

INNOVATIONS IN TEACHING AND LEARNING

Subject: Wireless Sensor Networks

Class: T.Y. BTech E&TC

Topic: Crossword on the basics of wireless sensor networks

NAME OF THE ACTIVITY: Crossword

I. Concept:

The activity involves creating a crossword puzzle based on the fundamental concepts of Wireless Sensor Networks (WSNs), including sensor nodes, communication protocols, network architecture, and key terminology. Students solve the crossword by recalling definitions, components, and applications, reinforcing their conceptual understanding.

II. Objective(Goal):

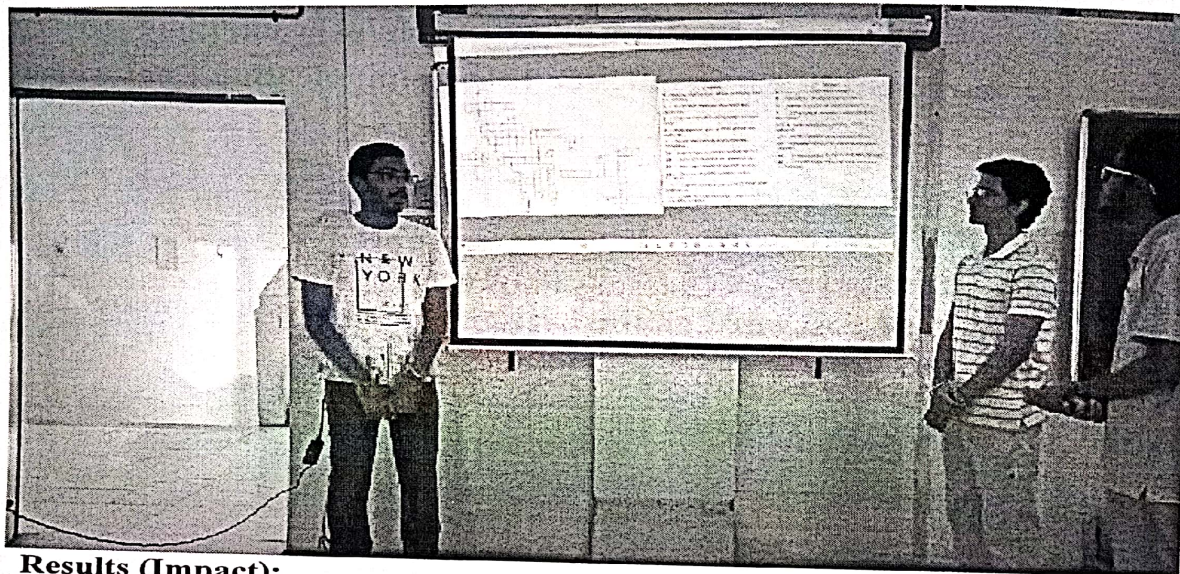
- a. To enhance students' retention of WSN terminology and core concepts.
- b. To encourage active learning through an engaging and interactive method.
- c. To assess students' understanding in a fun and non-traditional way.

III. Appropriateness (Relevance of Selected Method):

- a. Crossword puzzles promote active recall, which strengthens memory retention.
- b. Suitable for topics with extensive terminology, like WSNs.
- c. Encourages students to think critically about definitions and relationships between concepts.

IV. Effective Presentation (Implementation Details):

- a. The crossword was prepared using key terms from the WSN syllabus (e.g., nodes, MAC protocols, routing, energy harvesting).
- b. Clues were crafted to be concise but thought-provoking.
- c. Presented in class using printed worksheets or interactive digital platforms.
- d. Students solved individually or in small groups to foster collaboration.



V. Results (Impact):

- Improved engagement and participation in class.
- Strengthened students' understanding and recall of WSN fundamentals.
- Encouraged peer discussion and collaborative learning.

VI. Reproducibility and Reusability by Other Scholars for Further Development

Sr.No	Innovation Used by	Details of User	Purpose of Reproducibility and Reusability
1.	Mrs. Shweta Desai	RSCOE	Students start participating in logical thinking.

VII. PEER REVIEW AND CRITIQUE

Category: Internal/External/Interdepartmental

Score: (1:Least 2: Moderate 3:Highly)

Question 1. Is this Innovative Teaching and Learning Methodology useful during content delivery?

Question 2. Did this innovation increase student motivation or participation?

Question 3. Will it show improvement in student learning?

Question 4. Suggestions for improvement in future iterations.

Category	Name of Peer	Organization	Q.1	Q.2	Q.3	Q.4 Suggestion/Critique
Internal	Mrs. Shweta Desai	RSCOE	3	3	3	maintain a balance between easy, moderate & challenging
External	Mrs. V. M. Lakshmi	DYPCOE	3	3	3	create separate crosswords for modules like Architecture, protocol etc.

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