

## **Graduate Research Assistant (GRA) Vacancy**

**Project Title:** *Radiation Aware Energy-Efficient Resource Allocation for Ultra-Dense 5G Mobile Networks*

**Description:** *The forthcoming 5G system is expected to densify its network infrastructure substantially and deploy massive antenna arrays that emit high-energy narrow beams. These trends raise tangible concerns to scientists and citizens about the adverse effects of such networks on public safety and health. To better protect the users from potential excessive radiation, new constraints need to be introduced in the radio resource allocation of the ultra-dense networks to mitigate the health risk and to improve the system energy efficiency. This project aims to address this gap by proposing a new radiation-aware radio resource scheduling algorithm that jointly optimizes the throughput and energy efficiency requirements of the network and at the same time protects the users from excessive radiation exposure.*

**Source of Funding:** *FRGS (Ministry of Higher Education)*

**Location:** *Faculty of Engineering & Technology, MMU (Melaka campus)*

**Monthly Stipend:** *RM2,300*

**Duration:** *Up to 36 months*

**Benefits:**

- 1. Pursuing PhD degree*
- 2. Tuition fees waived*
- 3. Allowances to attend conference(s)*
- 4. Gain industry exposure by working with experts from MIMOS and NCSR "Demokritos", Greece*

**Responsibilities:**

- 1. To conduct research, complete a PhD thesis, write research papers and perform administrative tasks related to the project.*

**Requirements:**

- 1. A Master degree or a First-Class Bachelor's degree (for direct PhD) in the field of Electrical/Electronics/Telecommunications Engineering*
- 2. Enrol as a full-time PhD candidate*
- 3. Good communication and technical writing skills in English.*

*Interested candidates may send their inquiries and CV to **Dr. Lim Heng Siong** (hslim@mmu.edu.my). Only short-listed candidates will be contacted for an interview.*