

# Post-Graduate Research Opportunity (MSc in Imaging and Computer Vision)

### **Job Specification**

Reporting To: Dr. Simon McLoughlin

Project Title: High Speed Imaging for Automated Golf Swing Analysis

#### The Role:

ITB is now looking for a full-time Research Student to work on a research project. This is a Masters studentship that has been funded for a two-year period.

This project will develop a novel machine vision system to automatically analyse key aspects of a golfer's swing technique. By using a high speed camera from a top-down vantage point, a number of critical swing parameters can be measured. These parameters can be analysed over time to produce statistics to help the golfer and/or their teaching professional improve their game. The system will consist of a synchronized high power light source, a high speed camera and image processing software that is capable of capturing and analysing impact shots. The system will be relatively low cost in comparison to some high speed imaging systems and will target driving range proprietors, teaching professionals and professional and recreational golfers.

# **Skills and Qualifications Required:**

Minimum skills/qualifications required:

- Honours Bachelor of Science (2<sup>nd</sup> class Honours or better) in an IT discipline (e.g. Computer Science)
- Strong programming/software development ability
- Good Mathematical aptitude
- Strong academic/technical writing skills

In addition to this the following skills are desired:

- Experience in Machine/Computer Vision
- Experience with programming languages such as C/C++/Java/Matlab/.NET

### **Funding:**

The scholarship will be awarded to a value of €12,000 per year to cover the following elements:

- A maintenance grant of €10,000 per year
- Travel/Consumables/Materials budget of €2,000 per year

Tuition fees for all scholarship holders will be funded to a max of €4,500 per year for two years. Any non-EU scholarship holder will be eligible for additional fees.

To apply for the project please email a C.V. with a covering letter Shane Walsh shane.walsh@itb.ie

Enquiries specific to the technical aspects of the project can be sent to simon.mcloughlin@itb.ie

Closing date for receipt of applications is 12 noon Friday 2nd June 2017