



Politecnico  
di Torino



Department of Electronics and  
Telecommunications



# DET TALKS

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*Implantable Electronics for a  
High-Fidelity Artificial Retina*



INFO

**18 June 2024, 10:00 AM**  
**Sala Luigi Ciminiera, DAUIN**  
*coffee break after the talk*

## ABSTRACT

*Electronic interfaces to the retina represent an exciting opportunity to restore or even enhance vision.*

*Although proof of principle devices have been demonstrated, they provide limited visual function. This is because they only provide coarse control over the targeted neural circuitry and fail to respect its cellular and cell-type specificity. To achieve better results, future devices should be able to control a large population of neurons with cellular resolution.*

*In this talk, I will present the design of a wireless bi-directional neural interface and discuss on the circuit and system challenges associated with the design of its implantable electronics.*