



The
University
Of
Sheffield.

Research &
Innovation
Services.

Mr J Zhang

17 Eyam Road
Crookes
SHEFFIELD

S10 1UT
UNITED KINGDOM

27/03/2013

Reference: Award/080217914

Director of Research & Innovation Services: Ms Sarah A
Fulton

Research Degree Support Team
New Spring House
231 Glossop Road
Sheffield
S10 2GW

Telephone: +44 (0) 114 2221425

Fax: +44 (0) 114 2221452

Email: pgr-enquiries@sheffield.ac.uk

Dear Mr Zhang

Qualification: Doctor of Philosophy

Faculty: Faculty of Engineering

Department: Department of Computer Science

I am pleased to inform you that the Senate has approved the award of the above degree to you. A copy of your Examiners' Report is enclosed with this letter.

The Events Team will contact you in due course regarding the conferment of your award. Please contact the Events Team on 0114 222 8828, graduation@sheffield.ac.uk, with any query about the conferment of your award.

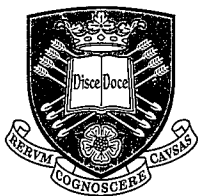
If you have any queries about this letter, please contact Mrs Kath Wellum, on 0114 222 4012, or k.wellum@sheffield.ac.uk.

Yours sincerely

Joanne Rowlands
Research Degree Support Manager

cc. Department of Computer Science





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Post Award Information Sheet

Conferment of your degree

Now that your degree has been awarded your student record will be updated to show that you have successfully completed. The Events Team will contact you in due course to arrange for the formal conferment of the degree. The Events Team will issue an invitation to the next available Degree Ceremony, which will normally be held in the December/January or July following the award. Please address any queries concerning the likely date of the ceremony to the Events Team on (0114) 222 8828 or e-mail graduation@sheffield.ac.uk.

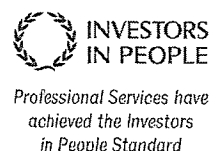
Please note that, although as many students as possible are invited to the first ceremony to be held after the award of their degrees, it is not always possible to include all candidates at a particular ceremony; you should not therefore assume that you will automatically be included in that ceremony. Only the Events Team has the authority to confirm invitations to particular ceremonies.

If your degree has been awarded by the cut off date of end of March, you will be invited to attend the July graduation ceremonies and if your degree has been awarded by the end of September you will be invited to attend the January graduation ceremonies. If you have completed after these deadlines, you will be invited only if space permits and you may be required to wait until the next ceremony. If you are graduating in person you will receive your degree certificate at the Degree Ceremony. If you choose to graduate in absentia you may request your certificates by post from the Events Team.

Immigration Advice for International Students

Now that you have completed your studies, you must contact International Student Services for immigration advice (international.students@sheffield.ac.uk). An immigration adviser will advise you on how long you can now remain in the UK to ensure that you adhere to the terms and conditions of your student visa. If you have been studying in the UK on a Tier 4 student visa, the University will inform the UK Border Agency if you have completed your degree earlier than expected. The Home office requires all educational institutions to do this.

Students who have more than 6 months remaining on their visa will have to leave the country within 2 months of completing, but students with less than 6 months left of his/her permission to stay will be entitled to stay either until their permission runs out or 4 months after completing, whichever date is sooner.



25 MAR 2013

THE UNIVERSITY OF SHEFFIELD
CONFIRMATION OF COMPLETION OF MINOR AMENDMENTS
FACULTY OF ENGINEERING

This form should be completed by the Examiner(s) and returned to the Faculty Administrator at Research & Innovation Services (231 Glossop Road, Sheffield, S10 2GW). If you require an electronic version of this form, please contact the Faculty Administrator. Before completing this form, please read the attached *Guidance Notes for Examiners*. Please note that the examiners are responsible for providing the candidate with details of any required amendments as soon as possible following the viva examination.

The candidate (and supervisor on request) will receive a copy of the final Report (comprising the preliminary and joint Reports), which may be released by Research & Innovation Services only, following formal approval by the Vice-Chancellor acting on behalf of the Senate.

Name of candidate: Jiaming Zhang Registration Number: o80217914

Department: Computer Science Name of Supervisor: Dr A J Sharkey

Title of Thesis: Contextual Recognition of Robot Emotions

Names of Examiners: External Professor R Beale
 Internal Professor R Moore

Name of coordinator:
 (where applicable):

MINOR AMENDMENTS

I confirm that corrections to the thesis have been carried out satisfactorily and that the degree may be recommended:

Signature of Examiner(s):

Please do r R.H. Moore

Date: 25.3.13

minor corrections have been completed to your satisfaction

Additional Comments:

All of the required 'minor' corrections have been carried out to the satisfaction of the Internal Examiner. So the degree of PhD may now be awarded.

For office use only

eThesis uploaded: (o8 registration numbers onwards)

☐

CAS student:

☒

Time Limit:

Approved by Faculty

Signed:

[Signature]

Date:

27/03/13

72 MAR 2013

THE UNIVERSITY OF SHEFFIELD

REPORT OF EXAMINERS FOR THE DEGREE OF DOCTOR OF PHILOSOPHY (PhD)

FACULTY OF ENGINEERING

This Report should be completed by the Examiners and returned, together with the Examiners' Preliminary Reports, to the Faculty Administrator at Research & Innovation Services (231 Glossop Road, Sheffield, S10 2GW). Before completing the Report form, please read the attached *Guidance Notes for Examiners*. Please note that the examiners are responsible for providing the candidate with details of any required amendments as soon as possible following the viva examination.

The candidate (and supervisor on request) will receive a copy of the final Report (comprising the preliminary and joint Reports), which may be released by Research & Innovation Services only, following formal approval by the Vice-Chancellor acting on behalf of the Senate.

Name of candidate: Jiaming Zhang Registration Number: 080217914

Department: Computer Science

Name of Supervisor: Dr A J Sharkey

Title of Thesis: Contextual Recognition of Robot Emotions


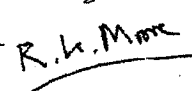
Names of Examiners: External Professor R Beale
Internal Professor R Moore

Name of coordinator:
(where applicable):


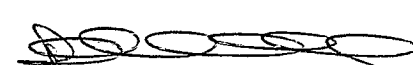
SECTION A: Specific Recommendation

We, the undersigned, make the following recommendation (please tick one box only):

1. ☐ that the degree of PhD be awarded without the need for any corrections to the thesis.
2. ☒ that the degree of PhD be awarded once specified minor corrections have been completed to the satisfaction of the Internal/External Examiner (please return this form as soon as possible after the examination and sign and return the enclosed minor corrections form ONLY when the specified examiner is satisfied that the amendments are complete. Please ensure that the candidate receives details of the required amendments as soon as possible.
3. ☐ that the degree of PhD be not now awarded, but that the candidate be allowed to undergo a further oral examination without modification of form or content of the thesis.
4. ☐ that the degree of PhD be not now awarded, but that the candidate be allowed to submit a revised thesis after such modification of form or content as the Examiners may prescribe, WITH / WITHOUT* oral re-examination. (*Please delete as appropriate).
5. ☐ that the degree of PhD be not now awarded, but that the degree of Master of Philosophy be awarded (subject only to the necessary changes to the cover and title page of the thesis).
6. ☐ that the degree of PhD be not now awarded, but that the candidate be allowed to submit a revised thesis for the degree of Master of Philosophy after such modification of form or content as the Examiners may prescribe, WITH / WITHOUT ORAL* re-examination. (*Please delete as appropriate)
7. ☐ that the degree of PhD be not awarded.

Name of Examiner: Prof. R. Beale Signed:  Date: 8th March 2013
Name of Examiner: Prof. R. K. Moore Signed:  Date: 8th March 2013

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DDP/RTP completed: ☒ Viva Date: N/A Ethics Approval: 
(where applicable):
eThesis uploaded: (08 registration numbers onwards) ☐ CAS student: ☒ Time Limit: 08 Jan 13
Approved by Faculty Signed:  Date: 24/03/13

SECTION B: Report on the Thesis

1. Give below a clear indication of the subject matter of the thesis and your assessment of it. This should be a sufficiently detailed statement to justify the specific recommendation made in Section A.

We are in agreement that the revised thesis is acceptable (subject to minor amendment).

2. Are you satisfied that the thesis is the candidate's own work or, if it was done in collaboration, that his or her share in the research is adequate?

Yes

3. Is the mode of presentation of the thesis satisfactory?

Yes

4. Is the thesis an addition to knowledge and worthy of publication either in full or in abridged form (such as a paper or papers in an appropriate journal)?

Yes

5. Can the thesis be viewed as a coherent piece of work as defined in the *Guidance Notes for Examiners*?

Yes

6. Please use the space below if you wish to make any comments on the appropriateness of the supervision/support that the student has received whilst undertaking the research and preparing the thesis. (Optional).

SECTION C: Report on the Oral Examination

Date of oral examination: n/a

SECTION D: Additional general remarks or recommendations (if any)

Minor Amendments

- Even page numbers are missing
- The section headings and sub-headings seem to vary in style throughout the thesis (e.g. compare 7.1 with 6.2). This may be a visual illusion, but please double-check.
- P184: Graph should be a 2d bar graph.
- P220 part 3: Expected results - H₂ being dependent in the film clips relative valence is a new parameter, is it not? Was a little unclear about this, as this seemed to be the first time the strength of the effect was considered. May be correct, but at this stage it confuses tags. It's mentioned again on p229 as further work, so maybe it's better to just have it there.
- P224 3rd para: Confusing "chapter 3 predict an effect and no effect of" – clarify.
- Page 225, line 4: Which chapter does "This chapter ..." actually refer to? Why not simply say "It has been demonstrated that ..."?
- Page 225, line 8: Same comment as above – which chapter? In fact which chapter contains which result is irrelevant. Suggest removing all references to chapters here and concentrate on enumerating the key scientific outcomes (Chapter 7 still focuses on summarising the organisation of the thesis rather than presenting the overall conclusions).
- P226: "it seemed" "it was concluded" are not appropriate in a list of the main findings - be precise and explicit about exactly what was found.
- P227: Small c in chapter 4 should be a capital letter.

THE UNIVERSITY OF SHEFFIELD

PRELIMINARY REPORT OF EXAMINERS

FACULTY OF ENGINEERING

Each Examiner is required to complete and bring to the oral examination an independent preliminary report on the thesis. The Preliminary Report will be appended to the Examiners' Joint Report. It would be helpful if the Report could be typewritten. Before completing the Report form, please read the attached *Guidance Notes for Examiners*

The candidate (and supervisor on request) will receive a copy of the final Report (comprising the preliminary and joint Reports), which may be released by Research & Innovation Services only, following formal approval by the Vice-Chancellor acting on behalf of the Senate.

Name of candidate: Jiaming Zhang
Registration Number: 080217914
Department: Computer Science
Name of Supervisor: Dr A J Sharkey
Title of thesis: Contextual Recognition of Robot Emotions
Names of Examiners: Internal Professor R Moore
External Professor R Beale

Name of Coordinator
(where applicable):

Please give below a report on the thesis, using additional sheets as necessary. No specific recommendation concerning the award of the degree should be given at this stage.

It's a substantially better and more readable thesis now, and overall I'm happy that he's addressed all he substantive concerns I had.

Chapter 4 is much better and clearer, though I had to turn back a few times to identify H1 and H2 - these could be made clearer.

The new parts on the new experiments and so on show a much better understanding of methodology, and the further work section is also far far better.

Minor comments:

- Even page numbers are missing
- P184 graph should be a 2d bar graph.
- P220 part 3. Expected results- H2 being dependent in the film clips relative valence is a new parameter, is it not? Was a little unclear about this, as this seemed to be the first time the strength of the effect was considered. May be correct, but at this stage it confuses tags. It's mentioned again on p229 as further work, and I'd personally just have it there.
- P224 3rd para confusing "chapter 3 predict an effect and no effect of" - clarify
- P225 in enumerating the win findings, be concise. 1- it's not this chapter - the chapter is irrelevant to the finding, too!
- P226 "it seemed" "it was concluded" are not appropriate in a list of the main findings - be precise and explicit about exactly what was found
- P227 small c in chapter 4 should be a capital letter.

Name of Examiner: Prof. R. Beale

Signed:



Date: 5th March 2013

THE UNIVERSITY OF SHEFFIELD

PRELIMINARY REPORT OF EXAMINERS

FACULTY OF ENGINEERING

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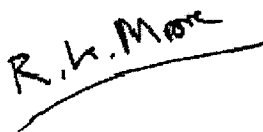
Please give below a report on the thesis, using additional sheets as necessary. No specific recommendation concerning the award of the degree should be given at this stage.

Jiaming has provided a detailed response to all of our comments with respect to the first version of his thesis. Overall he has done a good job of correcting the identified deficiencies, and the revised thesis is a substantial improvement over the initial version. There remain a few minor issues ...

- The section headings and sub-headings seem to vary in style throughout the thesis (e.g. compare 7.1 with 6.2). This may be an illusion, but please check.*
- Page 225, line 4: Which chapter does "This chapter ..." actually refer to? Why not simply say "It has been demonstrated that ..."?*
- Page 225, line 8: Same comment as above – which chapter?*
- In fact Chapter 7 still focuses on summarising the thesis rather than presenting the overall conclusions. Which chapter contains which result is irrelevant. Suggest removing all references to chapters and concentrate on the key scientific outcomes.*

Name of Examiner: Prof. Roger K. Moore

Signed:



Date:

4th February 2013