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PhD program in Electronics, Computer Science and Electrical Engineering
PhD program in Bioengineering, Bioinformatics and Health Technologies

SEMINAR

Photonic Technologies for Biochemical Sensing

Yubing Hu, Ph.D.

Imperial College London – Dept. Chemical Engineering

May 18th 2023, 11:00 (CET)

Aula E7 (or ZOOM - Meeting ID: 829 7420 4402 Passcode: 469486)

Abstract:

The seminar will be dedicated to biological and chemical sensors that are based on optical signal detection. Photonic sensors are described as analytical devices which use light to measure environmental changes, or to identify a specific target by using various physicochemical detection systems. Optical sensors are non-destructive tools and can be applied at solid/liquid interfaces, making them suitable for biosensing and medical applications. The fundamentals of photonic sensors and their wide applications in colorimetric sensing, holographic sensing and fluorescent sensing will be presented.

Bio:

Dr Yubing Hu is a Research Associate and Assistant Supervisor at the Centre for Biochemical Sensors at Imperial College London. Dr. Hu received a bachelor's degree from Zhejiang University in 2016 and earned a Ph.D. degree from the Hong Kong University of Science and Technology in 2020. She has been selected as 2022 MIT Chem Eng Rising Stars and Global Young Scientists Summit (GYSS) 2023 in Singapore.

Dr Hu has rich experience in organic synthesis, functional polymer materials, optical sensing and analytical devices. Aiming to innovate healthcare technologies, she is motivated to bridge the gap between chemistry, bioengineering and clinics, and to promote collaborations between doctors, researchers and businesses.

Her research interests are in the field of analytical biotechnology in the use of optical biosensors for portable, wearable and implantable diagnostic devices. Most of her current research focuses on using engineered molecular probes in micro-and nano-structured polymer materials for advanced healthcare diagnostics.

Seminar in English

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Organizer

Prof. Paolo Minzioni

Ph.D. Coordinators

Proff. Cristiani e Quaglini