UNIVERSITI TEKNOLOGI MARA

PROPOSING CHECKLIST OF ETHICAL AND SPIRITUAL HUMANOID ROBOT INTERVENTION WITH ASD CHILDREN

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Dissertation submitted in partial fulfilment of the
requirements for the degree of
Master of Science in Information Technology

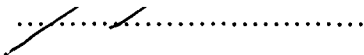**Faculty of Computer and Mathematical Sciences**

July 2016

STUDENT'S DECLARATION

I hereby declare that the work in this report was carried out in accordance with the regulation of Universiti Teknologi MARA (UiTM). It is original and is the results of my own work, unless otherwise indicate or acknowledged as reference work. This report has not been submitted to any other academic institution or non-academic institution for any degree of qualification.

I, hereby, acknowledge that I have been supplied with the Academic Rules and Regulations for Post Graduate, Universiti Teknologi MARA, regulating the conduct of my study and research.

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ABSTRACT

Children with ASD are having difficulties in learning due to their communication, interaction and imagination impairments. These disabilities are facing hard challenges in the efforts of transferring knowledge in the traditional way of teaching. Assistive technology is widely used nowadays intervention which use high and low technology to maintain, increase and improve ASD children disabilities. There are many recent studies found that the use of robot intervention with ASD children in handling and reducing the ASD impairments. However, there is a concern from parents when applying technology intervention with ASD children especially using robot. Moreover, in the condition of the ASD children disabilities, there are many thinks should be considered before handing the job of teaching and learning to the mechanical machine like robot. There are three objectives are identified, (i)to measure the caregiver and parent's acceptance factors in allowing their ASD children learning with ethical and spiritual HRI, (ii) to design a framework on ethical and spiritual HRI intervention with ASD children and (iii) to propose a checklist of ethical and spiritual elements in humanoid robot intervention with ASD children. Research is conducted through survey by distributing the questionnaire to the 33 ASD parents and caregivers at Pusat Jagaan Sayang, Shah Alam. The data gathered then analysed by doing the correlation to find the significant factors determine the acceptance for intervention to finally come out with a guideline proposition in humanoid robot intervention with their ASD children.

ACKNOWLEDGEMENT

TABLE OF CONTENTS