## Flexible AC Transmission Systems

| Contact Hours | Credit Hours: |
|---|---|
| Theory = 48 | Theory = 3.0 |
| Semester | 4th Semester |

PREREQUISTE

Power Electronics

SUGGESTED COURSE LEARNING OUTCOMES

Flexible AC Transmission Systems (FACTS) Concept and General System Consideration, System Compensation, Bi-direction AC voltage converter, Voltage-Sourced converter, Self- and Line-Commutated Current-Sourced Converters, Static Shunt and Series Compensators, thyristor-controlled reactor (TCR), Thyristor-switched capacitor (TSC), Static Var compensator (SVC), Static Synchronous Compensator (STATCOM), Thyristor Controlled Series Capacitor (TCSC) , Static Synchronous Series Compensator (SSSC), Combined Compensators, Unified Power Flow Controller (UPFC) and Interline Power Flow Controller (IPFC).

RECOMMENDED BOOKS:

1. Narain G. Hingorani, Laszlo Gyugyi. “Understanding FACTS: concepts and technology of flexible AC transmission systems” (latest Edition), IEEE Press Marketing.

2. J. Arrillaga, Y.H. Liu, N.R. Watson. Flexible power transmission the HVDC options.(latest Edition) John Wiley & Sons.