## NETWORK ANALYSIS AND SYNTHESIS

## Unit – II:

**Network Theorems (Applications to AC Networks)** 

- Superposition theorem,
- Thevenin's theorem,
- Norton's theorem,
- Maximum power transfer theorem,
- Reciprocity theorem
- Millman's theorem
- Compensation theoremTellegen's theorem.

### 2.7 – Substitution Theorem

#### **The substitution theorem states:**

➢ If the voltage across and the current through any branch of a dc bilateral network is known, this branch can be replaced by any combination of elements that will maintain the same voltage across and current through the chosen branch.

Simply, for a branch equivalence, the terminal voltage and current must be the same.

# THANKS....

## Queries Please...