



H. J. THIM TRUST'S
THEEM COLLEGE OF ENGINEERING, BOISAR
Approved By AICTE (New Delhi) Government of Maharashtra & DTE
Affiliated To University of Mumbai

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Information and Communication Technology (ICT) for Effective Teaching-Learning Process

The institute has teaching-learning aids such as ICT, SMART Classrooms and Audio-video lab. The ICT and online platforms for e-learning (Microsoft Teams, Google Classroom, Google Meet, Zoom etc.) are been used in delivering the contents to enhance learning experiences, interest and engagement of the students.

Wi-Fi facility is available for each department in the campus to access internet facility. Online platforms for e-learning (Microsoft Teams, Google Classroom) are used for uploading lesson plans, laboratory schedule, question bank, notes, assignments, tutorials and presentations which help students to discuss and interact with teachers to clear their problems.

Teachers uses digital devices such as Desktop Computers, Laptop, Pen Tablet, Smart Phones, etc. to make virtual mode teaching just like the physical mode classroom environment.

Facility Available

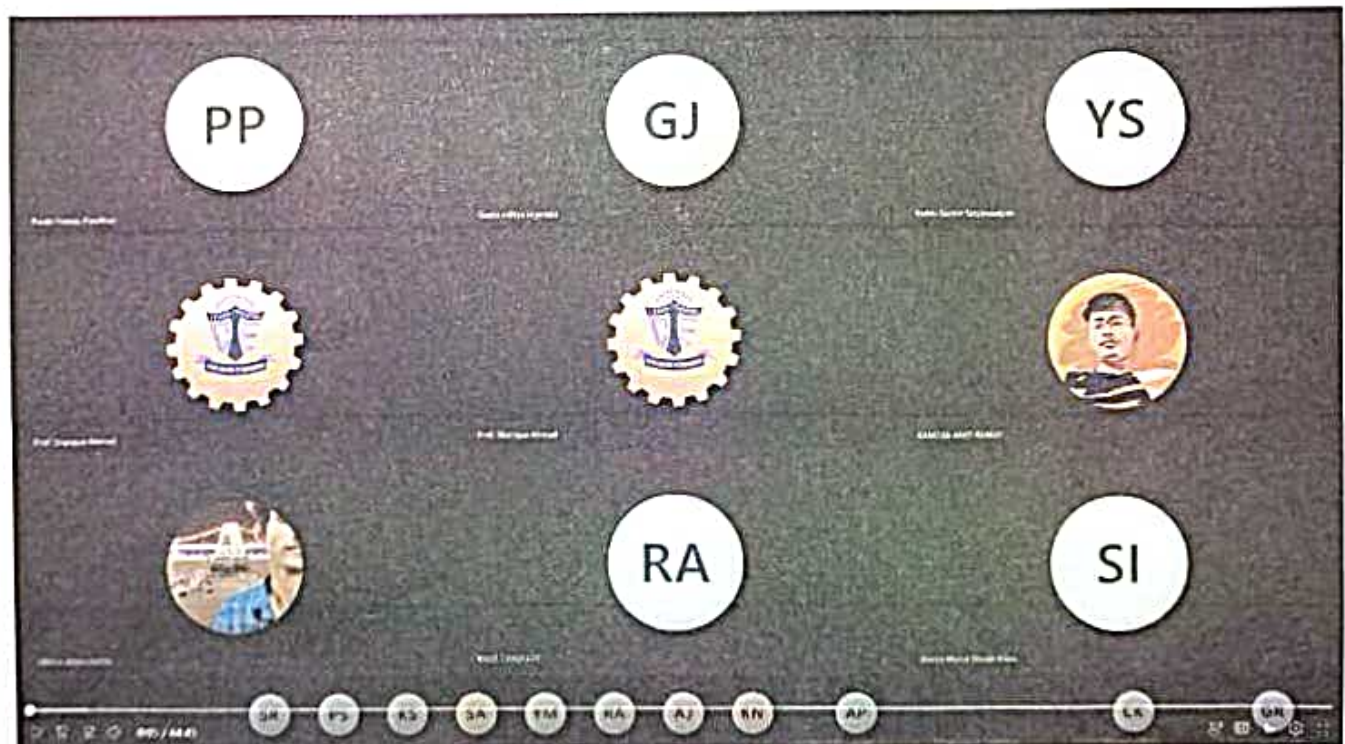
ICT tools and resources available	E-resources and techniques used	Number of ICT enabled classrooms	Number of smart classrooms
LCD PROJECTOR, COMPUTER, LAN, WiFi, Pen Tablet	Microsoft Teams, Google Meet, Google Classroom, Zoom, YouTube, National Digital Library, E-Books, NPTEL, PPT, WordPress, Internet based Learning, Google search engine, Open Source software.	29	2



Microsoft Teams Classes

Microsoft Teams visible window for Director, Theem College of Engineering, Boisar

- Lecture schedule for dated: 08th March 2023



- Lecture in progress

Module # 01 Basic concept of IPC - Microsoft Word

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Font Paragraph Styles


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- Inter-process communication is the mechanism provided by the operating system that allows processes to communicate with each other.
- This communication could involve a process letting another process know that some event has occurred or the transferring of data from one process to another.



```

graph LR
    P1[Process P1] <--> |Interprocess Communication| P2[Process P2]
  
```

- Inter-process communication is used for exchanging useful information between numerous threads in one or more processes (or programs).
- To understand inter process communication, you can consider the following given diagram that illustrates the importance of inter-process communication.



```

graph LR
    A[Dictionary] -- 1 one-way function --> B[User's Function]
    B -- 2 --> C[Library Module]
  
```

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Process Synchronization in Inter Process Communication

- Process Synchronization is the task of coordinating the execution of processes in a way that no two processes can have access to the same shared data and resources.
- It is one of the essential parts of inter process communication. Typically, this is provided by interprocess communication control mechanisms, but sometimes it can also be controlled by communication processes.
- On the basis of synchronization, processes are categorized as one of the following two types.
 - ✓ **Independent Process:** Execution of one process does not affect the execution of other processes.
 - ✓ **Cooperative Process:** Execution of one process affects the execution of other processes.
- Process synchronization problem arises in the case of Cooperative process also because resources are shared in Cooperative processes.

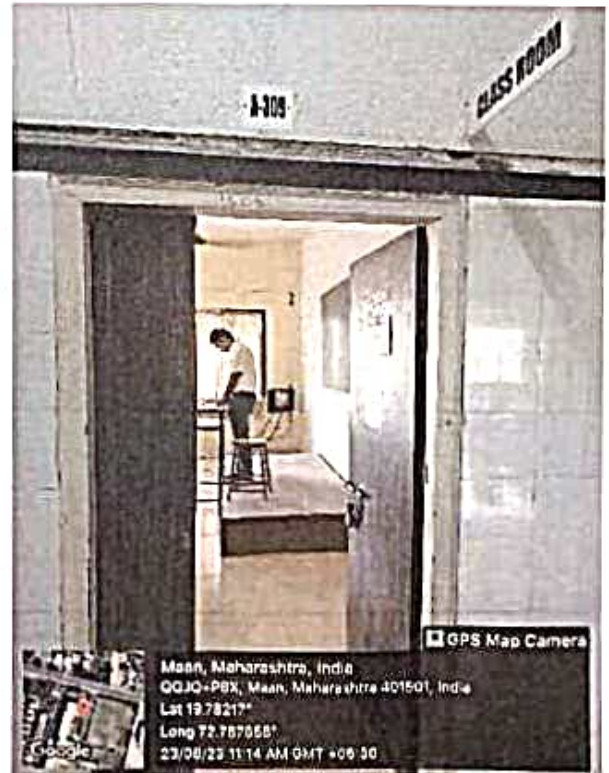
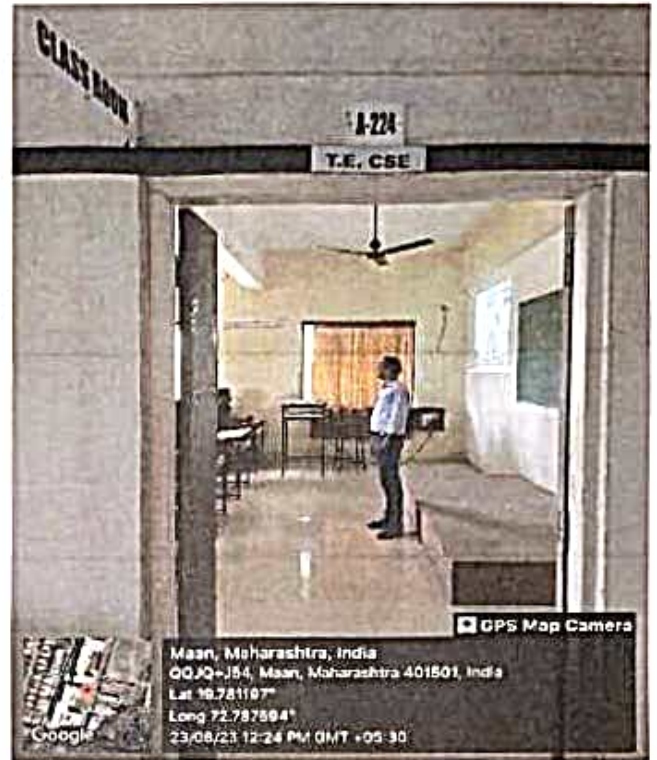
These are the following methods that used to provide the synchronization:

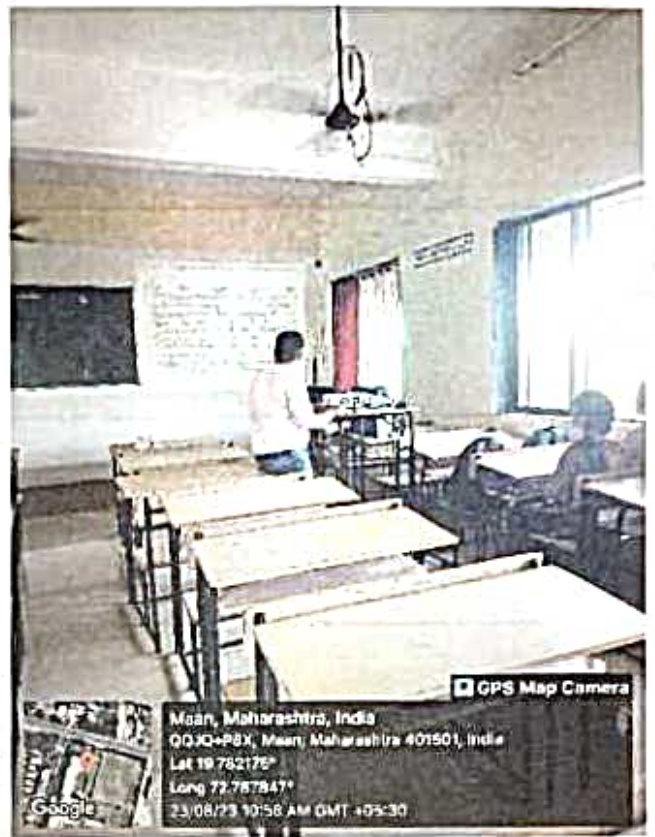
1. Mutual Exclusion
2. Semaphore
3. Barrier

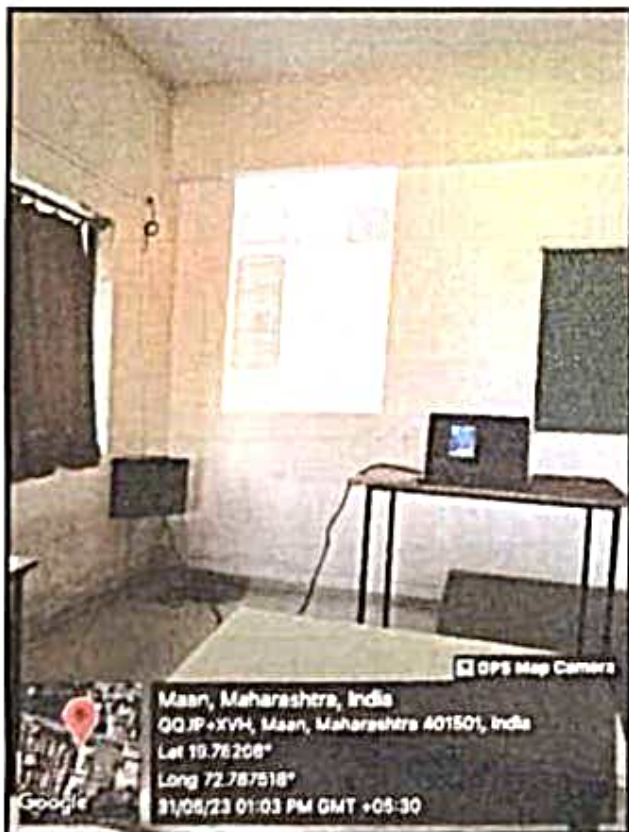
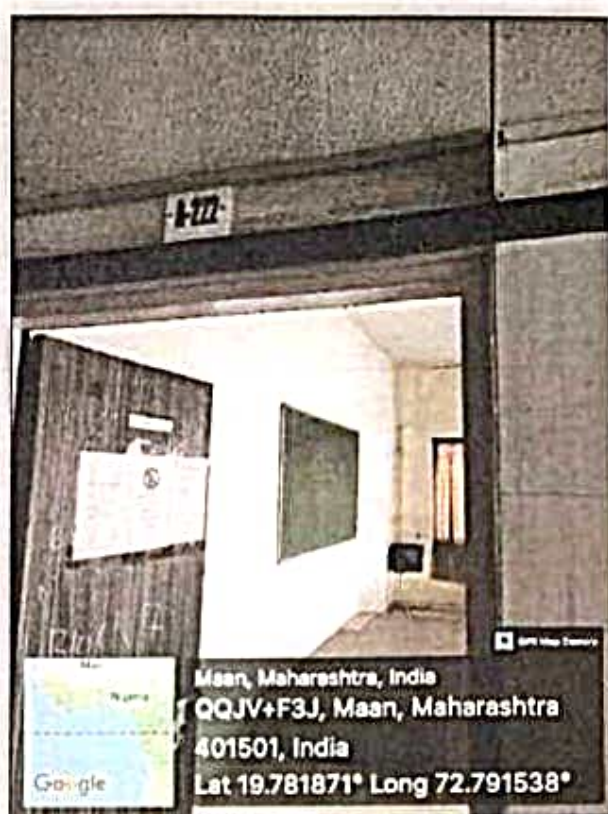
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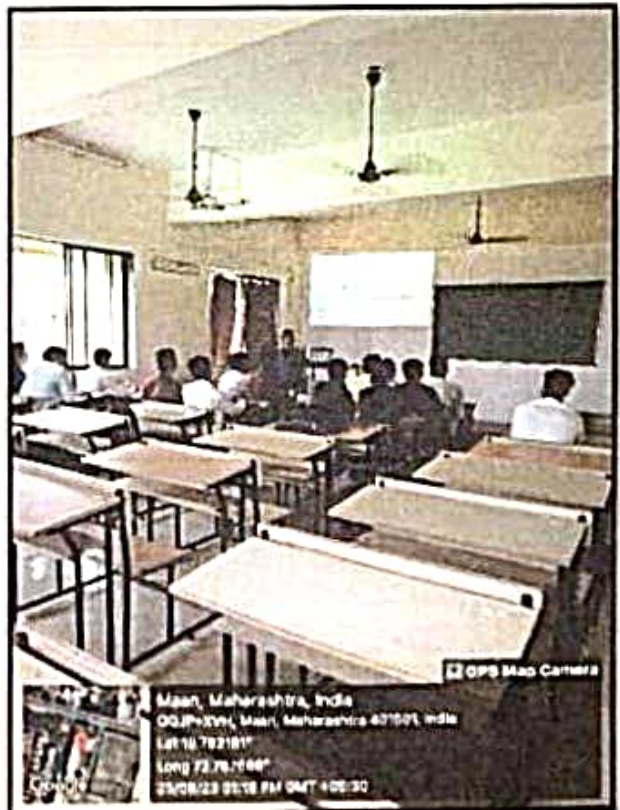
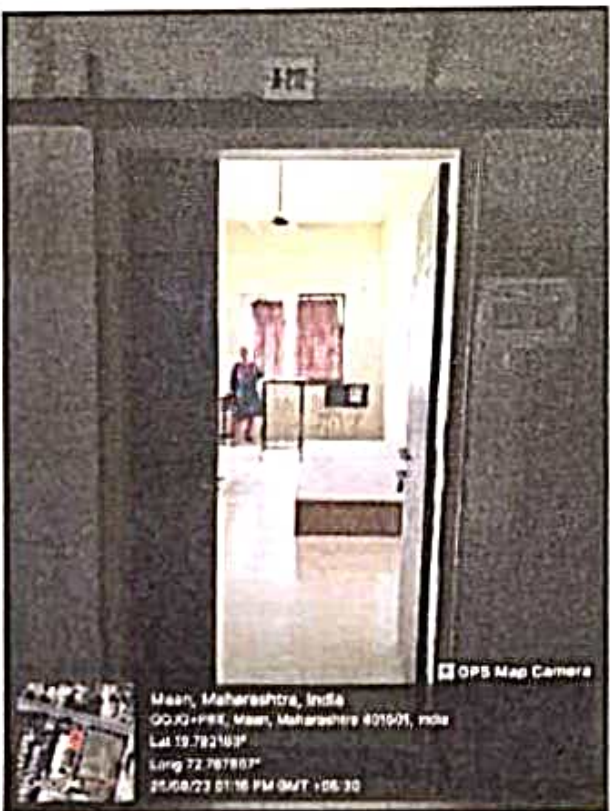
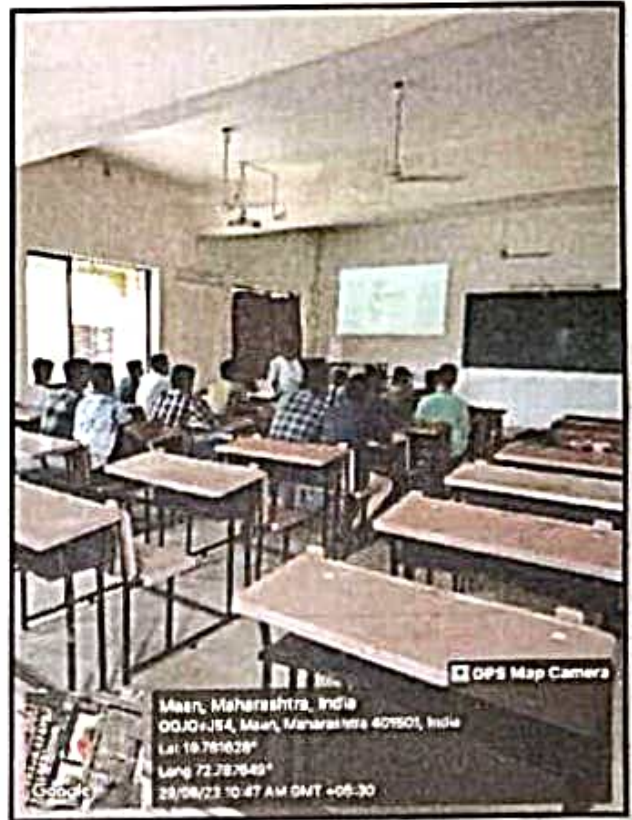
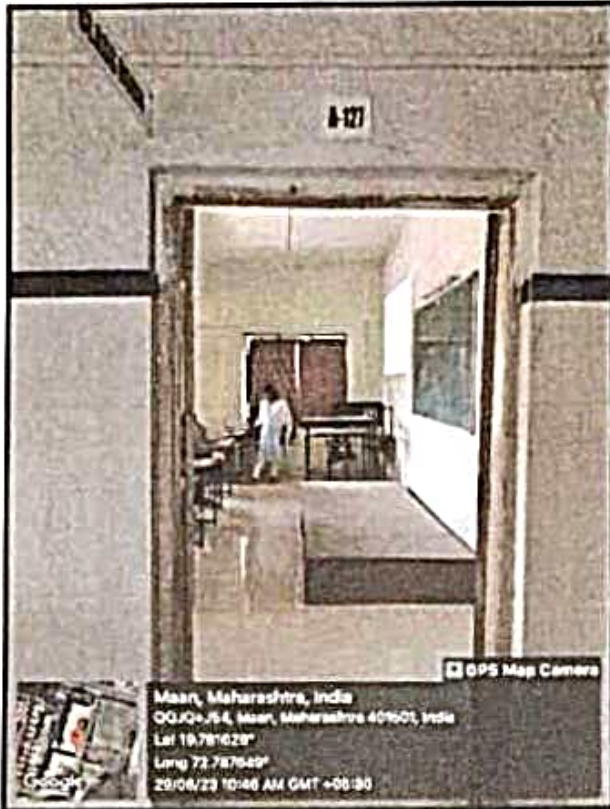


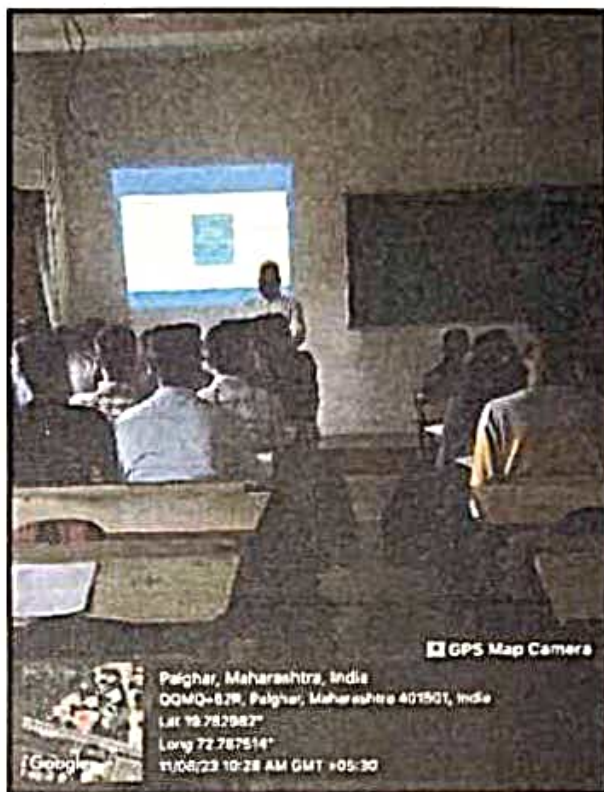
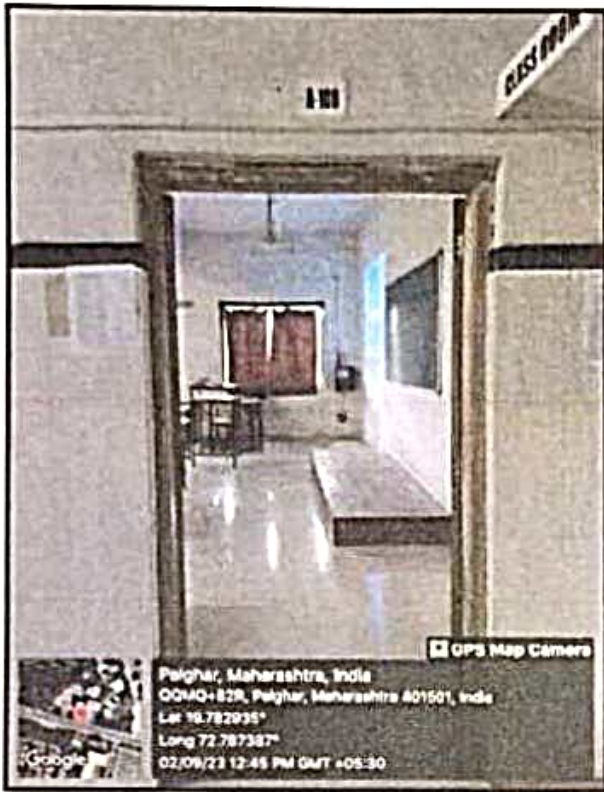
Glimpse of ICT Enabled / Smart classrooms











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