

SEMESTER 1st
SKILL ENHANCEMENT COURSE
SRS122S: SURVEILLANCE SYSTEMS (DTH, SET-TOP BOX INSTALLATION AND SERVICE TECHNIQUES)

COURSE OBJECTIVES:

To train the person who installs the set-top box at customer's premises; addresses the field acceptable complaints and coordinates with the technical team for activation of new connections.

LEARNING OUTCOMES:

- 1. Collect the customer's site details and carry the necessary equipment and products*
- 2. Install the set-top box (DTH) at a customer's site*
- 3. Provide field service and resolve faults in case of a complaint*
- 4. Basic TV Working*

UNIT I

INSTALL AND REPAIR DTH SET-TOP BOX:

Optimum signal strength/ signal quality for good reception. Basics of input/output functions and block diagram of the set-top box functions of the set-top box and remote-control structure of cable, parameters and the implications on the fundamental signal functioning of tuners. Basics of digital signals and difference in analogue and digital.

UNIT II

TV BROADCASTING AND WORKING:

Transmission of television signals and functioning of television sets specifications of different kind of inputs available on TV sets such as RF, AV, RGB, VGA, USB and HDMI digital signal processing chain including CAS and SMS basics of Digital TV signal distribution through HFC network including elements of fibre, coaxial chain and devices such as nodes, amplifier, taps, splitter, etc., from head ends to input point of consumer premises for DASK.

LABORATORY COMPONENT:

Installation of DTH set-top box, proper alignment and checking signal strength. Troubleshooting the set-top box. signal ingress, cross modulation, tuning, amplifying, coupling, attenuation, equalization, digitizing, etc., and their purposes, on job training.

BOOKS RECOMMENDED:

1. The Essential Guide to Digital Set-Top Boxes and Interactive TV, Gerard O'Driscoll.
2. Modern Television Practice: principles, technology and servicing, R. R. Gulati