b>Team Work</b>	Everyone is fully engaged with effective exchange of idea.	Some people were cooperating, but some people were not. One person did all the work.	No cooperation. Team members did their own thing
<b>Delivery`</b>	The program was delivered on time	The program was delivered within a week of the due date	The code was within 2 weeks of the due date.

## 5. Evaluation Sheet

Roll No	Name	Content Knowledge	Code Readability	Team Work	Delivery	Final Mark
1	Raundal Sneha Onkar	1	3	3	3	10
2	Ahire Rinku Namdev	2	2	2	1	7
3	Chavan Anushka Sanjay	1	1	2	3	7
4	Katkar Mayur Rajendra	2	2	3	1	8
5	More Sonal Chandrakant	2	2	2	1	7
6	Pendharkar Rohini Ravindra	2	2	2	1	7
7	Suryawanshi Parag Dhanraj	2	2	2	1	7
8	Thakare Prajakta Bapu	2	1	2	3	8
9	Admane Ruthik Prasad	3	3	3	3	12
10	Avhad Shubham Machhindra	3	2	3	3	11
11	Bagade Shweta Vinodkumar	3	2	3	3	11
12	Bankar Vrunda Vinod	2	2	3	3	10
13	Bari Niraj Dilip	2	2	3	1	8
14	Barudwale Shreyas Pramod	2	2	3	1	8
15	Bhamare Himanshu Pramod	3	3	3	3	12
16	Chokhar Esha Deepak	3	3	3	3	12
17	Dighe Saurabh Prakash	3	3	3	2	11
18	Gawande Vaishnavi Ganpat	3	3	3	3	12
19	Shivam Sunil Junghare	3	2	3	3	11
20	Kapse Kanchan Anil	2	3	3	3	11
21	Kshirsagar Khyati Devendra	3	2	2	3	10
22	Kumbhakarn Rohan Umesh	AB	AB	AB	AB	AB
23	Kuwar Prcheta Anil	3	3	3	3	12
24	Mahale Piyush Sanjiv	2	2	3	3	10
25	Malsane Kshitij Sanjay	AB	AB	AB	AB	AB
26	Panse Sarang Ajaykumar	2	2	3	3	10
27	Patil Pradnya Avinash	2	2	2	3	9

28	Patil Shubham Ramesh	3	3	3	3	12
29	Patil Vikrant Satish	2	3	3	3	11
30	Pawar Sejal Sanjay	2	3	3	3	11
31	Rai Pragya Bipinkumar	3	2	3	3	11
32	Rajule Pratiksha Vijay	2	2	3	3	10
33	Raka Rutu Anil	3	3	3	3	12
34	Salunkhe Nimisha Durgesh	2	2	3	3	10
35	Sapnar Ankita Bhagwat	2	3	3	3	11
36	Sonar Bhagyashri Ravindra	2	1	2	3	8
37	Sonawane Anushka Ramesh	2	3	3	3	11
38	Sonawane Jay Sanjay	2	3	3	2	10
39	Sonawane Sakshi Bapu	3	3	3	3	12
40	Suryawanshi Shubham Bhausahab	2	3	2	3	10
41	Tikhe Prajwal Deepak	3	3	2	3	11
42	Harshal Rajendra Yeole	AB	AB	AB	AB	AB
43	Avhad Shruti Dulaji	2	1	3	3	9
44	Bhosale Mallikaraje Sanjaysing	2	1	3	3	9
45	Datir Pratik Shantaram	2	2	3	3	10
46	Gunjal Gayatri Ravindra	3	3	3	3	12
47	Guraddi Renu Shivkumar	3	3	3	3	12
48	Jadhav Diksha Prabhakar	2	2	3	3	10
49	Jadhav Ritesh Shyam	3	1	2	3	9
50	Kapadnis Sakshi Shashikant	2	1	3	3	9
51	Kulthe Parag Sanjay	2	2	3	3	10
52	Mehetre Manasi Nandkishor	3	2	3	3	11
53	Pagar Devyani Dhananjay	3	2	3	3	11
54	Panpatil Anisha Nitendra	2	1	3	3	9
55	Patil Kaveri Jitendra	2	2	3	3	10
56	Prajapati Tanuja Rajendra	3	2	3	3	11
57	Salke Sumit Dattatray	3	3	3	3	12
58	Sanap Rohini Sharad	3	2	3	3	11
59	Sawant Mahesh Devnath	2	3	3	3	11
60	Shewale Saurabh Jayant	3	3	3	3	12

61	Shirsath Sonal Ajay	3	2	3	3	11
62	Shouche Priyanka Ashwinikumar	3	3	3	3	12
63	Shubham Atul Kulkarni	2	3	3	2	10
64	Sonavani Vaaideehi Nilesh	2	2	2	3	9
65	Tekale Mahima Sanjay	3	3	3	3	12
66	Todkar Siddharth Jayant	3	3	3	3	12
67	Rutuja Keshav Karate	2	2	2	3	9

## 8. Impact Analysis

SN	3- High/Excellent	2- Good	1-Average
1. Do you find Methodology Helpful?	44	13	0
2. Does this helps for building a good team	47	10	0
3. Were you able to apply the concept of Cpp while implementing project?	38	19	0
4. Does the content covered are relevant	43	14	0
<b>5. Would You Like To Participate in This Methodology again?</b>	<b>YES :57</b>	<b>No: 0</b>	<b>0</b>

## 6. Activity Picture



10. **For review and critique contact: e-mail address of faculty and HOD**  
[deshmukh.tejaswini@kbtcoe.org](mailto:deshmukh.tejaswini@kbtcoe.org)  
[hod@kbtcoe.org](mailto:hod@kbtcoe.org)

Ms. Deshmukh T.S.  
Subject In charge

Ms.S.A Dhumane  
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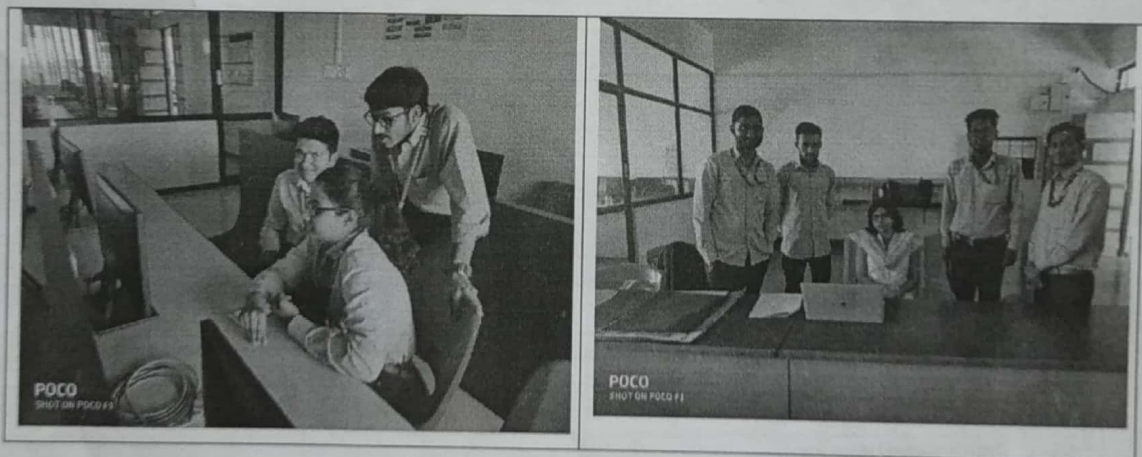
Dr. Birari. V.M  
HoD

66	TodkarSiddharthJayant	3	3	3	3	12
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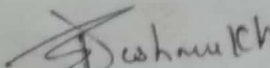
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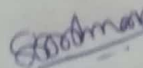
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