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MATTEO ORLANDO

Trofarello, TO, Italia

matteo.orlando.1993@gmail.com

matteodev.netlify.app

I received B.Sc Degree in Physics Engineering in 2015 and a M.Sc. degree in ICT for Smart Societies in 2018 with a thesis focused on designing and development of a self-configuring IoT smart-meter for monitoring the power grids and enabling novel services. Since October 2018, I joined the EDA group as a research assistant. I started my PhD in November 2019 focusing my research in the optimization of the placement of PV modules in the context of Renewable Energy Community.

CAREER

2012-2013

Politecnico di Torino

BACHELOR DEGREE IN PHYSISC ENGINEERING

2013-2018

Politecnico di Torino

MASTER DEGREE IN ICT FOR SMART SOCIETIES WITH THE THESIS "DESING AND DEVELOPMENT OF A NOVEL SMART-METER FOR IMPROVED SMART GRID MANAGEMENT"

2018-2019

Politecnico di Torino

ASSISTANT RESEARCHER FOR EDA GROUP

Full stack developer for the H2020 project RURITAGE. Development of a 3-phase smart-meter prototype tested with HIL.

2019-ongoing

Politecnico di Torino

PHD STUDENT IN COMPUTER AND CONTROL ENGINEERING

Real time simulation for Smart Grid scenarios. Optimization of PV placement in the Smart Grid Context through GIS and weather data.

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ASSISTANT TEACHER FOR THE MASTER DEGREE COURSE *PROGRAMMING FOR IOT*

Teaching assistant for the laboratories to use python in IoT architectures

PROJECTS

2018-2021

RURITAGE

The RURITAGE project turns rural areas into laboratories to demonstrate natural and cultural heritage as an engine for regeneration. I was in charge of the development of the first version of the Ruritage Resource Ecosystem. This tool consisted in a full stack application that stored geographical data and metadata about the partecipants of the project and make it available to the public for visualization.
More info **ruritage-ecosystem.eu**

2021

DEVELOPMENT OF A WEARABLE IOT DEVICE FOR COVID-19 EARLY DIAGNOSIS. DI TORINO

Cotutor of the thesis.
More info **here**

2021

DEVELOPMENT OF A WEARABLE DEVICE FOR MONITORING VITAL PARAMETERS: SPO2, HEART RATE AND TEMPERATURE.

Cotutor of the thesis.
More info **here**

2019-ongoing

DESIGN AND DEVELOPMENT OF DISTRIBUTED SOFTWARE PLATFORM TO GATHER, MANAGE AND VISUALIZE MULTIMEDIA CLINICAL FILES

Cotutor of the thesis.
More info **here**

2021-2022

PARELLELIZATION OF ALGORITHMS FOR SOLAR RADIATION PREDICTION BY HADOOP AND RASTERFRAMES

Cotutor of the thesis.
More info **here**

PUBLICATIONS

A NOVEL INTERNET-OF-THINGS INFRASTRUCTURE TO SUPPORT SELF-HEALING DISTRIBUTION SYSTEMS

Published in 2018 International Conference on Smart Energy Systems and Technologies (SEST)

Read the full paper

ENGAGING USERS IN RESOURCE ECOSYSTEM BUILDING FOR LOCAL HERITAGE-LED KNOWLEDGE

Published in Sustainability-MDPI

Read the full paper

OPTIMAL CONFIGURATION AND PLACEMENT OF PV SYSTEMS IN BUILDING ROOFS WITH COST ANALYSIS NOVEL INTERNET-OF-THINGS INFRASTRUCTURE TO SUPPORT SELF-HEALING DISTRIBUTION SYSTEMS

Published in 2020 IEEE 44th Annual Computers, Software, and Applications Conference (COMPSAC)018 International Conference on Smart Energy Systems and Technologies (SEST)

Read the full paper

DESIGN OF DISTRICT-LEVEL PHOTOVOLTAIC INSTALLATIONS FOR OPTIMAL POWER PRODUCTION AND ECONOMIC BENEFIT

Published in 2021 IEEE 45th Annual Computers, Software, and Applications Conference (COMPSAC)

Read the full paper

A SMART METER INFRASTRUCTURE FOR SMART GRID IOT APPLICATIONS

Published in IEEE Internet of Things Journal

Read the full paper

A RESOURCES ECOSYSTEM FOR DIGITAL AND HERITAGE-LED HOLISTIC KNOWLEDGE IN RURAL REGENERATION

Published in Journal of Cultural Heritage

Read the full paper

TECHNICAL SKILLS

MAIN

Python | REST API | MQTT | Microservices | IoT | Smart-Grid

OTHERS

- Javascript
- Astro
- HTML & CSS
- MongoDB
- Docker
- Git