



ALMA MATER STUDIORUM
UNIVERSITÀ DI BOLOGNA
DEPARTMENT OF INDUSTRIAL ENGINEERING

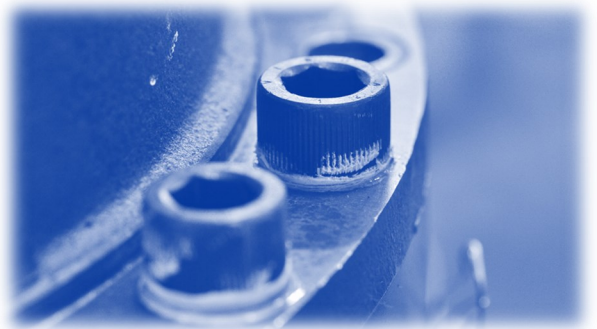
PhD programme in
AUTOMOTIVE ENGINEERING FOR INTELLIGENT MOBILITY

Seminar: Advanced Topics in Fasteners and Bolted Joint Systems

Joining of mechanical parts plays a key role in every industrial field. As reported by the literature, **failure of a joining mechanism may easily result in a catastrophic failure** of the whole machinery. Threaded fasteners are one of the most widespread non-permanent joining techniques due to ease of assembly and removal, thus accurate calculation and execution of these devices is of paramount importance to the final performance of any machinery.

This seminar deals with advanced topics related to the design, analysis and testing of mechanical structural joints, with an emphasis on bolted joints.

The course will also deal with the methodologies used for **optimal design** of this type of joints, paying particular attention to the **tribology issues** of the bolted joints and to the **design of joints** for multi-material structures.



Instructor: Dr. Sayed A. Nassar

Fellow ASME, Senior Research Fellow, Department of Industrial Engineering—University of Bologna, Bologna-Italy

Prof. Sayed Nassar is currently serving as a Distinguished University Professor of Mechanical Engineering, holder of the John F. Dodge Endowed Chair of Engineering, Director and PI of the NSF IUCRC for Composite and Hybrid Material Interfacing, founding director and PI of the Fastening and Joining Research Institute (FAJRI), at the Oakland University, Rochester, Michigan (USA).



Prof. Nassar holds a PhD in Aerospace Engineering and a MS in Aerospace Engineering, both from the University of Cincinnati, Cincinnati, Ohio (USA), ASME fellow since 2006.

Among the most renowned scholars in the field of fastening and joining technologies, in the last four decades he has been the recipient of several awards (e.g. 2012 Achievement Award, NASA -Engineering and Safety Center and 2019 Frank Giblin Life Time Achievement, Oakland University), author or co-author of more than 150 papers (h-index 25), invited speaker to learned audience in more than 90 events, supervisor of 19 PhD students plus several MS students. Since the year 2000 he has been awarded with several research grants, totalling more than 14M\$.

September 29th, 2023— from 9AM to 1PM

Room 2.7 B, School of Engineering—University of Bologna, Viale del Risorgimento 2, Bologna.