

## Research Thesis Submission

Please note this form should be bound into the submitted thesis.

Name:	Eli Sheppard		
School:	Mathematics and Computer Science		
Version: (i.e. First, Resubmission, Final)	First Submission	Degree Sought:	PhD Robotics and Autonomous Systems

### Declaration

In accordance with the appropriate regulations I hereby submit my thesis and I declare that:

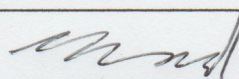
1. The thesis embodies the results of my own work and has been composed by myself
2. Where appropriate, I have made acknowledgement of the work of others
3. The thesis is the correct version for submission and is the same version as any electronic versions submitted\*.
4. My thesis for the award referred to, deposited in the Heriot-Watt University Library, should be made available for loan or photocopying and be available via the Institutional Repository, subject to such conditions as the Librarian may require
5. I understand that as a student of the University I am required to abide by the Regulations of the University and to conform to its discipline.
6. I confirm that the thesis has been verified against plagiarism via an approved plagiarism detection application e.g. Turnitin.

### ONLY for submissions including published works

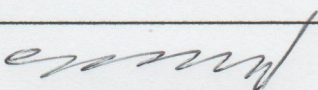
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7. Where the thesis contains published outputs under Regulation 6 (9.1.2) or Regulation 43 (9) these are accompanied by a critical review which accurately describes my contribution to the research and, for multi-author outputs, a signed declaration indicating the contribution of each author (complete)
8. Inclusion of published outputs under Regulation 6 (9.1.2) or Regulation 43 (9) shall not constitute plagiarism.

\* Please note that it is the responsibility of the candidate to ensure that the correct version of the thesis is submitted.

Signature of Candidate:		Date:	26/04/2020
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### Submission

Submitted By (name in capitals):	Eli Sheppard
Signature of Individual Submitting:	
Date Submitted:	26/04/2020

### For Completion in the Student Service Centre (SSC)

Limited Access	Requested	Yes	No	Approved	Yes	No
E-thesis Submitted (mandatory for final theses)						
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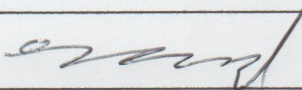


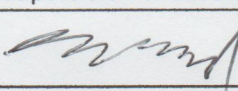
## Inclusion of Published Works

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### Declaration

This thesis contains one or more multi-author published works. In accordance with Regulation 6 (9.1.2) I hereby declare that the contributions of each author to these publications is as follows:

Citation details	Sheppard, Eli and Lohan, Katrin S, Multimodal Representation Learning for Human Robot Interaction, Companion of the 2020 ACM/IEEE International Conference on Human-Robot Interaction, pages 445-446, (2020)
Author 1	Implementation of methods, analysis of results, writing of method, results, discussion and conclusion.
Author 2	Writing of introduction, proof reading
Signature:	
Date:	26/04/2020

Citation details	Sheppard, Eli and Lehmann, Hagen and Rajendran, G and McKenna, Peter E and Lemon, Oliver and Lohan, Katrin S, Towards Life Long Learning: Multimodal Learning of MNIST Handwritten Digits, IEEE ICDL EPIROB 2018 Workshop on Life Long Learning
Author 1	Implementation of methods, analysis of results, writing of method, results, discussion and conclusion.
Author 2	Writing of Introduction, contribution made to analysis and discussion of results.
Author 3	Contribution to introduction, additional citations
Author 4	Contribution to introduction, proof reading
Author 5	Supervision of development of methods, Additional citations
Author 6	Supervision of development of methods, Additional citations, proof reading
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