

Faculty of Engineering and Architecture

Bridging Programme Master of Science in Computer Science Engineering

Language of instruction: English

Programme version 6

## 1 General Courses

78 credits

Het brugprogramma Master of Science in Computer Science Engineering kan worden gevolgd door studenten met de volgende vooropleiding:

- Master in de industriële wetenschappen: elektronica en ICT: multimedia en informatietechnologie
- Master in de industriële wetenschappen: elektronica en ICT: ICT
- Master in de industriële wetenschappen: elektronica-ICT, afstudeerrichting: ingebedde systemen
- Master in de industriële wetenschappen: informatica

Voor studenten met vooropleiding elektronica en ICT: multimedia en informatietechnologie kan het brugprogramma worden aangepast naargelang de inhoudelijke verwantschap met de vooropleiding (na goedkeuring door de faculteit).

| Nr | Course  | CRDT | Ref  | MT1 | Session | Study |
|----|---|------|------|-----|---------|-------|
| 1  | E001161 <b>Mathematic Models</b><br><i>Karel Van Acoleyen -- Department of Electronics and Information Systems</i>                        | 6    | BRUG | 1   | A:1     | 180   |
| 2  | E001470 <b>Discrete Mathematics II [nl]</b><br><i>Joris Walraevens -- Department of Telecommunications and Information Processing</i>     | 6    | BRUG | 1   | A:2     | 180   |
| 3  | E016350 <b>Artificial Intelligence</b><br><i>Aleksandra Pizurica -- Department of Telecommunications and Information Processing</i>       | 6    | BRUG | 1   | A:2     | 180   |
| 4  | E017930 <b>Parallel and Distributed Software Systems</b><br><i>Jan Fostier -- Department of Information Technology</i>                    | 6    |      | 1   | A:1     | 180   |
| 5  | E017920 <b>Design of Multimedia Applications</b><br><i>Glenn Van Wallendael -- Department of Electronics and Information Systems</i>      | 6    |      | 1   | A:2     | 180   |
| 6  | E031710 <b>Research Project</b><br><i>Joris Walraevens -- Department of Telecommunications and Information Processing</i>                 | 3    |      | 1   | A:1     | 90    |
| 7  | E033710 <b>Design Project</b><br><i>Femke De Backere -- Department of Information Technology</i>  | 9    |      | 1   | A:J     | 270   |
| 8  | E012320 <b>Mobile and Broadband Access Networks</b><br><i>Ingrid Moerman -- Department of Information Technology</i>                      | 6    |      | 1   | B:2     | 180   |
| 9  | E003600 <b>Information Theory</b><br><i>Heidi Steendam -- Department of Telecommunications and Information Processing</i>                 | 6    |      | 1   | B:2     | 180   |
| 10 | E011322 <b>Queueing Analysis and Simulation</b><br><i>Joris Walraevens -- Department of Telecommunications and Information Processing</i> | 6    |      | 1   | A:1     | 180   |
| 11 | E034140 <b>Parallel Computer Systems</b><br><i>Lieven Eeckhout -- Department of Electronics and Information Systems</i>                   | 6    |      | 2   | A:1     | 180   |
| 12 | E061330 <b>Machine Learning</b><br><i>Joni Dambre -- Department of Electronics and Information Systems</i>                                | 6    |      | 2   | B:1     | 180   |
| 13 | E019400 <b>Information Security</b><br><i>Eric Laermans -- Department of Information Technology</i>                                       | 6    |      | 2   | B:2     | 180   |

## 2 Elective Courses

18 credits

Subscribe to 18 credit units.

Divided as follows (choose between one of the two elective paths):

- Elective path 1:
  - at least 18 credits units from one major or minor from the Master of Science in Computer Science Engineering (module 2.1.1)
- Elective path 2:
  - at least 12 credit units from the list with elective courses Computer Science Engineering (module 2.2.1)
  - no more than 6 credit units from the programmes of Ghent University (modules 2.2.2)

Subject to approval by the faculty.

## 3 Master's Dissertation

24 credits

| Nr | Course | CRDT | Ref | MT1 | Session | Study |
|----|--------|------|-----|-----|---------|-------|
|----|--------|------|-----|-----|---------|-------|

### Teaching

When a course is not taught (solely) in the programme's language of instruction, the effectively used languages are indicated in square brackets following the course name, using the following ISO codes:

|               |             |             |               |                |                      |             |
|---------------|-------------|-------------|---------------|----------------|----------------------|-------------|
| bg: Bulgarian | de: German  | es: Spanish | ja: Japanese  | pl: Polish     | sh: Croatian/Serbian | zh: Chinese |
| cs: Czech     | el: Greek   | fr: French  | nl: Dutch     | pt: Portuguese | sl: Slovene          |             |
| da: Danish    | en: English | it: Italian | no: Norwegian | ru: Russian    | sv: Swedish          |             |

### Semester

Semesters are indicated by their number (1 or 2); semester 3 represents the summer period and J indicates a course spanning semesters 1 and 2. When a capital letter precedes a semester number, the course has multiple offerings. The letter indicates the offering concerned.

When a semester is shown in brackets, the course is not offered this year in the specific offering.

The offering frequency and first year of offering are indicated by the following codes:

|                 |                                 |                                 |                                 |
|-----------------|---------------------------------|---------------------------------|---------------------------------|
| a: bi-annually  | c: annually, from 2026-2027     | f: annually, from 2027-2028     | i: annually, from 2028-2029     |
| b: tri-annually | d: bi-annually, from 2026-2027  | g: bi-annually, from 2027-2028  | j: bi-annually, from 2028-2029  |
|                 | e: tri-annually, from 2026-2027 | h: tri-annually, from 2027-2028 | k: tri-annually, from 2028-2029 |