Lesson Plan Form

**Course Title: Digital and Satellite Communication**

**Course Code: ETE-452**

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| **Title:** Satellite Link Design- Basic Transmission Theory   * System Noise Temperature and G/T Ratio | | | **Ref. No:** ETE 452/06 | |
| Target Population: 25 | | | **Duration:** 90 minutes | |
| **Aims/Rationale:** To teach the students about the satellite link design including the basics transmission theory and system noise Temperature and G/T Ratio. | | | | |
| **Learning Outcomes:** At the end of the session participant will be able to :   1. Understand the Basic Transmission theory for satellite communication system. 2. Understand System Noise Temperature and G/T Ratio. 3. Find out the Calculation of system Noise Temperature with example. 4. Draw noise figure and Noise Temperature. | | | | |
| **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**  Introduction all over the lesson  Basic Transmission Theory  Example  **Section-B**  System Noise Temperature and G/T Ratio  Noise Temperature  **Section-C**  Calculation of system Noise Temperature  Example  **Section-D**  Noise Figure and Noise Temperature  Example  G/T Ratio for Earth Stations  Example | Lecture  Discussion  Do  Do  Do | W/B  MMP  Video | | 15 minutes  20 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 | | | | |