## Appendix 3: Project Proposal Form

**COM748 MSc Research Project Proposal**

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| **Student Name:** | **Seán Ó Fithcheallaigh** |
| **Student Number:** | **B00830189** |
| **Supervisor Name:** | **Dr Ian Cleland** |

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| **Problem Statement (100 words):**  People with visual impairments are far less likely to go into an environment they are not familiar with, and this can have serious impacts on their health and wellbeing.  Guide dogs are a common helper for people with visual impairment, however, not all dogs have the correct behavioural characteristics which allow them to be selected as guide dogs. This means that getting a guide dog can be a long process, and with almost 340,000 people registered as blind or partially sighted, according to the NHS, the waiting list for a dog is likely to be long.  With his in mind, I propose using Deep Learning or Machine Learning methods to develop a system which would be trained to detect objects in the path of a user, this would then be deployed to a constrained device to access the feasibility of such a system being useful in the real-world. The hope would be that such a system could work as a kind of electronic guide dog, helping visually impaired people navigate new environments. |
| **Summary of Literature (500 words):** |
| **Description of Data/ Hardware to be used (100 word) please include links where possible:** |
| **Description of development to be undertaken including tools to be used (300 words):** |
| **Risk Factors/Health and Safety Issues/Ethical Issues**: |
| **References (recommended number 3):** |