**Limkokwing University Network Design and Implementation**

Limkokwing University of Creative Technology (LUCT) is large university which has 10 campuses situated several Country in the world. There are two campuses are situated in Malaysia.

One of them is Main Campus which is located on Cyberjaya in Selangor state of Malaysia and another one is 20 miles apart. The university students and staffs are distributed in 4 faculties, these include Information Technology/Business/Engineering/Art and fashion design. Each member of staff has a PC and students have access to PC in the Lab.

**Requirements:**

1. Create a network topology with the main components to support the Following

* **Main Campus**:
* **Building A**: Administrative staff in the departments of management, HR and Finance. The Admin staffs PCs are distributed in the Building offices and it is expected that they will share some networking equipment’s (\*Use of VLAN is expected here). The faculty of Business is also situated in this buildings
* **Building B:** Faculty of Engineering and Information Technology and Faculty of Art and Fashion Design.
* **Building C:** Students Labs and IT-Department. The IT Department hosts the University Web Server and Other Servers.
* There is also an email Server hosted externally on the Cloud.
* **Smaller Campus:**
* Faculty of Health and Science (Staff and Students Labs are situated on the separate floor).

1. You will be expected to configure the core devices and few end devices to provide end-to-end connectivity and access to the internal servers and external servers.

* Each department/faculty is expected to on its own separate IP Network.
* The Switches should be configured with appropriate VLANs and security settings
* RIPv-2 will be used to provide routing for the routers in the internal network and static routing for the external server.
* The devices in the building will be expected to acquire dynamic IP addresses from a router based DHCP server.

**Tasks:**

**Task 1:** Your task is to plan and design and prototype the network topology for LUCT network using Cisco Packet Tracer. **Formative feedback will be given on this task in week 6.**

**Task 2:** Configure in Packet Tracer Network with appropriate setting to achieve the connectivity and functionalities specified in the requirements.

**Task 3:** Produce a report (max 1500 words) including evaluation your proposed network design and critical appraisal on your network. Your evaluation should be included performance scalability, reliability and security of your proposed network.