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Czech Society for Mechanics
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invite you to a lecture and discussion within
the lecture series **ITAM Seminar**

Moving Dynamic Test Loads for Road Bridges A Case Study

given by

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Two types of dynamic testing load for bridges - driving sprung mass and driving impulse load - are examined from the drive-by identification point of view. Numerical studies in ANSYS using contact elements and in MATLAB using a modal solution together with coupling force were performed. Equations for the estimation of the impulse load caused by a rolling cogwheel were suggested. The experiments confirmed that a driving impulse load is more efficient in exciting bridge vibrations. This, together with the fact that impulse loading is not sensitive to surface roughness, leads to the conclusion that, as a method for bridge health monitoring, impulse loading is more promising than using a driving sprung mass.

**The lecture will be held on Thursday, May 2, 2019 at 10:00 AM in the building of the
Institute of Theoretical and Applied Mechanics in Prague, Prosecká 76, Prgue 9 - Prosek.**

Lecture 2019/05
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