POSTGRADUATE STUDIES INTERNET OF THINGS

66 ECTS CREDITS – LANGUAGE OF INSTRUCTION: ENGLISH – POSTGRADUATE CERTIFICATE

COURSE CONTENT

It is expected that in 2020 between 20 and 50 billion devices will be connected to the Internet. This is the Internet of Things (IoT). The IoT will change the way we live and work completely. Billions of devices (household and industrial appliances, cars - etc.) will deliver a constant stream of data and knowledge which will help us make better decisions in all aspects of our lives. The IoT applications are not only growing in number but also in variety. The IoT has become a synergy of electronics, software and communications. This produces a lot of new challenges. How can we optimize the reliability of IoT services without overloading wireless networks? How do we make the IoT an intelligent system without compromising our privacy and security? The demand for IoT specialists will therefore definitely increase in the coming years.

COURSE STRUCTURE

The programme consists of 66 credits and is organised by Flanders' number-one smart city, Antwerp, in connection with two other smart cities, Brussels and Ghent. It is a unique programme, created in collaboration between the University of Antwerp, Ghent University and Vrije Universiteit Brussel.

Programme components are thought in modules, which are taught on the campuses of the University of Antwerp, Ghent University or Vrije Universiteit Brussel. Several components can also be made available through video streaming.

WHY CHOOSE THIS POSTGRADUATE?

- The programme consolidates all of the specialist knowledge you need to become a true Internet of Things expert.
- It represents a unique stepping stone to a highly innovative and/or entrepreneurial career in the IoT sector.
- You can deepen your knowledge in three areas: communication (Internet/low power), data (big data/AI/deep learning) and distributed embedded software.
- You'll learn to handle a number of very specific constraints, such as low power, limited computational resources, hyperscalability, huge quantities of data, and security.
- The focus is not only technological – you'll also learn to take social and economic aspects into account and thus implement total solutions.
- You can choose your own specialisms in the optional component (6 credits) and the IoT Project (24 credits).

CAREER PERSPECTIVES

According to Gartner, 8.3 billion devices are now connected to the Internet. Cisco expects this figure to rise to 50 billion devices by 2020. IoT solutions are typically used to increase the productivity of processes, improve product quality and/or create innovative products such as sensors and wearables.

Recent polls show that around 70% of Flemish technology companies need IoT solutions like these to remain competitive, but keeping up with the latest developments is no easy task. Companies with insufficient knowledge of expected IoT developments run the risk of investing in outdated technologies. What's more, realising new IoT solutions successfully requires interdisciplinary teams with both technical and socioeconomic skills. This combination of expertise remains underrepresented in Flemish companies.

This postgraduate programme aims to respond to the increasing demand in Flemish industry and research for people who can play an innovating, leading role in this rapidly evolving technology. This demand is clear when we look at the companies and research institutes who have already lent their support to the postgraduate programme through funding or the Resonance Council: Agfa-Gevaert, Atlas Copco, Cronos, imec, Nokia, Orange, Port of Antwerp, Proximus, PSA, Rombit, Telenet, UAntwerp, UGent, VUB, the City of Antwerp, and more.

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TOELATINGSVOORWAARDEN VOOR HOUDERS VAN EEN VLAAMS DIPLOMA

Na geschiktheidsonderzoek:
- Ma industriële wetenschappen: elektronica-ICT
- Ma industriële wetenschappen: informatica
- Ma informatica
- Ma ingenieurswetenschappen: computerwetenschappen
- Ma ingenieurswetenschappen: elektrotechniek
- Ma Engineering: Computer Science
- Ma Computer Science Engineering
- Ma Electrical Engineering
- Ma Applied Sciences and Engineering: Computer Science
- Ma toegepaste informatica
- andere bachelor- of masterdiploma's mits gemotiveerde aanvraag

Voor deze opleiding kunnen zich maximaal 40 studenten inschrijven. De selectie gebeurt op basis van een inhoudelijke dossierbeoordeling (bv. behaalde graden, specialisaties, werkervaring, motivatie, ...).

PRAKTISCHE INFORMATIE

Studieprogramma:
www.ugent.be/studiegids
> faculteiten > opleidingstypes > ga naar de opleiding van je keuze

Infomomenten
Masterbeurs
www.ugent.be/masterbeurs

Inschrijving en administratie
Inschrijving voor het Postgraduaat Internet of Things verloopt via de Universiteit Antwerpen. Stel je kandidaat via het online formulier op de website van de opleiding. Volg de selectie- en inschrijvings-procedure van UAntwerpen.

Studiegeld
Meer informatie vind je op:
www.ugent.be/studiegeld

ADMISSION REQUIREMENTS FOR INTERNATIONAL DEGREE STUDENTS

A bachelor's or master's degree in Computer Science Engineering, Electrical Engineering or Electronics-ICT Engineering or equivalent. Applications are dealt with in the order in which they are received. The maximum number of enrolments for this postgraduate programme is set at 40.

LANGUAGE
More information regarding the required knowledge of English: www.ugent.be/languagerequirements

PRACTICAL INFORMATION

Study programme
www.ugent.be/coursecatalogue
> by Faculty > Programme types > select your programme

Application deadline
Before the application can be started up, you need to be pre-academically selected by the programme coordinator. Application form on www.postgraduaatinternetofthings.be
The deadline for applications is 1st of September.

Enrolling institution
University of Antwerp

Tuition fee
More information is to be found on:
www.ugent.be/tuitionfee

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De informatie op deze fiche is bijgewerkt tot 1 januari 2018.

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