



**E5206 Jan 3:0**

## **High Voltage Power Apparatus**

### **Instructor**

L Satish, Udaya Kumar, BS Rajanikanth  
Email: satish@iisc.ac.in; udayk@iisc.ac.in; raj@iisc.ac.in

### **Teaching Assistant**

-  
Email: -

### **Department: Electrical Engineering**

Course Time: Tu, Th 9:30-11:00

Lecture venue: HV Engg building classroom

Detailed Course Page: -

### **Announcements**

-

### **Brief description of the course**

B.Tech students in electrical power engineering can take this course. Various modern day condition monitoring and diagnostic techniques applicable to power transformers, HV impulse testing and issues in interpretation of data, frequency response analysis, surge phenomenon, travelling and standing waves, short circuit forces, HV switching devices, electric arcs, CB testing are discussed. Engineers working in power sector will be benefitted from this course.

### **Prerequisites**

none

### **Syllabus**

HV power transformers, equivalent circuit, surge phenomenon, short circuit forces, impulse testing, diagnostics and monitoring techniques, natural frequencies, introduction to HV switching devices, electric arcs, short circuit currents, TRV, CB types, testing

### **Course outcomes**

\* Advanced knowledge in high voltage power apparatus

- \* enhanced understanding in monitoring and diagnostic aspects of transformer
- \* expertise in testing aspects of circuit breakers
- \* advanced knowledge in power transformer design, testing, short circuit force calculations

## **Grading policy**

50% sessional/internals

50% final exam

## **Assignments**

-

## **Resources**

books and IEEE papers