

PERSONAL INFORMATION

Alessandro Bianchini

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 Skype [ale_bianchini](#)

Sex Male | Date of birth 21/11/1982 | Nationality Italian

WORK EXPERIENCE

01/05/2016–Present

Assistant Professor (RTD-A)

Department of Industrial Engineering, Università degli Studi di Firenze
via di Santa Marta, 50139 Firenze (Italia)

www.dief.unifi.it

Sector: 09/C1 (Machinery and Systems for Energy and Environment) - Scientific Sub-Sector: ING-IND/08 (Machinery)

Business or sector Education

01/01/2018–Present

Associated Editor

Wind Energy Science Journal (WES) - ISSN 2366-7443

05/11/2017–11/11/2017

Visiting Professor (temporary Associate Professor)

"Peter the Great" St. Petersburg Polytechnical University, St. Petersburg (Russia)

Holder of the course "Wind energy" (16 academic hours)

13/05/2017–20/05/2017

Visiting Professor (temporary Associate Professor)

"Peter the Great" St. Petersburg Polytechnical University, St. Petersburg (Russia)

Holder of the course "Wind energy" (20 academic hours)

01/01/2013–30/04/2016

Research Fellow

Department of Industrial Engineering, Università degli Studi di Firenze
Via di Santa Marta 3, 50139 Firenze (Italy)

<http://www.dief.unifi.it>

- Development of innovative aerodynamic solutions for small wind turbines
- Numerical analysis of wind turbines
- Experimental and numerical analysis of centrifugal impellers
- Rotating stall in centrifugal compressors

01/02/2011–31/12/2012

Research Fellow

"Sergio Stecco" Department of Energy Engineering, Università degli Studi di Firenze
Via di Santa Marta 3, 50139 Firenze (Italy)

- Development of innovative aerodynamic solutions for small wind turbines
- Numerical analysis of wind turbines
- Experimental and numerical analysis of centrifugal impellers
- Rotating stall in centrifugal compressors

Business or sector Professional, scientific and technical activities

- 01/01/2010–30/04/2016 **Researcher**
Laboratorio LINEA (Laboratorio d'Innovazione per l'Energia e l'Ambiente) - PIN
Via Filicaia 24, 59100 Prato (Italy)
- Design and optimization of Darrieus vertical axis wind turbines
- Experimental aerodynamic studies
- Numerical analysis applied to turbomachinery
Business or sector Applied research
- 01/11/2011–28/02/2012 **Higher education teaching professional**
Securgreen Course (high-education project supported by the Tuscany Region), Prato (Italy)
SUBJECT: Wind Engineering and Turbomachinery
- 01/06/2010–30/09/2010 **College / university teaching professional**
IMP.E.RI Course (high-education project supported by the Tuscany Region), Prato (Italy)
SUBJECT: Wind Engineering
Business or sector Education
- 01/09/2007–31/12/2009 **Researcher**
ICAD (Internation Consortium for Advanced Design)
Via di Santa Marta 3, 50139 Firenze (Italy)
- Design and optimization of Darrieus vertical axis wind turbines
- Wind tunnel testing

- Rotating stall in centrifugal impellers

- Experimental analysis with dynamic pressure sensors
Business or sector Applied research
- EDUCATION AND TRAINING**
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- 01/10/2013–30/11/2013 **Course for teaching in English**
Università degli Studi di Firenze, Firenze (Italia)
- 01/01/2008–31/12/2010 **Doctor of Philosophy in “Energy Engineering and Innovative Industrial Technologies”** 6
“Sergio Stecco” Department of Energy Engineering, Università degli Studi di Firenze
di Santa Marta 3, 50139 Firenze (Italy)
- Design and optimization of Darrieus vertical axis wind turbines
- Numerical analysis applied to turbomachinery
- Rotating stall in centrifugal impellers
- 01/03/2008–30/04/2008 **Energy Manager Qualification** 6
E-Quem (E-QUALification Energy Manager) Project by ENEA Italy
Energy management
- 01/01/2018–Present **Italian State PE examination**
Università degli Studi di Firenze, Firenze (Italia)

- 19/04/2005–18/07/2007

Master Degree in Energy and Nuclear Engineering (110/110 with honors)

Università degli Studi di Firenze
Piazza S. Marco, 50121 Firenze (Italy)

Systems for energy production and management, aeronautical and power turbomachinery, renewable energy and environmental politics. Heat transfer processes. TRIZ techniques for products improving and Six Sigma approach. Technical patents analysis and production.

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- 01/09/2001–19/04/2005

Bachelor Degree in Mechanical Engineering (109/110)

Università degli Studi di Firenze
Piazza S. Marco 4, 50121 Firenze (Italy)

Machinery and Energetic Systems, turbomachinery and renewable power sources. Measurement and heat transfer processes. Multimedia communication.

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- 10/09/1996–21/07/2001

School leaving certificate of Classical High-school (100/100)

Liceo Classico Statale Michelangiolo
della Colonna 9, 50121 Firenze (Italy)

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PERSONAL SKILLS

Mother tongue(s) Italian

Foreign language(s)

	UNDERSTANDING		SPEAKING		WRITING
	Listening	Reading	Spoken interaction	Spoken production	
English	C2	C2	C2	C2	C2
Certificate of English for Teachers (CLA - Firenze, Italy), 2013 Certificate of English (CLA - Firenze, Italy), 2002					
Spanish	B2	B1	A2	A1	A1
French	A2	A1	A2	A1	A1

Levels: A1 and A2: Basic user - B1 and B2: Independent user - C1 and C2: Proficient user
Common European Framework of Reference for Languages

Communication skills Great attitude for team work. I am a very open-mind person and I generally establish friendly relationships with both colleagues and partners.

Organisational / managerial skills I have often ruled leading positions in team work projects. Very good attitude in working under pressure and respecting project terms.

- Job-related skills
- unsteady aerodynamics
 - modeling and simulation of wind turbines
 - design and analysis of centrifugal compressors and turbochargers
 - complex energy systems including renewables
 - set up and control of measurement systems, particularly concerning dynamic pressure and temperature measurement
 - wind tunnel external aerodynamics and performance tests of turbomachines.

Digital skills

SELF-ASSESSMENT

Information processing	Communication	Content creation	Safety	Problem solving
Proficient user	Proficient user	Proficient user	Independent user	Independent user

Digital skills - Self-assessment grid

Excellent user of Windows™ operating system, Microsoft Office™ Suite (Word, Excel, Outlook, PowerPoint, Visio) and images manipulation (Corel Suite, Adobe Photoshop). Competent of technical software programs for: mathematical computing (Matlab), CAD 3D design (SolidWorks), mechanical simulation (Adams) and instrument control (LabView). Basic user of Linux™ operating systems. Excellent net surfer. Advanced certification for SolidWorks Flow Simulation and SolidWorks Dynamics.

Other skills Breath-holding license and diving license. Sailing license (NO LIMITS WITH ENGINE PROPULSION BOATS OR SAIL BOATS)
 Sports: scuba fishing, skiing, sailing, tennis, soccer.
 Fond of classical ancient cultures (greek and roman). Interested in photography. Fond of 19th-20th century paintings and modern architecture. Wine-tasting sommelier (III level).

Driving licence A, B

ADDITIONAL INFORMATION

Honours and awards 06/2018
Outstanding Service Award - Wind Energy Committee of the ASME Turbo Expo conference
 06/2018
Best paper award - Wind Energy Committee of the ASME Turbo Expo conference for paper: "Comparative analysis of different numerical techniques to analyze the wake of a wind turbine"
 06/2017
Best paper award - Wind Energy Committee of the ASME Turbo Expo conference for paper: "Effects of airfoil's polar data in the stall region on the estimation of Darrieus wind turbines performance"
 06/2016
Best paper award - Wind Energy Committee of the ASME Turbo Expo conference for papers: "An Experimental and Numerical Assessment of Airfoil Polars for Use in Darrieus Wind Turbines. Part 1 - Flow Curvature Effects" and "An Experimental and Numerical Assessment of Airfoil Polars for Use in Darrieus Wind Turbines. Part 2 - Post-Stall Data Extrapolation Methods"
 06/2012
Best paper award - Wind Energy Committee of the ASME Turbo Expo conference for paper: "Energy-Yield-Based Optimization of an H-Darrieus Wind Turbine"

Citations - **ASN 2017 (Abilitazione Scientifica Nazionale), sector 09/C1** for Associate Professor, valid since 23/11/2017
 - Enrolled to the **European List of Researchers of JRC** (2013).
 - **Expert person for SSD ING-IND/08 and ING-IND/09** for the Università degli Studi di Firenze (since 2013).
 - **Honorary Citizen** of Providence (Rhode Island), USA.

Memberships Member (#100134358) of the **American Society of Mechanical Engineers (ASME)**: since 2011
 Member (#5819) of the **Professional Association of Engineers in Firenze**: since 2008
 Member (#780865) of the Italian Sailing Federation (FIV)
Scopus ID: 50560948100
ORCID: 0000-0002-8042-5863

Conferences	<p>09/2017 - present Vanguard Chair of the Wind Energy Committee for the <i>ASME Turbo Expo 2018 conference</i></p> <p>06/2017 - present Vice Chair of the Wind Energy Committee, <i>ASME Turbo Expo conference</i></p> <p>06/2015 - 06/2017 Secretary of the Wind Energy Committee, <i>ASME Turbo Expo conference</i></p> <p>06/2011 - present Session Chair or Co-Chair, into several sessions at the <i>ASME Turbo Expo conference</i></p> <p>06/2011 - present Member of the “Wind Energy” and the “Turbomachinery” Committees, <i>ASME Turbo Expo conference</i></p> <p>2010 - present Reviewer for several international conferences (more than 60 papers reviewed)</p>
Scientific responsibilities	<p>12/2017 - present Member of the <i>EAWC (European Academy of Wind Energy) Strategy Committee</i></p> <p>09/2017 - present Delegate for the Università degli Studi di Firenze within the board of <i>EAWC (European Academy of Wind Energy)</i></p> <p>09/2017 - present Delegate for the Università degli Studi di Firenze within the board of <i>ItAWE (Italian Academy of Wind Energy)</i></p> <p>09/2016 - present Member of the Organizing Committee of the Summer School on Advanced Research in Turbomachinery (ART), Firenze (Italy)</p> <p>A.A. 2018 - 2019 Officer for the Italian PE examination, Università degli Studi di Firenze, sector 09/C1</p> <p>10/2018 Appointed International PhD Examination Member at Technical University of Berlin (Berlin, Germany)</p> <p>12/2015 International PhD Examination Member at Durham University (Durham, UK)</p> <p>2010 - present Reviewer for several international journals and conferences (more than 60 papers reviewed)</p>
Teaching activity within the university	<p>Academic Year 2017-2018 Appointed holder of the course “<i>Advanced Systems for Renewable Energy</i>” (<i>MSc in Energy Engineering</i>)</p> <p>05/2017 Seminar at the PhD course in <i>Industrial Engineering (Department of Industrial Engineering, Università degli Studi di Firenze)</i> entitled: “<i>Aerodinamiche delle turbine eoliche Darrieus</i>” (“<i>Aerodynamics of Darrieus wind turbines</i>”)</p> <p>Academic Year 2016-2017 Holder of the courses of “<i>Engines’ laboratory</i>” and “<i>Operating Machines</i>” (<i>MSc in Mechanical Engineering</i>)</p> <p>01/2008 - now Didactic support to the teaching courses of “<i>Industrial Energy Management</i>”, “<i>Power Plants and Cogeneration</i>”, “<i>Advanced Systems for Renewable Energy</i>”.</p> <p>01/2008 - now Supervisor of more than 30 MSc theses and scientific co-supervisor of 3 PhD theses</p>

Teaching activity outside the university and scientific divulgation

02/07/2018

 Speaker at the **2nd Summer School on Advanced Research in Turbomachinery (ART)**, Firenze (Italy) with a talk titled *"Recent developments in wind turbine technology and research"*

14/06/2018

 Chair and speaker at the **Panel Session on Wind Energy Research** at the *ASME Turbo Expo 2018 conference (Oslo, Norway)*

11/06/2018

 Speaker at the **tutorial Session** at the *ASME Turbo Expo 2018 conference (Oslo, Norway)* titled *"Wind turbine blade design"*

01/2018-03/2018

Teacher for the *Progetto Galileo* project of the Tuscany Region, providing five lessons in high-schools titled *"Le Energie Rinnovabili: falsi miti, problematiche...opportunità!"* (*"Renewable Energy: fallacies, problems..opportunities!"*)

14/10/2017

Training Seminar for the *Engineers Register of Pistoia (Italy)* within the conference *"Discovering Engineering"* titled *"Microeolic wind turbines and the built environment"*

10/07/2017

 Speaker at the **1st Summer School on Advanced Research in Turbomachinery (ART)**, Firenze (Italy) with a talk titled *"Advanced Aerodynamics of Darrieus wind turbines"*

01/2017-03/2017

Teacher for the *Progetto Galileo* project of the Tuscany Region, providing three lessons in high-schools titled *"Il microeolico e l'integrazione con l'ambiente urbano"* (*"Micro-wind energy and its integration with the urban environment"*)

13/06/2016

 Speaker at the **tutorial Session** at the *ASME Turbo Expo 2016 conference (Seoul, S. Korea)* titled *"Wind turbine blade design"*

10/12/2015

Invited Seminar to PhD students at the *Durham University (Durham, UK)* titled: *"Advanced Aerodynamics of Darrieus wind turbines"*

18/10/2014

Training Seminar for the *Engineers Register of Florence (Italy)* titled *"Microeolic wind turbines and the built environment: prospects, problems and technologies"*

09/11/2009

Training Day for *Eli Lilly company (Sesto Fiorentino, Italy)* on *renewable energy sources*

04/2008 - present

Speaker at several national and international conferences (more than 40 talks)

Funded projects (last 5 years)

INTERNATIONAL AND NATIONAL PROJECTS

- LINEA "Realizzazione di un Laboratorio di INnovazione tecnologica in campo Energetico e Ambientale" Ministry of Economic Development (D.M. 27/01/05) (member of the research group)
- Industria 2015 - Progetto MUSS (Mobilità Urbana Sicura e Sostenibile) (member of the research group)
- "Energy recovery in new and retrofitted heat pumps using a dedicated expander concept (EXP-HEAT) - FP 7 - SME – 2013, Grant agreement no: 605923 (member of the research group)

REGIONAL PROJECTS

- POR FESR 2007 – 2013 -REFARCAL: Refrigerazione avanzata con recupero calore (member of the research group)
- POR FESR 2007 – 2013 - SINTER-CLEAN: Sviluppo di un processo innovativo a basso consumo energetico per la sinterizzazione di ceramici tecnici in allumina ad alta densità (member of the research group)
- Bando FAR-FAS 2014 – Bio2Energy: Bioidrogeno e Biometano da codigestione anaerobica di

FORSU, produzione di fonti energetiche e fertilizzanti rinnovabili per l'efficientamento di impianti di pubblica utilità (member of the research group)

Bibliometric indicators [last update 03/07/2018]

NOTE: 15 more published papers (5 journals, 10 conference proceedings) to be published and indexed in the next few weeks

- **Flore (loginMIUR):**
 - Publications: 80 (77 papers; 2 book chapters, 1 patent)
- **SCOPUS:**
 - Publications: 61
 - Citations: 650
 - h-index: 15
- **GOOGLE SCHOLAR:**
 - Publications: 73
 - Citations: 804
 - h-index: 16
 - i10-index: 23

Publications see the list attached to this CV

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