Consiglio Nazionale delle Ricerche

CNR-Istituto di **Elettronica** e di **Ingegneria** dell'**Informazione** e delle **Telecomunicazioni**

Thursday seminars

Taking a Look at the Future: a cocktail hour event!

TU Delft Delft University of Technology

NL

Prof. Massimo Mastrangeli

(Delft University of Technology)

Organs-on-chip: the electro-mechanical perspective

Organ-on-chip (OoC) technology is rapidly being established as a valid approach to develop in-vitro models of human (patho)physiology of unprecedented relevance. Advances in the technology involve co-development of the biological substrates and the design of supporting hardware enabling eminently microfluidic perfusion, electro-mechanical actuation and electro-chemical sensing. In this lecture, I will introduce the perspective of fully-electric OoCs and of OoC platforms, meant to foster ease of use, wider adoption and superior reproducibility of the technology. I will argue that virtually all relevant functions in OoCs can be driven and controlled electro-mechanically, and exemplify how this is best achieved by a seamless integration of electric and fluidic layers in the architecture of the platforms.

Registration form

Teams Webinar • 18 April 2024 – 17:30

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