

SEMINAIRE SCIENTIFIQUE – ECOLE DOCTORALE MEGA

Jeudi 26 septembre 2019 à 11h

IFSTTAR - Salle Jules Verne

Cité des Mobilités - Bron

Prof. Dr. Dieter Pahr,

Associate Professor for Computational Biomechanics, TU-Wien, Austria

Full Professor for Musculoskeletal Biomechanics, KL Krems, Austria

Title : Bone Biomechanics from an Engineering Perspective

Abstract :

Biomechanics puts science & biomedical engineering at the service of human health. Computer-assisted research with respect to prevention, treatment and after-care of musculo-skeletal disorders is seen as a driver of innovation in the future. However, models require validation, which is why experimental studies are essential. The lecture will provide insights into these topics in the field of bone biomechanics from an engineering perspective. Interdisciplinary tasks on different length scales dominate the research. As biomechanical engineers, we are used to act as connecting element between research institutions, clinics as well as companies and aim for medical innovations to help people. But sometimes we do research because it is simply interesting - - let yourself be surprised!

Biography :

Dieter Pahr has a double Professorship in Biomechanics at the Karl Landsteiner Private University of Health Sciences and at the Vienna University of Technology. He obtained his PhD in Aerospace Engineering at the TU-Wien in 2003 and starts working in the field of Biomechanics in 2006 in the group of Prof Zysset. The main research focus is on musculoskeletal biomechanics with respect to of basic and clinical research. Especially the use of numerical and experimental methods in the fields of bone biomechanics, orthopedic implants, biomaterials and 3D printing in medicine. A collaboration with Anthropologists lead to two ERC grant and publication in Science. He is an author of over 100 publications in peer- reviewed journals.