Course/Topic: EWTL / Transmission lines
Course Outcome:
Activity Chosen: Think pair share

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Think pair Share:
Think-pair-share (TPS) is a collaborative learning strategy where students work together to solve a problem or answer a question about an assigned reading. This strategy requires students to (1) think individually about a topic or answer to a question; and (2) share ideas with classmates. Discussing with a partner maximizes participation, focuses attention and engages students in comprehending the reading material.
Transmission lines:
Transmission line is used to carry out signal from one end to other end. Here, transmission line is also used to connect between source and load. When the line is not terminated properly, reflection will occur in a transmission line. Due to this, reflected wave is travelled to opposite direction of incident wave. This concept cannot be demonstrated that how both signal flow inside the transmission line. Multimedia clip helps to visualize how the signals are reflected back from load to source. They are widely used in various applications, including power distribution, telecommunications, radio frequency (RF) systems, and high-speed data transmission.
Types of Transmission Lines: There are two primary types of transmission lines:
Power Transmission Lines: These are used for transmitting electrical power over long distances from power plants to substations and distribution networks.
Communication Transmission Lines: These are used for transmitting signals and data, such as telephone, internet, radio, and television signals
Characteristic Impedance: Transmission lines have a characteristic impedance, which is the ratio of voltage to current in the line. Wave Propagation: Signals transmitted through transmission lines propagate as electromagnetic waves.
Propagation Modes: Transmission lines support different modes of wave propagation, such as the TEM (Transverse Electro-Magnetic) mode, which is typical in coaxial cables and twisted-pair cables, and guided modes, which include TE (Transverse Electric) and TM (Transverse Magnetic) modes found in waveguides.
Benefit of the Think pair Share:

- The personal interaction motivates students who might not generally be interested in the discipline.
- It engages the entire class and allows quiet students to answer questions without having to stand out from their classmates.
- Recollection of ideas will be easier as they are combined as pairs .One of the biggest challenges of the think-pair-share is to get all students to truly be engaged. That is students among different pairs may share the same ideas. In such case instructor may ensure the genuineness.