SEMINAR

Institute of Theoretical and Applied Mechanics
of the Czech Academy of Sciences
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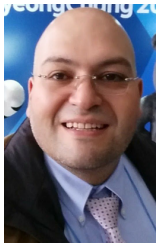
Czech Society for Mechanics
and Institute of Theoretical and Applied Mechanics, CAS

invite you to lectures and discussion within
the lecture series **ITAM Seminar**

which is going to be held on **Wednesday, September 26, 2018** at **10:00** in the building
of the Institute of Theoretical and Applied Mechanics, Prosecká 76, 190 00, Prague 9

Programme:



10.00 – 10.50 **dr. Leopoldo Ruíz Huerta: Design for Additive Manufacturing**

Dr. Leopoldo Ruíz Huerta is head of the National laboratory of additive and digital manufacturing in Mexico. He got his the PhD in Mechanical Engineering in 2005 with a thesis titled "Development of micro-equipment for manufacturing cells"

Additive Manufacturing has become of major interest in recent years. This processes has many advantages such as the capability to manage part complexity. This manufacturing revolution leads to more freedom and alternatives in design, and then requires either an adaptation of current design practices or new design paradigms. This has raised academic and industrial interests in the so called new design theory and methodology area: design for additive manufacturing (DfAM). However, there are still a number of challenges that need to be overcome to realize the full potential of the technology. DfAM methodologies for the realization of optimal design and product sustainability are relatively new and not yet standardized and there are still gaps that need further investigations. The goal of this presentation is to introduce to some identified potential research directions in developing design procedures for additive manufacturing of tooling and functional parts.

10.50 – 11.20 **Matea Ban: Preservation of Architecture: Results from the European Nano-Cathedral Project**

Matea Ban is a pre-doc university assistant at Vienna University of Technology (TU Wien). In the period from 2015 to 2018, she was involved in the European project "Nano-Cathedral", aimed at developing new nano-materials for the conservation of the built cultural heritage.

The lecture deals with the efficiency and compatibility of newly engineered nanometric stone consolidants, tested on different lithotypes representative of European heritage. The strength increase and physical changes, caused by different nano inorganic and hybrid materials, are compared. The role of the treatment application, the substrate as well as the evaluation methods will be discussed.

Lecture 2018/8
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