

Conditions of funding Wissenschaftskolleg “Data Society” of Paderborn University

I. General information

The Wissenschaftskolleg “Data Society” is aimed at highly qualified scientists of the Paderborn University from all disciplines starting from the postdoc phase, who want to develop an interdisciplinary research project together with up to two internationally renowned colleagues. The research projects should deal with the technical or scientific foundations of digitisation or with the social upheavals that are currently taking place as a result of digitisation processes and/or with how economic, working, living and cultural practices are changing.

The programme provides researchers with the time and resources required to concentrate on developing an interdisciplinary research project with an international team for a duration of six months.

The goal of the Wissenschaftskolleg “Data Society” is to provide start-up funding to pave the way for long-term interdisciplinary research and international cooperation in the field of digitalisation. For example: applications from the coordinated programmes of the German Research Foundation (collaborative research centres, transregios, research training groups, research units, priority programmes, clusters of excellence etc.) or comparable programmes funded by the EU or other funding providers.

II. Focus areas for the Wissenschaftskolleg “Data Society”

In terms of content, the topic of 'Data Society' should be broadly defined. The Executive Board would like to address all areas that can contribute to the topic.

Topics such as cyber security, Industry 4.0, social media and corporate social media, human and machine/computer, virtualisation, edge/cloud computing, smart home, artificial intelligence, consumer protection, robotics, interaction in digital spaces, autonomous systems, research into data transfer and data analytics or augmented realities are just some of the (technical) developments that are changing the way we (scientifically) work, the economic and production processes to a substantial extent and permeate all areas of social life.

Business sectors such as the automotive industry are undergoing a huge transformation brought about by recent advancements in networked, autonomous vehicles, e-mobility, multi-modular mobile services and new approaches from the sharing economy. Digitalisation is revolutionising the energy sector and areas like the media industry are facing massive upheavals.

In all of these developments data play a central role; the transfer, networking and linkage of data, which in turn generates even more data leading to new insights and knowledge. While these processes of change bring about infinite possibilities and opportunities, there is also a potential for negative implications on society.

It is therefore also about how the digital world influences and changes society. For example, research projects should also be funded that deal with the question of which interdisciplinary strategies and solutions are needed to shape and control digitalisation and how the protection of human and civil rights can be realised in the digital space.

In this context, numerous other questions arise in the area of data and digital society, such as:

- What is technically possible, but also where are the limits of long-distance fast data transmission, artificial intelligence and machine learning methods? How can these methods be made transparent and comprehensible?
- How can the quality and speed of data transmission be enhanced by quantum technologies and where are the ultimate limits?

- How should business and production processes be modified to fully harness the potential of digital developments?
- Where are the challenges in establishing automated processes along the entire value chain and product life cycles?
- Which legal and ethical questions arise from the digitalisation process? What are the implications for the protection of personal privacy?
- To what extent does the data economy's own momentum pose a challenge to democracy?
- What does the future hold for the coexistence of technical, self-learning systems and human civilisation?
- And if we think one step further ahead: Will intelligent systems one day out-think human beings and will we or the machines ultimately be in control?

III. Application requirements

- a) From the postdoc phase onwards researchers from any field can apply to the Wissenschaftskolleg "Data Society" together with an interdisciplinary and international team.
- b) The working group is to include up to two researchers from the Paderborn University and up to two other established guest researchers (max. Duration of stay at the UPB 4 months) from Germany or abroad. To this end, a letter of intent/Lol (formless by e-mail) must be obtained from the prospective guest researchers. Before the start of a possible admission to the Wissenschaftskolleg "Data Society", this should make clear the mutual seriousness and duration of the cooperation as well as the willingness to carry out a joint research project within the Wissenschaftskolleg "Data Society".
- c) The guest researchers must be present in Paderborn for the duration of their stay during the Wissenschaftskolleg "Data Society"*.
- d) If the research proposal requires access to laboratories or the specialist facilities of Paderborn University, it is necessary to submit a confirmation from a faculty that the necessary infrastructure can be used.
- e) The duration of funding is six months.
- f) It is possible to apply for funding to cover the expenses of up to two guest researchers as well as the personnel costs to substitute the Paderborn applicant for the duration of the programme. If necessary consumables up to a value of €20,000 may be covered. Please indicate the purpose of the required consumables. The programme cannot fund a limited-term employment contract. The funding volume depends on the individual requirements and is limited to a W3 salary (maximum).

IV. Application process

The application process consists of two phases.

Phase 1: Draft proposal ([see also draft proposal form](#)):

The written application must include the application form and a four-page exposé of the research proposal. The exposé should include details of the project's research goals and long-term prospects for the data/digital society research field at Paderborn University. The applications should be addressed to the head office of the Committee for Research and Junior Academics and be submitted via the Managing Directors of the deaneries. On the basis of the first round of written applications the Committee for Research and Junior Academics will decide which applicants will be invited to submit a full application.

Phase 2: Full application

The full application should be no more than 10 pages. Up to four complete applications may undergo an external review process. Each applicant should thus propose four external reviewers who are not biased

and can evaluate the applications independently and objectively according to the stipulations of the German Research Foundation (https://www.dfg.de/formulare/10_201/).

The Vice-President for Research and Junior Academics will then choose two external reviewers. The final decision on which proposals will be accepted to the Wissenschaftskolleg "Data Society" will be made by the University Executive Board based on the recommendation of the Committee for Research and Junior Academics. Application resubmissions are possible.

A precise content orientation of the research concept is expected for both the draft proposal and the full application. The proposals should clearly indicate the project-specific significance for a profile-building future perspective at Paderborn University. In addition, it should be described how the participation of the involved scientists is specifically planned.

V. Deadlines and responsibilities

a) Application deadlines:

The application deadlines are published annually by the Committee for Research and Junior Academics.

b) Submitting the application:

The application should be submitted to the head office of the Committee for Research and Junior Academics (Department 2/ Div. 2.2 Ms Patz) via the Managing Directors of the deaneries.

c) Start date and duration of the programme:

The programme commences at the beginning of each semester (1st October/ 1st April) and lasts up to six months.

d) Place of implementation:

The premises rented by the University of Paderborn on the city campus are available for the implementation of the research project. If the use of the faculty's own premises and laboratories is more practicable, the use of this infrastructure is also possible.

Photos and a floor plan of the premises of the city campus can be requested from the Committees head office.

*During the Corona Pandemic, digital formats of collaboration with the guest researchers are also possible.

VI. Presentation Results

After the end of the funding measure, a public presentation of the results (30 minutes) is to take place at the opening event of the subsequent Wissenschaftskolleg "Data Society".