

Associate/Assistant Professor in Smart Manufacturing

DTU Management Engineering |

FRIDAY 06 JUL 18

The Department of Management Engineering at the Technical University of Denmark invites applications for a full-time position as associate/assistant professor in the area of Smart Manufacturing. The position will support strategic focus areas of the Department within manufacturing and production in the contexts of digitalization and Industry 4.0.

Automation, integration, and digitalisation play an increasingly important role in almost all areas of engineering sciences. In a few years from now, the manufacturing and production area will look nothing like it does today. The emerging area of Smart Manufacturing enables data-driven modelling and optimization leading to “manufacturing intelligence” that will not only improve efficiency and productivity, but will also inspire innovation in products and processes. With this position, the Department wants to strengthen our capabilities in teaching, education, and innovation within Smart Manufacturing.

The associate/assistant professor will be part of the Management Science (MS) division, internationally recognized as a leading MS division. MS is an internationally unique academic environment, spanning from Operations Research and Operations Management to Management of Human Factors and Performance in Implementation Processes. The available position will be part of the Operations Management (OM) group, which focuses on effective planning of resources and activities within production and service companies and networks of companies, spanning from the strategic to the control level. Focus is in particular on quantitative methods, the use of information technology and manufacturing paradigms. The research of the OM group focuses on the industrial and service sectors, including manufacturing, transportation and health care. The group has a strong and successful collaboration with leading players in Danish industry within the area of manufacturing and production.

The associate/assistant professor will be conducting cutting-edge research and innovation in quantitative methods to support the development of the Smart Manufacturing initiatives of the Department. The scope of the position includes, but is not limited to, the following subdomains:

- the smart factory (e.g. production management, production planning and scheduling, workers training, augmented reality and production monitoring and control)

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August 2018**

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- the smart supply chain (e.g. supply and distribution chain optimisation and inbound and outbound logistics optimisation)
- the smart product lifecycle (e.g. preventive and predictive maintenance, re-manufacturing and re-cycling)

Responsibilities and tasks

The associate/assistant professor is expected to:

- Take an active lead on future Industry 4.0 initiatives of the OM group within production, manufacturing, and supply chain management in collaboration with relevant stakeholders in academia as well as industry.
- For the position of associate professor, the candidate is expected to take a leading role in the writing of new and innovative research proposals in order to attract external funding. For the position of assistant professor, the candidate is expected to participate in the development of research proposals.
- Cooperate with other departments at DTU. Knowledge sharing and cross functionality are highly valued in the MS division. The associate/assistant professor is therefore expected to cooperate and be eager to build relations with colleagues at the Department as well as with other departments of DTU. These include, but are not limited to, DTU Mechanical Engineering and DTU Compute (Department for applied mathematics and computer science).
- Teach at all levels. The associate/assistant professor will participate in teaching at all levels within Operations Management and the associate professor will act as supervisor for PhD students and Postdocs and mentor junior faculty within the area. The assistant professor will act as co-supervisor. Teaching will cover Bachelor-, Master- and PhD-level courses. Bachelor courses are taught in Danish, other courses in English. For international candidates, DTU offers Danish language courses for the purpose of being able to teach in Danish within the first 2-3 years.

Qualifications

Candidates for an

- assistant professorship must hold a PhD degree (or equivalent)
- associate professorship must hold a PhD degree (or equivalent), as well as academic qualifications equivalent to those obtained by holding an assistant professorship and documented didactic/pedagogic training

Candidates should have

- A strong background in quantitative methods relevant to the Smart Manufacturing domain such as machine learning, data science and data analytics and/or operations research
- A strong interest in teaching and supervision of topics related to the area of Smart Manufacturing and Operations Management
- A demonstrated ability and desire to publish in international high-impact ISI journals
- A strong ability to work effectively within and across groups
- Fluency in English, both spoken and written

Assessment

In the assessment of the candidates, consideration will be given to

- Experience and quality of teaching
- Research impact and experience, funding track record, and research vision
- Societal impact
- Documented innovation activities, including commercialization and collaboration with industry

- International impact and experience
- Leadership potential and collaboration
- Communication skills

For the specific position, consideration will also be given to:

- A demonstrated ability to collaborate with industry, preferably within a Smart Manufacturing/industry 4.0 context
- The ability to build and develop a research field
- A track record of research proposals for research funding and management of research project

We offer

DTU is a leading technical university globally recognized for the excellence of its research, education, innovation and scientific advice. We offer a rewarding and challenging job in an international environment. We strive for academic excellence in an environment characterized by collegial respect and academic freedom tempered by responsibility.

Salary and terms of employment

The appointment will be based on the collective agreement with the Danish Confederation of Professional Associations. The allowance will be agreed upon with the relevant union.

The assistant professor position is a permanent entry-level faculty position. After a maximum of 4 years, an assistant professor can be promoted to an associate professor position after assessment. More information can be found here: [Career paths at DTU](#).

Further information

Further information may be obtained from Head of the Operations Management Group, Professor Allan Larsen, tel.: +45 4525 6073, e-mail: alar@dtu.dk.

You can read more about DTU Management Engineering at www.man.dtu.dk.

Application procedure

Please submit your online application no later than **20 August 2018 (local time)**. Applications must be submitted as **one PDF file** containing all materials to be given consideration. To apply, please open the link "Apply online", fill out the online application form, and attach **all your materials in English in one PDF file**.

In the field "*Please indicate which position you are applying for*", please **indicate** whether you are applying for the position as Associate or Assistant Professor.

The file must include:

- Application (cover letter)
- CV
- Teaching and research statement, with a focus on the "Assessment" bullet points listed above
- Documentation of previous teaching and research, as related to the "Assessment" bullet points listed above
- List of publications (applicants applying for the position as associate professor should indicate scientific highlights)
- H-index, and ORCID (see e.g. <http://orcid.org/>)
- Diploma (MSc/PhD)

Applications and enclosures received after the deadline will not be considered. All qualified candidates irrespective of age, gender, race, disability, religion or ethnic background are encouraged to apply.

DTU Management Engineering contributes actively to the development of management tools and optimization of processes by using and re-thinking theoretical engineering perspectives, models and methods. Through our research and teaching, we ensure an innovative, competitive and sustainable organization and use of technologies within areas such as energy and climate, transportation, production, and health, both domestic and abroad. DTU Management Engineering has 340 employees; including an academic staff of 190 and 68 PhD students. More than 20% of our employees are from abroad and a total of 38 different nationalities are represented at the Department.

DTU is a technical university providing internationally leading research, education, innovation and scientific advice. Our staff of 6,000 advance science and technology to create innovative solutions that meet the demands of society, and our 11,200 students are being educated to address the technological challenges of the future. DTU is an independent academic university collaborating globally with business, industry, government and public agencies.