



# Renato Procopio

Associate professor

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## *Education and training*

2004

### **PhD in Electrical engineering**

The lightning phenomenon evaluation of electromagnetic Fields in presence of a lossy ground

University of Genoa - Genoa - IT

## *Academic experience*

2010 - 2015

### **Researcher**

University of Genoa - Genoa - IT

2010 - ONGOING

### **Associate professor**

University of Genoa - genoa - IT

## *Work experience*

2000 - ONGOING

### **Expert on lightning interaction with power systems**

University of Genoa

## *Language skills*

### **English**

Proficient

First certificate

## *Teaching activity*

### **Present teaching activities**

Main professor in the following Bachelor and Master University of Genoa courses:

1. Componenti e sistemi per la produzione elettrica, Industrial Engineering, 1st level degree (B.Sc.), University of Genoa
2. Power Systems Control and Optimization (in English), Environmental & Energy Engineering, 2nd level degree (M.Sc.), University of Genoa

3. Power Systems Modeling and Control (in English), Energy Engineering, 2nd level degree (M.Sc.), University of Genoa
4. Sistemi elettrici industriali, Electrical Engineering, 2nd level degree (M.Sc.), University of Genoa

Responsible of the connection between the Savona Campus (2000 students) and the secondary school institutions of Liguria region;

Responsible of the counseling service for students at the Savona Campus;

### **Past teaching activities**

Assistant professor in the following University of Genoa courses:

2000-2013 Sistemi Elettrici per l'Energia, industrial engineering, 1st level degree (B.Sc.), University of Genoa.

2006-2013 Sistemi elettrici civili e industriali/Ingegneria e economia dei sistemi elettrici, management engineering, 2nd level degree (M.Sc.), University of Genoa.

2005-2009 Sistemi Elettrici per l'Energia, electrical engineering, 2nd level degree (M.Sc.), University of Genoa.

## ***Postgraduate research and teaching activity***

### **Supervision of PhD students, residents and post-doctoral fellows**

Advisor of three PhD students in Power Systems and Electromagnetic Compatibility

Advisor of more than 60 Master and Bachelor final projects

### **PhD committees membership**

Member of the PhD board of:

SCIENZE E TECNOLOGIE PER L'INGEGNERIA ELETTRICA, L'INGEGNERIA NAVALE E I SISTEMI COMPLESSI PER LA MOBILITA' (2017-now)

MONITORAGGIO DEI SISTEMI E GESTIONE DEI RISCHI AMBIENTALI (2012-2014)

## ***Research interests***

### **Fields of Expertise**

#### **1. Lightning and transmission line modeling**

This activity has been carried out in collaboration with some important Italian and foreign Universities, as the Swiss Federal Institute of Technology – Lausanne (Prof. F. Rachidi), the University of São Paulo São Paulo, Estado de Sao Paulo, Brazil (Prof. Alexandre Piantini), the University of Bologna (Prof. C.A. Nucci), the University of Magdeburg (Prof. S. Tkachenko).

## 1. Integration of renewables into the electric network

This activity has been carried out in cooperation with the Loughborough University (UK-Prof. Francisco Gonzales-Longatt) and with some of the most important industries (ABB, Siemens)

### 1. Smart microgrids

This activity has led to the setting up of two testbed facilities financed by the Italian government:

The Project “Smart Polygeneration Microgrid (SPM)”, financed by the Italian Ministry of Education, University & Research with 2.400.000,00 euro.

The Project “Smart Energy Building (SEB)”, financed by the Italian Ministry of the environment with 2.000.000,00 euro

and has been carried out in cooperation some of the most important industries (ABB, Siemens) and the Italian DSO (Enel Distribuzione)

### Publications:

1. book entitled “Microgrids Design and Operation: Towards Smart Energy in Cities”
2. 3 chapters in books,
3. 52 Journal papers,
4. 75 international conference
5. 2 patents

## Grants

2015

### Wind Farm Control

ABB - IT

Amount 15000 euro Duration 1 year - Pricipal investigator

“Wind Farm control”, Company: ABB S.p.A.; Amount 15000 euro; Duration: 1 year

2016 - ONGOING

### Implementing Agreement number 1

ITER - FR

Amount 170.000 duration 36 months - Pricipal investigator

1. Implementing Agreement number 1 to the Memorandum of Understanding on Academic and Scientific Cooperation. Company: ITER (International Fusion Energy Organization); Amount € 170.000; duration 36 months

## Editorial activity

Senior member of IEEE

Guest Editor of the IEEE Transaction on EMC Special Section “Advances in Lightning Modeling, computation and measurement”

Member of the IEEE Technical Committee 5 - High Power Electromagnetics  
Member the editorial board of the Journal of Electrical and Computer  
Engineering (power system division)  
Member of the Advisory board of The Open Atmospheric Science Journal

### ***Assignments abroad***

Co-lecturer for the PhD course “advanced EMC topics” at the Ecole  
Polytechnique Federale de Lausanne (EPFL) hold by professor Farhad  
Rachidi.

Lecturer of a PhD/Msc course on Lightning and Microgrids at the University  
of Nis (Serbia)