

1. Knowledge and understanding	
1.a Knowledge and understanding of the research area	YES
<p>I have taken the following graduate courses:</p> <ul style="list-style-type: none"> - Industrial Cloud Computing - Fixed-priority scheduling with limited preemptions - Principles of Cyber-Physical Systems (ongoing) <p>I have attended the following schools, workshops and conferences:</p> <ul style="list-style-type: none"> - COMPSAC 2014, FMoT forum for cloud computing at ABB, SIGMOD/PODS 2015, CPS Week 2016 - 2015 UPMARC Summer School, 2015 LASER Summer School, 2015 EMSIG Autumn School <p>I have attended the following webinars, seminars, licentiate and doctoral proposals and presentations:</p> <ul style="list-style-type: none"> - licentiate/PhD seminars and presentations - lectures given by guest professors at MDH - seminars in other research groups at MDH - seminars in other universities (Uppsala University, DTU, Aalborg University, ETH, etc): verification (UPMARC 2015), cyber-physical systems (EMSIG 2015), concurrency (LASER 2015), etc - SICS Open Day presentations 	
1.b. Specialist knowledge in a defined part of the research area	YES
<p>I have taken the following graduate courses:</p> <ul style="list-style-type: none"> - Concurrency: the Next Frontier - 2015 EMSIG Autumn School - Advanced Validation and Verification (ongoing) <p>I have conducted a state of the art study</p> <p>I have contributed with research results via the publications listed in Section 2.</p> <p>I have participated in the following workshops and conferences:</p> <ul style="list-style-type: none"> - ECRTS 2015, CPS DATA 2016 	
1.c. Deep knowledge of research methods in general, and of research methods in the specific research area	YES
<p>I have taken the following research methods courses and/or training:</p> <ul style="list-style-type: none"> - Research Planning - Research Methods in the Natural Sciences and Engineering 	

Remaining activities:

- Review scientific articles and papers of other researchers

2. Competence and skills

2.a.a Critically and independently identify and formulate research questions

YES

I have written the articles and papers listed in Section 2.

I have written the lic thesis proposal.

2.b Contribute to the development of knowledge

YES

I have written the articles and papers listed in Section 2.

I have announced the following master thesis:

- Data aggregation support in real-time database management systems (with Mimer)

I have supervised the following theses:

- Model-checking transaction properties for concurrent real-time transactions in UPPAAL

I have assisted teaching and/or lectured in the following courses:

- Database course (DVA234)

2.c. Orally and in writing present and discuss research results with the national and international scientific community, and the society in general

YES

I have attended, with own contributions, the following seminars, workshops and conferences:

- ECRTS 2015, CPS DATA 2016

I have participated in the following co-production research/projects:

- visiting companies Komatsu, ABB Robotics, Ericsson and Mimer, and discussing with engineers on real-time database and data aggregation

2.d. Independently conduct research and development

YES

I have as main driver conducted research for and written all papers listed in Section 2.

I have conducted research visits with the following external partners:

- Komatsu.
- ABB Robotics
- Mimer
- Ericsson

I have conducted scientific work with the following external partners:

- Mimer. We have announced a master thesis together.
- Ericsson

3. Judgment and approach	
3.a. Demonstrate ability to make ethical assessments in own research	YES
<p>I have participated in the planning of my own research.</p> <p>I have taken the following courses that include discussions of research ethics:</p> <ul style="list-style-type: none"> - Research Planning - Research Methods in the Natural Sciences and Engineering 	
3.b Demonstrate understanding of science's role and use in society, including its possibilities and limitations, and responsibility of its use	YES
<p>I have participated in the seminars listed in 1.1a above.</p> <p>I have participated in the co-production research/projects listed in 2.2 above.</p>	
3.c Identify one's need of further knowledge and take responsibility for one's learning	YES
<p>I have participated in the planning of my own research.</p> <p>I have taken the courses listed in 1.1a above.</p> <p>I have written and published the papers listed in 1.1b above.</p> <p>I have supervised the thesis listed in 2.1b above.</p>	

Summary of remaining activities:

- Review scientific articles and papers of other researchers