



IEEE Polito  
Student Branch  
**T**ech**T**alk

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Politecnico di Torino - Maxwell Room  
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# Electronics and IoT Applications in Cattle Farming and Beyond

## Bio



Dr. Matías Miguez (IEEE member) received his PhD in microelectronics from UNS, Argentina, in 2016, his MSc and Electrical Eng. degrees from UCU, Uruguay, in 2008 and 2005 respectively and his graduate degree in physics from UdelaR, Uruguay in 2007.

He has participated since 2004 in several research and development projects in the field of microelectronics and electronics for the industry, and in the University.

In 2005 he joined the Electrical Engineering Department at Universidad Católica del Uruguay, working in the uDIE research group (<http://die.ucu.edu.uy/>), and in 2023 he was appointed as full professor.

Dr. Miguez has published more than 50 papers in international journals and scientific meetings. He is the co-founder of two technology companies: Chipmate in 2009 aimed at the design of application specific integrated circuits for medical devices and others, and ABM (<http://www.abmsolutions.com.uy>) in 2018 for electronic and hardware design.

## Abstract

The integration of electronics and the Internet of Things (IoT) is revolutionizing agribusiness, offering innovative solutions that enhance efficiency and productivity. In particular in livestock management, IoT-enabled sensors and devices monitor health, environmental conditions, and location, among others, providing real-time data to farmers. This technology allows early detection of health issues, reduces disease spread, and can even save animals' lives.

This talk will explore the challenges needed to take IoT to the farm, and show examples of developed applications.

