***Research question***

"How can we design and implement a secure and energy-efficient network infrastructure for a student apartment complex that promotes resource sharing, and improves the overall living experience for ICT students?"This research question encompasses several key aspects of the project:

1. Security: Addressing the need for a secure infrastructure
2. Scalability: Considering the potential for future expansion
3. Energy efficiency: Incorporating the requirement for real-time electricity consumption monitoring
4. Connectivity: Focusing on the interconnected nature of the apartment LANs
5. Resource sharing: Enabling students to access each other's websites and services
6. Student experience: Emphasizing the goal of creating an attractive environment for ICT students