## Course Four-wire lines

## **Includes:**

- 1 Experiment card "Measuring bridge"
- 1 Experiment card "Pulse generator"
- 1 Cable reel
- Labsoft browser and course software

## Course contents:

- Measuring line parameters at various frequencies with the help of a bridge
  - Measuring side-circuit resistance at various frequencies
  - Measuring ohmic conductance at various frequencies
  - Measuring side-circuit inductance at various frequencies
  - Measuring side-circuit capacitance at various frequencies
  - Measuring characteristic impedance over the audio - IDSN - ADSL frequency range
  - Understanding a measuring bridge's functions, including balancing
- Measuring characteristic impedance and the propagation constant
- Measuring pulse transit time on conductor pairs and individual wires with respect to ground
  - Using a function generator and oscilloscope to measure pulse transit time on conductor pairs
  - Using a function generator and oscilloscope to measure pulse transit time on individual wires with respect to the shielding
- Measuring cross-talk between a four-wire line's conductor pairs

