### Curriculum 2019-2020 for the students coming from the UoP

(12.4.2019)

#### Wireless Communications Engineering – Radio Access and Networks

**DD-WCE–RAN study option**

<table>
<thead>
<tr>
<th>Code of the course</th>
<th>Name of the course</th>
<th>Course credits</th>
<th>Suggested timing</th>
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<td>Fall</td>
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**Obligatory Studies, Total 24 UoP crs + 40 ECTS crs**

- EE 669: Optimisation of Communication Systems: 3 crs (x)
- EE 664: Random Signal Analysis in Communications and Signal Processing: 3 crs (x)
- EE 663: Advanced Digital Communications: 3 crs (x)
- EE 665: Advanced Digital Signal Processing: 3 crs (x)
- EE 680: Wireless Communication Systems: 3 crs (x)
- EE 681: Microwave Communications: 3 crs (x)
- EE 682: Advanced Technologies in Telecommunications: 3 crs (x)
- EE 684: Data Networks: 3 crs (x)
- EE 685: Antenna Theory and Design: 3 crs (* recommended)
- EE 686: Advanced Digital Signal Processing: 3 crs (x)
- EE 687: Internetworking: 3 crs (x)
- EE 688: Statistical signal processing II: 5 crs (x)
- EE 689: Wireless Communications II: 5 crs (x)
- EE 690: Master's Thesis: 30 crs (x)

**Elective Studies, Total ≥ 6 UoP crs + ≥ 20 ECTS crs**

- EE 683: Microwave Engineering: 3 crs (x)
- EE 684: Telecommunication Regulation: Policy and Management: 3 crs (TBD)
- EE 685: Optical Communication Systems: 3 crs (TBD)
- 900017Y: Survival Finnish Course I (on both semester) *: 2 crs (x)
- 900013Y: Beginner's Finnish Course I: 3 crs (x)
- 900011Y: Beginner’s Finnish Course II: 3 crs (x)
- 521324S: Statistical signal processing II: 5 crs (x)
- 521349S: Wireless Communications II: 5 crs (x)
- 521386S: Communications networks II: 5 crs (x)
- 521389S: Wireless transmission technology: 5 crs (x)
- 521377S: Optical Communications Systems: 5 crs (x)
- 521318S: Optical Communication Engineering project OR: 5 crs (x)
- 521300S: Telecommunication Circuits Design: 5 crs (x)
- 521301S: Modern topics in telecommunications and radio engineering: 5 crs (x)
- 521305S: Wireless body area networks: 3 crs (x)
- 521318S: Wireless Communications: 5 crs (x)
- 521321S: RF Components and Measurements: 5 crs (x)
- 521342S: Electronics Design II: 5 crs (x)
- 521341S: Electronics Design I: 5 crs (x)
- 521340S: Electronic System Design: 5 crs (x)
- 521373S: Biomedical processing: 5 crs (x)
- 521345S: Human Computer Interaction: 5 crs (x)
- 521348S: Ubiquitous Computing Fundamentals: 5 crs (x)
- 521321S: Application Specific Signal Processors: 5 crs (x)
- 521346S: Computer Graphics: 5 crs (x)
- 521306S: Distributed Systems: 5 crs (x)
- 521346S: Machine Vision: 5 crs (x)
- 521304S: Mobile Computing: 5 crs (x)
- 521302S: Social Computing: 5 crs (x)
- 521305S: Software Project: 5 crs (x)

* recommended ** alternative courses

**Master’s Degree at UoP is 60 UoP crs. The first study year in DD-WCE study program is 30 crs which is 50 % of the whole study load at the UoP.**

**Master’s Degree at UOulu is 120 ECTS crs. The second study year in DD-WCE study program is 60 crs which is 50 % of the whole study load at the UOulu.**

**First year (at UoP)**

**Second year (at UOulu)**

**Fall**

**Spring**

**Summer**

**Fall**

**Spring**

**Summer**

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**Abroad studies:**

- Program 1: Helsinki University of Technology 60 ECTS crs at Helsinki University of Technology.
- Program 2: Technical University of Denmark 90 ECTS crs at Technical University of Denmark.