## 

## BN5035 MEng in Internet of Things Technologies

## MIOT H6023 Research Project (Part 1: Research Methods)

###### Assignment 2 Part A [Project Outline Document⎯ Research Topic]

###### Due Date: October 20, 2018 [22:00 Hrs] CA Weighting: 2% of Final Grade

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#### Submission Date: 20 OCTOBER 2018 Deferred Submission Date (when approved):

**[This assignment requires noting of the distinction between 30 ECTS Credits and 60 ECTS Credits Research Project, as outlined in the Research Projects Handbook for this Programme]**

In this assignment 1 Part A:

1. You will be required to Identify/Choose the topic for your research.
2. From the outcome of Step (1) above, you are required to sum up your research in one sentence only.

[**Hint:** If you are unable to achieve the summary, then your research topic may be too broad, ill-thought out, too obscure or too complicated, so you will need to modify, adapt or refine the topic until you are able to sum it up in one sentence].

1. From outcome of Step (2) above you are required to present your sentence (referred to as Outline here) to one or more selected peers (your classmates), so that you can receive some feedback. You should also be prepared to offer feedback on the Outlines developed by your peers.

Modify and refine your one-sentence summary, if required, after having received feedback.

1. After thorough review and amendments from Step (3) above, you are required to submit the topic as specified for this assignment.
2. For students registered in BN5035 MEng in the Internet of Things Technologies, this will lead possible identification/assignment of Project Supervision. More details will be offered after the assignment submission.

**Instructions on Submission of Assignments:**

This Assignment will contribute to the final examination grade as specified, and it is required that the submission:

1. Should be appended at the **End of this Template** in neat typed format in MSWord;
2. MUST be submitted on or before the specified date, except with an approved deferral date;
3. Should reflect independent work.

**Instructor:**

Dr Philip Owende

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**Mark Awarded**

What do you honestly consider will be a fair score for this assignment that you are handing in?

**Self assessment**

**[Mark out of 100]**

**80**

**Suggested Methods for Identification of a Research Topic**

There are many interesting and creative methods that you can use to stimulate thought and focus in on your research topic. Some suggestions include:

1. Observation⎯ Refers to previous of recent observation of a phenomenon or behaviour in your course subject area of interest that, in your opinion, needs further investigation to explain patterns, behaviour or processes.
2. Reflection on Work/Occupational Experiences⎯ Consider any relevant past and present experiences in relation to possible research topics. For example, you might have experienced phenomena or behaviour in the workplace or during a social encounter that, in your opinion, requires further investigation, and can form a substantive research at Postgraduate Level Research. Asking in-depth questions about, and reflecting on, these experiences will help to stimulate your thoughts and further develop your research topic.
3. Questioning Designs/Processes/Inefficiencies⎯ There are different types of question that you can ask to stimulate your thoughts and help you to choose and focus in on a suitable topic. This includes questions that: stimulate reflection; introduce a problem; lead to deep and critical thought; test existing assumptions and/or knowledge; recognises a knowledge gap and the importance of filling it; recognises potential for innovation etc.
4. Visualizing⎯ You can create a picture to help you to think about your research. Alternatively, you may decide to draw a graph, diagram or mind map that helps you to clarify your thoughts and pull together your research topic.
5. Discussing⎯Take every opportunity to discuss your thoughts with lecturers, business colleagues, friends and family as an aid to stimulate thought.

[**Hint:** In an academic environment, receiving feedback from interested, knowledgeable parties enables you to test, modify and refine your ideas].

1. Reading⎯ When/if you have a general idea for a topic, read around the subject. This will deepen understanding of current research in the field, and help in deciding whether there is scope to advance this research and, if so, help to stimulate ideas.

[**Hint:** recognise that scope should be commensurate with Masters/PhD Level]

1. Brainstorming⎯ Think about an issue and write down any thoughts that come to mind, without judgement, analysis or reflection. This is a useful technique if you have a general idea of a topic for your research, but need to focus in on important issues.
2. Logical thinking⎯ Following a logical, sequential order consider a range of important ideas and work through them in a series of stages or steps. This method helps you to organize your thoughts and focus in on your research topic.

**[These are just suggested approaches……..other avenues may be hybrid of multiple of the above]**

Provide your response here

**Topic:** Electrical Energy Management with Internet of Things Technologies.

**Description:** The purpose of this project would be to remotely visualise, monitor or control any unit such as Building, Industry, substation etc. for the energy consumption and outage using IOT techniques.