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| **Course Code** | **Course Name** | **L-T-P - Credits** |
| **EE 252** | **POWER SYSTEMS - I LAB** |  **0-0-2 : 1** |
| **Prerequisite: NIL Corequisite: Power System-I** |
| **Course Objective:** To provide practical idea on operation of different transmission models and distribution networks as well as learning the application of Matlab software in Power Systems. |
| **Syllabus (List of Experiments)** |
|  | 1. Study on DC distributor fed at only one end by the feeder.
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|  | 1. Study on DC distributor fed at both the end by the feeders.
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|  | 1. Study and design DC three wire distribution system
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|  | 1. Study and design Ring main system
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|  | 1. To write a Matlab Program for Corona Loss calculation.
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|  | 1. To write a Matlab Program for Sag and tension calculation.
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|  | 1. Determination of A, B, C, D parameters, voltage regulation and efficiency of a Short transmission line model.
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|  | 1. To find out A, B, C, D parameters, voltage regulation and efficiency of a T and PI transmission line model.
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|  | 1. To find out A, B, C, D parameters, voltage regulation and efficiency of a Long transmission line model.
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|  | 1. NO load test and ferranti effect.
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|  | 1. Load test and Calculation of Regulation, efficiency of Transmission line.
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|  | 1. Capacitive VAR compensation in medium transmission line.
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| **Supplementary Readings:**1. I.J Nagrath & D.P. Kothari, “Modern Power System Analysis”, Tata McGraw Hill, 4th Edition, 2011.
2. C.L. Wadhwa, “Electric Power System”, New Age International Publishers, 6th Edition, 2010
3. W. D. Stevenson, “Element of Power System Analysis”, McGraw Hill, 4th Edition, 1982
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