PET ENGINEERING COLLEGE

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Department of Computer Science and Engineering

Academic Year 2021 – 2022 (EVEN Semester)

Degree, Semester & Branch: IV Semester B.E Computer Science and Engineering

Course Code & Title: CS8494 - Software Engineering

Name of the Faculty member (s): Mrs. Roja Begam Y, AP/CSE

Innovative Practice Description

- **Unit / Topic: Unit II /** Requirement Validation
- **Course Outcome:** CO2
- **Activity Chosen:** Flipped Classroom
- **Justification:**

  A flipped classroom (also called a reverse, inverse, or backward classroom) is a pedagogical approach in which basic concepts are provided to students for pre-class learning so that class time can apply and build upon those basic concepts. The topic chosen to perform the activity is requirement validation. It includes sub-topics that elaborately discuss the requirement checking and the requirement validation in a better way to explain the requirement engineering process of the software.

Time Allotted for the Activity:

- **Procedure of the Implementation:**

Materials for the Activity:

- The materials for the preparation of the students were shared two days before through LMS Canvas. Including the material, students were asked to refer to the web content also.

Formation of Groups:

As per the number of sub-topics, student groups were created as below:

- Number of sub-topics: 05
- Class Strength: 65
- Number of groups: 11
- Members per group: 06

Topic Allocation:

- For five sub-topics, students were divided into eleven groups, and topics were allotted in advance. The students must prepare a 5-minute presentation, including the topic learned, 2 minutes for questions and answers, and a description of each member's participation.

Topic Delivery:

- The main objective of the flipped classroom activity is that each group will learn one concepts, and the presentation helps the other members learn about the topic as well.

Details of the Implementation

- Teacher gave a topic to the different teams about the various requirement validations. Students prepare about what they know or have learned in software requirement validation process and come up with their presentation and the teacher asks them present their presentation [Takes 3-5 Minutes]. The Figure 1 shows the presentation details of the students.
- Students share their thoughts and presentation with the entire class. Students and Teacher interact with the team in the questions and answers Session. Finally, Teacher moderates the discussion and highlights important points. [Takes 02-05 minutes].

- **CO – PO / PSO mapping:**

CO	PO1	PO2	PO3	PO4	PO8	PO10	PO11	PO12
CO1	3	3	3	1	1	1	1	2

(1 – Low 2 – Moderate 3 – High)

Reflective Critique:

- ***Feedback of practice from students and other stakeholders:***
  - The material shared with us helped a lot with slide preparation.
  - The choice of group formation given to the students provided an opportunity to pick their team members.
- ***Benefit of the practice:*** (E.g.: Outcome attainment would have increased due to innovative practice over conventional practice)
  - Because of a creative approach rather than traditional practice, outcome achievement might have improved.
  - Many students presented their slides with some examples without any stage fear.
  - The activity helped the students do their roll better.
  - The exercise is planned for the students, and it includes interactions and discussions that help students better understand the topics.
- ***Challenges faced in implementation:***
  - Time management is a big challenge because few students delivered their topics elaborately.
  - Not able to get a few students participation levels up to the expected level due to stage fear.
  - Need to allot more time for question and answer sessions.