

# INDEPENDENT STUDY CONTRACT

*Note: Enrolment is subject to approval by the projects co-ordinator*

## SECTION A (Students and Supervisors)

UnilD: u6958577

SURNAME: Wu

FIRST NAMES: Ying Xian

PROJECT SUPERVISOR (*may be external*): Songtuan Lin

COURSE SUPERVISOR (*a SOC academic*): Pascal Bercher

COURSE CODE, TITLE AND UNIT: COMP4550, Advanced Computing Research Project, 24

SEMESTER ☒ S1 ☒ S2 YEAR: 2022

### PROJECT TITLE:

Transforming partially ordered HTN Planning problems to totally ordered problems

### LEARNING OBJECTIVES:

- 1) Understand and reason about properties of (total and partial) HTN planning problems
- 2) Gain insight into the relationship between partially and totally ordered HTN planning
- 3) Be able to utilise PANDA-PI framework

### PROJECT DESCRIPTION:

- In C++ and using PANDA-PI framework, implement the algorithm designed by Professor Gregor Behnke for converting partially ordered HTN problems to totally ordered HTN problems
- Discover when the transformation will produce a valid totally ordered problem
- Discover what properties of the problem are preserved after transformation
- Write thesis on findings
- Present short seminar on findings

**ASSESSMENT** (as per course's project rules web page, with the differences noted below):

Assessed project components:	% of mark	Due date	Evaluated by:
<b>Thesis</b>	(85%)	Oct 20 <sup>th</sup> 2022	Songtuan Lin/ Pascal Bercher
<b>Presentation</b>	(10%)	Oct 27 <sup>th</sup> 2022	Songtuan Lin/ Pascal Bercher
<b>Critical Feedback</b>	(5%)	1 <sup>st</sup> Nov 2022	Songtuan Lin/ Pascal Bercher

**MEETING DATES (IF KNOWN):**

**STUDENT DECLARATION:**

I agree to fulfil the above defined contract

.....  
Signature

31/01/2022  
Date

**SECTION B (Supervisor):**

I am willing to supervise and support this project. I have checked the student's academic record and believe this student can complete the project. I nominate the following reviewers and have obtained their consent to review the completed thesis (through signature or attached email)

.....  
Signature

.....  
Date

**Reviewer 1:**

Name: ..... Signature.....

**Reviewer 2:**

Name: ..... Signature.....

\*Nominated reviewers (one has to be an SOC academic) may be subject to change on request by the supervisor.

**REQUIRED DEPARTMENT RESOURCES:**

**SECTION C (Course coordinator approval)**

.....  
Signature

.....  
Date

**SECTION D (Projects coordinator approval)**

.....  
Signature

.....  
Date