

# Simon De Stercke

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## Education

**Yale School of Forestry & Environmental Studies**, New Haven, CT

*Master of Environmental Management (MEM), 2012*

**Concentration:** Energy and the environment

**Politecnico di Torino**, Turin, Italy

*European exchange program Erasmus, 2008-2009*

**Master's thesis:** Development of a CNG/HCNG Engine Test Rig and Study of Combustion Parameters

**Ghent University**, Ghent, Belgium

*Bachelor and Master of Electromechanical Engineering, 2007 and 2009*

**Main subject:** Mechanical energy engineering

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## Experience

**International Institute for Applied Systems Analysis** Laxenburg, Austria July 2012 - present  
*Research Assistant in Transitions to New Technologies (TNT) Program*

- Research historical end-use energy conversion efficiency for different sectors
- Construct historical useful energy balances for the world, world regions, and individual countries
- Analyze dynamics of global, regional and national energy systems from this output perspective
- Support colleagues for R programming language
- Provided support for update of Energy and Carbon Emissions Inventory Database
- Active member of Staff Association Committee (Social Committee)

**Professor Arthur Campbell (Yale School of Management)** New Haven, CT Spring 2012  
*Teaching Assistant*

- Assisted students in the class "Energy Markets Strategy"
- Coordinated an electricity market game and handled logistics for the class (grading, tutoring)

**Professor Arnulf Grübler (Yale University / IIASA)** New Haven, CT Fall 2011  
*Teaching Fellow*

- Handled logistics for the class "Energy Systems Analysis"
- Provided support to students of the class: correcting problem sets and exams, teaching in sessions, tutoring

**International Business Machines (IBM)** Brussels, Belgium August 2011  
*Intern*

- Analyzed results of mobility sharing pilot program in view of possible full deployment
- Evaluated MOVES motor emissions simulator for use in IBM's transportation projects

**The Kohala Center** Kamuela, HI June-July 2011  
*Researcher for Energy Sustainability Plan project*

- Analyzed comprehensive energy situation in the County of Hawai'i, present and historical
- Interviewed various stakeholders in Hawai'i's energy system with team

**Permanent Mission of the Maldives to the United Nations Organization** New York, NY Spring 2011  
*Adviser*

- Aided in Mission-related activities
- Followed and reported on Mission and UN meetings and on CSD-19 negotiations

**Professor Alessandro Gomez (Yale School of Engineering and Applied Science)** New Haven, CT Fall 2010  
*Research Assistant*

- Set up equipment to measure emissions from a cook stove designed in-house and performed tests
- Drew up plans for a new design of the cookstove

**Lutgardiscollege** Oudergem, Belgium November 2009 - June 2010  
*Mathematics Teacher*

- Taught basic and advanced math in years 1-4 of Belgian General Secondary Education
- Organized school participation in Flemish Mathematics Olympiad

**Bain & Company Belgium** Brussels, Belgium Summer 2008  
*Associate Consultant Intern*

- Analyzed, advanced and consulted on customer care with team, in telecommunications sector
- Created a customer satisfaction dashboard

**ExxonMobil** Antwerp, Belgium Summer 2007  
*Intern*

- Developed optimization tool for MOGAS blending at Antwerp Refinery
- Initiated creation of tool for automation of LPG tanker traffic planning

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## Relevant Coursework

Energy Systems Analysis, Climate Modeling, Life Cycle Assessment, Policy Modeling, Industrial Ecology, Energy Markets Strategy, Economics of the Environment, Intermediate Macroeconomics, Technological Change, Energy Economics and Management, Nuclear and Thermoelectric Power Plants, Renewable Energy Sources, Electrical Power Systems, Technical Thermodynamics, Heat and Combustion Engineering, Thermal Installations, Automobile Technology, Alternative Propulsion, ICT and Mechatronics

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## Honors And Awards

- Belgian American Educational Foundation Francqui Fellow 2010-2011
- Bachelor and Master H[Q]LQHHULQJ degrees awarded with the Greatest Distinction
- Finalist in Flemish Math Olympiad, Flemish Chemistry Olympiad, Flemish Physics Olympiad (2004)

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## Skills

**Software:** Excellent MS Excel skills (also VBA) and good understanding of MS Word, MS PowerPoint, experience with MS Access and MS Visio.

SimaPro (Life Cycle Assessment). EdGCM Climate Modeling software. \$UF\*,6

Data management and processing: R, Oracle SQL 0DSOH H[SHULHQFH ZLWK 0\$7/\$%

Experience with CAD-program Solidworks, CFD-program Fluent \$VSHQ NI LabVIEW \*\$06

**Languages:** Dutch (native), English, French, Italian, intermediate Spanish, basic German

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## Publications

Cooke, C., **De Stercke, S.**, Seligman, J., Teng, J. and Zhao, Y. Energy Efficiency in Low Income Communities on Hawai'i Island. Yale School of Forestry and Environmental Studies Center for Industrial Ecology, 2011. Published by The Kohala Center.

Contributed to:

Cooke, C., Parsons, D. County of Hawai'i Energy Sustainability Program: Five Year Roadmap. Prepared for the County of Hawai'i Department of Research & Development, 2012. Published by The Kohala Center.

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## Miscellaneous

- Actively involved in IIASA 40<sup>th</sup> Anniversary Conference (October 2012)
- Set up and operate *Esca!* initiative ("Expand your Social Circle at IIASA") at IIASA
- During MEM Program, member of Forestry Club which organizes social events at the school
- MIT Energy Conference 2012 Organizer for Registration
- Consulting project on ISO-50001 implementation for Curtis Packaging (Sandy Hook, CT)
- Free time: running, bicycling, learning, dancing, music, CouchSurfing.org, traveling, hanging out, staying in touch