

Faculty of Engineering and Science

## **DIPLOMA**

# Buddika Mangala Bandara Herath Herath Mudiyanselage

born 24 November 1976

has 29 December 2017 been awarded the degree

# **Master of Science in Engineering**

Programme of study: Information and Communication Technology, Master's Programme Programme option: Communication Technologies

The diploma is issued 5 January 2018.

Vice Rector

Registrar's Office



### General information

Master of Science in Engineering is awarded in accordance with the Regulations on Degrees and Titles Protected by Law of 16 December 2005 (No. 1574).

The nominal length of study for the degree is 2 years and it comprises 120 ECTS credits. One completed year of study has nominally 60 ECTS credits.

Master of Science in Engineering is a qualification that is part of second cycle/level 7 in the Norwegian Qualifications Framework for Lifelong Learning, approved by the Ministry of Education and Research on 15.12.2011.

### Objectives, content and organisation of the programme of study

The Master's ICT programme consists of compulsory core courses and elective specialization courses, organized into four semesters. The programme is organized into two standard profiles. The students must fulfill the requirements for at least one of these profiles:

- Information Technologies
- Communication Technologies

The profile Information Technologies fits students with a bachelor's degree in engineering within computer science, computer engineering, or a similar field.

The profile Communication Technologies fits students with bachelor's degree in engineering within electronics, telecommunications, or a similar field.

### The candidate's learning outcomes

On successful completion of the programme the candidate is expected to have obtained the following learning outcomes:

#### Knowledge

- have obtained advanced knowledge of ICT and specialized knowledge within their selected specialization profile.
- have a thorough knowledge of the main scientific methods used in ICT research.
- be able to apply their knowledge in new areas in order to pursue advanced tasks and projects

#### Skills

- be able to analyze ICT problems, both from a research perspective and from an industrial perspective.
- be able to apply their knowledge on new areas within ICT
- be able to analyze existing theories and methods, and solve applied and theoretical problems independently.
- be able to apply relevant research and development methods in an independent manner.
- be able to critically analyze various information sources, and apply these for structuring and formulating arguments.
- be able to conduct an independent research and development project under supervision, in agreement with the prevailing academic and ethical standards for research.

#### General competence

- be able to apply their knowledge in new areas in order to pursue advanced tasks and projects.
- be able to communicate comprehensive independent work by mastering the relevant forms of expression used in ICT research and development.
- be able to disseminate their knowledge of applied and theoretical problems and solutions, orally and in writing, to their peers and to a general audience.
- be able to establish, structure and conduct leadership in cross-cultural teams
- be able to contribute to innovation and the generation of new ideas in academic and industrial ICT projects.



### **Transcript of Records**

Name: Herath Mudiyanselage, Buddika Mangala Bandara Herath

Degree: Master of Science in Engineering

Study programme: Information and Communication Technology, Master's Programme

Programme option: Communication Technologies

Date of birth: 1976-11-24 Received: 2017-12-29

Course		Semester C	redits	Grade	Grade 1) distribution ABCDE
Compulsory	v subjects	Comocion		Signature	
IKT440	ICT Seminar 1	2015 autumn	7.5	В	
	Mobile Communication Networks				
MA-430	Probability Theory and Stochastic Processes	2015 autumn	7.5	В	
ORG453	Communication, Cooperation and Research Methods	2015 autumn	7.5	В	
IKT439	Information and System Security	2016 spring	7.5	С	
IKT441	ICT Seminar 2	2016 spring	7.5	С	
	Mobile Radio Communications				
IKT443	WiFi and Ad Hoc Networking	2016 spring	7.5	В	
IKT590	Master's Thesis	2017 spring	30	Α	
	Spectrogram Analysis of Non-Stationary RSE-to-Car Channels Behaviour for Braking Situations				
Special sub	jects				
IKT436	Advanced Internet Services and Protocols	2015 autumn	7.5	В	
IKT433	Distributed and Big Data Systems	2016 spring	7.5	С	
IKT442	ICT Seminar 3	2016 autumn	7.5	В	
MA-429	Discrete Mathematics	2016 autumn	7.5	С	
MM-403	Interaction Design	2016 autumn	7.5	В	
IKT446	ICT Seminar 4	2017 autumn	7.5	Α	
	E-health	<u> </u>			
		<u>Total: 120.0</u>			

5 January 2018 5. Essnes

<sup>1)</sup> For an explanation of the grade distribution, see the last page.



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### Credit system and grading

The academic year normally runs from mid-August to mid-June and lasts for 10 months. Courses are measured in "studiepoeng", considered equivalent to the European Credit Transfer System standard (ECTS credits). The full-time workload for one academic year is 1500 - 1800 hours of study / 60 "studiepoeng".

The Norwegian grading system consists of two grading scales: one scale with the grades pass or fail and one graded scale from A to E for pass and F for fail. The graded scale has the following qualitative descriptions:

Α	Excellent	An excellent performance, clearly outstanding. The candidate demonstrates excellent		
	LAGGIIGIR	judgement and a very high degree of independent thinking.		
В	Very good	A very good performance. The candidate demonstrates sound judgement and a high degree of independent thinking.		
С	Good	A good performance in most areas. The candidate demonstrates a reasonable degree of judgement and independent thinking in the most important areas.		
D	Satisfactory	A satisfactory performance, but with significant shortcomings. The candidate demonstrates a limited degree of judgement and independent thinking.		
Е	Sufficient	A performance that meets the minimum criteria, but no more. The candidate demonstrates a very limited degree of judgement and independent thinking.		
F	Fail	A performance that does not meet the minimum academic criteria. The candidate demonstrates an absence of both judgement and independent thinking.		

The assessment is criterion referenced.

#### **Grade distribution**

The distribution of grades is shown by the percentage for courses using the graded scale A - F. Fail (F) is not included in the distribution. All results from the last five years are included in the calculation. The distribution is also shown for courses that have been active for less than five years. There has to be at least 10 approved results during the period.