

Professor of Risk-based Decision Support

DTU Management Engineering invites applications for a position as Professor focused on health risk assessment aimed at decision support for government and industry. The scientific focus is quantitative risk assessment methodology and disease burden estimation as applied in technologically intense production systems.

The Professor will be affiliated to the Quantitative Sustainability Assessment Division, which hosts the newly formed Global Decision Support Initiative (GDSI), a new DTU competence center focused at optimizing our research base relative to quantitative assessments of risk and sustainability. At GDSI the following system areas are presently considered: food production, water management, transport infrastructure assessment and natural hazard risk mitigation. The link between these areas is a common scientific, model-based approach to risk assessment in support of science-based risk management.

Risk-based decision support is an important research area where a coherent inclusion of relevant metrics has not yet been standardized throughout the full risk analysis process (comprised of risk assessment, risk management and risk communication). Research will be aimed at supporting evidence based policy making with state-of-the-art models capturing inherent complexity and supplying sound scientific data, covering different sectors. In a broader sense risk-based decision support research is intended to assist national governments and intergovernmental bodies in solving complex problems using evidence based methods that are either novel, or have proven their utility in other countries and/or settings.

The successful candidate will play an important role in developing international collaborative research related to the GDSI initiative in collaboration with international universities and relevant organizations.

Responsibilities and tasks

The main responsibility of the professor will be to develop, implement, manage, supervise, and communicate research in risk-based decision support. Specifically, the incumbent is expected to advance our current expertise in the use of stochastic modelling to describe risk distributions as well as estimating disease burden through Disability Adjusted Life Years and related metrics. It will be important to anchor such assessments and estimations in broader Risk Analysis frameworks as developed internationally.

The research should focus on:

- Comparison of risk model experience between food safety, nuclear safety and civil engineering
- Comparison of metrics of disease burden – DALY's, QUALY's, LQI, J-index
- Evaluation of policy intervention experience based on science-based assessments
- DNA sequencing in microbiology – the potential to build global decision support systems
- Risk Governance – international comparisons of models for science involvement
- Methodology of scientific risk assessment used by Intergovernmental bodies

A key task of the position is to establish synergies between the outlined research area and related activities at DTU Management Engineering and other departments participating in GDSI. Special emphasis will be placed on cross-sectoral links to quantitative sustainability assessment and comparisons of existing scientific methodology from different fields that can support science-based policies to support new and more accurate insights.

The successful candidate will be responsible for supervising PhD students and is expected to be involved in other teaching activities related to bachelor and master level students.

The professor must be capable of, and motivated to educate a new generation of engineers across all technical disciplines in risk assessment and science-based decision support by providing educational initiatives at all curricular levels.

Qualifications

The candidate must demonstrate international recognition within the use of quantitative risk assessment and have experience from international and intergovernmental organizations tasked with development and standardization of risk assessment methodology. Documented experience of fundraising and management of complex and multidisciplinary projects is necessary. Furthermore, an excellent record of scientific achievements including international research publications is required. It is necessary that the candidate has shown the ability to collaborate with industry and international research groups.

Assessment

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

- scientific production at international level, research potential and ability to lead and develop a research team
- the ability to promote and utilize research results
- experience with innovation activities
- the ability to teach
- an all-round experience basis, including international experience
- the ability to contribute to the development of the Department's internal and external cooperation
- track record in attracting funding to the research area
- visions within the research area
- the ability to communicate at all levels such as the provision of scientific advice to public sector authorities

For the specific position consideration will also be given to:

- The ability to initiate, drive, and guide national and international research in risk assessment
- Extensive national and international networks and experience.
- Management of large and complex international projects.
- Visions and ideas to address research gaps.
- Establishing and leading of national and international research teams
- Documented ability to implement research results.
- Documented experience with the use of new learning platforms, such as e-learning.
- Experience with international standardization in the research area

Salary and terms of employment

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

Further information

Further information may be obtained from Head of Department Søren Salomo, tel.: +45 4525 4409, sors@dtu.dk.

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

Application procedure:

We must have your online application by **XXXX 2015**.

Applications must be submitted as **one PDF file** containing all materials to be given consideration. To apply, please open the link "Apply online," fill in the online application form, and attach **all your materials in English in a single and collated PDF file**. The file must include:

- Application (cover letter) addressed to the President
- CV
- Diploma (an official translation into English)
- List of publications indicating scientific highlights
- A plan for future research
- Documented list of external funding
- Documentation of teaching experience

All interested candidates irrespective of age, gender, disability, race, religion or ethnic background are encouraged to apply.