

EUROPEAN CURRICULUM VITAE FORMAT



PERSONAL INFORMATION

Name	PESCINI ELISA
Address	20, VIA CARSO, I-73110, LECCE (LE), ITALY
Telephone	Mobile: +39 334 2750866
E-mail	elisa.pescini@gmail.com
Date of birth	15/03/1983
Nationality	Italian
Civil status	Married, 1 child

WORK EXPERIENCE

- Dates (from – to) 08/03/2017 – 07/07/2020
- Name and address of employer "Department of Engineering for Innovation"
Complesso Ecotekne - edificio "Corpo O" - Via per Monteroni - 73100 Lecce (Italy)
University of Salento
- Type of business or sector **Full-time Researcher (Junior Researcher) in the field of "Fluid Machinery and Systems for Energy and Environment".**
- Occupation or position held
- Main activities and responsibilities The main activity is independent scientific research (experimental activities for the analysis of fluid dynamics in energy systems, experimental and numerical activities for the study of the flow in turbomachinery and combustion, experimental and numerical activities for flow control in energy systems). The duties also include teaching assignments in the official courses and/or integrating the official courses through practice, working with undergraduate, post-graduate and Ph.D. students supporting them in the redaction of their graduate thesis, tutorship activities and being member of the examination board (total time: 350 hours for year).

NOTE: The candidate, in the year 2017 was winner of the National Funding for Research, "FINANZIAMENTO DELLE ATTIVITÀ BASE DI RICERCA DI CUI ALL'ART. 1, COMMI 295 E SEGUENTI, DELLA LEGGE 11 DICEMBRE 2016 N. 232 (GU n.297 del 21-12-2016 - Suppl. Ordinario n. 57), Avviso pubblico di ANVUR n. 20/2017 del 15-06-2017" of € 3.000,00.

NOTE: The candidate was in maternity leave from the 29/10/2018 until the 28/03/2019.
- Dates (from – to) 01/09/2015 – 07/03/2017
- Name and address of employer "Department of Engineering for Innovation"
Complesso Ecotekne - edificio "Corpo O" - Via per Monteroni - 73100 Lecce (Italy)
University of Salento
- Type of business or sector **Temporary Research Fellow.**
- Occupation or position held
- Main activities and responsibilities Working in the project "Aeronautical Hybrid Energy Management (MEA)", Cod. PON03_00067_8. Project partners: Avio S.p.a., Istituto di Tecnologie Avanzate per l'Energia del CNR, Politecnico di Bari and Università del Salento. Elisa Pescini worked on the thermal management. In particular, she performed thermo-fluid dynamics simulations of the Thermoelectric Generator heat exchanger.
- Dates (from – to) 28/01/2015 – 27/07/2015
- Name and address of employer "Chemistry Department"
Via Orabona,4, 70125 Bari (BA), Italy
University Aldo Moro of Bari
- Type of business or sector **Contract of Research Collaboration (Co.co.co).**
- Occupation or position held
- Main activities and responsibilities Working in the project "INNOVHEAD-Tecnologie innovative per riduzione emissioni, consumi e costi operativi di motori Heavy Duty", Cod. PON02_00576_3333604. Elisa Pescini worked for the Department of Chemistry of the University of Bari. Elisa Pescini built the test ring and she performed experiments for the characterization of plasma assisted combustion on a lean burner with premixed and diffusion flame (electrical characterization of the device and flame visualization with CCD and ICCD cameras).

TEACHING EXPERIENCE

- Dates (from – to) a.y. 2018/2019
- Name and address of employer "Department of Engineering for Innovation"
Complesso Ecotekne - edificio "Corpo O" - Via per Monteroni - 73100 Lecce (Italy)
University of Salento
- Type of business or sector
- Occupation or position held **Teaching in the official courses of: "Fluid Machinery" for the Bachelor's Degree Program in Industrial Engineering in Brindisi (1 CFU, 9 hours), "FLUID MACHINERY" for the Bachelor's Degree Program in Industrial Engineering in Lecce (1 CFU, 9 hours) and "ADVANCED PROPULSION SYSTEMS" for the Master's Degree Program in Mechanical Engineering in Lecce (1 CFU, 9 hours). Teaching assignments integrating the other official courses in the field of "Fluid Machinery and Systems for Energy and Environment".**
- Main activities and responsibilities Teaching assignment of some subjects of the official courses of: "FLUID MACHINERY" for the Bachelor's Degree Program in Industrial Engineering in Brindisi and Lecce and "ADVANCED PROPULSION SYSTEMS" for the Master's Degree Program in Mechanical Engineering in Lecce. Elisa Pescini duties also include exercises and practical training in the laboratories, integrating the official courses.
- Dates (from – to) a.y. 2017/2018
- Name and address of employer "Department of Engineering for Innovation"
Complesso Ecotekne - edificio "Corpo O" - Via per Monteroni - 73100 Lecce (Italy)
University of Salento
- Type of business or sector
- Occupation or position held **Teaching in the official course of "Fluid Machinery" for the Bachelor's Degree Program in Industrial Engineering in Brindisi (3 CFU, 27 hours) and teaching assignments integrating the other official courses in the field of "Fluid Machinery and Systems for Energy and Environment" (total time: 350 hours for year).**
- Main activities and responsibilities Teaching assignment of some subjects of the official course of "FLUID MACHINERY" of the Bachelor's Degree Program in Industrial Engineering in Brindisi, including exercises and practical training in the laboratories. Among the duties, Elisa Pescini also performed 15 hours of "LABORATORY OF FLUID MACHINERY" for the Bachelor's Degree Program in Industrial Engineering in Lecce.
- Dates (from – to) January 2018-March 2018 (20 hours)
- Name and address of employer Istituto comprensivo statale "Aldo Moro"
Via Alfieri, 14 -74021 Carosino (Italy)
Secondary school
- Type of business or sector
- Occupation or position held **Contratto di prestazione d'opera occasionale quale esperto esterno per l'espletamento del progetto "Atelier creativi e laboratori per le competenze chiavi nelle istituzioni scolastiche del primo ciclo", PON 2014-2020.**
- Main activities and responsibilities Teaching and laboratory assignments on the subjects: Energetics (Renewable and non-Renewable energy resources), Robotics and 3D Printing (20 hours).
- Dates (from – to) a. y. 2016/2017
- Name and address of employer "Department of Engineering for Innovation"
Complesso Ecotekne - edificio "Corpo O" - Via per Monteroni - 73100 Lecce (Italy)
University of Salento
- Type of business or sector
- Occupation or position held **Teaching assignments integrating the official courses in the field of "Fluid Machinery and Systems for Energy and Environment"**
- Main activities and responsibilities Teaching assignments integrating the official courses (total time: 350 hours for year) through exercises and laboratories (courses: "FLUID MACHINERY" for the Bachelor's Degree Program in Mechanical Engineering in Brindisi, "LABORATORY OF FLUID MACHINERY" for the Bachelor's Degree Program in Industrial Engineering in Lecce)
- Dates (from – to) a. y. 2015/2016–a. y. 2017/2018
- Name and address of employer "Department of Engineering for Innovation"
Complesso Ecotekne - edificio "Corpo O" - Via per Monteroni - 73100 Lecce (Italy)
University of Salento
- Type of business or sector
- Occupation or position held **Culture della Materia nell'ambito dell'insegnamento "Macchine", SSD ING-IND/09, Corso di Laurea in Ingegneria Industriale - Brindisi per tre anni accademici a partire dall' a.a. 2015-2016**
- Main activities and responsibilities Help professors to do lessons, exams, seminars and laboratories in the course of "FLUID MACHINERY" for the Bachelor's Degree Program in Mechanical Engineering in Brindisi.

- Dates (from – to)
- Name and address of employer
 - Type of business or sector
 - Occupation or position held
- Main activities and responsibilities

a. y. 2015/2016–a. y. 2017/2018
 “Department of Engineering for Innovation”
 Complesso Ecotekne - edificio “Corpo O” - Via per Monteroni - 73100 Lecce (Italy)
 University of Salento
Cultore della Materia nell’ambito degli insegnamenti “Aeronautic Propulsion Mod.1 C.I. ” “Aeronautic Propulsion Mod.2”, SSD ING-IND/07, Corso di Laurea Magistrale in Aerospace Engineering - Brindisi per tre anni accademici a partire dall’ a.a. 2015-2016.
 Help professors to do lessons, exams, seminars and laboratories in the courses of “AERONAUTIC PROPULSION” for the Master’s Degree Program in Aerospace Engineering in Brindisi.

- Dates (from – to)
- Name and address of employer
 - Type of business or sector
 - Occupation or position held
- Main activities and responsibilities

a. y. 2012/2013 to today
 “Department of Engineering for Innovation”
 Complesso Ecotekne - edificio “Corpo O” - Via per Monteroni - 73100 Lecce (Italy)
 University of Salento
Tutorship and Thesis advisor.
 Elisa Pescini trains research staff and students (bachelor, Master and Ph.D.) in the activities held at the “GREEN ENGINE LABORATORY-LASER DIAGNOSTIC” and “GREEN ENGINE LABORATORY-COMBUSTION” of University of Salento. Moreover, she supervises students in the activities related to thesis preparation (theoretical-experimental-numerical) in the subjects “Fluid Machinery”, “Aeronautic Propulsion” and “Aircraft Powerplants and Systems”. In particular, she is advisor of the following theses:

- Bachelor’s thesis in Fluid Machinery, entitled “Analisi di tecniche sperimentali per il controllo attivo del flusso attraverso attuatori al plasma”. Student Galasso Vincenzo, academic year 2012-13.
- Master’s thesis in Fluid Machinery II, entitled “Experimental characterization of plasma actuators for boundary layer separation control in low pressure turbines”. Student Antonio Suma, academic year 2015-16.
- Master’s thesis in Aeronautic and Space Propulsion, entitled “Characterization of Methane/Air Combustion in Presence of Active Control Devices”. Student: Mariarosaria Nuzzo, academic year 2016-2017.
- Master’s thesis in Aircraft Powerplants and Systems, entitled “Additivated Jet-A1 Fuel Effects on the Performance and Emission Characteristics of Aeroengine Combustors”. Student: Tania Ribezzi, academic year 2017-2018.

The results of the training collaboration with the Ph.D. student Antonio Suma resulted in the publications [13][15][16][34][36].

- Dates (from – to)
- Name and address of employer
 - Type of business or sector
 - Occupation or position held
- Main activities and responsibilities

05/2008–06/2008
 “Istituto di Istruzione Secondaria Superiore Polo Professionale “
 Via Apulia – Tricase (LE), Italy
 Secondary school
Prestazione d’opera intellettuale per POR PUGLIA 2000-2006, Avviso 1/2006, graduatoria approvata D.D. 495 del 03/05/2007, Mis. 3.7 “Formazione Superiore”, Azione c) IFTS “Tecnico superiore per il disegno e la progettazione industriale”.
 Teaching Reverse Engineering (28 hours).

PARTICIPATION AND COLLABORATION IN RESEARCH ACTIVITIES

- Dates (from – to)
- Name and address of employer
 - Type of business or sector
 - Occupation or position held
- Main activities and responsibilities

01/01/2019 to today
 “Department of Engineering for Innovation”
 Complesso Ecotekne - edificio “Corpo O” - Via per Monteroni - 73100 Lecce (Italy)
 University of Salento
Participant in the project CHAIRLIFT (Call: H2020-CS2-CFP08-2018-01, Topic: Innovative NO_x Reduction Technologies, Duration: 40 months).
 Participant in the H2020 project “Compact Helical Arranged combustors with lean LIFTed flames (CHAIRLIFT)”. The main objective of the CHAIRLIFT project is to assess an innovative combustor concept capable to achieve an ultra-lean, low NO_x, operation of future engines. Beneficiaries: University of Florence, Karlsruher Institut für Technologie, University of Salento and Université de Rouen Normandie. In the present project, the University of Salento will be

<ul style="list-style-type: none"> • Dates (from – to) • Name and address of employer • Type of business or sector • Occupation or position held • Main activities and responsibilities 	<p>mainly concentrated on plasma implementation and investigation for flame stabilization.</p> <p>30/07/2018-26/10/2018</p> <p>“Institute of Aerospace Thermodynamics (ITLR)“ Pfaffenwaldring 31 - 70569 Stuttgart (Germany)</p> <p>University of Stuttgart.</p> <p>Visiting scientist.</p> <p>Elisa Pescini worked on the assessment and implementation of two experimental techniques to high-pressure near-critical jets: white light spectroscopy and laser induced thermal acoustics (LITA). Supervisor: Dr. Ing. Grazia Lamanna.</p>
<ul style="list-style-type: none"> • Dates (from – to) • Name and address of employer • Type of business or sector • Occupation or position held • Main activities and responsibilities 	<p>05/02/2018-27/06/2018</p> <p>“Department of Engineering for Innovation“ Complesso Ecotekne - edificio “Corpo O” - Via per Monteroni - 73100 Lecce (Italy)</p> <p>University of Salento</p> <p>Scientific director of a funded project, winner of the call Bando 2017: “5 per 1000 per la ricerca – anno 2015 – University of Salento”.</p> <p>Scientific director of the project entitled “Stabilizzazione di fiamme ultra-magre a basso impatto ambientale con nanoparticelle e microtecnologie”. The aim of the work regarded lean and ultra-lean flame stabilization by employing nanoparticles and microtechnologies, as plasma actuators. The candidate received a funding of € 10973,51 for the project. The results of the projects led to the publication [30]</p>
<ul style="list-style-type: none"> • Dates (from – to) • Name and address of employer • Type of business or sector • Occupation or position held • Main activities and responsibilities 	<p>June 2017 to today</p> <p>“Department of Engineering for Innovation“ Complesso Ecotekne - edificio “Corpo O” - Via per Monteroni - 73100 Lecce (Italy)</p> <p>University of Salento</p> <p>Participation in the research activities in collaboration with the “Thermofluids Research Group” of the Wolfson School of Mechanical Electrical and Manufacturing Engineering, Loughborough University.</p> <p>Design, manufacturing and testing of plasma actuators for spray control. The aim of the work is to assess the interaction between sprays and dielectric barrier discharge plasma actuators. On the 27th of April 2018 a Partnership Agreement between the Green Engine Laboratory of the Department of Engineering of Innovation of the University of Salento and the Wolfson School of Mechanical Electrical and Manufacturing Engineering of the Loughborough University was signed (Scientific Coordinators: Dr. Maria Grazia De Giorgi and Dr. Elisa Pescini from University of Salento and Dr. Huayong Zhao and Dr. Vitaliy Sechenyh from the Loughborough University). On the 27th of April, she was <u>speaker in a seminar held at the Wolfson School of Mechanical Electrical and Manufacturing Engineering, Loughborough University, entitled “Interactions between DBD plasma actuators and liquid sprays”.</u></p>
<ul style="list-style-type: none"> • Dates (from – to) • Name and address of employer • Type of business or sector • Occupation or position held • Main activities and responsibilities 	<p>January 2016 to today</p> <p>“Department of Engineering for Innovation“ Complesso Ecotekne - edificio “Corpo O” - Via per Monteroni - 73100 Lecce (Italy)</p> <p>University of Salento</p> <p>Participation in the research activities for the “NATO STO Science and Technology Organization Technical Team: AVT-254 on Assessment of Plasma Actuator Technologies for Internal Flows”.</p> <p>Participation in research activities (experimental and numerical) on active flow control of both cold and hot flows.</p> <p>The candidate was also enrolled and participated as Invited Guest at the AVT-38TH PMW (Meeting: AVT-38TH PMW Fall 2016 AVT Panel Meeting Week, Spain, 26/09/2016 - 30/09/2016), at the AVT-39TH PWT (Meeting: AVT-39TH PMW Spring 2017 AVT Panel Meeting Week, Vilnius, 15/05/2017 - 20/05/2017) and at the AVT-41st PMW (Meeting: AVT 41st PMW Spring 2018 Panel Business Meeting Week, Turin, 16/04/2018- 20/04/2018). The presented work was also in collaboration with the CNR-NANOTEC (P.La.S.Mi. Lab., Bari) and the National Research Council-Institute for Microelectronics and Microsystems (CNR-IMM) of Lecce. On the 7th of July 2018 she was appointed as a <u>Technical Team Member</u> of the AVT-254.</p>
<ul style="list-style-type: none"> • Dates (from – to) • Name and address of employer • Type of business or sector 	<p>28/01/2015 – 27/07/2015</p> <p>“Chemistry Department“ Via Orabona,4, 70125 Bari (BA), Italy</p> <p>University Aldo Moro of Bari</p>

- Occupation or position held
- Main activities and responsibilities

- Dates (from – to)

- Name and address of employer

- Type of business or sector
- Occupation or position held

- Main activities and responsibilities

- Dates (from – to)

- Name and address of employer

- Type of business or sector
- Occupation or position held

- Main activities and responsibilities

PARTICIPATION IN REVIEW ACTIVITIES

EDUCATION AND TRAINING

- Dates (from – to)

- Name and type of organization providing education and training
- Principal subjects/occupational

Research Collaboration.

Working in the project “INNOVHEAD-Tecnologie innovative per riduzione emissioni, consumi e costi operativi di motori Heavy Duty” (reported in the section “WORK EXPERIENCE”). The work was in collaboration with the University of Salento (Department of Engineering for Innovation) and the CNR-NANOTEC (P.La.S.Mi. Lab., Bari). The results of this collaboration were the publications [6][10][25][31][33] and a timeliness collaboration relationship between the participants.

May 2014 to today

“Department of Engineering for Innovation”

Complesso Ecotekne - edificio “Corpo O” - Via per Monteroni - 73100 Lecce (Italy)

University of Salento

Participation in the research activities in collaboration with the University of Toronto Institute for Aerospace Studies (UTIAS) and the National Research Council-Institute for CNR-IMM of Lecce.

Design, manufacturing and testing of plasma actuators with innovative materials for efficient flow control. Collaboration with the research group of the “Flow Control and Experimental Turbulence” laboratory directed by prof. P. Lavoie of the Center for Research in Sustainable Aviation, University of Toronto Institute for Aerospace Studies, 4925 Dufferin St., Toronto, Ontario M3H 5T6, Canada. The CNR-IMM is involved in the devices manufacturing.

December 2012 to today

“Department of Engineering for Innovation”

Complesso Ecotekne - edificio “Corpo O” - Via per Monteroni - 73100 Lecce (Italy)

University of Salento

Participation and /or collaboration in other research activities.

Participation in research activities (experimental and/or numerical) regarding the research project “Aeronautical Hybrid Energy Management (MEA)” (reported in the section “WORK EXPERIENCE”, period 01/09/2015 – 07/03/2017).

Collaboration with the scientific directors and the research fellows involved at the Department of Engineering for Innovation in research projects, among which:

- “GREEN ENGINE” (Regione Puglia - Accordo di programma quadro “ricerca scientifica” - Avviso pubblico “Reti di laboratori di ricerca” - Progetto “GREEN ENGINE” - Tecnologia per la propulsione sostenibile cod. 17) regarding the technologies for sustainable propulsion. Elisa Pescini participated (years 2012-2014) in the high-speed imaging experiments for the characterization of lean flames in a liquid fueled burner (the paper [22] in the section “Publications” has been produced).
- “FONDI 5 PER MILLE PER LA RICERCA”. Elisa Pescini participated (years 2015-2016) in the study of the electro-fluid-dynamic interaction induced by plasma actuators for separation control. Experimental (electrical characterization of the device, measurement of the flow field velocity by Particle Image Velocimetry and Laser Doppler Velocimetry) and numerical studies were performed (the papers [27] and [28] in the section “Publications” have been produced).
- “APULIA SPACE” (APULIA SPACE - PON03PE-00067-6 Asse I - Reti per il rafforzamento del potenziale scientifico-tecnologico delle Regioni della Convergenza). Elisa Pescini participated (years 2014-2016) in the experiments (electrical characterization of the device and flame imaging) on active flow control of combustion in a pressurized chamber (the poster [35] in the section “Publications” has been produced).

Elisa Pescini is a reviewer of the following Journals: “Measurement” (ELSEVIER), “Industry Application Society IEEE-IAS Electrostatic Processes Committee” (IEEE), “Aerospace” (MDPI), “Applied Science” (MDPI), “International Journal of Aerospace Engineering” (HINDAWI), Sensors and Actuators A: Physical (ELSEVIER), Aerospace Science and Technology (ELSEVIER).

23/10/2017–27/10/2017

“Linné FLOW Centre, KTH Mechanics”

Royal Institute of Technology, Stockholm, Sweden”

FLOW Autumn School on Aeroacoustics and Thermoacoustics of Propulsion Systems.

Topics: Turbomachinery Aeroacoustics (Lecturer: Phillip Joseph, Univ. of Southampton, UK);

- skills covered Thermoacoustics in Gas Turbine Combustors (Lecturer: Oliver C. Paschereit, TU Berlin, Germany); Modeling and Suppressing Thermoacoustic instabilities (Lecturer: Aimee Morgans, Imperial College London, UK); Fundamentals of Subsonic and Supersonic Jet noise (Lecturer: Christophe Bogey, École Centrale de Lyon, France); Jet Noise Modeling and Control (Lecturer: André V. G. Cavalieri, Instituto Tecnológico de Aeronáutica, Brazil).
- Title of qualification awarded Certificate of attendance.
 - Dates (from – to) 04/04/2017–07/04/2017
 - Name and type of organization providing education and training “University of Salento, Department of Math and Physics”
Via per Monteroni - 73100 Lecce (Italy)
 - Principal subjects/occupational skills covered **Data Analysis techniques with practical applications (10-hours course held by Dr. Julian Rautenberg of the University of Wuppertal in Germany).**
Topics: The basic technics in describing data-sample and defining estimators; The quantitative determination for tests (limits); The Monte-Carlo techniques and unfolding procedures; The multi-variate methods for separation and regression like boosted decision-trees and neural networks; applications of the methods to cosmic ray data.
 - Title of qualification awarded Certificate of attendance.
 - Dates (from – to) 02/05/2014–13/12/2014
 - Name and type of organization providing education and training “UTIAS”
4925 Dufferin St., Toronto, Ontario, M3H 5T6, Canada
 - Principal subjects/occupational skills covered **International Visiting Research Ph.D. Student.**
Working in the research project: “Development of Dielectric Barrier Discharge Actuator Arrays for Boundary Layer Streaks Production” (Supervisor: Professor Philippe Lavoie), regarding the characterization of plasma actuator arrays for the “bypass transition” control. Experiments have been performed in a subsonic wind tunnel and the flow velocity fields have been measured by Hot- Wires. The results of this the experiments were used for a part of the doctoral thesis [40] and were presented in international conferences [20][26]. A journal manuscript is currently being finalized for submission. Moreover, this data formed the basis of the collaboration and continued work between the research groups of the candidate and of Prof. Lavoie, as evinced in the section “Participation and collaboration in research activities”.
 - Dates (from – to) 21/12/2011–20/12/2014
 - Name and type of organization providing education and training “University of Salento”
Via per Monteroni - 73100 Lecce (Italy)
 - Principal subjects/occupational skills covered **Ph.D. in Energy Systems and Environment.**
Research Project and Thesis: “*Experimental and Numerical Characterization of Dielectric Barrier Discharge Plasma Actuators for Active Flow Control of Boundary Layer Separation and Bypass Transition*” [40] (Supervisors: *Professor Domenico Laforgia, Professor Antonio Ficarella, and Assistant Professor Maria Grazia de Giorgi*).
The Ph.D. work activities were held in collaboration with the UTIAS and the CNR-IMM of Lecce. The primary objective of the work regarded a multi-technique study of single dielectric barrier discharge plasma actuators as a promising system to control separated flows. The experimental setup was built and experimental investigations were performed by discharge imaging, infrared thermography, flow visualizations, particle image velocimetry, laser Doppler velocimetry and electrical characterization. Experimental results were then used for the development and validation of numerical models to predict the actuation effect. The last step in this research project comprised the investigation of the response of a Blasius boundary layer to dielectric barrier discharge plasma actuator arrays, for using these devices also in bypass transition control. Those experiments were conducted during the research period at the UTIAS.
 - Title of qualification awarded Ph.D. Degree (grade Excellent, earned on the 3rd of September 2015).
 - Dates (from – to) 19/08/2013–23/08/2013
 - Name and type of organization providing education and training “Lund University”
Lund, Sweden
 - Principal subjects/occupational skills covered **Combustion Institute Summer School (CISS) in Combustion Science and Technology.**
Main Courses: Chemical kinetics (*Professor Henry Curran*) Turbulent combustion (*Professor Norbert Peters*) and Diagnostics (*Professor Marcus Aldén*).
NOTE: Fellowship funding from the Combustion Institute and the Center for Combustion Science and Technology (CECOST).
 - Title of qualification awarded Certificate of attendance.
 - Dates (from – to) 09/2012–10/2012 (40 hours)
 - Name and type of organization “University of Salento”

providing education and training
• Principal subjects/occupational skills covered

• Title of qualification awarded

• Dates (from – to)

• Name and type of organization providing education and training

• Principal subjects/occupational skills covered

• Title of qualification awarded

Dates (from – to)

• Name and type of organization providing education and training

• Principal subjects/occupational skills covered

• Title of qualification awarded

Dates (from – to)

• Name and type of organization providing education and training

• Principal subjects/occupational skills covered

• Title of qualification awarded

Dates (from – to)

• Name and type of organization providing education and training

• Principal subjects/occupational skills covered

• Title of qualification awarded

Dates (from – to)

• Name and type of organization providing education and training

• Principal subjects/occupational skills covered

• Title of qualification awarded

Dates (from – to)

• Name and type of organization providing education and training

• Principal subjects/occupational skills covered

• Dates (from – to)

Via per Monteroni - 73100 Lecce (Italy)

Computational Fluid Dynamics Course

Certificate of attendance.

03/10/2011–29/06/2012

“von Karman Institute for Fluid Dynamics (VKI)”

Chaussée de Waterloo 72, B-1640 Rhode-Saint-Genèse, Belgique

Post Graduate Research Master in Fluid Dynamics (master after master).

Main courses and laboratories: Differential Equations of Fluid Dynamics; Introduction to Measurement Techniques in Fluid Dynamics; Methodology of Applied Fluid Dynamics; Introduction to the Mechanics of Turbulence Modeling; Data Acquisition and Processing; Industrial Design Exercise, Numerical Simulation of Industrial Problems, Measurements Techniques Laboratories (Laser Doppler Velocimetry “LDV”; Particle Image Velocimetry “PIV”; Schlieren; Shadowgraph; Infrared Thermography; Hot Wires, Pitot & Prandtl Tubes).

Lecture Series: Introduction to Measurement Techniques, Introduction to Computational Fluid Dynamics, Introduction to Optimization and Multidisciplinary Design in AR&TU, Combustion in Aero Engines.

Research Project: “*Experimental Validation of the Multi Wavelength Light Extinction Technique on Potassium Chloride Nanoparticles*” [39] (Supervisors: Professor J.-M. Buchlin, Assistant Professor Maria Rosaria Vetrano, Ph.D. student Imre Horvát).

Participation to the writing of the paper [18] in the section “Publications”.

NOTE: Fellowship funding from the VKI.

Master after Master Degree (grade maximum with honours, earned on the 29th of June 2012).

04/06/2012–08/06/2012

“VKI”

Chaussée de Waterloo 72, B-1640 Rhode-Saint-Genèse, Belgique

Lecture Series: “Combustion in Aero Engines”.

Certificate of attendance.

07/05/2012–11/05/2012

“VKI”

Chaussée de Waterloo 72, B-1640 Rhode-Saint-Genèse, Belgique

Lecture Series: “Introduction to Optimization Methods and Tools for Multidisciplinary Design in Aeronautics and Turbomachinery”.

Certificate of attendance.

16/01/2012 - 20/01/2012

“VKI”

Chaussée de Waterloo 72, B-1640 Rhode-Saint-Genèse, Belgique

Lecture Series: “Introduction to Computational Fluid Dynamics”.

Certificate of attendance.

10/10/2011–14/10/2011

“VKI”

Chaussée de Waterloo 72, B-1640 Rhode-Saint-Genèse, Belgique

Lecture Series: “Introduction to Measurement Techniques”.

Certificate of attendance and successful completion of the examination.

01/03/2011–29/06/2011

“VKI”

Chaussée de Waterloo 72, B-1640 Rhode-Saint-Genèse, Belgique

Short Training – The Inductively Coupled Plasma (ICP) Technology.

Research Project: “*Numerical investigation of a quenching unit for nanoparticles production*” (Supervisors: Professor J.-M. Buchlin, Engineer Jean-Baptiste Gouriet).

NOTE: Fellowship funding from the VKI.

a. y. 2006/2007–a. y. 2009/2010

- Name and type of organization providing education and training
 - Principal subjects/occupational skills covered
- “University of Salento”
Via per Monteroni - 73100 Lecce (Italy)
- Master’s Degree Program in Mechanical Engineering.**
Main courses: Electrical machines and energy conversion, Numerical Computing with Statistics Elements, Fluid Dynamics, Laboratory of Mechanical Measurement, Fluid Machinery, Energy Systems, Theoretical and Applied Mechanics.
Thesis in Fluid Machinery II, in collaboration with the VKI: “*Supersonic condensing flow characterization by non-intrusive measurement techniques*” [38], in collaboration with the VKI (Supervisors: *Professor Domenico Laforgia, Assistant Professor Maria Grazia De Giorgi, Assistant Professor Maria Rosaria Vetrano, Professor Jeroen van Beeck, Professor Patrick Rambaud*).
- NOTE: The candidate was winner of ADISU fellowships for the academic years 2006/2007, 2007/2008 and 2009/2010.
- Title of qualification awarded
- Master’s Degree (grade maximum with distinction, earned on the 26th of January 2011).
- Dates (from – to)
17/05/2010–15/10/2010
- Name and type of organization providing education and training
 - Principal subjects/occupational skills covered
 - Title of qualification awarded
- “VKI”
Chaussée de Waterloo 72, B-1640 Rhode-Saint-Genèse, Belgique
- Short Training - Supersonic condensing flow characterization by non-intrusive measurement techniques.**
Draft of the Graduation Thesis “*Supersonic condensing flow characterization by non-intrusive measurement techniques*” (Supervisors: Professor Jeroen van Beeck and Mrs. Maria Rosaria Vetrano); Participation to the writing of the paper [17] in the section “Publications”.
NOTE: Fellowship funding from the VKI.
- Dates (from – to)
09/08/2009–21/08/2009
- Name and type of organization providing education and training
 - Principal subjects/occupational skills covered
 - Title of qualification awarded
- “Engineering College of Aarhus”
Aarhus, Denmark
- Summer school Wind Turbine Technology.**
Masters Level Course approved by the University of Aarhus, Denmark
Certificate of attendance and profit (5 ECTS-credits awarded after a final examination).
NOTE: Fellowship funding from the Engineering College of Aarhus.
- Dates (from – to)
05/2009–06/2009
- Name and type of organization providing education and training
 - Principal subjects/occupational skills covered
 - Title of qualification awarded
- “University of Salento”
Via per Monteroni - 73100 Lecce (Italy)
- Catia V5 Course (36 hours).**
- Certificate of attendance.
- Dates (from – to)
10/2007–12/2007
- Name and type of organization providing education and training
 - Principal subjects/occupational skills covered
 - Title of qualification awarded
- “University of Salento”
Via per Monteroni - 73100 Lecce (Italy)
- Health & Safety Manager-H&S Manager.**
- Certificate of attendance and profit (obtained after a final exam full marks).
- Dates (from – to)
05/2007–06/2007
- Name and type of organization providing education and training
 - Principal subjects/occupational skills covered
 - Title of qualification awarded
- “University of Salento”
Via per Monteroni - 73100 Lecce (Italy)
- Autocad course (40 hours).**
- Certificate of attendance.
- Dates (from – to)
10/2006–03/2007
- Name and type of organization providing education and training
 - Principal subjects/occupational skills covered
 - Title of qualification awarded
- “University of Salento”
Via per Monteroni - 73100 Lecce (Italy)
- Reverse Engineering Internship in the Robotics Laboratory** (Supervisor: *Professor Alfredo Anglani*).
- 9 CFU-credits.
- Dates (from – to)
a. y. 2001/2002–a. y. 2005/2006

- Name and type of organization providing education and training
- Principal subjects/occupational skills covered

“University of Salento”
Via per Monteroni - 73100 Lecce (Italy)

Bachelor’s Degree Program in Material Engineering.

Main courses: Maths, Foundations of Computer Science, Physics, Structural Engineering, Electronics, Electrotechnics, Technical Drawing in Mechanical Engineering, Mechanics of Materials and Fracture Mechanics, Mechanical Technology, Applied Mechanics, Metallurgy, Materials Science and Technology, Polymer technology, Ceramic Materials, Chemistry, Physical Chemistry, Fluid Dynamics, Foundations of Computer Science, Fluid Machinery, Energy Systems, Applied Thermodynamics and Heat Transfer.

Thesis in Mechanical Technology, entitled “*Development of automatic procedures of quality control for surfaces acquired with CMM-laser probe technology*” [37] (Supervisor: Professor Alfredo Anglani).

- Title of qualification awarded
 - Dates (from – to)

Bachelor’s Degree (grade maximum with distinction, earned on the 21st of March 2007).
10/2001–04/2002

- Name and type of organization providing education and training

“Ministry of Public Education” and “Chamber of Commerce”
Lecce, Italy
“Newham College for Further Education”
London
“Banca 121”
Lecce, Italy
“Deatel s.r.l.”
Lecce, Italy

- Principal subjects/occupational skills covered

Training course, entitled “*Le professionalità in un call center*” (120 hours).

Internship at Newham College for Further Education of London from the 17/07/2002 to the 19/07/2002, 18 hours (Main subjects Dynamic inbound, Technologic instrument, Organization of Human Resources).

Internship at Banca 121 (Lecce, Italy).
Internship at Deatel s.r.l. (Lecce, Italy).

- Title of qualification awarded
 - Dates (from – to)

Certificate of attendance, entitled “*Le professionalità in un call center*”.
NOTE: The course and internships were funded (funds CIPE of “Ministero della Pubblica Istruzione”).

31/08/2001–14/09/2001
“Newham College for Further Education”
London

- Name and type of organization providing education and training
- Principal subjects/occupational skills covered

Training course, entitled “Communication and Multimedia”.

Main subjects: Using of Apple Macintosh Computers, Elements of web page design
NCFE certificate- “Studio skills for web page design”

Certificate of attendance, entitled “*Communication and multimedia- Approfondimenti Culturali e Sviluppo delle Abilità Comunicative della Lingua Inglese anche con Uso Multimediale*”.

NOTE: The training course was financed through fellowship funding from the Liceo Scientifico “C. De Giorgi”.

- Title of qualification awarded
 - Dates (from – to)

a. y. 1997/1998–a. y. 2001/2002
Liceo Scientifico “C. De Giorgi”
Lecce, Italy

- Name and type of organization providing education and training
- Principal subjects/occupational skills covered

Secondary school focusing on science.

Main courses: Maths, Physics, Biology, Geography, English, Technical Design, History, Philosophy

- Title of qualification awarded

Secondary school diploma (grade maximum: 100/100).

PERSONAL SKILLS AND COMPETENCES

Acquired in the course of life and career but not necessarily covered by formal certificates and diplomas.

MOTHER TONGUE

OTHER LANGUAGES

ITALIAN

<ul style="list-style-type: none"> • Reading skills • Writing skills • Verbal skills 	<p>ENGLISH VERY ADVANCED VERY ADVANCED VERY ADVANCED</p>
<ul style="list-style-type: none"> • Reading skills • Writing skills • Verbal skills 	<p>SPANISH ADVANCED ADVANCED ADVANCED</p>
<p>SOCIAL SKILLS AND COMPETENCES <i>Living and working with other people, in multicultural environments, in positions where communication is important and situations where teamwork is essential (for example culture and sports), etc.</i></p>	<p>Skilled in interpersonal approaches, able to establish and maintain good working relationships with people of different nationalities and cultural backgrounds. Able to live and/or work in situations of hardship. Tenacious and enthusiastic. Motivated, creative and innovative. Team player and organizer who pays attention to responsibility, self-respect, self-reliance and strong referential values of fairness, equity and dignity. These competences were acquired during the studies, thanks to the different experiences abroad, and improved through the participation and collaboration in various research activities.</p>
<p>ORGANIZATIONAL SKILLS AND COMPETENCES <i>Coordination and administration of people, projects and budgets; at work, in voluntary work (for example culture and sports) and at home, etc.</i></p>	<p>Organized person with good capacities for global views over specific situations, with end-oriented work capacity and problem-solving attitudes. Team player skilled in team management for events organization and in motivating others to work. These abilities were acquired during the different trainings and improved thanks to the work and teaching experience.</p>
<p>TECHNICAL SKILLS AND COMPETENCES <i>With computers, specific kinds of equipment, machinery, etc.</i></p>	<p>Use of Linux/Microsoft Windows operative systems and specific softwares like: Surfer, SOLIDCast, Arena, SpectraSuite, Ansys, Altair HyperWorks, SolidWorks, AutoCAD, Catia, Fluent, OpenFoam, Numeca, Gambit, Matlab, Labview, Dinamic Studio, Davis. Application of Measurement Techniques as: Multi Wavelength Light Extinction, Laser Doppler Velocimetry "LDV"; Particle Image Velocimetry "PIV"; Schlieren, Shadowgraph; Infrared Thermography; Flow Visualizations (con high-speed cameras both intensified and not intensified); Hot Wires, Pitot & Prandtl Tubes. High knowledge in performing wind tunnels experiments and using scientific equipment.</p>
<p>ARTISTIC SKILLS AND COMPETENCES <i>Music, writing, design, etc.</i></p>	<p>Photography and digital photography, photo editing, content writing.</p>
<p>OTHER SKILLS AND COMPETENCES <i>Competences not mentioned above.</i></p>	<p>Customer Service—call center.</p>
<p>DRIVING LICENCE(S)</p>	<p>Private automobile Italian Driving Licence (Cat. B).</p>
<p>LICENSES</p>	<p>On October 2011 the candidate received the "Abilitazione alla professione di Ingegnere". She is member of the "Ordine degli Ingegneri della Provincia Lecce" a since the 06/05/2013. The candidate received the "Abilitazione scientifica nazionale (art. 16, comma 1, Legge 240/10)" for the role of "Professore di II fascia" for the sector "09/C1 - MACCHINE E SISTEMI PER L'ENERGIA E L'AMBIENTE" (valid from 26/07/2018 to 26/07/2024).</p>
<p>ADDITIONAL INFORMATION</p>	<p>Physical disability equivalent to 75%. Availability to work abroad.</p>

Journals

- [1] **E. Pescini**, M. G. De Giorgi, L. Francioso, A. Sciolti, A. Ficarella "Effect of a micro dielectric barrier discharge plasma actuator on quiescent flow", IET Science, Measurement and Technology, Volume 8 (Issue 3), May 2014, Pages 135-142, ISSN: 1751-8822, DOI: 10.1049/iet-smt.2013.0131, PUBLISHER: IET.
- [2] **E. Pescini**, D. S. Martinez, M. G. De Giorgi, Antonio Ficarella, "Optimization of Micro Single Dielectric Barrier Discharge Plasma Actuator Models Based on Experimental Velocity and Body Force Fields", Acta Astronautica, Volume 116, November–December 2015, Pages 318–332, ISSN: 0094-5765, DOI: 10.1016/j.actaastro.2015.07.015, PUBLISHER: ELSEVIER .
- [3] **E. Pescini**, D. S. Martinez, M. G. De Giorgi, A. Ficarella, "Dissipated Power and Induced Velocity Fields Data of a Micro Single Dielectric Barrier Discharge Plasma Actuator for Active Flow Control", Data in Brief, Volume 5, December 2015, Pages 65–70, ISSN: 2352-3409, DOI: 10.1016/j.dib.2015.08.011, PUBLISHER: ELSEVIER.
- [4] **E. Pescini**, M. G. De Giorgi, L. Francioso, A. Ficarella, "Investigation of a Micro Dielectric Barrier Discharge Plasma Actuator for Regional Aircraft Active Flow Control", IEEE Transactions on Plasma Science, Volume 43 (Issue 10), October 2015, Pages 3668-3680, ISSN: 0093-3813, DOI: 10.1109/TPS.2015.2461016, PUBLISHER: IEEE.
- [5] M. G. De Giorgi, A. Sciolti, S. Campilongo, **E. Pescini**, A. Ficarella, L. M. Martini, P. Tosi, G. Dilecce, "Plasma Assisted Flame Stabilization in a Non-Premixed Lean Burner", Energy Procedia, Volume 82, December 2015, Pages 410–416, ISSN: 1876-6102, DOI: 10.1016/j.egypro.2015.11.825, PUBLISHER: ELSEVIER.
- [6] M. G. De Giorgi, A. Sciolti, S. Campilongo, **E. Pescini**, A. Ficarella, S. Lovascio, G. Dilecce, "Lean Blowout Sensing and Plasma Actuation of Non-Premixed Flames", IEEE Sensors Journal, Volume 16 (Issue 10), 15 May 2016, Pages 3896-3903, ISSN: 1530-437X, DOI: 10.1109/JSEN.2016.2538970, PUBLISHER: IEEE.
- [7] L. Francioso, C. De Pascali, **E. Pescini**, M. G. De Giorgi, P. Siciliano, "Modelling, fabrication and plasma actuator coupling of flexible pressure sensors for flow separation detection and control in aeronautical applications", Journal of Physics D: Applied Physic, Volume 49, Number 23, 15 June 2016, 235201 (14pp), ISSN: 0022-3727, DOI: 10.1088/0022-3727/49/23/235201, PUBLISHER: IOP Publishing.
- [8] Maria Grazia De Giorgi, **E. Pescini**, F. Marra, A. Ficarella, "Plasma Actuator Scaling Down to Improve its Energy Conversion Efficiency for Active Flow Control in Modern Turbojet Engines Compressors", Applied Thermal Engineering, Volume 106, 5 August 2016, Pages 334-350, ISSN: 1359-4311, DOI: 10.1016/j.applthermaleng.2016.05.186, PUBLISHER: ELSEVIER.
- [9] **E. Pescini**, F. Marra, M.G. De Giorgi, L. Francioso, A. Ficarella, "Investigation of the boundary layer characteristics for assessing the DBD plasma actuator control of the separated flow at low Reynolds numbers", Experimental Thermal and Fluid Science, Volume 81, February 2017, Pages 482–498, DOI: 10.1016/j.expthermflusci.2016.09.005, PUBLISHER: ELSEVIER.
- [10] M.G. De Giorgi, A. Ficarella, A. Sciolti, **E. Pescini**, S. Campilongo, G. Dilecce, "Improvement of Lean Flame Stability of Inverse Methane/Air Diffusion Flame by Using Coaxial Dielectric Plasma Discharge Actuators", Energy, Volume 126, 1 May 2017, Pages 689–706, DOI: 10.1016/j.energy.2017.03.048, PUBLISHER: ELSEVIER.
- [11] M.G. De Giorgi, A. Ficarella, F. Marra, **E. Pescini**, "Micro DBD Plasma Actuators for Flow Separation Control on a Low Pressure Turbine at High Altitude Flight Operating Conditions of Aircraft Engines", Applied Thermal Engineering, Volume 114, 5 March 2017, Pages 511–522, DOI: 10.1016/j.applthermaleng.2016.11.198, PUBLISHER: ELSEVIER.
- [12] D. S. Martinez, **E. Pescini**, M. G. De Giorgi, A. Ficarella, "Plasma-based flow control for low-pressure turbines at low-Reynolds-number", Aircraft Engineering and Aerospace Technology, Volume 89, Issue 5, 2017, Pages 671-682, DOI: 10.1108/AEAT-01-2017-0048, PUBLISHER: EMERALD PUBLISHING LIMITED.
- [13] **E. Pescini**, A. Suma, M. G. De Giorgi, L. Francioso, A. Ficarella, "Optimization of Plasma Actuator Excitation Waveform and Materials for Separation Control in Turbomachinery", Energy Procedia, Volume 126, September 2017, Pages 786–793, DOI: 10.1016/j.egypro.2017.08.272, PUBLISHER: ELSEVIER.
- [14] **E. Pescini**, D.S. Martínez, M.G. De Giorgi, A. Ficarella, "Characterization of the effects of a dielectric barrier discharge plasma actuator on a coaxial jet in a Bunsen burner", Experimental Thermal and Fluid Science, Volume 91, February 2018, Pages 292–305, DOI: <https://doi.org/10.1016/j.expthermflusci.2017.10.009>, PUBLISHER: ELSEVIER.
- [15] **E. Pescini**, M. G. De Giorgi, A. Suma, L. Francioso, A. Ficarella, "Separation control by a microfabricated SDBD plasma actuator for small engine turbine applications: influence of the excitation waveform", Aerospace Science and Technology, Volume 76, 2018, Pages 442-454, DOI: <https://doi.org/10.1016/j.ast.2018.01.019>, PUBLISHER: ELSEVIER.

Book Series

- [16] M. G. De Giorgi, **E. Pescini**, A. Suma, M. A. Signore, L. Francioso, C. De Pascali, Antonio Ficarella, "Active Sensors/Actuators-Based Flow and Noise Control for Aerospace

Applications”, (eds) Sensors and Microsystems AISEM 2017 Lecture Notes in Electrical Engineering, Volume 457, 2018, Pages 185-196, DOI: https://doi.org/10.1007/978-3-319-66802-4_24, PUBLISHER: SPRINGER, CHAM.

International conferences

- [17] M.R. Vetrano, E. Cecchi, **E. Pescini**, P. Rambaud, J.-M. Buchlin, “Caractérisation d’une trempe supersonique par extinction laser”, in 12^{ème} Congrès Francophone de Techniques Laser CFTL 2010, Vandoeuvre-lès-Nancy, France, 14–17 September 2010, ISBN 978-2-9537649-0-1. [Oral presentation.](#)
- [18] I. Horváth, **E. Pescini**, P. Colinet, M. R. Vetrano, “Application de la technique spectroscopique d’extinction à un écoulement de nanoparticules”, in 13^{ème} Congrès Francophone de Techniques Laser CFTL 2012, Rouen, France, 18–21 September 2012. [Oral presentation.](#)
- [19] **E. Pescini**, M. G. De Giorgi, L. Francioso, A. Ficarella, “Microscale Dielectric Barrier Discharge Plasma Actuators: Experimental Characterization”, in 4th Imeko TC19 Symposium on Environmental Instrumentation and Measurements Protecting Environment, Climate Changes and Pollution Control, Lecce, Italy, 3-4 June 2013, pp. 63-67, ISBN:9788896515204. [Oral presentation.](#)
- [20] **E. Pescini**, M. G. De Giorgi, P. Lavoie, L. Francioso, “Development of Dielectric Barrier Discharge Actuators Arrays for Boundary Layer Streaks Production”, in 1000 Island Fluids Mechanics Meeting, Giananogue, Canada, May 30-June 1 2014. [Oral presentation.](#)
- [21] M. G. De Giorgi, **E. Pescini**; F. Marra; A. Ficarella, “Experimental and Numerical Analysis of a Micro Plasma Actuator for Active Flow Control in Turbomachinery” in ASME Turbo Expo 2014: Turbine Technical Conference and Exposition, Volume 2A: Turbomachinery, Düsseldorf, Germany, 16-20 June 2014, Paper No. GT2014-25337, pp. V02AT37A011 (13 pages), DOI: 10.1115/GT2014-25337, ISBN: 978-0-7918-4560-8. [Oral presentation.](#)
- [22] M. G. De Giorgi, A. Sciolti, **E. Pescini**, A. Ficarella, “Frequency Analysis And Predictive Identification Of Flame Stability By Image Processing” in ASME 2014 8th International Conference on Energy Sustainability collocated with the 12th Fuel Cell Science, Engineering and Technology Conference, Volume 2, Boston, Massachusetts, June 30-July 2 2014, Paper No. ES-FuelCell2014-6599, pp. V002T04A014 (10 pages), DOI: 10.1115/ES2014-6599, ISBN: 978-0-7918-4587-5. [Oral presentation.](#)
- [23] L. Francioso, C. De Pascali, P. Siciliano, M. G. De Giorgi, **E. Pescini**, A. Ficarella: “Aircraft distributed flow turbulence sensor network with embedded flow control actuators”, in the 12th IEEE International Conference on Embedded and Ubiquitous Computing (EUC) 2014, Milano, Italy, 26-28 August 2014, pp. 185–192, DOI: 10.1109/EUC.2014.34, ISBN: 978-076955249-1. [Oral presentation.](#)
- [24] M. G. De Giorgi, A. Ficarella, F. Marra, **E. Pescini**, S. Traficante, “A Comparison between Micro Linear Plasma Synthetic Jets and Conventional DBD Plasma Actuators for Separation control in a Low Pressure Turbine”, in ASME-ATI-UIT 2015 Conference on Thermal Energy Systems: Production, Storage, Utilization and the Environment, Napoli, Italy, 17-20 May 2015, ISBN: 978-88-98273-17-1. [Oral presentation.](#)
- [25] S. Campilongo, M. G. De Giorgi, A. Ficarella, **E. Pescini**, A. Sciolti, G. Dilecce, “Plasma Actuation to Enhance the Flame Stabilization in a Non-Premixed Lean Microburner”, in Nanotechnology for Instrumentation and Measurement Workshop NANOfIM 2015, Lecce, Italy, 24-25 July 2015, ISBN: 978-1-5108-1501-8. [Oral presentation.](#)
- [26] **E. Pescini**, M. G. De Giorgi, L. Francioso, A. Taurino, M. C. Martucci, P. Lavoie, “Electrode Material Degradation Monitoring for Durable Dielectric Barrier Discharge Plasma Actuators Manufacturing”, in 54th AIAA Aerospace Sciences Meeting AIAA SciTech Forum, San Diego, California, USA, 4-8 January 2016, Paper No. AIAA 2016-0196, DOI: 10.2514/6.2016-0196, ISBN: 978-162410393-3. [Oral presentation.](#)
- [27] **E. Pescini**, F. Marra, M. G. De Giorgi, L. Francioso, A. Ficarella, “Investigations of the Actuation Effect of a Single DBD Plasma Actuator for Flow Separation Control Under Simulated Low-Pressure Turbine Blade Conditions”, in ASME Turbo Expo 2016: Turbine Technical Conference and Exposition GT2016, Seoul, South Korea, 13-17 June 2016, Paper N. GT2016–57432, DOI: 10.1115/GT2016-7432, ISBN: 978-079184970-5. [Oral presentation.](#)
- [28] **E. Pescini**, D. S. Martinez, M. G. De Giorgi, Antonio Ficarella, “Experimental and Numerical Study of Plasma Based Flow Control for Low Pressure Gas Turbines Operating at Low Reynolds Numbers”, in 6th EASN International Conference on Innovation in European Aeronautics Research, 18-21 October, 2016, Porto, Portugal. [Oral presentation.](#)
- [29] D. S. Martinez, **E. Pescini**, F. Marra, M. G. De Giorgi, A. Ficarella, “Analysis of the Performance of Plasma Actuators Under Low-Pressure Turbine Conditions Based on Experiments and URANS Simulations”, in ASME Turbo Expo 2017: Turbomachinery Technical Conference & Exposition GT2017, Charlotte, NC, USA, 26-30 June 2017, Paper No. GT2017-64867, DOI: 10.1115/GT201764867, ISBN: 978-079185078-7. [Oral presentation.](#)
- [30] M. G. De Giorgi, **E. Pescini**, S. Campilongo, G. Ciccarella, D. Fontanarosa, A.

Ficarella, Effects of Emulsified Fuel on the Performance and Emission Characteristics of Aeroengine Combustors, in ASME 2019 Turbo Expo: Turbomachinery Technical Conference and Exposition GT2019, Phoenix, Arizona, USA, 17-21 June 2019, [Accepted paper](#).

National Conferences

[31] M. G. De Giorgi, A. Ficarella, A. Sciolti, S. Campilongo, **E. Pescini**, G. Dilecce, "Effect of Actuation Parameters on Stabilization of Methane Diffusive Flames Using Plasma Actuators", in XXXVIII Meeting of the Italian Section of the Combustion Institute, Lecce, Italy, 20-23 September 2015, ISBN: 978-88-88104-25-6. [Poster and oral presentation](#).

[32] M.G. De Giorgi, **E. Pescini**, F. Marra, A. Ficarella, L. Francioso, "Investigation of Plasma Actuators for Flow Separation Control on a Low Pressure Turbine at Low Reynolds Number", in 23rd Conference of the Italian Association of Aeronautics and Astronautics AIDAA2015, Turin, Italy, 17-19 November 2015. [Oral presentation](#).

[33] M. G. De Giorgi, A. Sciolti, S. Campilongo, **E. Pescini**, A. Ficarella, Luca Matteo Martini, Paolo Tosi, Giorgio Dilecce, "Plasma Assisted Flame Stabilization in a Non-Premixed Lean Burner", ATI 2015-70th Conference of the ATI Engineering Association, Rome, Italy, 09-11 September 2015. [Oral presentation](#).

[34] M.G. De Giorgi, **E. Pescini**, A. Suma, M.A. Signore, C. De Pascali, A. Ficarella, "Active Sensors/Actuators-Based Flow and Noise Control for Aerospace Applications", in AISEM 2017 - XIX Conferenza Annuale dell'Associazione Italiana Sensori e Microsistemi, Lecce, Italy, 21-23 February 2017. [Oral presentation](#).

[35] M.G. De Giorgi, S. Campilongo, **E. Pescini**, A. Ficarella, "Investigations on Plasma Assisted Methane/Air Combustion in a Pressurized Chamber", 40th Meeting of the Italian Section of the Combustion Institute, Rome, Italy, 7-9 June 2017. [Poster](#).

[36] **E. Pescini**, A. Suma, M. G. De Giorgi, L. Francioso, A. Ficarella, "Optimization of Plasma Actuator Excitation Waveform and Materials for Separation Control in Turbomachinery", 72° Congresso Nazionale ATI, 6-8 September 2017, Lecce, Italy. [Oral presentation](#).

Theses

[37] **E. Pescini**, "Sviluppo di procedure automatiche di controllo qualità per superfici acquisite con tecnologia CMM-laser probe", Bachelor thesis, University of Salento, March 2007 (Supervisor: A. Anglani).

[38] **E. Pescini**, "Supersonic condensing flow characterization by non-intrusive measurement techniques", Master Thesis, University of Salento, January 2011 (Supervisors: D. Laforgia, M. G. De Giorgi, M. R. Vetrano, J. van Beeck, P. Rambaud).

[39] **E. Pescini**, "Experimental Validation of the Multi Wavelength Light Extinction Technique on Potassium Chloride Nanoparticles", Research Master Project Report, VKI, June 2012 (Supervisors: J.-M. Buchlin, M. R. Vetrano, I. Horváth).

[40] **E. Pescini**, "Experimental and Numerical Characterization of Dielectric Barrier Discharge Plasma Actuators for Active Flow Control of Boundary Layer Separation and Bypass Transition", Ph.D. Thesis, Università del Salento, Dipartimento di Ingegneria dell' Innovazione, 2015 (Supervisors: M. G. De Giorgi, A. Ficarella, D. Laforgia).

CONFERENCE ATTENDANCE

Elisa Pescini was author and "presenting author" at the following conferences :

- 4th Imeko TC19 Symposium on Environmental Instrumentation and Measurements Protecting Environment, Climate Changes and Pollution Control, Lecce, Italy (paper [19] in the section "Publications").
- 1000 Island Fluids Mechanics Meeting, Giananoque, Canada, May 30-June 1, 2014 (extended abstract [20] in the section "Publications").
- ASME 2014 8th International Conference on Energy Sustainability collocated with the 12th Fuel Cell Science, Engineering and Technology Conference, Boston, Massachusetts, June 30-July 2 2014, Paper No. ES-FuelCell2014-6599 (paper [22] in the section "Publications").
- 54th AIAA Aerospace Sciences Meeting, 4-8 January 2016, San Diego, California, USA, Paper No. AIAA 2016-0196 (paper [26] in the section "Publications").
- ASME Turbo Expo 2016: Turbine Technical Conference and Exposition GT2016, June 13-17, 2016, Seoul, South Korea, Paper No. GT2016-57432 (paper [27] in the section "Publications").
- ASME Turbo Expo 2017: Turbomachinery Technical Conference & Exposition GT2017, June 26-30, 2017, Charlotte, NC, USA, Paper No. GT2017-64867 (paper [29] in the section "Publications").
- 72° Congresso Nazionale ATI, 6-8 September 2017, Lecce, Italy. Paper ID 95 (paper [36] in the section "Publications").

May 2019

(Date)


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(Signature)