

VALENCIA, 9 APRIL 2014

Associate/Assistant Professor in Solid Mechanics

DTU Mechanical Engineering at the Technical University of Denmark invites applications for a position as Associate/Assistant Professor in the field of solid mechanics. The Associate/Assistant Professor will be associated with the new Centre for Acoustic-Mechanical Micro Systems (CAMM). The position is available as soon as possible.

CAMM is a joint centre between DTU Mechanical Engineering and DTU Electrical Engineering that started January 1st 2014. It serves as a unique platform for the development of the field of acoustic-mechanical micro systems – a new field focusing on the acoustic and mechanical parameters involved in the process of analyzing and designing small audio systems and other miniaturized systems involving acoustics. The CAMM centre is partly sponsored by the three large Danish hearing aid companies: Widex, GN Resound and Oticon.

DTU Mechanical Engineering is contributing to research, innovation and education within the following scientific areas: Structural and solid mechanics, fluid and hydrodynamics, applied thermodynamics, manufacturing technology and materials- and surface engineering. The associate/assistant professor will be affiliated to the Solid Mechanics section which is one out of six sections in the department. The staff at the department consists of 300 persons including presently a faculty of 60.

Responsibilities and tasks

The Associate/Assistant Professor will be responsible for developing the research field of computational methods for analysis and optimization of materials and structures in CAMM with a special focus



on vibrational response, complex micro scale structures and nonlinear/anisotropic materials.

The research activities will include one or more of the following areas

Finite element modelling and experimental testing of the static and dynamic properties of advanced materials. Special focus will be given to nonlinear, anisotropic and dissipative materials.

Development of advanced finite element methods for analyzing the vibrational response of small, complex and thin-walled structures with complex material behavior and geometric/contact nonlinearities.

Special emphasis will be given to coupling to acoustic fields in the audible frequency range.

Development of advanced optimization methods, for instance shape and topology optimization, for the design of new materials and/or structural configurations with particular consideration to the acoustic-mechanical interaction properties.

The candidate is expected to collaborate closely on the research with both CAMM-associated and other staff members at DTU Mechanical Engineering and DTU Electrical Engineering as well as the three sponsoring companies. The candidate is expected to contribute actively in raising funds for new research activities.

Read the full posting at:

<http://www.dtu.dk/Job/job?id=512fb07a-53a4-4c71-bc33-ce2ef85890b8>

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