

# Graduate Research Assistant/ MSc. Student Position

**Open Date** 01/07/2017

| **Close Date** Until candidate found

**Job Title** Graduate Research Assistant

**Benefits** 1) Monthly stipend (RM 1500.00); 2) further study (master degree)

**Type** Full Time

We are seeking a fulltime highly motivated graduate research assistant/ MSc. student to work with a funded research project. The aim of this project is to develop an integrated muscle and postural assessment system for the purpose of screening and redesigning of the manual material handling (MMH) processes in industries. The assessment system would utilize muscle activity sensors and 3D camera to objectively capture muscle activity and work postures data. A programming software will be used to develop assessment algorithms as well as integrate muscle activity and work posture data. Validation studies using traditional postural analysis as well as electromyography (EMG) will be conducted to verify the output data from both developed assessment systems.

Microsoft Visual Studio will be utilized to write the source code of programming in C# language. The programming is used to interpret the EMG raw signals through fast-Fourier transform (FFT) and creating Graphical User Interface (GUI). A 3D Kinect camera will be used to produces images in a form of skeleton (body parts) and programming code will be developed to detect the angle of the body parts for analyses.

## Responsibilities

Postholder will be enrolled in graduate study at Master level in the Faculty of Manufacturing Engineering. In the meantime, postholder is also responsible for the following tasks, but are not limited to:

- Creates programming commands and conducts.
- Perform industrial observations and data collections.
- Participates in the planning and design of validation study involving human subjects.
- Prepares equipment setup for data collections.
- Report findings from data analysis in publication-ready tables or other formats.
- Prepare project documentation for reporting purpose.
- Perform administrative works.

## Minimum Qualifications

- Experience and familiarity with C# language and Microsoft Visual Studio.
- Be self-driven and has excellent good interpersonal skills.
- Be able to write scientific research papers and develop creative solutions.
- Able to prioritize work and work in deadline-driven environment.

To apply, please submit a resume, cover letter and references to:

**Dr. Isa Halim**

**Faculty of Manufacturing Engineering,**

**Universiti Teknikal Malaysia Melaka (UTeM)**

**Office : 06 331 6507 | H/P : 012 514 2756 | Email : isa@utem.edu.my**