**Lesson Plan Form**

**Course Title: Digital and Satellite Communication**

**Course Code: ETE-452**

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| **Title:**   * Error Detection and Correction * Implementation of Error Detection on Satellite Links | | | **Ref. No:** ETE 452/15 | |
| **Target Population:** 25 | | | **Duration:** 90 minutes | |
| **Aims/Rationale:** The transmission of information over a satellite communication system always results in degradation in the quality of the information. In this lesson, students are able to find out the error detection and Correction and implemented the error Detection on Satellite Links. | | | | |
| Learning Outcomes: At the end of the session participant will be able to :   1. Understand the Error Detection and Correction 2. Understand the Implementation of Error Detection on Satellite Links. | | | | |
| **Content** | **Method or Technique** | **Resource or Aid** | | **Time** |
| **Introduction:** Welcome address  Rapport building  Bridging topic  Layout/ content outline  Attendance  Pre-assessment | Lecture  Q/A | W/B | | 10 minutes |
| **Development:**  **Section-A**  Error Detection and Correction  Channel Capacity  **Section-B**  Error Control Coding  Example  Linear and Cycle Block Codes  Golay Codes  **Section-C**  Performance of Block Error Correction Codes  Convolution Codes  **Section-D**  Implementation of error Detection on Satellite Links  Concatenated Coding and Interleaving  Examples | Lecture  Discussion  Do  Do  Do | W/B  MMP  Video | | 20 minutes  15 minutes  20 minutes  15 minutes |
| **Conclusion:**  Recap main points  Feedback & answer  Assessment of LOs  Reference  Forward plan | Lecture  Discussion  Q/A |  | | 10 minutes |
| **Equipment & aids:** Optional | | | | |