

Electronics & Telecommunication Engineering

Academic Year – 2020-2021	Class: Second Year
Semester – I	Date : Dec 2020
Subject : MIII / Data Structure	PO: 1,2,4,5,9,10,12

Innovative Teaching Methods

Title of Innovation method/activity: Experiential/Practical Learning

1. Name of Faculty: Dr.Satishkumar M. Bhati , Ms. Tejaswini Sachin Deshmukh

2. Subject: MIII / Data Structure

3. Objective of Method:

1. To co-relate Numerical method with C programming.
2. Apply the knowledge of mathematics, software engineering fundamentals, and an engineering specialization for the solution of complex engineering problems.
3. To create awareness in Numerical method in MIII.

4. **Topic Covered through Activity:**

Numerical Method, C Language.

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

A Experiential/Practical Learning is the process of learning through experience, and is more specifically defined as "learning through reflection on doing". Experiential learning entails a hands-on approach to students learning that moves away from just the teacher at the front of the room imparting and transferring their knowledge to students. It makes learning an experience that moves beyond the classroom and strives to bring a more involved way of learning.

The learner should possess and use analytical skills to conceptualize the experience. The learner must possess decision making and problem solving skills in order to use the new ideas gained from the experience.

The method:

1. An assigned task /activity is completed by an individual student.
2. The guidelines and material are provided in class room.
3. The students are given 10 numerical out of which 3 numerical are to be solved and its programming should be done in C language.

4. Student also have to give comparative analysis between theoretical value and value obtained from program.

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, contribute by means of discussion, hand-out.

6. Assessment Tools & Rubrics:

1. Mathematical Part [15 Mark]

- Full correctly solved. (15 Mark)
- Partial correctly solved (8 Mark)

2. Programming Part [20 Mark]

- Correct programming (20 Mark)
- Partial correct programming. (12 Mark)

3. Comparison [5 Mark]

- Comparison done (5 Marks).
- Comparison not done(0 marks)

4. Timely Submission [10 Mark]

- Submission on the time(10 marks)
- Submission done late(5 marks)

Criteria	3- High	1- Slight
Mathematical Part	Full correctly solved. (15 Mark)	Partial correctly solved (8 Mark)
Programming Part	Correct programming (20 Mark)	Partial correct programming. (12 Mark)
Comparison between Mathematical & Programming values	Comparison done	Comparison not done
Timely Submission	Submission on the time	Submission done late

Sr.no	Name of Students	Mathematical Part	Programming Part	Comparison	Timely Submission
1	Shirsat Aarti	15	20	5	5
2	Adhav Srushti	15	20	5	5
3	Aher Sagar	15	20	5	5
4	Andhalkar Sunny	0	0	0	0
5	Avhad Komal	0	0	0	0
6	Bafana Siddhi	15	20	5	10
7	Bedse Rituja	15	20	5	5
8	Bhamare Gayatri	10	20	5	5
9	Bhangale Nimish	15	20	5	5
10	Bharwad Sagar	0	0	0	0
11	Bhavsar Vaishnavi	15	20	5	5
12	Bhavsar Yash	8	20	5	5
13	Birari Madhura	15	20	5	10
14	Bodke Dipendra	12	20	5	5
15	Borse Jagruti	12	20	5	5
16	Borse Priyanka	15	20	5	5
17	Chaudhari Payal	15	20	5	5
18	Deore Nilesh	0	0	0	0
19	Desale Janhvi	15	20	5	5
20	Devkar Ishwar	15	20	5	5
21	Dhake Niket	15	20	5	5
22	Gabale Yash	15	20	5	5
23	Gaikwad Chaitrali	15	20	5	5
24	Gangurde Aditya	15	20	5	5
25	Gharate Jayesh	0	0	0	0
26	Gorade Kamlesh	15	20	5	5
27	Gore Dipali	8	20	5	5
28	Gosavi Nikita	15	20	5	5
29	Jadhav Ayush	15	20	5	5
30	Jadhav Dipak	13	20	5	5
31	Jadhav Gayatri	15	20	5	5

32	Jadhav Hemant	15	20	5	5
33	Jadhav Shubham	13	20	5	5
34	Jorwar Prachi	15	20	5	10
35	Kalgude Pooja	0	0	0	0
36	Kansepatil Durva	15	20	5	5
37	Kardile Kaveri	15	20	5	5
38	Kothawade Atharva	12	20	5	5
39	Mogal Vaishali	15	20	5	5
40	Navale Nikita	15	20	5	5
41	Patel Dhvani	15	20	5	5
42	Pathak Jaydip	0	0	0	0
43	Patil Aditya	0	0	0	0
44	Patil Chetan	0	0	0	0
45	Patil Gautami	15	20	5	5
46	Patil Nikhil	12	20	5	5
47	Patil Parth	15	20	5	5
48	Patil Tanvi	15	20	5	5
49	Pelmahale Hemant	15	20	5	5
50	Phadtare Shivani	15	20	5	5
51	Pingle Rutuja	15	20	5	5
52	Saindane Dhirajkumar	0	20	0	5
53	Sali Apurva	15	20	5	5
54	Shewale Sakshi	15	20	5	10
55	Shirsat Aarti	15	20	5	5
56	Sonawane Anushka	15	20	5	5
57	Sonawane Dhanashri	12	20	5	5
58	Sonawane Vaishnavi	15	20	5	5
59	Suryawanshi Sanika	15	20	5	5
60	Tayade Mandar	0	0	0	0
61	Tipare Manisha	8	20	5	5
62	Udawant Sakshi	15	20	5	5
63	Vishe Janhavi	15	20	5	5
64	Yeola Yash	8	20	5	5
65	Phegade Chandan	0	0	0	0

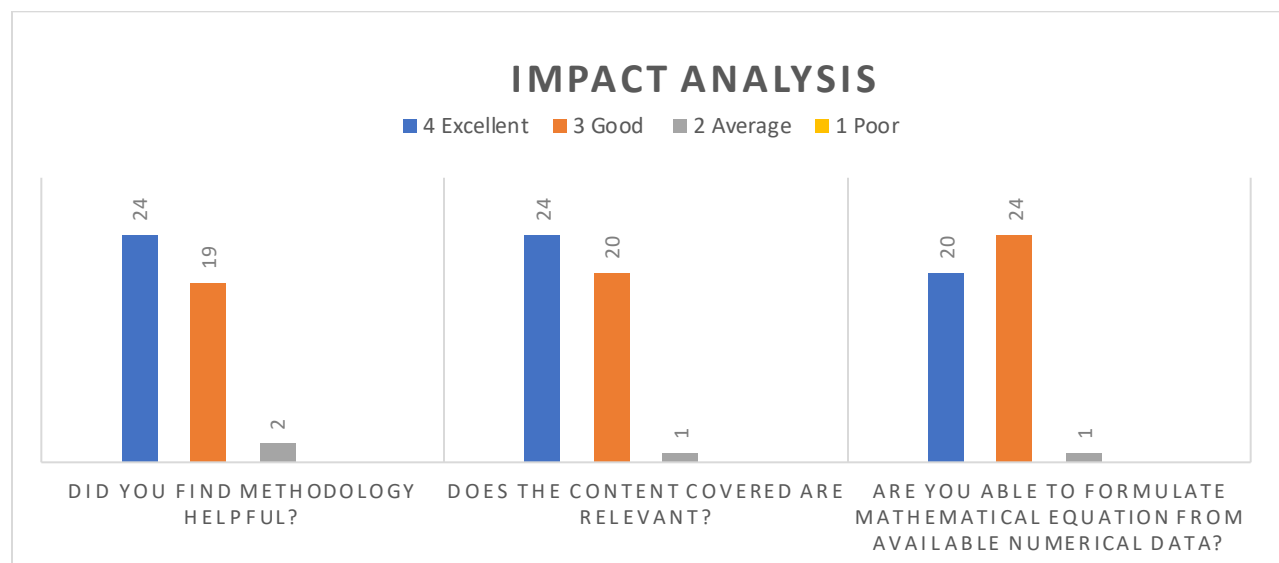
5. Evaluation Sheet

Sr. no	Name of Students	Mathematical Part	Programming Part	Comparison	Timely Submission	Final Mark
1	Shirsat Aarti	15	20	5	5	45
2	Adhav Srushti	15	20	5	5	45
3	Aher Sagar	15	20	5	5	45
4	Andhalkar Sunny	0	0	0	0	0
5	Avhad Komal Govind	0	0	0	0	0
6	Bafana Siddhi	15	20	5	10	50
7	Bedse Rituja	15	20	5	5	45
8	Bhamare Gayatri	10	20	5	5	40
9	Bhangale Nimish	15	20	5	5	45
10	Bharwad Sagar	0	0	0	0	0
11	Bhavsar Vaishnavi	15	20	5	5	45
12	Bhavsar Yash	8	20	5	5	38
13	Birari Madhura	15	20	5	10	50
14	Bodke Dipendra	12	20	5	5	42
15	Borse Jagruti	12	20	5	5	42
16	Borse Priyanka	15	20	5	5	45
17	Chaudhari Payal	15	20	5	5	45
18	Deore Nilesh	0	0	0	0	0
19	Desale Janhvi	15	20	5	5	45
20	Devkar Ishwar	15	20	5	5	45
21	Dhake Niket	15	20	5	5	45
22	Gabale Yash	15	20	5	5	45
23	Gaikwad Chaitrali	15	20	5	5	45
24	Gangurde Aditya	15	20	5	5	45
25	Gharate Jayesh	0	0	0	0	0
26	Gorade Kamlesh	15	20	5	5	45
27	Gore Dipali	8	20	5	5	38
28	Gosavi Nikita	15	20	5	5	45
29	Jadhav Ayush	15	20	5	5	45
30	Jadhav Dipak	13	20	5	5	43
31	Jadhav Gayatri	15	20	5	5	45

32	Jadhav Hemant	15	20	5	5	45
33	Jadhav Shubham	13	20	5	5	43
34	Jorwar Prachi	15	20	5	10	50
35	Kalgude Pooja	0	0	0	0	0
36	Kansepatil Durva	15	20	5	5	45
37	Kardile Kaveri	15	20	5	5	45
38	Kothawade Atharva	12	20	5	5	42
39	Mogal Vaishali	15	20	5	5	45
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43	Patil Aditya	0	0	0	0	0
44	Patil Chetan	0	0	0	0	0
45	Patil Gautami	15	20	5	5	45
46	Patil Nikhil	12	20	5	5	42
47	Patil Parth	15	20	5	5	45
48	Patil Tanvi	15	20	5	5	50
49	Pelmahale Hemant	15	20	5	5	45
50	Phadtare Shivani	15	20	5	5	45
51	Pingle Rutuja	15	20	5	5	45
52	Saindane Dhirajkumar	0	20	0	5	25
53	Sali Apurva	15	20	5	5	45
54	Shewale Sakshi	15	20	5	10	50
55	Shirsat Aarti	15	20	5	5	45
56	Sonawane Anushka	15	20	5	5	45
57	Sonawane Dhanashri	12	20	5	5	42
58	Sonawane Vaishnavi	15	20	5	5	45
59	Suryawanshi Sanika	15	20	5	5	45
60	Tayade Mandar	0	0	0	0	0
61	Tipare Manisha	8	20	5	5	38
62	Udavant Sakshi	15	20	5	5	45
63	Vishe Janhavi	15	20	5	5	45
64	Yeola Yash	8	20	5	5	38
65	Phegade Chandan	0	0	0	0	0

6. Impact Analysis

<i>Questions</i>	<i>4 Excellent</i>	<i>3 Good</i>	<i>2 Average</i>	<i>1 Poor</i>
Did you find methodology helpful?	24	19	02	
Does the content covered are relevant?	24	20	01	
Are you able to formulate mathematical equation from available numerical data?	20	24	01	
<i>Questions</i>	<i>Yes</i>	<i>No</i>	<i>Maybe</i>	
3. Were you able to correlate numerical method & c program?	39		6	
5. Would you like to participate in this methodology again?	43		2	
6. Will you be able to develop C program for any future mathematical problem	41	01	02	



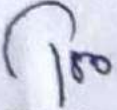
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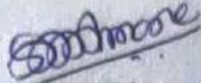
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