

# Information School.

## 6-monthly Research Progress Report.

### *Student report*

Student's name:	Nor Samsiah Sani	Date:	5 February 2015
Supervisor(s):	Peter Willet, John D Holliday		
Title of research:	The use of genetic algorithm and genetic programming to develop methods for the prediction of biological activity		
Student's start date:	10 <sup>th</sup> September 2013	Current time limit:	3 and half years
Estimated submission date:			

Students are reminded that issues or problems relating to supervision arrangements should not be noted on this form but should instead be directed to the School's Graduate Research Director, Dr Ana Cristina Vasconcelos ([a.c.vasconcelos@shef.ac.uk](mailto:a.c.vasconcelos@shef.ac.uk))

Please describe your progress over the last 6 months:  EXCELLENT  SATISFACTORY  UNSATISFACTORY

Please elaborate:

- (1) Examined the use of GP to develop new weighting schemes for Substructural Analysis (SSA), in which the results were rigorously analysed and evaluated for performance benchmark against the GA and existing SSA weighting schemes. This work is covered in detail in Chapter 6 of my thesis.
- (2) Investigated the role of the data fusion method to combine the retrieval results from the multiple GA and GP searches, in which eight fusion methods were employed and evaluated. This work in particular is covered in Chapter 7.

Please list, with a brief description, what have you produced in the last 6 months (e.g. thesis draft chapter, research plan, conference paper, journal article, DDP coursework, etc.):

I have completed the write-up of my first thesis draft; this includes the literature review, a research methodology chapter, four experiment chapters and a conclusion chapter.

Give a brief description of your current research plan.

What activities are planned for the next 6 months? What plans do you have for presenting or publishing your work?

- (1) I plan to make any correction based on comments received from my supervisor of my first thesis draft that have been submitted to them.
- (2) To attend my planned viva session and submit the final thesis.

Are you on track in terms of your overall research timetable?

YES  NO

Please elaborate:

Slight delay to the timetable as I have decided to include a more recent dataset (ChEMBL) to be used to validate my experiments and strengthen the analysis findings. The database is several times larger than previous databases used. However, I have managed to complete my experimentations and also the write-up of my first-draft, final thesis. I am awaiting feedback from my supervisors and plans to submit the final thesis in March 2016.

Please add any other comments here:

If this is your first report, or if there has been a significant change in the direction of your research, please write a brief summary (no more than 250 words) – able to be understood by an intelligent person not expert in the field – explaining what your research is about, including aims and objectives and how you intend to address them:

Please attach copies of all supervisory meeting records for the last 6 months, if these have not yet been passed to the General Office. If this is your first 6-monthly report, please attach your research plan.

Signed:

Date:

#### To be completed by the Research Supervisor

Supervisor name: Peter Willett

Please comment on the student's progress including any problems experienced and any remedial action undertaken:

I can confirm that Nor is very close to submission: I now have her complete draft thesis to check through (I have seen drafts of most of the individual chapters at least twice previously) and hence expect her to be able to submit within a few weeks.

Please circle as appropriate:

Progress over past 6 months:	<i>Excellent</i>	<i>Satisfactory</i>	<i>Unsatisfactory</i>
Current research plan:	<i>N/A</i>	<i>Satisfactory</i>	<i>Unsatisfactory</i>
On track (keeping to timetable and timetable realistic):	<i>Excellent</i>	<i>Satisfactory</i>	<i>Unsatisfactory</i>

Signed:

Date: