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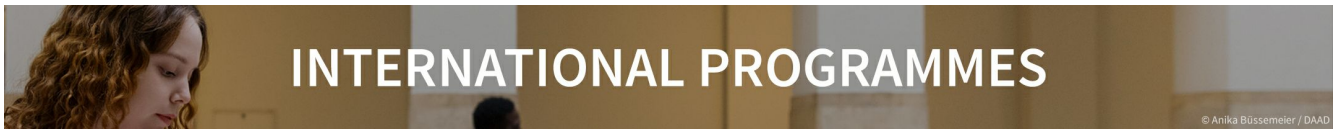

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Master's degree

Media Informatics

RWTH Aachen University • **Bonn**

Overview

Degree	Master of Science in Media Informatics
Course location	Bonn
In cooperation with	Bonn-Aachen International Center for Information Technology (b-it), Fraunhofer Institutes FIT and IAIS as well as the University of Bonn
Teaching language	• English
Languages	**Courses are held in English**. The programme offers a lot of electives in English. There may also be electives in German but these are additional choices.
Programme duration	4 semesters
Beginning	Winter semester
Application deadline	The application deadline for non-EU applicants is 1 March. EU applicants, applicants from Germany, or applicants with a first degree from Germany can apply up to mid-July (see RWTH Aachen University website). Applicants from China may have to deal with application matters earlier (possibly in January) due to APS and interview matters. Please see the Media Informatics website for further information. These deadlines always refer to the following winter semester. There are no admissions in the summer semester.
Tuition fees per semester in EUR	None
Combined Master's degree / PhD programme	No
Joint degree / double degree programme	No
Description/content	This international Master's programme will train its participants to successfully master novel technical and economic challenges at the crossroads of computer science, software engineering, next-generation communication systems, and media. Graduates of the programme can be expected to be technically innovative, to work as system architects, and to manage large projects. Students who excel during their Master's programme will also have the necessary qualifications to pursue a doctoral degree. The programme is distinguished by its international orientation (to date we have had students from 58 nations, and within one year group we regularly have students from more than 12 nations), its focus on IT competence, and its high level of integration of research and teaching. Please read on the MI homepage at b-it impressions what experiences our alumni have had during

their studies and also in their career after completing their studies.
The programme consists of three main blocks:

- computer science and mathematical foundations
- multimedia technology
- media science and business aspects

The programme is also characterised by a significant proportion of research lab courses embedded in both basic and applied research of the participating Fraunhofer Institutes of Applied Information Technology (FIT), and Intelligent Analysis and Information Systems (IAIS).
Major topics include:

- internet infrastructures
- data communication
- digital interactive media
- management of information
- computer graphics/animation/visualisation
- speech/image/video processing and technology
- game design
- security and cryptography
- designing interactive systems
- cooperative work environments
- e-business
- knowledge management
- virtual and augmented reality
- software engineering

The programme of study also includes methodological aspects of designing media informatics systems from the perspectives of software engineering, usability, media design, and business requirements.

Course Details

Course organisation	The standard duration of the study is four semesters (two years). In each semester, about 30 credits have to be achieved in lectures from different areas, seminars, labs, and the Master's thesis in the fourth semester, which can be done in cooperation with industry. Additional courses are offered during the summer and winter breaks enabling students to increase their knowledge or to finish earlier. All subjects are offered as modules that can be combined flexibly and which are fully integrated into the ECTS. » PDF Download
A Diploma supplement will be issued	Yes
Description of other international elements	A stay abroad is not part of the curriculum, but nevertheless it is possible to embed it into the studies.
Integrated internships	The programme is characterised by a significant proportion of research lab courses embedded in both basic and applied research of the participating Fraunhofer Institutes of Applied Information Technology (FIT), and Intelligent Analysis and Information Systems (IAIS) at Birlinghoven Castle. One lab course can be done at the participating universities or in cooperation with industry.
Course-specific, integrated German language courses	Yes
Course-specific, integrated English language courses	No

Costs / Funding

Tuition fees per semester in EUR	None
Semester contribution	Approx. 310 EUR
Funding opportunities within the university	No

Requirements / Registration

Academic admission requirements

A candidate should have a recognised **first degree (Bachelor of Science or Engineering) in Computer Science, Computer Engineering, Informatics, or other closely related disciplines**, awarded by an internationally recognised university-level institution. If a candidate has another first degree the background in computer science, maths and engineering should still be strong, otherwise a bridging course will be required or the application is not eligible for admission. (Please note that we do not check the eligibility of applicants via e-mail; you need to apply.)

The **Graduate Record Examination (GRE) General Test is mandatory for your application** Applications without GRE General Test results will be rejected immediately.

For English-taught programmes at RWTH Aachen University, candidates must be able to speak and write fluently in English (details below).

Candidates should have also performed above average in their undergraduate studies and should have a substantial background in computer science and mathematics.

The candidate needs to **provide credits in the following areas**:

- At least 28 CP from the field of applied computer science, including:
  - min. 8 CP in programming
  - min. 8 CP in data structures and algorithms
  - min. 6 CP in databases and information systems
  - min. 6 CP in software technology
- At least 18 cp from the field of computer engineering, including:
  - min. 6 CP in computer & electrical engineering
  - min. 6 CP in operating systems and system software
  - min. 6 CP in data communication and security
- At least 18 CP from the field of theoretical computer science, including:
  - min. 6 CP in formal systems, automats and processes
  - min. 6 CP in computability and complexity
  - min. 6 CP in mathematical logic
- At least 26 CP from the field of mathematics, including:
  - min. 6 CP in discrete structures
  - min. 8 CP in mathematical analysis
  - min. 6 CP in linear algebra
  - min. 6 CP in applied stochastics

Please note that credits are calculated by the European Credit Transfer and Accumulation System.

In case substantial background knowledge is missing, a bridging course can be assigned as an additional programme requirement. **If more than 22 CP are missing, the candidate is not accepted for admission**. Please note that we do not check for eligibility before the application deadline or via e-mail.

Language requirements	Candidates must be able to speak and write fluently in English.**We require certain English language skills**, as listed here.
Application deadline	The application deadline for non-EU applicants is 1 March. EU applicants, applicants from Germany, or applicants with a first degree from Germany can apply up to mid-July (see RWTH Aachen University website). Applicants from China may have to deal with application matters earlier (possibly in January) due to APS and interview matters. Please see the Media Informatics website for further information. These deadlines always refer to the following winter semester. There are no admissions in the summer semester.
Submit application to	https://online.rwth-aachen.de

Services

Possibility of finding part-time employment	Student assistant positions are available on a competitive basis at the many Computer Science departments involved in Media Informatics. A student assistant position can increase your knowledge and earns about 300 EUR to 600 EUR per month. For examples of possible employers in industry, please have a look at the MI homepage under b-it impressions.
Accommodation	Students can live in one of the many student residence halls which have basic to full furniture and Internet and cable access, or in a private room. Usually, rooms are available in a range from 350 EUR to 550 EUR (more apartment-like), and the prices in the student dormitories usually include costs like heating, water, electricity, and internet access. Information about accommodation is sent to accepted applicants well before their arrival to Germany.

RWTH Aachen University

With 260 institutes in nine faculties, RWTH Aachen University is one of Europe's leading institutions for science and research. Currently, more than 44,500 students are enrolled in 144 academic programmes. More than 8,500 of them are international students hailing from 130 different countries. The scientific education students receive at RWTH Aachen University is firmly rooted in real-world application. As a result, our graduates are highly sought after by businesses to work as trainees and fill executive positions. National and international rankings show that our graduates have a high aptitude for managing complex tasks, constructively solving problems in teams, and taking on leadership responsibilities. Thus, it should come as no surprise that one in five board members of German corporations is an alumnus of RWTH Aachen University.

Work conducted in the research centres at RWTH Aachen University is strongly oriented towards the current needs of industry, commerce, and the professions. This has resulted in numerous innovations, patents, and licences. The individual competence centres at RWTH Aachen University collaborate effectively across departments and faculties in interdisciplinary groups and forums, while still maintaining a strong focus on their own department specialisation. For instance, the computer science and biology departments – and even the social sciences – all have a clear connection to the school's engineering focus. This has been a crucial factor in motivating multinational corporations such as Philips, Microsoft, and Ford to locate their research institutions in the Aachen region.

Excellence in teaching and research constitutes the basis from which RWTH Aachen University works with other leading institutions and technical universities around the world.

University location

As Germany's westernmost city, Aachen is located on the borders of Belgium and the Netherlands. Its population is about 260,000. Aachen's historic centre around the distinctive cathedral (UNESCO world heritage site) is characterised by a student lifestyle. At the city's doorstep, the hilly Eifel landscape with its rivers, lakes, and forests offers a picturesque countryside for outdoor recreation.
Aachen benefits from its central location in the heart of Europe!

Contact

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