



Deutscher Akademischer Austauschdienst
German Academic Exchange Service



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Doctorate



Einstein Center of Catalysis (EC2/BIG-NSE)

Technische Universität Berlin • Berlin



Overview

Degree	Dr Ing / Dr rer nat
In cooperation with	Freie Universität Berlin (FUB), Humboldt Universität zu Berlin (HUB), Fritz-Haber-Institut (FHI), Charité Universitätsmedizin Berlin (Charité), Helmholtz-Zentrum Berlin (HZB), Leibniz-Institut für Analytische Wissenschaften Berlin (ISAS), Leibniz-Forschungsinstitut für Molekulare Pharmakologie (FMP), Universität Potsdam (UP), Max Planck Institute of Colloids and Interfaces (MPI-KGF)
Teaching language	<ul style="list-style-type: none">English
Languages	All activities are in English. English, German and French courses are offered. The PhD thesis may be written in English or German, as preferred.
Full-time / part-time	<ul style="list-style-type: none">full-time
Mode of study	50 / 50 online and on-site
Programme duration	6 semesters
Beginning	Winter semester
Application deadline	15 January for the following winter semester
Tuition fees per semester in EUR	None
Combined Master's degree / PhD programme	No
Joint degree / double degree programme	No
Description/content	The Einstein Center of Catalysis / Berlin International Graduate School of Natural Sciences and Engineering (EC2/BIG-NSE) is an international doctoral programme that was founded in May 2007 at the Technische Universität Berlin (TUB). Since January 2019, the programme has been part of the

Einstein Foundation Berlin (ESB: www.einsteinfoundation.de/). It is closely associated with the Cluster of Excellence "Unified Systems in Catalysis" ("UniSysCat": www.unisyscat.de), founded by the TUB and eight other institutions in the Berlin area within the framework of the "Excellence Initiative" of the German government. The high-ranking research in catalysis covers a broad range of topics, from natural sciences to engineering. The success of this research programme, which is unique in Germany, requires highly qualified and motivated young researchers in the various projects. With the founding of EC2/BIG-NSE, UniSysCat aims to recruit the most gifted students and young researchers in the world, and to offer them a broad, high-level, structured educational programme in order to prepare them for the high-ranking research performed at the cluster.

Course Details

Course organisation	<p>The main characteristic of EC2/BIG-NSE is a comprehensive integration and mentoring programme for its students, especially its international students.</p> <p>Further aspects of the PhD studies offered at EC2/BIG-NSE are as follows:</p> <ul style="list-style-type: none"> • Preparation of a schedule by the students themselves during the first semester • Continuous supervision by two professors / senior scientists and one mentor • Regular evaluation of the students' work/study achievements <p>Active support is given to the students in the following ways:</p> <ul style="list-style-type: none"> • An "initial phase" with intensive support, especially regarding administrative and integration aspects • Language and soft skills courses • Regular lectures presented by renowned guest scientists from all over the world • Continuous support for all professional and social aspects
International elements	<ul style="list-style-type: none"> • Training in intercultural skills • International guest lecturers • Language training provided • Projects with partners in Germany and abroad
Integrated internships	<p>Due to its numerous contacts with industry partners, it is easy for EC2/BIG-NSE to organise internships for its PhD students in such companies that are advantageous for the students' PhD research.</p>
Special promotion / funding of the programme	<ul style="list-style-type: none"> • Other (e.g. state level)
Course-specific, integrated German language courses	Yes
Course-specific, integrated English language courses	Yes

Online learning

Pace of course	Instructor-led (Specific due dates for lectures/assignments/exams)
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Phase(s) of attendance in Germany (applies to the entire programme) Yes, compulsory

Types of online learning elements

- Chats (with lecturers and other students)
- Online sessions

Costs / Funding

Tuition fees per semester in EUR None

Semester contribution Approximately 300 EUR per semester

Costs of living The cost of living is estimated to approximately 1,200 EUR per month for students living in Berlin.

Funding opportunities within the university Yes

Description of the above-mentioned funding opportunities within the university EC2/BIG-NSE offers several new scholarships students can apply for every year. These scholarships transform into PhD assistant positions after the first year, and funding continues for two more years.

Requirements / Registration

Academic admission requirements Suitable Master's degree qualifying for a PhD in one of the research areas of the UniSysCat Cluster (www.unisyscat.de/research-units.html)

Language requirements Applicants must provide proof of excellent English skills: TOEFL 550 (paper-based), 213 (computer-based), 79 (Internet-based) or equivalent.

Application deadline 15 January for the following winter semester

Submit application to <https://www.ec2-big-nse.de>

Services

Accommodation The EC2/BIG-NSE administration office supports its students in their search for suitable accommodation in Berlin and Potsdam.

Structured research and supervision	Yes
Research training / discussion	Yes
Career advisory service	https://www.tu.berlin/en/studying/advising/studienberatung/advising/career-entry-development
Support for international students and doctoral candidates	<ul style="list-style-type: none"> • Welcome event • Buddy programme • Cultural and linguistic preparation • Visa matters • Pick-up service



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Subhamoy Bhattacharya, Dr Ing
(on the left in the picture)

When I entered the BIG-NSE as a scholarship holder in 2008, I knew I was entering a whole new world that was to become a melting pot for different cultures, outlooks and scientific ideas. During the initial period of three months, in conversation with scientists and researchers from a wide variety of backgrounds and interests, I was flabbergasted by the myriad of communication gaps one was likely to encounter in conversations between fundamental researchers and applied researchers...

Our Partners



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PHARMAKOLOGIE



UniCat – Catalysis for the Future (2009)

This short clip from the year 2009 describes the research goals of the now terminated Cluster of Excellence UniCat. This preceded the current follow-up Cluster UniSysCat, with which our doctoral programme still has a very strong collaboration. There is a short mention of our programme at minute 4:30. This description of BIG-NSE, its goals and its advantages, is valid now more than ever.

» more:
<https://www.youtube.com/watch?v=E8c157abf7Y>

Technische Universität Berlin



Villa Bell, home of EC2/BIG-NSE at TU Berlin

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More information is available on the websites of the participating universities:

<https://www.tu-berlin.de>, <https://www.hu-berlin.de>, <https://www.fu-berlin.de>, <https://www.uni-potsdam.de>

The administration office of EC2/BIG-NSE is located at the TU Berlin.



University location

<https://www.ec2-big-nse.de/directions-1>

Contact

Technische Universität Berlin

EC2/BIG-NSE - Sekr. BEL5

Dr Jean-Philippe Lonjaret

Marchstr. 6-8
10587 Berlin

Tel. +49 3031423150

✉ jean-philippe.lonjaret@tu-berlin.de

 Course website: <https://www.ec2-big-nse.de/education>

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International Programmes in Germany - Database

www.daad.de/international-programmes

www.daad.de/sommerkurse

Editor

DAAD - Deutscher Akademischer Austauschdienst e.V.

German Academic Exchange Service

Section K23 – Information on Studying in Germany

Kennedyallee 50

D-53175 Bonn

www.daad.de

GATE-Germany

Consortium for International Higher Education Marketing

www.gate-germany.de

Disclaimer

The data used for this database was collected and analysed in good faith and with due diligence. The DAAD and the Content5 AG accept no liability for the correctness of the data contained in the "International Programmes in Germany" and "Language and Short Courses in Germany".

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