PSNA COLLEGE OF ENGINEERING AND TECHNOLOGY, DINDIGUL

(An Autonomous Institution affiliated to Anna University, Chennai)

Department of Computer Science and Engineering

1.1. Flipped Learning:

Flipped Learning using YouTube videos and PowerPoint presentations is an innovative teaching method where students engage with new content at home. In this approach, faculty members provide pre-recorded YouTube lectures and PowerPoint presentations in advance, enabling students to learn concepts at their own pace. Classroom time is then dedicated to interactive discussions, problem-solving, and hands-on activities, allowing students to deepen their understanding through active learning.

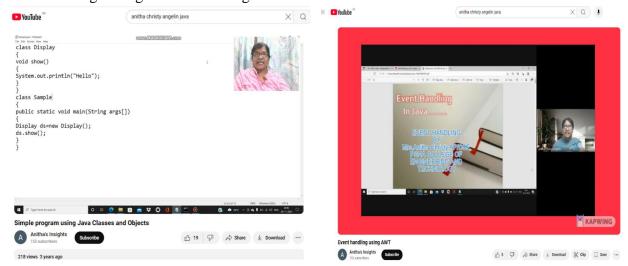


Figure 1. Flipped Learning

2022-23

| Sl. No | Course Code | Course Title | Faculty Name | Innovative Teaching Methodology | Topic |
|-----------|----------------|-------------------------------|------------------|--------------------------------------|--------------------|
| 1. | CS2221 | Programming in C | Mrs.T.Deepa | Flipped Learning - Animated Video | Linked List |
| 2. | CS2221 | Programming in C | Mr.M.Kamarajan | Flipped Learning - Animated Video | Linked List |
| 3. | CS3352 | Foundation of Data Science | Dr.Y.Arockia Raj | Flipped Learning - Demonstration | Data Visualization |
| 4. | CS3352 | Foundation of Data Science | Dr.N.Kalpana | Flipped Learning - Demonstration | Data Visualization |

| 5. | CS8501 | Theory of Computation | Dr.D.Suresh | Flipped Learning - Animated Video | Turing Machine |
|----|--------|------------------------|-------------------|-----------------------------------|----------------------------|
| 6. | CS8501 | Theory of Computation | Mrs.C.Sathya | Flipped Learning - Animated Video | Turing Machine |
| 7. | CS8501 | Theory of Computation | Dr.N.Dhanalakshmi | Flipped Learning - Animated Video | Halting problem |
| 8. | CS8591 | Computer Networks | Ms.S.Naganandhini | Flipped Learning - Animated Video | OSI Model |
| 9. | CS8603 | Distributed Systems | Mrs.G.Mariammal | Flipped Learning - Animated Video | Checkpointing and Rollback |

2023-2024

| Sl. No | Course Code | Course Title | Faculty Name | Innovative Teaching Methodology | Topic |
|-----------|----------------|--|-------------------------------|--------------------------------------|-------------------------------|
| 1. | CS2312 | Data Structures | Dr.A.Thomas Paul Roy, Prof | Flipped Learning - Animated Video | Stack and Queue |
| 2. | CS2312 | Data Structures | Dr.N.Dhanalakshmi, Prof | Flipped Learning - Animated Video | Searching and sorting |
| 3. | CS2312 | Data Structures | Dr.S.Faritha Begum, AP | Flipped Learning - Animated Video | Prims & Kruskals Algorithm |
| 4. | CS3591 | Computer Networks- Lab integrated | Mrs.G.Mariammal, AP | Flipped Learning - Animated Video | Subnetting |
| 5. | CS3554 | Distributed Computing | Mrs.T.Deepa, AP | Flipped Learning - Animated Video | Log-based rollback recovery |
| 6. | CCS344 | Cyber Security and Practices domain- Ethical Hacking- Lab integrated | Dr.M.Buvana,ASP | Flipped Learning - Demonstration | Hack the Mobile SMS |
| 7. | CCS365 | Software defined networks | Dr.N.Kalpana, AP | Flipped Learning - Demonstration | Virtual box/Mininet |

| | | | | | Environment for SDN |
|----|--------|--------|-----------------------|--------------------------------------|---------------------|
| 8. | CCS342 | Devops | Mrs.T.Deepa, AP | Flipped Learning - Animated Video | DevOps CI/CD |
| 9. | CCS342 | Devops | Mr.M.Kamarajan, AP | Flipped Learning - Animated Video | DevOps CI/CD |

2024-2025