
Curriculum Vitae **S. Mertens Ph.D M.Sc B.Eng**

<i>Name</i>	Mertens, Sander
<i>Profession</i>	Consultant
<i>Date of birth</i>	21 May 1968
<i>Nationality</i>	Dutch
<i>Place of birth</i>	Haarlem, The Netherlands
<i>Firm</i>	Windchallenge B.V. and Ingreenious B.V.
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<i>Internet</i>	www.windchallenge.com www.ingreenious.com
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<i>Position</i>	Owner and director



Key qualifications

Wind energy, Wind resource calculations, Wind energy in the built environment, Innovative, Integrated design, Sustainable design, Renewable Energy, Fluid Dynamics, Wind Hindrance, Computational Fluid Dynamics (CFD) calculations, (Atmospheric Boundary Layer), Wind Tunnel measurements, Hands-on, Pragmatic.

Education

2006	PhD, Delft University of Technology, The Netherlands. The PhD concerns the aerodynamics of the integration of wind turbines and buildings (see book at www.multi-science.co.uk/wind-energy.htm)
1996	Master of Science in Applied Physics, Delft University of Technology, The Netherlands. MSC in Physics with a master project on the Stochastic qualities of Wind at Delft University wind energy research institute (DUWIND).
1991	Bachelor of Engineering, Haarlem School for Higher Professional Education, The Netherlands. Bachelor of Engineering in Machine Engineering with a master on the wave forces and wind loads at a riser platform.

Other training

2006	European tender course.
2002	Wind-excited and Aero-elastic vibrations of Structures, University of Technology Genova, Italy.
2001	Wind Effects on Structures and on the Built Environment, University of Technology Florence, Italy.
2001	Computational Fluid Dynamics (CFD) calculations, Fluent UK, United Kingdom.
1998	Consulting Skills, Organization Development, The Netherlands.

Employment record

2009-today	Director of Windchallenge; Wind turbine development.
2007-today	Director of Ingreenious; Projects/ studies concerning wind energy, wind resource assessment, integration of wind turbines with buildings, wind nuisance, wind loads.
2005-2007	Senior consultant and manager of the wind-group at International consultancy and Engineering firm DHV, Projects/ studies concerning wind energy, wind driven and natural ventilation, air quality calculations, integration of wind turbines with buildings, wind nuisance, wind loads.
1999-2004	Research Scientist, Delft University of Technology. Research scientist on Wind Energy in the built environment with the goal to write a thesis on Wind Energy in the Built Environment. Project manager and consultant in several commercial projects: design of a vertical axis wind turbine for Turby bv (see www.turby.nl), design of wind driven ventilation for VVKH-Architecten, wind tunnel testing of several commercial wind turbines (Turby, Globuan, Solavent,...).
1998-1999	Research Engineer/ Scientist, Stork Project Engineering (SPE). The research concerned the supersonic drying of Natural Gas. Natural gas for domestic use is normally dried with large plants. The invention of supersonic drying avoids such large plant. The research effort was focused on increasing the efficiency of the drying process.
1997-1998	Consultant, Syntens Innovation Network. Consulting Small and Medium sized Enterprises on Technical- as well as Business problems.

Additional function(s)

1991	Engineer, NAM. Study of the Wind- and Wave loads on a riser platform (platform for large switches close to oil platforms).
1990	Engineer, Corus. Designer of cooling showers for red-hot metal.
1990	Supervisor, Evers Staalconstructies. Near the RAI in Amsterdam, there had to be built two floors on a sending mast. Supervising the construction activities as a designer of the construction was essential to ensure the structure qualities.

Language ability

	<i>speak</i>	<i>write</i>	<i>read</i>
<i>English</i>	good	good	good
<i>German</i>	good	fair	good
<i>Dutch</i>	mother tongue		

Publications

2009	“Urban wind, we just start”, 3 rd CIB International Conference on Smart and Sustainable Built Environments, SASBE 2009
2008	“Evaluation of performance measurements with 11 small wind turbines in Zeeland”, The Netherlands, project team Schoondijke
2008	“Dutch certification standard for small wind turbines”, Dutch subsidy body SenterNovem
2008	“Small wind turbines: some performance drivers explained” Article in Renewable Energy World, March issue

- 2006 “Urban Challenges, new research on integrating wind energy in buildings”
Article in Renewable Energy World.
- 2005 “Wind energy in the built environment”
Book on the aerodynamics of wind turbines in the built environment.
- 2003 “Haal windenergie uit je gebouw”
Article in "Gezond Bouwen en Wonen" to interest architects in integrating wind turbines with buildings.
- 2003 “The energy yield of roof mounted wind turbines”
Paper in the "Journal of Wind Engineering" on the energy yield of various wind turbines sited on sharp edged and flat roofs of buildings.
- 2003 “The performance of an H-Darrieus in the skewed flow on the roof”
Paper in a special issue on Wind Energy in the "Journal of Solar Energy and Engineering" on the performance of an H-Darrieus in the flow at the roof of sharp edged and flat roofed buildings.
- 2002 “Turby”
Design report for Turby (www.turby.nl) published by Delft University of Technology, section Windenergy with wind tunnel tests to verify the design.
- 2002 “wind energy in urban areas”
Article in Refocus on concentrator effects of buildings and integration of wind turbines and buildings.

Other Skills

Instructor in Sailing, diving, skiing, kiting, playing piano, singing
