PERSONAL INFORMATION

Simone Bigalli

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Sex Male | Date of birth 26/06/1986 | Nationality Italian

WORK EXPERIENCE

09/2018 – 12/2018

Department of Industrial engineering, Università degli Studi di Firenze

Via di Santa Marta 3, 50139 Firenze (Italia)

▪ Numerical simulations of combustion processes of a 4S engine

EDUCATION AND TRAINING

01/11/2017 - Present

PhD. Student

Department of Industrial Engineering, Università degli Studi di Firenze

Via di Santa Marta 3, 50139 Firenze (Italia)

▪ CFD analysis of Internal Combustion Engines
▪ CFD analysis of spray break-up
▪ CFD analysis of combustion processes
▪ Numerical modelling of Vertical Axis Wind Turbine
▪ Numerical modelling of Horizontal Axis Wind Turbine

03/2014 – 03/10/2017

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

Università degli Studi di Firenze, Firenze (Italia)

Thesis title: "CFD analysis of a high pressure direct injection system for a two-stroke engine"

PERSONAL SKILLS

Mother tongue(s)   Italian

Other language(s)

	UNDERSTANDING		SPEAKING		WRITING
	Listening	Reading	Spoken interaction	Spoken production	
English	B1	B2	B1	B2	B2
French	A1	A1	A1	A1	A1

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

Communication skills   ▪ Team work predisposition
▪ Respect and enhancement of others' ideas

Organisational / managerial skills	▪ Design capability with respect of time constraints ▪ Feasibility assessment of proposed technical solutions

Job-related skills	▪ Numerical simulations of Vertical Axis Wind Turbine and Horizontal Axis Wind Turbine ▪ Numerical simulations of Internal Combustion Engines

Digital skills

SELF-ASSESSMENT				
Information processing	Communication	Content creation	Safety	Problem solving
Indipendent user	Indipendent user	Basic user	Basic user	Basic user

Levels: Basic user - Independent user - Proficient user
Digital competences - Self-assessment grid

Good knowledge of:
▪ Windows environments and Microsoft Office tools (Word, Excel, Power Point, Outlook)
▪ Ansys Workbench, Ansys Fluent and Ansys CFD Post (CFD simulation codes)

Fairly good knowledge of:
▪ SolidWorks (CAD software)
▪ Matlab (Programming code)

Basic knowledge of:
▪ C language (Programming code)
▪ EES (Engineering equation solver)

Other skills	I have played football for 15 years. I played football in LND (Lega Nazionale Dilettanti) from 2003 to 2007, scoring 100 appearances. I love sports and motorsports.

Driving licence	B

ADDITIONAL INFORMATION

Courses	Didactic support to the teaching course of "Internal Combustion Engines" (MSc in Energy Engineering)

Publications	▪ Balduzzi, F., Bigalli, S., Bianchini, A., 2018, "A hybrid BEM-CFD model for effective numerical siting analyses of wind turbines in the urban environment;" Journal of Physics: Conference Series, Volume 1037, pp.072029-072042. ▪ F. Balduzzi, L. Romani, A. Tanganelli, S. Bigalli, G. Ferrara, "On the Effect of the Injector Position on Fuel-Air Mixture Preparation in a Two-Stroke GDI Engine", SAE/JSAE Small Engine Technology Conference, 2018.

Autorizzo il trattamento dei miei dati personali ai sensi del Decreto Legislativo 30 giugno 2003, n. 196 "Codice in materia di protezione dei dati personali".