**Lesson Plan Form**

**Course Title:** Digital and Satellite Communication

**Course Code:** ETE-452

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| **Title:** System Design Example (KU Band).  | **Ref. No**: ETE 452/09  |
| **Target** Population: 25 | **Duration:**90 minutes |
| **Aims/Rationale:** To teach the students about the system design example and also teach the different parameters which are included to design a satellite. The goal of systems design is to build a system that is effective, reliable, and maintainable. A system is effective if is satisfies the defined requirements and constrains. The system also must be accepted by users use it to support the organization’s business objectives.  |
| **Learning Outcomes:** At the end of the session participant will be able to :1. Understand the importance of System Design.
2. Understand how to design Ku Band Uplink and Downlink system.
3. Rain Effects at Ku band.
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| **Content** | **Method or Technique** | **Resource or Aid** | **Time** |
| **Introduction**: Welcome addressRapport buildingBridging topicLayout/ content outlineAttendancePre-assessment | LectureQ/A | W/B | 10 minutes |
| **Development:****Section-A** Ku-Satellite parametersTransmitting and Receiving Ku-Band earth station.**Section-B**System Design Example Ku-Band Uplink Design Ku-Band Downlink Design **Section-C**Rain effects at Ku BandSummary of Ku-Band link Performance Personal Communication System Using Low Earth Orbit Satellites. | LectureDiscussionDoDo | W/BMMPVideo | 20 minutes25 minutes25 minutes |
| **Conclusion:**Recap main pointsFeedback & answerAssessment of LOsReferenceForward plan | LectureDiscussionQ/A |  | 10 minutes |
| **Equipment & aids:** Optional |