

COURSE FEATURES

- Study an internationally accredited degree programme in English language (no German required)
- Work with state-of-the-art industrial and service robots
- Be a part of high-profile multidisciplinary research projects
- Prepare for your PhD or for an industrial career in robotics
- Become involved in the program's award-winning RoboCup team: www.b-it-bots.de

OUR FOCUS

The focus is on enabling and integrating the necessary intelligence behind the autonomous behavior of artificial agents rather than on the hardware-related aspects of robotics.

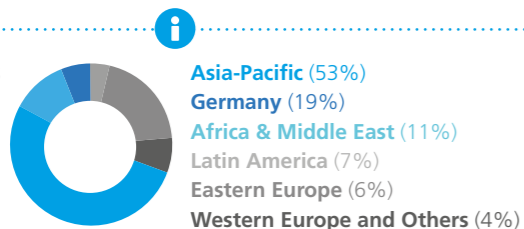
WE'RE HERE TO HELP

- Close mentoring by faculty members
- Study buddies: one on one support for international students
- Familiar atmosphere in small classes, tightly-knit community

THE INTERNATIONAL PERSPECTIVE

- Live and study in Germany in an international group
- Free language classes in German and other languages
- Opportunity to spend a semester at one of the program's partner universities
- Dual degree option with the University of New Brunswick (UNB) in Canada

Our Students come from:



AT A GLANCE

Degree
Master of Science (MSc)

Programme duration
4 semesters (2 years)

Teaching language
English

Start of course
Summer Semester (March)
or Winter Semester (September)

Application and deadline
The application for winter semester starts November 15 the year before the winter semester. For the summer semester, application starts on April 15 the year before the summer semester.
Deadline depends on your visa status.

Admission requirements
Academic degree (Bachelor or equivalent)

- In the areas of computer science, mathematics, natural sciences or engineering
- With a GPA of 2.5 or less on the German grading scale
- With at least 65% computer-science content
- Upper B2 level of English

More information
www.h-brs.de/en/inf/autonomous-systems-msc

Department of Computer Science Autonomous Systems

Campus Sankt Augustin

Hochschule Bonn-Rhein-Sieg
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For academic advice

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For general information and application to the programme

Registrar's Office
Tel. +49 2241 865 697
studierendensekretariat@h-brs.de
www.h-brs.de/en/registrar-services

www.h-brs.de/en
www.facebook.com/AutonomousSystemsProgram

Autonomous Systems Master of Science (MSc)



Fotos: Micha Swen, Eric Lichtenscheidt, Kira Wazinski
Stand 08/2018



**Hochschule
Bonn-Rhein-Sieg**
University of Applied Sciences

ABOUT US

The Autonomous Systems programme (MAS) is offered by the Applied Sciences Institute at the [Bonn-Aachen International Center for Information Technology \(b-it\)](#) which is a cooperative partnership between two renowned German centers of excellence: the Department of Computer Science at Hochschule Bonn-Rhein-Sieg (H-BRS) and the Fraunhofer Institute for Intelligent Analysis and Information Systems (IAIS).

H-BRS

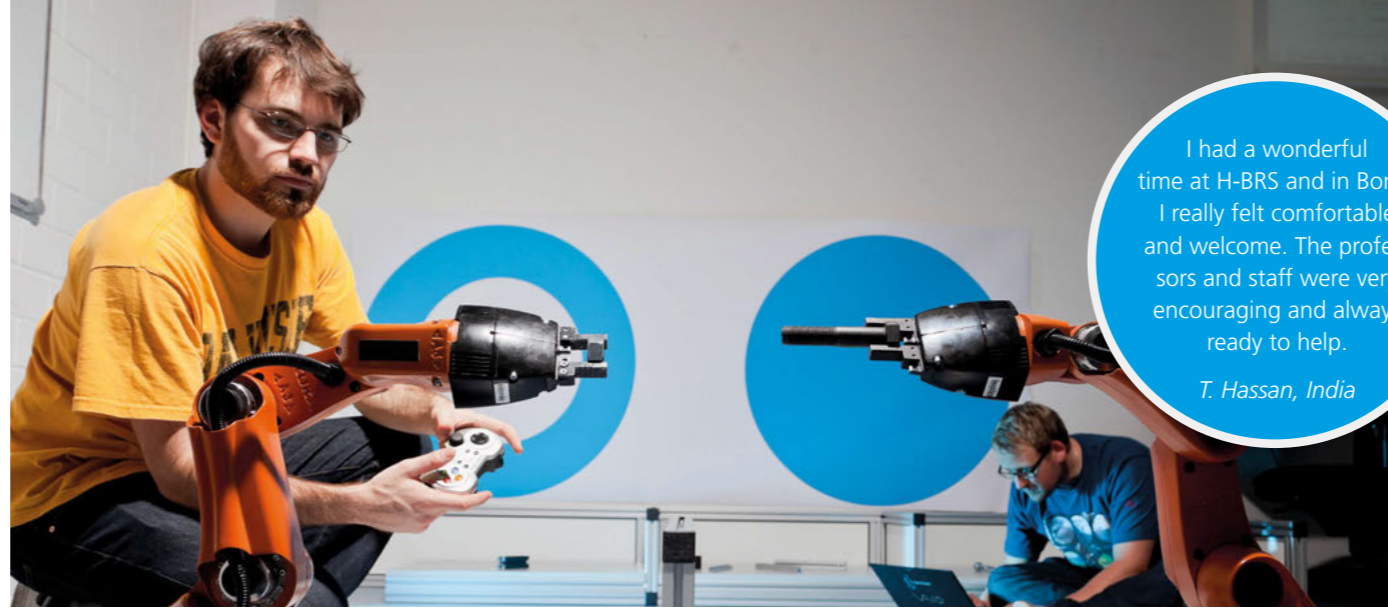
H-BRS was founded in 1995 and has around 9,000 students, 152 professors and 261 research associates. The university campuses are located in Hennef, Rheinbach and Sankt Augustin. The MAS programme is taught in Sankt Augustin which is located close to the cities of Cologne and Bonn (commuting by public transport possible from both cities).

The Department of Computer Science is consistently ranked amongst the top departments in various Germany-wide academic university rankings.

Fraunhofer

The Fraunhofer organization is the largest application-oriented research organization in Europe with 66 institutes around Germany. The Fraunhofer Institute for Intelligent Analysis and Information Systems (IAIS) is conveniently located in Schloss Birlinghoven, close to the university.

Over 200 employees focus on the development and application of autonomous systems in the areas of mobile robots and knowledge computing. As our student, you benefit largely from this powerhouse of research and development.



I had a wonderful time at H-BRS and in Bonn. I really felt comfortable and welcome. The professors and staff were very encouraging and always ready to help.

T. Hassan, India

THE PROGRAMME

The academic year is divided into two semesters. The programme covers four semesters (2 years).

Since the programme is a [master by research](#), students earn half of their credits by projects and applied research.

In the first semester, students take a number of [core courses](#) followed by [compulsory seminars](#) and [applied research modules](#) throughout their studies. During their second and third semester they may choose five [elective](#) courses, e.g.:

- Adaptive Signal Processing
- Advanced Mathematics for Robotics
- Computer Vision
- Evolutionary Computation Theory and Application
- Fault Detection and Diagnosis
- Learning and Adaptivity
- Mobile Manipulation
- Multiagent and Agent Systems
- Neural Networks
- Planning and Scheduling
- Probabilistic Reasoning
- Robot Manipulation
- Robot Perception



CURRICULUM

Semester	1.	2.	3.	4.
Lectures	<ul style="list-style-type: none"> Advanced Software Technology Artificial Intelligence Autonomous Mobile Robots Mathematics for Robotics and Control 	<ul style="list-style-type: none"> MAS Elective MAS Elective MAS Elective 	<ul style="list-style-type: none"> MAS Elective MAS Elective 	
Seminars	<ul style="list-style-type: none"> Introduction to Scientific Working 	<ul style="list-style-type: none"> Advanced Scientific Working 		<ul style="list-style-type: none"> Research and Development Colloquium
Applied Research		<ul style="list-style-type: none"> Research and Development Project Software Development Project Scientific Experimentation and Evaluation 	<ul style="list-style-type: none"> Research and Development Project 	<ul style="list-style-type: none"> MAS Colloquium MAS Thesis

The current curriculum can be found here: <http://curriculum.inf.h-brs.de>