

Design specifications for CPNP

1. Date limit: 12 /19 March 2020
 - a. Draw the blueprint of a building with two floors, ground-floor and 1-st floor with the following minimal characteristics:
 - i. Height of a floor H between 2,5 – 3,5 m
 - ii. Length $L = 3,0 - 4,0 l$ where l is the width
 - iii. Surface of each floor $S=L \times l > 4000$ sqm
 - iv. Wall width of 0,5 m
 - b. Choose the place of MDF and minimum 3 IDF considering a coverage radius R of 60m from the Rack
 - i. Door min 1,2 m wide
 - ii. Surface min 12 sqm
 - c. Draw at scale 1:300 on an A₃ format sheet
2. Date limit: 26 March/ 2 April 2020
 - a. For each 10 sqm. you need one double outlet, round up
 - b. Establish paths from the M(I)DF's to the outlets
 - c. M(I)DF's are interconnected with multimode fiber optic cables
 - d. You need redundant paths between M(I)DF's
 - e. Compute the needed UTP and FO cable lengths
 - f. Compute the number of 305 m UTP cable boxes
3. Date limit 9/16 April 2020
 - a. Define VLAN-s; one for IP Phones, one for WLAN; several for data
 - b. Assign IP range to VLAN's
 - c. One Layer 3 Switch for inter-VLAN routing; with management
 - d. Layer 2 Switches with management and VLAN capabilities
 - e. Wireless AP with centralized controller to cover the building
 - f. 1 HW Firewall for Internet connection
4. Date limit 30 April/ 7 May 2020
 - a. Rack U
 - b. UPS 30 min backup
 - c. Cooling capacity
5. Date limit 14/21 May 2020
 - a. Final project in PDF format
 - b. Packet Tracer simulation