

UNIVERSITÀ POLITECNICA DELLE MARCHE

TOTAL KNEE ARTHROPLASTY: BIOMECHANICS, DESIGN AND PRODUCTION

Monday, May 22nd, 2023, 09.30 – 11.30

Room 155/D4, Faculty of Engineering
Università Politecnica delle Marche
Streaming in Microsoft Teams

Click or scan me



Agenda

- Why a total knee prosthesis
- History of total knee prosthesis
- Design of total knee prosthesis
- Production of total knee prosthesis
- Surgery of total knee prosthesis
- Innovation in total knee prosthesis

Bio

Bernardo Innocenti is Professor of Biomechanics at the BEAMS Department, Ecole Polytechnique de Bruxelles, ULB (Université Libre de Bruxelles), Belgium.

He studied Mechanical Engineering (2002) and, in 2006, he received a Ph.D. in Mechanical Design (both from University of Florence). From 2007-2012 he worked as Lead Project Manager at the European Centre for Knee Research, Smith & Nephew – Leuven, Belgium. Since 2012 he has been working at ULB as an Associate Professor (2012) and Professor (2020). Moreover, since 2011 is guest professor at Division of Biomechanics, Department of Mechanical Engineering, KU Leuven, Heverlee, Belgium and since 2022 is visiting professor at Department of Chemistry, Materials and Chemical Engineering “Giulio Natta”, Politecnico di Milano, Milan.

Bernardo Innocenti main research field is the Orthopaedic biomechanics, in particular the numerical and experimental analysis and investigation of the human knee joint in native, pathologic and replaced conditions; in this field he is author/co-author of more than 100 articles in international peer-reviewed journals, 7 book chapters, 1 book and 3 patents.

He acts as reviewer for most journals in the field of orthopaedic and biomechanics. He is associate editor of Journal of Arthroplasty, of Journal Orthopaedic Surgery and Research and of Frontiers in Biomechanics. He is Member of the Editorial Board of MLTJ – Muscle, Ligament and Tendon Journal and of Journal of Medical and Biological Engineering.

He is member of the European Society of Biomechanics (2010), Founder and First President of Belgian Chapter of the International Society for Computer-Assisted Orthopaedic Surgery (CAOS – 2015), the European Knee Society (2016), the European Society of Sport Traumatology, Knee Surgery and Arthroscopy (2016) and European Knee Associates (2018). Bernardo Innocenti has received several awards including the Marc Coventry Award (2009) and the Richard S. Laskin Research Award (2011).



**ECOLE
POLYTECHNIQUE
DE BRUXELLES**



**UNIVERSITÀ
POLITECNICA
DELLE MARCHE**