

Information for applicants for the full professorship „Manufacturing Technology“ at the Faculty of Engineering

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1. The University of Duisburg Essen: Open-Minded

We are one of the youngest universities in Germany and think in terms of opportunities rather than limitations. In the heart of the Ruhr metropolis, we develop ideas with a future at 11 faculties.

We are strong in both research and teaching and consider diversity an integral part of our culture as we promote potential and are committed to upholding genuine equity in education.



*A view of the Duisburg campus. Please find further images at:
<https://www.uni-due.de/en/impressions-duisburg-campus.php>*

Located in the heart of the Ruhr metropolis, the University of Duisburg-Essen (UDE) is one of the youngest and largest universities in Germany. The courses range from the humanities and social sciences via economics and business studies all the way to the engineering sciences and natural sciences (including medicine). The University has also established itself firmly in the international scientific community since being founded in 2003.

This is reflected by the top positions UDE has recently achieved in international rankings. In a comparison of the best universities founded after the turn of the millennium, UDE ranks sixth worldwide. In the Times Higher Education (THE) Young University Ranking, UDE is 18th among the top 200 international universities that are under 50 years old. UDE is also well ahead when it comes to citations of scientific publications: it ranks 15th nationwide and in the top 300 internationally in the THE World University Ranking.

The research carried out at UDE covers a broad spectrum including five cross-departmental flagship programmes: nanosciences, biomedical sciences, urban systems, transformation of contemporary societies and water research. Lifelong learning and socialisation processes are another central field of research.

Thanks to digitally supported teaching and learning concepts, UDE is an attractive location for research-based teaching. Around 42,000 students from over 130 countries are enrolled at UDE in a total of over 250 courses of study, 127 of which include the option to teach in schools.

UDE is considered a paradigm throughout Germany of how equity in education can be implemented at a university with a strong track record in research. Numerous measures and projects are in place to support talented young people and offer them prospects. UDE considers itself a vibrant environment of diversity and openness where students, researchers and staff can unfold their potential and willingness to perform. At the same time, we make every effort to ensure our development covers a wide range of areas and is resource-friendly.

In a strategic partnership, UDE is affiliated with Ruhr University Bochum (RUB) and TU Dortmund University. Together, they form the University Alliance Ruhr (UA Ruhr) and collaborate closely in research and teaching. They also have joint liaison offices on two continents. In addition, UDE maintains partnerships with more than 100 universities around the world.

Please find further information at:

- https://www.uni-due.de/imperia/md/content/dokumente/image_broschuere_en.pdf

What we offer as an employer:

Seal of quality from the German Association of University Professors and Lecturers

In August 2014, the University of Duisburg-Essen received the German Association of University Professors and Lecturers' (DHV) seal of quality for the fair and transparent nature of its appointment proceedings.

In August 2017, UDE also successfully underwent the re-audit procedure that takes place after three years and was awarded the seal of quality for the fair and transparent nature of its appointment proceedings for a further five years.

Family-friendliness

At UDE, there is a wide variety of services aimed at helping to reconcile work and family. The Family Service Office provides advice regarding very practical matters of childcare and care for relatives. Furthermore, there are various care services on offer including daycare facilities, holiday care and short-term care.

Since 2010, UDE has also successfully taken part in the family-friendly university audit (*audit familiengerechte hochschule*) run by berufundfamilie GmbH. Even as a 'family-friendly university', UDE continues to consider improving family-friendliness a shared goal of all University members and consistently pursues the self-commitments that result from the audit.

Onboarding and Dual Career Service

The Onboarding team within the Appointment Management Department provide advice for getting started at UDE and can connect you with UDE's consultation services. They also offer the Dual Career Service.

Coaching and further training

The personal further development of its staff members with management responsibilities is of particular importance to UDE. At UDE, it goes without saying that we offer coaching and seminars on leadership development, which are provided both internally and externally. Together with the Personnel Development Department, other suitable tools for furthering these staff members can be identified.

Promoting good health

As part of UDE's efforts to promote good health, there are numerous opportunities that enable staff to do something for their health and well-being in an active way at or near to the workplace.

Company ticket

The company transport ticket enables inexpensive and environmentally friendly mobility.

2. Faculty of Engineering

ALL ENGINEERING DISCIPLINES UNDER ONE ROOF.

The Faculty of Engineering Sciences at the University of Duisburg-Essen provides a unique profile. Nowhere else in Germany are engineering sciences so close as at the University of Duisburg-Essen. Three departments teach and conduct research under one roof: Civil Engineering, Electrical Engineering and Information Technology and Mechanical and Process Engineering, including Industrial Engineering. Furthermore, the interdepartmental Mobility Transformation Institute (MOTION) was established, in which research and teaching in the field of mobility, automotive engineering and automotive economics is currently carried out by chairs from all departments. As a result, the faculty has an integrated spectrum of engineering disciplines that is unique in Germany and meets all requirements for modern, innovative, and interdisciplinary university education and research in the field of engineering sciences.

With about 7.500 students – about 44 % of them from other countries – the faculty is a strong partner for the regional and cross-regional industry. Graduates of our study programmes enjoy a high reputation due to their broad professional competence as well as due to the special interdisciplinary and international orientation of our study programmes. Classical study courses such as mechanical engineering, electrical engineering, metallurgy and metal forming and civil engineering are complemented by modern interdisciplinary study courses such as nano engineering, medical engineering or industrial engineering. In addition, social skills are addressed that are particularly trained through teamwork and interaction with international students. Our integrated international bachelor's and master's degree programme "International Studies in Engineering (ISE)" with 50 % English lectures is attractive due to its global character and versatility not only for international students but also for German speaking students.

We have developed a sustainable support system for our first-year students that ensures a seamless transition from school to university education. They have the opportunity to learn the contents of their studies in small groups within the first three semesters, enabling them to quickly complete the demanding engineering study at a high level. In addition, there are intensive laboratory experiments that convey how to use the technologies of the future right from the start.

With an investment volume of more than 60 million Euro for equipment infrastructure, the Faculty of Engineering has excellent opportunities to develop cutting-edge technologies and conduct basic research. With six concluded and four running DFG-Collaborative Research Centers, three running DFG-Research Training Groups as well as six DFG funded Research Units the faculty is the best address in Germany and the international science community for research in the fields of nanotechnology and material sciences. Beside of that the topics

- Energy and Environmental Process Engineering
- Nanotechnology,
- Combustion Science,
- Mechatronics,
- Automotive Engineering and Management,
- Communication Systems,

- Microelectronics and Medical Technology,
- Information Technology,
- Product Engineering and Materials Technology,
- Civil Engineering,
- Industrial Engineering,
- Logistics

are the focus of research activities.

By focusing on these areas, the faculty has achieved a high international reputation, which is documented by numerous research projects. In addition, there are the affiliated institutes and other associated institutes

- Development Centre for Ship Technology and Transport Systems (DST),
- Institute for Mobile and Satellite Communication (IMST),
- Institute for Energy and Environmental Technology (IUTA),
- IWW Water Center (IWW),
- Center for Fuel Cell Technology (ZBT),
- Fraunhofer Institute for Microelectronic Circuits and Systems (Fraunhofer IMS),
- Gas- und Wärme-Institut (GWI),
- Center of Rotating Equipment (CoRE),

which collaborate closely with the faculty and have an annual total revenue of more than 35 million Euro. The Faculty and the affiliated and associated institutes have proven to be excellent partners for complex technological solutions and for the recruitment of excellently trained engineers.

To promote cooperation between the departments and institutes and to increase visibility the faculty has established three research profiles, which are “Tailored Materials”, “Human-Centered Cyber-Physical Systems” and “Energy and Resource Engineering”.

3. Department of Mechanical and Process Engineering

From nanosciences to classical mechanical engineering to autonomous/highly automated vehicles and systems.

Approximately 3,942 students are enrolled in the degree programs of the Department of Mechanical and Process Engineering. The attractive range of subjects covers the "classical" topics of mechanical engineering, enables further interdisciplinary studies in "Industrial Engineering" or "Automotive Engineering & Management" and offers the international study program "International Studies in Engineering". Participations in other interdisciplinary courses round out the program. The fact that the department's offer is also attractive to women is demonstrated by the above-average ratio of female students. It is currently over 16 %. The high attractiveness of the Master's programs in particular is reflected in the steadily growing interest shown by Bachelor's graduates from other universities who are moving to Duisburg from all over Germany.

The work in the Department of Mechanical and Process Engineering is shared by 26 professors in seven institutes - highly motivated scientists, most of whom have only been appointed in the last 10 years.

The Department of Mechanical and Process Engineering of the Faculty of Engineering is well prepared for future technological challenges of the national and international industries. The breadth of subjects represented is also reflected in the diversity of teaching and research interests: energy and process engineering, product engineering and logistics, mechatronics, marine engineering and nanotechnology. The department's own institutes work closely together with four affiliated institutes and emphasize the application-oriented character of engineering research.

The Department of Mechanical and Process Engineering at the University of Duisburg-Essen is excellently positioned both with regard to the increasing competition or cooperation among colleges and universities and for future cooperation with national and international partners from science and industry. Due to the nationally and internationally active industrial companies located in the region, there are also numerous opportunities to tackle and implement application and basic research topics.

4. Information about the open position

We are one of the youngest universities in Germany and think in terms of unlimited possibilities instead of possible limitations. Located in the heart of the Ruhr metropolis, our 11 faculties develop ideas with a future. We are strong on research and teaching, embrace diversity, promote academic potential and commit ourselves to educational equality.

The following position is available at the University of Duisburg-Essen in the Department of Mechanical and Process Engineering, Faculty of Engineering for the next possible date:

Full Professorship W3 for "Manufacturing Technology"

to succeed Prof. Dr.-Ing. Gerd Witt

(Level W3 LBesO W)

We are looking for an outstanding personality who represents the field of manufacturing technology in engineering sciences in its breadth. In particular, issues of additive manufacturing (AM) technology shall be represented in research. Applicants should have an outstanding track record in researching additive manufacturing processes, equipment or production systems. Research foci can include, for example, one or more of the following topics: materials engineering fundamentals of manufacturing processes, simulative modelling and digitization of AM processes, approaches to sensor- or model-based quality assurance for AM, machines and process technology innovations, e.g. for control and monitoring of AM processes.

The professorship is located in the Faculty of Engineering, Department of Mechanical and Process Engineering. Expertise in interdisciplinary research as well as the willingness and ability to develop research topics at the interface with other disciplines in the faculty, the department and especially with the Institute of Product Engineering are expected.

Diversity of different curricula vitae will be considered - applicants should demonstrate excellence in either application-oriented or basic research and outline concepts for future research.

The professorship is integrated into the German-language and international (in English) bachelor's and master's degree programs of the Department of Mechanical and Process Engineering. In addition to the fundamentals of manufacturing technology, in-depth knowledge on AM and engineering methods is also to be taught. Further, practical formats such as student projects shall also be offered. Participation in the further development of the study programs as well as in the self-governing bodies of the university is required.

Publications in high-ranking, peer-reviewed journals are expected, as well as experience appropriate to the advertised position in the implementation of self-acquired, competitive third-party funded projects, preferably DFG-funded projects.

The University of Duisburg-Essen attaches particular importance to the quality of teaching. Didactic approaches on teaching - also taking into account the profile of the University of Duisburg-Essen - have to be presented.

The hiring requirements comply with § 36 of the Higher Education Act of North Rhine-Westphalia (Hochschulgesetz NRW).

The University of Duisburg-Essen aims to increase the diversity of its members and considers their competencies in relation to, e.g., their age or origin (s. <https://www.uni-due.de/diversity/>). It aims to increase the number of women on its academic staff and therefore emphatically encourages women with pertinent qualifications to apply. Women with equal qualifications will be preferred in accordance with state equality laws. Applications of qualified disabled persons in the legal sense of § 2 para. 3 SGB IX are also welcome.

Applications with the usual documents (CV with information on the scientific and professional career, list of scientific publications, PDF files of the three most important publications, copies of certificates, a short description of the own research profile and the resulting perspectives at the University of Duisburg-Essen, teaching/learning concept, information on previous teaching activities, on participation in academic self-administration as well as on acquired third-party funds) are to be sent until [08.04.2024] to Dekan der Fakultät für Ingenieurwissenschaften der Universität Duisburg-Essen, Herrn Univ.-Prof. Dr.-Ing. Alexander Malkwitz, Forsthausweg 2, 47057 Duisburg, dekanat@iw.uni-due.de.

For further information about the chair, its role at the University of Duisburg-Essen and about the Faculty of Engineering please visit <https://www.uni-due.de/iw/en/jobs.php>.

5. Legal framework

Universities are state-funded bodies under public law with legal capacity. State funding is based on the university's tasks, the obligations agreed upon in university contracts and the university's performance. They have a global budget and are not subject to individual instructions from the Ministry for Culture and Science of the state of North Rhine-Westphalia.

If the legal requirements are met, professors are appointed as permanent civil servants as a rule. Professors can also be appointed on the basis of an employment contract under private law.

When awarding a junior professorship, it is to be noted that individuals who already meet the hiring requirements for a university professorship due to having completed a habilitation or another reason cannot be considered.

Further information (in German):

- Contacts
www.uni-due.de/verwaltung/organisation/peo_professoren.php
- Regulations on the appointment proceedings
www.uni-due.de/imperia/md/content/zentralverwaltung/bereinigte_sammlung/2-10-mai12.pdf
- Information on the appointment and hiring process
www.uni-due.de/verwaltung/berufungsmanagement/

6. Salary

The salary of university teaching staff is stipulated by the North Rhine-Westphalian system for the remuneration of civil servants. These staff members fall under the W salary range, which contains the bands W1, W2 and W3.

Basic salaries can be supplemented with (performance) bonuses in bands W2 and W3. These performance-based salary components can be awarded

- as a result of appointment and retention negotiations (appointment and retention bonuses),
- for special achievements in research, teaching, art, further education and supporting early career researchers (special achievement bonuses),
- for assuming functional or special responsibilities as part of the University's self-governance or University management (functional bonuses).

In certain circumstances, so-called teaching and research bonuses may be paid from private third-party funds.

During appointment and retention negotiations, performance bonuses can also be agreed for a fixed period of time if they are linked to target and performance agreements.

Appointment bonuses are to be negotiated on an individual basis with the Rector of the University of Duisburg-Essen as part of appointment negotiations.

Please find a table showing the current remuneration (in North Rhine-Westphalia) for the salary bands W1, W2 and W3 at:

- https://www.finanzverwaltung.nrw.de/sites/default/files/asset/document/grundgehaelter_a_b_r_und_w.pdf

You can find information on the W salary range (in North Rhine-Westphalia) and the legal foundations for it on the following webpages:

- www.uni-due.de/verwaltung/organisation/peo_links.php
- <https://www.research-in-germany.org/en/jobs-and-careers/info-for-senior-researchers/career-paths/professorship/professor-university.html>

Further information (in German) can be found in the regulations on awarding performance-related bonuses:

- www.uni-due.de/imperia/md/content/zentralverwaltung/bereinigte_sammlung/3_60.pdf