



# SEMINAR

APPLIED MATHEMATICS AND MECHANICS

FS956

14 June 2019

A DCAMM seminar No. 743 will be presented by

**Associate Professor Alex Ching Tai Ng**  
**School of Civil, Environmental and Mining Engineering**  
**Faculty of Engineering, Computer and Mathematical Sciences**  
**The University of Adelaide, Australia**

The title of the lecture is

## **Developments of Nonlinear Guided Wave Techniques for Structural Safety Inspection**

### **Abstract:**

Monitoring critical-sections of structures over their lifetime in order to reduce life cycle costs, provide early detection of potential defects, and improve reliability and availability of the structures, is of vital importance in many technical fields, including civil, aerospace and mechanical engineering. Guided waves have attracted much attention in the area of damage detection over the last decade because of their high sensitivity to small and different types of defects, and ability to inspect large areas of structures. This seminar provides a basic concept of nonlinear guided waves. It then focuses on the recent developments on the nonlinear guided wave damage detection techniques in providing early detection and identification of defects in structures. The capability of the nonlinear guided waves is studied and discussed in detail. The seminar will also demonstrate the nonlinear guided wave techniques can be applied in different types of structure components.

DATE:	<b>Friday, 21 June 2019</b>
TIME:	<b>11:00 – 11:45</b>
PLACE:	<b>Meeting room: TEK Ellehammer entrance T,</b> SDU, University of Southern Denmark

Danish pastry, coffee and tea will be served 15 minutes before the seminar starts.

All interested persons are invited.

Niels Leergaard Pedersen

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