

## 19EE301- ELECTRIC CIRCUITS

### Topic:

Kirchhoff's Current Law and Kirchhoff's Voltage Law

### Overview of the Topic

**Kirchoff's Current Law (KCL)** states that, 'in an electric network, the algebraic sum of currents meeting at any junction is zero'. Since charges can never accumulate at any point, the charges flowing towards a junction must be equal to the charges flowing away from the junction.

**Kirchoff's Voltage Law (KVL)** states that, 'in an electric network, the algebraic sum of voltages in a closed path is zero'. Since potential at a point is a single value, the sum of all potential drops must be equal when traversing a closed path and coming back to the same point.

### Teaching Method

Video Lecture

### Proof for the activity

<https://youtu.be/anp3T49kfvw>

### Feedback from the students about the activity and Knowledge gained

Students got the knowledge about the working of kirchoff's laws in simulation and hardware ..

### Outcome of the activity

Students are able to do the simulation and hardware connections of any circuit and can able to check KCL and KVL