

## Conditions of funding Paderborn Advanced Studies Programme “Data Society”

### I. General information

The Paderborn Advanced Studies Programme (*Paderborner Wissenschaftskolleg*) is aimed at highly-qualified post-doc researchers **from any field** at Paderborn University who propose to undertake an interdisciplinary research project in the field of digitalisation with up to two external colleagues. 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 research proposal should address the opportunities and possibilities and/or limits and risks that are challenging and fundamentally transforming today’s societies.

The goal of the Advanced Studies Programme 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 Advanced Studies Programme

Artificial intelligence, robotics, autonomous systems, virtualisation, edge/cloud computing, research in data transmission and data analytics and augmented realities are just some of the technical advancements that have substantially changed our (scientific) working lives, our business and production processes, and are now becoming increasingly influential in almost every domain of our society. 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.

In this regard we must ask ourselves many questions:

- 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?
- 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) Post-doc researchers from any field can apply to the Paderborn Advanced Studies Programme Data Society together with an interdisciplinary and international team.
- b) The work group must consist of up to two researchers from Paderborn University and up to two guest researchers (maximum duration of stay at UPB 4 months).
- c) The guest researchers must be present in Paderborn for the duration of their stay during the Advanced Studies Programme.
- 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 society research field at Paderborn University. The applications should be addressed to the Chair of the Committee for Research and Junior Academics and be submitted via the Dean of Research. 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/](https://www.dfg.de/formulare/10_201/)).

The Vice-President for Research and the Dean of Research will then choose two external reviewers.

The final decision on which proposals will be accepted to the Advanced Studies Programme will be made by the University Executive Board based on the recommendation of the Committee. Application resubmissions are possible.

### 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 office of the Committee for Research and Junior Academics (Department 2/ Div. 2.2 Ms Patz) via the Dean of Research.

#### c) Start date and duration of the programme:

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