

MICHELE FORZAN

Assistant Professor.

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EDUCATION

Dottorato di Ricerca PhD University of Padova, Electrical Engineering
February 2001

Title: Metodologie di simulazione con il metodo FEM di problemi relativi a test non distruttivi con correnti indotte

Supervisor: Prof. Sergio Lupi

Laurea University of Padova, Electrical Engineering
July 1995

Title: Studio mediante ANSYS di problemi elettromagnetici e termici accoppiati in sistemi di riscaldamento a induzione

Supervisor: Prof. Sergio Lupi

EXPERIENCE

Professional Engineer 1997 to 2004

Assistant Professor 2004 - now

TEACHING EXPERIENCE

Elettrotecnica (Diploma in Ingegneria Informatica) 1999 – 2002

PhD course about numerical modeling of eddy current

Politecnico di Milano may 2003

Elettrotecnica per studenti lavoratori ALSI (seminari serali) 2003 – 2005

Didattica e Laboratorio dell'Educazione Tecnica (Scuola SSIS del Veneto) 2003 – 2004

Didattica per l'Elettrotecnica (Scuola SSIS del Veneto) 2004 - 2006

Elettrotecnica (per Ing. Civile) 2004 - 2010

Elettrotecnica (per Ing. Chimica e dei Materiali) 2004 – 2010

Principi Di Ingegneria Elettrica (Ing. Gestionale) 2008 – 2009

Elettrotecnica (per Ingegneria dell'Energia – matricole dispari) 2017 – 2019

Electromagnetic Processing of Material (per Ing. Dei Materiali e Elettrica) 2011 – 2014

Automatic Design of Electromagnetic Devices (per Ing. Elettrica) 2010 – 2013

Computer Assisted Electromagnetic Design - Progettazione Elettromagnetica Assistita

Dal Calcolatore (per Ing. Elettrica) 2015 – 2016

Environmental electrical science (per Environmental Engineering) 2016 – 2018

2022 - 2023

Elettrotecnica (per Ingegneria Meccanica – matricole dispari) 2017 – 2023

Student supervision

PhD student Cristian Pozza
 About 50 Master students
 About 30 Bachelor students

2010 – 2013

INTERNATIONAL TEACHING EXPERIENCE

Intensive course for PhD students

UIE Intensive course on Electrotechnologies 2004, 2007, 2010, 2013, 2016

Several lectures in the frame of a Tempus 511086 project

Courses at Russian Universities, St. Petersburg, Samara, Novosibirsk, Krasnoyarsk
 2010 – 2013

Seminars for Master and PhD students at Samara State Technical University

9-13 October 2017, 21 – 25 September 2016,

Seminar for Master and PhD students at Novosibirsk State Technical University

25 - 27 June 2018.

SCIENTIFIC PARTICIPATION IN INTERNATIONAL AND NATIONAL RESEARCH PROJECTS

PRIN2005 Tecnologie Innovative Ad Alto Rendimento Nel Riscaldamento 2005-2008

Ad Induzione Per Trattamenti Termici Di Billette E Nastri Di Alluminio

Progetti strategici Università di Padova 2008 "Algoritmi e Architetture per
 la Scienza e l'Ingegneria Computazionali" 2008-2012

Progetto di Ateneo PRAT 'Transition metal carbene functionalized magnetic
 nanoparticles: design, synthesis, characterization and application in magnetic
 fluid hyperthermia' 2012-2014

FP7 EU - ACTIVITY 7.1.4 COOPERATION -ESPOSA - AAT.2011.4.4-4. 2011-2015
 Integrated approach to efficient propulsion and related aircraft systems for
 small-size aircraft

FP7 EU International Research Projects: JTI Project reference: 270716-2 2011-2014
 Project acronym: HEECS

Progetto Regione del Veneto 2011 - 2014
 SMUPR n. 4148 "Polo di ricerca nel settore Fotovoltaico"

RESPONSIBLE FOR UNIVERSITY OF PADUA IN INTERNATIONAL PROJECTS

TEMPUS- -511086-TEMPUS-1-2010-1-DE-TEMPUS-JPCR 2010 – 2013

Project P4ER - PhD Education in Energy Efficient Electrotechnologies at
 Russian Universities

UE FP7-ENV-2013 SIKELOR – Silicon Kerfs Losses Recycle 2013 – 2016

RESPONSIBLE FOR UNIVERSITY OF PADUA IN FINANCED PROJECT WITH INDUSTRIES

EDF contract about "Study and design of an adaptive multi-coil induction device"	2008 – 2011
CONTINUUS-PROPERZI Spa - Contratto di ricerca	2018 - 2019
INOVALAB s.r.l. – Contratto di Ricerca	2022

ACTIVITIES IN TECHNOLOGICAL TRANSFER

Co-founder of Inova Lab srl, a spinoff company of University of Padova	2004_2019
Responsible of design and construction of the first prototype of i-DSS (induction directional solidification system). A collaborative project between Inova Lab srl and Saet Group SpA	2010-2012
Responsible of the design and construction of the first prototype of PMH permanent magnet heater. A research project of Department of Electrical Engineering – LEP Laboratory for Electroheat and Inova Lab srl.	2011-2012
Co-Amministratore delegato	2016 - 2019
Patents	
<u>Preform Heating Device.</u> Inventor US 2008/0217326 A1; PCT/EP2006/066268	
<u>Method and Device for obtaining a multicrystalline semiconductor material, in particular silicon.</u> Inventor. EP 2 491 169 B1, PCT/IB2010/002685	
<u>Device for obtaining a multicrystalline semiconductor material, in particular silicon, and method for controlling the temperature therein.</u> Inventor. US2012/0304697 A1, PCT/2010/002686	
<u>Device for induction heating of a billet.</u> Inventor. US2015/0083713 A1, PCT/IB2012/050979	
<u>Inductively heatable susceptor and epitaxial deposition reactor.</u> Inventor WO2017137872A1, EP3414366A1, US20210189594A1	
<u>Deposition reactor with inductors and electromagnetic shields.</u> Inventor WO2020084563A1, EP3870734A1, US20220025519A1	

ORGANIZATION OF INTERNATIONAL CONFERENCES

Scientific Secretariat of HES – Heating by Electromagnetic Sources Conference,
editor of HES proceedings in 2010, 2013, 2016, 2019.
Special Session organizer for IECON conference 2014, 2015, 2016, 2017, 2018 editions.

INSTITUTIONAL ACTIVITIES

Member of the ‘Giunta di Dipartimento di Ingegneria Elettrica’	2004 – 2011
Secretariat of AEIT – Sezione Veneta	2005 - 2010
Treasurer of AEIT – Sezione Veneta	2011 – 2013
Member of the commission for the selection procedure for the recruitment of A RTDA	March 2022
Member of the Council of AEIT – Sezione Veneta	2005 - now
Member of ‘Commissione Ricerca’, Dipartimento Ingegneria Industriale	2019 - now

SCIENTIFIC AWARDS

Doctor ‘Honoris Causa’. NSTU – Novosibirsk State Technical University	2018
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NATIONAL SCIENTIFIC QUALIFICATION

Awarded the National Scientific Qualification ("Abilitazione Scientifica Nazionale") As Full Professor	19 11 2020
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BIBLIOMETRIC INDICATORS

From ‘Scopus’ as on 1 of February 2023	
Total number of indexed products	144
Total number of citations	1385
‘h’-index	21