Name Inger Andresen

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**Date of birth** 09.05.1965 **Nationality** Norwegian

**Languages** Norwegian, English, and some French



## **Summary of qualifications**

25 years experience within the fields of energy efficient buildings, indoor environment, and environmental assessment of buildings. Experience include research and development, education, design and consulting.

Professional history	
2015 –	Full time professor in Integrated Energy Desgin, Department of Architecture, History and Technology, Norwegian University of Science and Technology
2014 - 2015	Chief Researcher, SINTEF Building and Infrastructure
2011 - 2013	Head of Environment, LINK arkitektur AS
2007 – 2015	Professor II (20%) in Energy and Environment, Department of Architecture, History and Technology, Norwegian University of Science and Technology
2009 - 2010	Senior Advisor Energy and Environment, Skanska Norway AS
1991 – 2010	Researcher/Senior Researcher, SINTEF Building and Infrastructure, Energy and Environment

Education	
1997 - 2000	Ph.D. in Integrated Energy Design, Department of Architecture, History and
	Technology, Norwegian University of Science and Technology, Trondheim, Norway
1990 – 1991	Master of Science, Building Energy Systems, University of Colorado, USA
1984 – 1988	Master of Science (Sivilingeniør), Department of Civil Engineering, Norwegian Technical University, Trondheim, Norway

Accrediation	ns and special assignments 2007-1014
2012	BREEAM Accredited Professional, Norwegian Green Building Council
2012 -	Member of the technical advisory committe for Norwegian Green Building Council.
2012	Leader of the scientific committe for PassivhusNorden'12, Trondheim, Norway.
2012 -	Member of British Research Establishment Standing Panel of Experts
2011	Leader of the working group dedicated to adapt the criteria within BREEAM Energy and Health/Wellbeing, assigned by the Norwegian Green Building Council.
2010, 2012	Member of scientific committee for Sustainable Building Conferences, Helsinki and Oulu
2009	Accredited Professional LEED: Leadership in Energy and Environmental Design, US Green Building Council.
2007 –	Referee for the international journals Building and Environment, Applied Energy, Energy and Buildings, Elsevier and MDPI.

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PhD Supervision 2007-2014	
2014 -	Main supervisor for PhD fellow Torhildur Kristiansdottir on the thesis "Life cycle analysis of zero emission buildings: Methodology, pilot and concept buildings"
2012 -	Co-supervisor to PhD fellow Klara Good on the thesis "PV-Thermal solar systems for building integration"
2011 -	Co-supervisor to PhD fellow Andreas Eggertsen Teder on the thesis "Typologies in Environmentally Adapted Zero Emission Office Buildings"
2011 -	Co-superviorr to PhD fellow Julien Boureille on the thesis "Calculation methodology for Zero Emission Buildings"
2009 - 2013	Co-supervisor to PhD fellow Klaudia Farkas on the thesis "Architectural Integration of Photovoltaics", Department of Architecture, History and Technology, Norwegian University of Science and Technology, Trondheim, Norway

PhD Adju	dication
2015	Torill Meistad: "Sustainable building – From role model projects to industrial transformation", Department of Civil and Transport Engineering, Norwegian University of Science and Technology, Trondheim, Norway.
2015	Andrea Mortensen: "Energy Reonvation of Danish Single-Family Houses. An investigation of barriers and motivation factors", Department of Civil Engineering, Group of Architectural Engineering, Aaalborg University, Denmark.
2015	Jouri Kanters: "Planning for Solar Buildings in Urban Environments. An analysis of the design process, methods and tools", Lund University, Sweden.
2015	Steinar Grynning: "Transparent facades in low energy office buildings – Numerical simulations and experimental studies", Department of Architecture, History and Technology, Norwegian University of Science and Technology, Trondheim, Norway.
2014	Nicolas Galiotto: "The Integrated Renovation Process. A Holistic Methodology Towards Nearly Zero Energy Buildings." Department of Civil Engineering, Group Architectural Engineering, Aaalborg University, Denmark.
2014	Gitte Gylling H. Olesen: "A model for enquiry of sustainable homes", Department Architecture, Design and Media Technology, Aaalborg University, Denmark.
2013	Birgit Risholt: "Zero energy renovation of single family houses", Department of Architecture, History and Technology, Norwegian University of Science and Technology, Trondheim, Norway.
2013	Francesco Goia, "Dynamic Building Envelope Components and Nearly Zero Energ Buildings", Department of Architecture, History and Technology, Norwegian University of Science and Technology, Trondheim, Norway.
2012	Riikka Holopainen: "A human thermal model for improved thermal comfort", Aalt University, Helsinki, Finland.
2011	Camilla Brunsgaard: "Understanding of Danish Passive Houses based on Pilot Project Comfort Houses", Department of Architecture, Design and Media Technology, Aaalborg University, Denmark.
2008	Igor Sartori: "Modelling energy demand in the Norwegian building stock", Department of Architecture, History and Technology, Norwegian University of Science and Technology, Trondheim, Norway

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Hanne Tine Ring Hansen: "Senitivity Analysis as a Methodical Approach to the

Development of Design Strategies of Environmentally Sustainable Buildings",

Aaalborg University, Denmark.

2005 Annemie Wyckmans: "Intelligent Building Envelopes", Department of Architecture,

History and Technology, Norwegian University of Science and Technology,

Trondheim, Norway

2003 Sigrid Melby Strand: "The MaSe decision support system. Development of an

integrated information system for the selection of environmentally preferable

materials and products in the building process", Faculty of Engineering Science and

Technology, Norwegian University of Science and Technology.

#### **R&D** projects, selected

Project ZEB – Zero Emission Buildings

Client Norwegian Research Council and several industry parnters.

Budget ca. 300 mill NOK

Project period 2009-2016

Function in project Leader of Task 5: Pilot buildings.

Project Smartbygg – Smart Energy Efficient Builings

Client Norwegian Research Council and several Industry partners

Budget ca. 35 mill NOK Project period 2002-2007

Function in project Project Coordinator and leader of WP on BIPV

Project Nordic Analysis of Climate Friendly Buildings
Client Nordic Council of Ministers, Nordic Innovation

Duration 2010

Function in project Project leader

**Project** Environmentally Responsive Elements in Buildings

Client International Energy Agency - Energy Conservation in Buildings

Program and the Norwegian Research Council

Duration 2005-2008

Function in project Leader of subtask B: Integrated concepts

### Publications: peer-reviewed papers and books, selected 2007-2015

Andresen, I. and A.G. Hestnes (2007): "**Multi-criteria decision-making (MCDM) methods**", in Sustainable Solar Housing. Strategies and Solutions, edited by R. Hastings and M. Wall, page 63-70, ISBN 978-184407-325-2, EarthScan, London.

Andresen, I., T. Kleiven, M. Ryghaug og B. Malvik (red 2007): "**Smarte, energieffektive bygninger**", ISBN 878-82-519-2237-1. Tapir Academic Publishing, Trondheim, Trondheim.

Kleiven, T. og I. Andresen: "Smarte fasader" (2007), in Andresen, I., T. Kleiven, M. Ryghaug og B. Malvik (red) *Smarte, energieffektive bygninger*, side 81-91, ISBN 878-82-519-2237-1. Tapir Academic Publishing, Trondheim, Norway.

Hestnes, A.G. og I. Andresen: "Smart prosjektering" (2007), i Andresen, I., T. Kleiven, M. Ryghaug og B. Malvik (red) *Smarte, energieffektive bygninger*, side 28-43, ISBN 878-82-519-2237-1. Tapir Academic Publishing, Trondheim, Norway.

Andresen, I., Dokka T.H., Lexow T.E. (2008), "New Norwegian Standard for Certification of Low Energy and Passive Houses", Paper at the 1<sup>st</sup> Nordic Conference on Passive houses, April 2-3 2008, Trondheim, Norway.

Andresen, I., K. Ellehauge, B. Karlsson, J. Nieminen (2008): "Solar heating systems for passive houses in the Nordic countries", Paper at the 1<sup>st</sup> Nordic Conference on Passive houses, April 2-3 2008, Trondheim, Norway.

Haase, M. and I. Andresen (2008): "**Key issues in energy-efficient building envelopes of Norwegian office buildings**", *Proceedings of the 8<sup>th</sup> Symposium on Building Physics in the Nordic Countries*, (C. Rode ed.) Report R-189, Dept. of Civil Engineering, Technical University of Denmark, Kgs. Lyngby: 49-56

Haase, M., I. Andresen, B. Time, and A.G. Hestnes (2008): "Energy-efficient buildings in Norway – from low energy standards to net zero energy buildings",  $I^{st}$  International Conference on Solar Heating, Cooling and Buildings (EuroSun), Lisboa 7 – 10 October 2008.

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- Haase, M., I. Andresen, B. Time, and A.G Hestnes (2008): "State-of-the-art Sustainable energy efficient building envelopes in Norwegian Office Buildings", World Sustainable Building Conference 2008, Melbourne 21 22 September.
- Haase, M., I. Andresen, T. Kvande, B. Time, and A.G. Hestnes (2008): "Energy efficient office buildings in Norway a survey of climate, energy concept and energy performance", 7<sup>th</sup> European Conference Solar Energy in Architecture and Urban Planning, March 11<sup>th</sup>-14<sup>th</sup>, Berlin, Germany.
- Haase M., I. Andresen, B. Time, and A.G. Hestnes (2008): "Sensitivity analysis in the design of climate adapted building envelopes in Norway". ANZAScA'08 Innovation, Inspiration and Instruction: New knowledge in the Architectural Sciences. (135-142). Newcastle, Australia.
- Haase, M. and I. Andresen (2009): "**The Role of Passive Cooling Strategies for Norway**", *International Journal of Climate Change: Impacts and Responses*, Volume 1 (2), pp. 63-74, CGPublisher, Australia, ISSN 1835-7156.
- Haase, M., Andresen, I., and Dokka, TH. (2009), "The role of advanced integrated facades in the design of sustainable buildings", *Journal of Green Building*, Volume 3 (2), 2009, College Publishing, USA, ISSN 1552-6100.
- Haase, M., Andresen, I., Time, B., and Hestnes, A.G (2009): "The role of air tightness and heat recovery in the ventilation system of energy-efficient office buildings in Norway", Proceedings of BuildAir / AIVC conference, Berlin, Germany.
- Haase, M., Andresen, I., and Wigenstad, T. (2009): "Energy-efficient building refurbishment in Norway", Proceedings of CISBAT conference (CISBAT), Lausanne, Switzerland.
- Haase, M., Andresen, I., Time, B., and Hestnes, A.G. (2009): "Design and future of energy-efficient office buildings in Norway", Proceedings of Building Simulation conference (BS2009), Strathclyde, U.K.
- Haase, M., Andresen, I., and Dokka, T.H. (2009): "Guidelines for sustainable building envelopes", Proceedings of International conference on sustainable development, Utrecht, The Netherlands.
- Andresen, I., K. Farkas, A.G. Hestnes (2009): "Architectural integration of photovoltaic cells: Overview of materials and products from and architectural point of view", Proceedings of the 3rd CIB International Conference on Smart and Sustainable Built Environment, September 2009, Delft, The Netherlands.
- Haase, M. and Andresen, I. (2009): "Energy efficient building envelopes an optimization strategy for sustainable development", Proceedings of International conference on sustainable development, Utrecht, The Netherlands.
- Haase, M. and Andresen, I. (2009): "Climate change an opportunity for sustainable development in Norway", Proceedings of International conference on sustainable development, Utrecht, The Netherlands.
- Haase, M. and Andresen, I. (2009): "Impact of climate on energy-efficiency of buildings in Norway", Proceedings of the International conference on Smart and Sustainable Built Environments (SASBE2009), Delft, The Netherlands.
- Haase, M., Andresen, I., Time, B., and Hestnes, A.G. (2009): "Low energy standards in high latitudes energy-efficient office buildings in Norway", Proceedings of Cold Climate HVAC 2009 conference, Sisimut, Greenland.
- Haase, M., I. Andresen, B. Time and A.G. Hestnes (2010): "Building for climate change meeting the design challenges of the 21st century". *Nordic Journal of Architectural Research*, Volume 22, No 1/2, 2010, 11 pages.
- Haase, M., Andresen, I., Gustavsen, A. and Hestnes, A.G. (2010): "**ZEB concepts in office buildings in Norway**", Proceedings of Sustainable Building conference (SB10) Western Europe, Maastricht, Netherlands.
- Haase, M., Andresen, I., Wigenstad, T. and Hestnes, A.G. (2010): "Cost effective energetic refurbishment of office buildings in Norway", Proceedings of Eurosun 2010 conference, Graz, Austria, ISBN 978-3-901425-13-4.
- Haase, M., Andresen, I., Time, B. and Hestnes, A.G. (2010): "**Development of future weather data set based on SRES scenario**", Proceedings of Sustainable Building conference (SB10) Northern Europe, Dipoli, Espoo, Finland, pp 555 562, ISBN 978-951-758-506-4, ISSN 0356-9403.
- Haase, M., Andresen, I., Time, B., and Hestnes, A.G. (2010): "Sensitivity analysis as a sustainable building design help", *Procedia Social and Behavioral Sciences*, 2010. 2(6): p. 7672-7673.
- Sartori, I., T.H. Dokka and I. Andresen (2011): "**Proposal of a Norwegian ZEB Definition: Assessing the implications of design**". *Journal of Green Building*, College Publishing, Summer 2011, Volume 6, No. 3, pp. 133-150.
- Andresen, I., K.E. Thomsen, and Å. Wahlström (2011): "Nordic Market for Climate Friendly Buildings Status, Barriers and Opportunities", Proceedings of the ECEEE 2011 Summer Study: *Energy efficiency first: The foundation of a low-carbon society*, Presqu'île de Giens, France, ISBN: 978-91-633-4455-8.
- Haase, M., Andresen, I., Dokka, TH, and Gustavsen, A (2011): "Zero Emission Building concepts in office buildings in Norway", *International Journal of Sustainable Building Technology and Urban Development, SUSB Vol.2, No.2 (June 30, 2011)*, South Korea, ISSN 2093-7628 (Online), ISSN 2093-761X (Print).
- Haase, M., Buvik, K., Dokka, T. H. and Andresen, I. (2011): "Design guidelines for energy efficient concepts in office buildings in Norway", *Design Principles and Practices: An International Journal*, Volume 5, Issue 4, pp.667-694, CGPublisher, Australia.
- Haase, M., Andresen, I., Time, B. and Hestnes, A.G. (2011): "The development of future weather data files for Norway", *The International Journal of Climate Change: Impacts and Responses*, volume 2, number 3, pp. 1-24, CGPublisher, Australia, ISSN 1835-7156.
- Haase, M., Andresen, I., Time, B., and Hestnes, A.G. (2011): "Building for climate change meeting the design challenges of the 21st century", Nordic Journal of Architectural Research, 22, 1/2, 21-31.
- Andresen I. et al. (2012): "Design of a Zero Energy Building at Haakonsvern, Bergen", Proceedings of the PassivhusNorden 2012 conference, 21-23 October, Trondheim, Tapir Academic Publishing.

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Bourelle, J.S., I. Andresen, A. Gustavsen (2013): "Energy payback: An attributional and environmentally focused approach to energy balance in net zero energy buildings", *Energy and Buildings*, volume 65.

Fredriksen E, og I. Andresen (2014). "**Mot karbonnøytrale boligområder. Utforming av bygninger og energiforsyning – erfaringer fra pilotprosjekter i Norge**", ZEB Project Report 18-2104, SINTEF Akademisk forlag, ISBN: 978-82-536-1409-0.

Gullbrekken, L., A. Svensson, T. Kleiven og I. Andresen (2015). "**Performance Evaluation of Passive Houses – Field Measurements, Data Analysis, and occupant Interviews in 6 Norwegian dwellings**", Proceedings of the 7<sup>th</sup> PassivhusNorden Conference, Copenhagen, August 20-21, ISBN: 9788778774231, BYG Rapport R-334.

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