

## **Digital Receiver (RP 4.1.17)**

Basic Concepts of Software defined Radio (SDR) and Cognitive Radio (CR), Advantages of software receiver over a conventional receiver – design and upgrade cycle (5)

**Receiver architecture:** codeless and semi-codeless, multipath monitoring, beam forming. (3)

**Cognitive radio:** Cognition cycle and levels of functionality, types of cognitive radio, Software Communication Architecture (SCA), Implementation of cognitive radio, Cognitive Radio Performance Evaluation (12)

Universal Software Radio Peripheral (USRP), USRP A/D and D/A converter, Anti-jamming, Direct Acquisition with Gold Code Jammer, Multi-Aspect Tomography, FLL and PLL Phase measurements, Noise Sensitivity (10)