

Event organized within the framework of the
Engineering Physics Colloquia



Ca' Foscari
University
of Venice
Department of
Molecular Sciences
and Nanosystems

Dr. **Mario Caironi**
Italian Institute of Technology (Italy)

Towards edible electronic systems

20th November 2026, 11.00

Conference Room Orio Zanetto, Alfa Building

The seminar will also be
accessible remotely via the
following link: [https://unive.
zoom.us/j/86015254840](https://unive.zoom.us/j/86015254840)
Password: seminar1

Organized by
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Edible electronics envisions a technology that is safe for ingestion, environmentally friendly, and cost-effective. Unlike "ingestible" electronics, it aims to realize electronic devices that are degraded within the body after performing their function, either digested or metabolized, thus removing any retention hazard and not contributing to e-waste. Edible electronics could target a significant number of biomedical applications, such as remote healthcare monitoring, as well as food quality monitoring, in the form of edible electronic tags directly in contact

with food. In this seminar, I will report on our recent progress towards safe and sustainable smart pills. Specifically, in the selection and formulation of edible functional materials, the development of edible active electronic components and circuits, as well as edible sensors and miniaturized power sources. I will also discuss perspectives on this technology in the short term and critical aspects for translational applications.