



NATIONAL INSTITUTE OF TECHNOLOGY ROURKELA
Department of Electrical Engineering
B.TECH. FINAL YEAR PROJECT

Work Plan

Shubham : Security Constrained Unit Commitment

- Fast Decoupled Load Flow analysis - for all IEEE test systems (*August*)
- Constrained optimization, economic dispatch, optimal power flow analysis - for all IEEE test systems (*September - October*)
- Unit commitment by dynamic programming - for IEEE 9 and 14 bus test systems (*October - November*)
- \LaTeX for technical writing, report and presentation for Autumn semester evaluation (*November*)
- Unit commitment by Lagrange Relaxation technique (for large systems) (*December - January*)
- Security constrained unit commitment (*February - March*)
- Thesis and presentation for final evaluation (*April*)

Priyanka : Optimal rescheduling of load and generation under Deviation Settlement Mechanism

- Fast Decoupled Load Flow analysis, Frequency Dependent Load Flow analysis - for all IEEE test systems (*August - September*)
- Constrained optimization (quadratic optimization), frequency correction - preliminary results (*September - October*)
- \LaTeX for technical writing, report and presentation for Autumn semester evaluation (*November*)
- Model Predictive Control (MPC), Availability Based Tariff, Deviation Settlement Mechanism (*Dec - Jan*)
- Frequency control using MPC (*February - March*)
- Thesis and presentation for final evaluation (*April*)

Siddhant : Congestion management of power system using Model Predictive Control

- Fast Decoupled Load Flow analysis - for all IEEE test systems (*August*)
- Sensitivity analysis - for all IEEE test systems (*September - October*)
- Congestion management using sensitivity analysis (*October - November*)
- \LaTeX for technical writing, report and presentation for Autumn semester evaluation (*November*)
- Constrained optimization (quadratic optimization), Model Predictive Control (MPC) (*Dec - Jan*)
- Congestion management using MPC (*February - March*)
- Thesis and presentation for final evaluation (*April*)

Swastik : Transient-Stability Analysis of Multi-Machine System using Energy Function Method

- Fast Decoupled Load Flow analysis - for all IEEE test systems (*August*)
- Simulation of power system dynamics - for all IEEE test systems (*September - October*)
- Time-domain analysis for transient stability assessment (*October - November*)
- \LaTeX for technical writing, report and presentation for Autumn semester evaluation (*November*)
- Energy function method, Lyapunov stability (*December - February*)
- Transient stability analysis using energy function method (*February - March*)
- Thesis and presentation for final evaluation (*April*)