Professor in Welding Materials Engineering of Advanced Alloys
Katholieke Universiteit Leuven

Job Title Professor in Welding Materials Engineering of Advanced Alloys

Department Faculty of Engineering Technology - Department of Materials Engineering
https://www.mtm.kuleuven.be/english

Institution Katholieke Universiteit Leuven
Sint-Katelijne-Waver, , Belgium

Date Posted Apr. 1, 2025

Application Deadline Aug. 12, 2025

Position Start Date Sep. 1, 2026

Job Categories Assistant Professor
Associate Professor
Professor

Academic Field(s) Material/Metallurgy

Job Website https://www.kuleuven.be/personeel/jobsite/jobs/60442541?lang=en

Apply Online Here https://webwsp.aps.kuleuven.be/esap/public/ui5_ui5/sap/zh_erc_esol_go/index.html?sap-ui-language=EN&vacaturenummer=60442541&toepassing=HVY

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Job Description

In the Science, Engineering and Technology Group of KU Leuven, Faculty of Engineering Technology, Department of Materials Engineering , Research unit SIEM there is a full-time academic vacancy in the area of welding metallurgy at KU Leuven De Nayer Campus, Sint-Katelijne Waver. We are looking for internationally oriented candidates with an excellent interdisciplinary research record, affinity with industrial applications and with educational competence in the field of materials science aspects of welding processes (IIW block 2).

At the De Nayer Campus, the research focuses on joining technology as a production technique: in addition to the current focus on pressure welding processes, an expansion towards fusion welding processes is desirable, with specific attention to the material science aspects during the welding process. A second research line focuses on the process-based development and control of the various welding-oriented joining and production techniques, including WAAM and DED (droplet deposition). The research group has a lot of experience in the assessment of welding processes in the industry and in the development of optimized welding procedures through FEA (currently focused on pressure welding). Development, validation and use of these welding procedures are supported by dynamic experiments in the laboratory and in industry. The Welding Technology research group has an extensive international and regional network and maintains good relationships with companies. It is necessary to maintain and further expand industrial relations in the field of research, education and services. The research group has a potential supply of talented PhD students and a supportive working environment.

Research

You develop a research program at an international level in the domain of welding metallurgy. The focus is mainly on fusion welding techniques (electric arc, laser welding, etc.) with specific attention to the material science aspects of welding complex steel alloys and lightweight materials, the relationship between material-process-performance considering variations in material microstructure and composition and in-situ quality control. Your expertise in the field of metallurgy and materials science will allow you to develop such a programme, complementary to existing lines of research and expertise in the welding technology research group.

You engage in targeted scientific research, resulting in PhD’s and publications that meet international standards and lead to broad international recognition.

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You support or initiate a network of local and international companies through the implementation and valorisation of research results and through the provision of industrial services aimed at strengthening industrial innovation.

As part of your research programme, you develop international collaborations, both within academia and with industrial partners.

You are able to acquire competitive funding, both project-based government funding and industrial funding.

You strive for excellence and thus contribute to the further development of the research group and the department.

You pay due attention to the technology transfer and application of the results of your research in industry/government/society, both locally and internationally.

Teaching

You provide high-quality education

- within the Advanced Master's programme in Welding Engineering, a programme that is set up at KU Leuven on Campus De Nayer under the audit of the IIW (International Institute of Welding), which also gives the graduated 'welding' engineers access to the IIW to obtain an additional diploma of IWE (International Welding Engineer) parallel to the MSc of Welding Engineering of KU Leuven, more specifically: materials science, thermal and mechanical aspects of welding, destructive and non-destructive welding testing, residual stresses and deformations, ... These courses are taught in English.
- within the Bachelor's and Master's programmes in Electromechanics of the Faculty of Engineering Technology, more specifically: Production techniques including welding technology, materials science, in-service behaviour, etc. All professors are expected to teach some basic courses. These courses are mainly taught in Dutch.
- You contribute to the organisation of the Advanced Master’s programme in Welding Engineering, and maintain good contacts with the International Institute of Welding.

You contribute to the pedagogical project of the faculty and the university by supervising master's theses and as a supervisor of doctoral students.

You develop your education in accordance with KU Leuven's vision of activating and research-based

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education and make use of the opportunities for educational professionalization offered by the faculty and the university.

Your teaching task is determined in consultation and is based on your specific profile. In the first years of your appointment, the scope is limited. In the rest of your career, the faculty devotes a great deal of attention to the balance between research and teaching time.

Service

You are willing to provide services to the scientific community, society and the university according to the needs and your personal interests.

You maintain close contact within the field of welding engineers, welding companies and research institutes, more specifically

- The Belgian Institute for Welding Technology (BIL) as well as foreign welding institutes;
- The Belgian Association for Welding Technology (BVL), as Authorising National Body of the International Institute of Welding (IIW) in Belgium.

You are prepared to provide services to government and industry in the context of more applied research assignments.

You play an active role in the promotion of the KU Leuven Campuses De Nayer and Group T, the Department of Materials Engineering and the Faculty of Engineering Technology among new students and the wider professional field by participating in open days, networking events and fairs, etc.

Profile

You have a PhD in Engineering Science or Engineering Technology with an emphasis on materials and/or mechanical engineering. Holding a a master in welding engineering, and/or an IWE diploma (international welding engineer), awarded by an IIW-recognized ANB (Authorizing National Body) is an added value.

You have a strong research profile in the field of welding metallurgy and welding technology. The quality of research is evidenced by publications in prominent international journals, books and proceedings of international conferences, and/or by your research experience in industry. [International experience is an advantage].

If you have recently obtained the doctoral degree, it is important that you support your research and

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growth potential with academic references.

You have a research profile that demonstrates collaboration with industry and industrial implementation. [Industrial experience is an advantage].

You have demonstrable qualities related to academic education. Teaching experience is a significant advantage.

You have organizational skills and have a cooperative attitude. You also have leadership skills within a university context.

A good command of English and Dutch is required (CEFR language level C1 or higher), as your teaching duties are organized in both languages. The official administrative language at KU Leuven is Dutch.

Offer

We offer full-time employment in an intellectually challenging environment. KU Leuven is a research-intensive, internationally oriented university that conducts both fundamental and applied scientific research. Our university has a strong inter- and multidisciplinary focus and strives for international excellence. In this regard, we actively collaborate with research partners in Belgium and abroad and offer our students an academic education based on high-quality scientific research.

You will work at the KU Leuven Campus De Nayer, close to the historic city of Mechelen between Antwerp and Brussels and about 45 km from Leuven, and for some educational activities on Campus Group T in Leuven. Educational activities on the other campuses of KU Leuven are also possible.

Depending on your record and qualifications, you will be appointed to or tenured in one of the grades of the senior academic staff: assistant professor, associate professor, professor or full professor. In principle, junior researchers are appointed as assistant professor on the tenure track for a period of 5 years; after this period and a positive evaluation, they are permanently appointed (or tenured) as an associate professor.

KU Leuven is well set to welcome foreign professors and their family and provides practical support with regard to immigration & administration, housing, childcare, partner career coaching, …

To facilitate scientific onboarding and accelerate research in the first phase, a research position will be made available equivalent to a PhD scholarship for 4 years. If you have no other substantial funding available to you, you can apply for a start-up grant of EUR 110.000, on the condition that you are

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appointed for at least 50%.

Interested?

For more information on the contents of the job, please contact:

- Prof. dr. ir. Bart Blanpain, chair of the Department of Materials Engineering (bart.blanpain@kuleuven.be , +32 16 32 1216)
- Prof. dr. ir. Jan Ivens, vice-chair of the Department of Materials Engineering (jan.ivens@kuleuven.be , +32 16 32 8612)
- Prof. dr. ir. Toon van Waterschoot, campus chair of KU Leuven Campus De Nayer (toon.vanwaterschoot@kuleuven.be, +32 485 910 616)

Add to your application following documents (more information is available on the KU Leuven job site):

- your biosketch in which you indicate your added value as an academic for research, education and service to society of your past career and of your future activities (maximum 2 pages);
- a file on your five most important publications or realizations;
- an extensive cv including a full publication list and if applicable a portfolio of your architectural projects;
- your research plan with focus on the development of your research line and research team in relation with the colleague-researchers of the entity of employment (maximum 5 pages);
- your vision on academic education and its organization (maximum 2 pages);
- your contribution to society by outreach and public communication on science and technology, internal representation in boards and councils and service activities directly in relation to your developed expertise (maximum 1 page);
- your vision on leadership (maximum 1 page).

KU Leuven places great importance on research integrity and ethical conduct and will therefore ask you to sign an integrity statement upon appointment.

You can submit your application, only through our online application system. For problems with online applying, please contact solliciteren@kuleuven.be.

You can apply for this job no later than August 12, 2025 via the online application tool

EEO/AA Policy

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KU Leuven strives for an inclusive, respectful and socially safe environment. We embrace diversity among individuals and groups as an asset. Open dialogue and differences in perspective are essential for an ambitious research and educational environment. In our commitment to equal opportunity, we recognize the consequences of historical inequalities. We do not accept any form of discrimination based on, but not limited to, gender identity and expression, sexual orientation, age, ethnic or national background, skin colour, religious and philosophical diversity, neurodivergence, employment disability, health, or socioeconomic status. For questions about accessibility or support offered, we are happy to assist you at this email address.

Contact Information

Please reference Academickeys in your cover letter when applying for or inquiring about this job announcement.

Contact Professor Jan Ivens, Vice-Chair of the Department
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