



Department of Electronics and Communication Engineering

Academic Year 2024 – 2025 (Odd Semester)

Degree, Semester & Branch: V Semester B.E. ECE B

Course Code & Title: CBM341 Body Area Networks

Name of the Faculty member: Mr.D.Gopinath

Innovative Practice Description

- **Unit / Topic: Unit IV / Regulatory Issues-Medical Device regulation in USA and Asia**
- **Course Outcome: CO4** The students will be able to explain the need for medical device regulation and regulations followed in various regions.
- **Topic Learning Outcome: TLO13** The students will be able to differentiate the Regulatory issues of BAN in various regions
- **Activity Chosen: Flipped Classroom**
- **Justification:**

There is various medical device regulation rules and guidelines can be followed in in USA and Asia for Body Area Network applications. Flipped classroom practice was chosen because the topic is splited by two groups. One group is concentrated for medical device regulation in USA and other is concentrated for medical device regulation in Asia.

- **Time Allotted for the Activity:** 22.10.2024-45 minutes

- **Details of the Implementation:**

The students were given with the reference materials to get prepared. The students were asked to make a group among them. The questions were asked from the topic they have prepared. As it is Medical Device regulation in USA and Asia, most of the questions were related to the system polices, rules and guidelines. As a group, they have discussed and came up with answer for the questions. After that, they were asked to get the class back together to share the individual's group work with everyone. While discussing like this, they can get an in-depth knowledge about the topic and they can clearly express their ideologies related to that topic.

- **CO – PO / PSO mapping:**

CO	PO1	PO2	PO3	PO9	PO10	PSO3
CO4	2	2	1	2	2	3

- **PO / PSO mapped:**

Innovative practice	PO1	PO9	PO10	PSO3
	2	2	2	3
Justification for correlation	Basic engineering fundamentals are applied	Needs individual and team work	Effective communication is required	Students got know about the rules and guidelines to design any Body Area Network systems

- **Images / Screenshot of the practice:**



- **Reflective Critique:**

- ❖ **Feedback of practice from students and other stakeholders:**

1. They can get engaged in class for the entire 50 minutes.
2. The activity acts as a better platform for discussion.
3. It is quite interesting.

- ❖ **Benefit of the practice:**

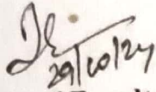
1. They will get exposed to text books and reference materials.
2. Better interaction and communication due to group activity.
3. All the students can effectively take part in the activity and the idea about the topic has been reached more students.

- ❖ **Challenges faced in implementation:**

1. To organize the activity little more time has been consumed than expected.

References:

1. <https://omerad.msu.edu/teaching/teaching-skills-strategies/27-teaching/162-what-why-and-how-to-implement-a-flipped-classroom-model>



Signature of Faculty Member



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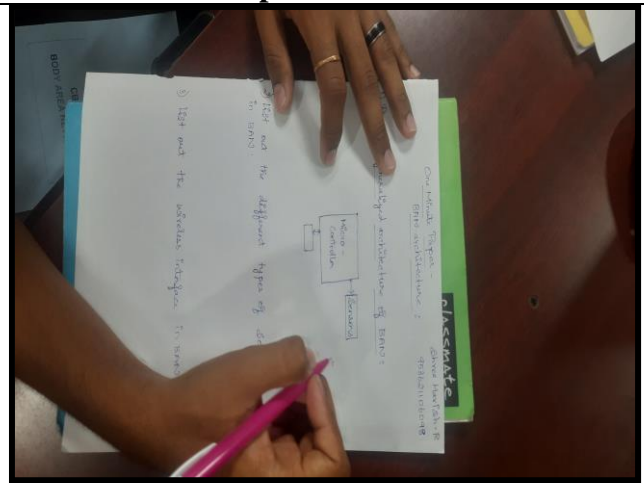
Department of Electronics and Communication Engineering
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Active Learning Activity- Unit-I- Introduction

Degree, Semester & Branch: V Semester B.E. ECE B
Course Code & Title: CBM341 Body Area Networks
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Name of the Topic	Name of the Activity	Date & Duration
BAN Architecture	One Minute Paper	27.08.2024 & 5 Minutes

BAN Architecture - One Minute Paper





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Active Learning Activity- Unit-II- Hardware for BAN

Degree, Semester & Branch: V Semester B.E. ECE B

Course Code & Title: CBM341 Body Area Networks

Name of the Faculty member: Mr.D.Gopinath

Name of the Topic	Name of the Activity	Date & Duration
Ceramic antenna, External antenna	Mindmap	10.09.2024 & 10 Minutes

Ceramic antenna, External antenna - Mindmap





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Active Learning Activity- Unit-III- Wireless Communication and Network

Degree, Semester & Branch: V Semester B.E. ECE B
Course Code & Title: CBM341 Body Area Networks
Name of the Faculty member: Mr.D.Gopinath

Name of the Topic	Name of the Activity	Date & Duration
Zigbee and Revision	Brain storming	09.10.2024 & 5 Minutes

Zigbee and Revision - Brain storming





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Active Learning Activity- Unit-V- Applications of BAN

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Name of the Topic	Name of the Activity	Date & Duration
Gait analysis	Class Poll	13.11.2024 & 5 Minutes

Gait analysis, Sports Medicine - Class Poll

<i>What is a primary objective of gait analysis in sports medicine?</i>				<i>Which of the following is a key focus of sports medicine?</i>			
Enhancing muscle strength	Improving cardiovascular endurance	Assessing and correcting abnormal walking patterns	Enhancing joint flexibility	Astronomy	Culinary Arts	Botany	The study and treatment of sports-related injuries