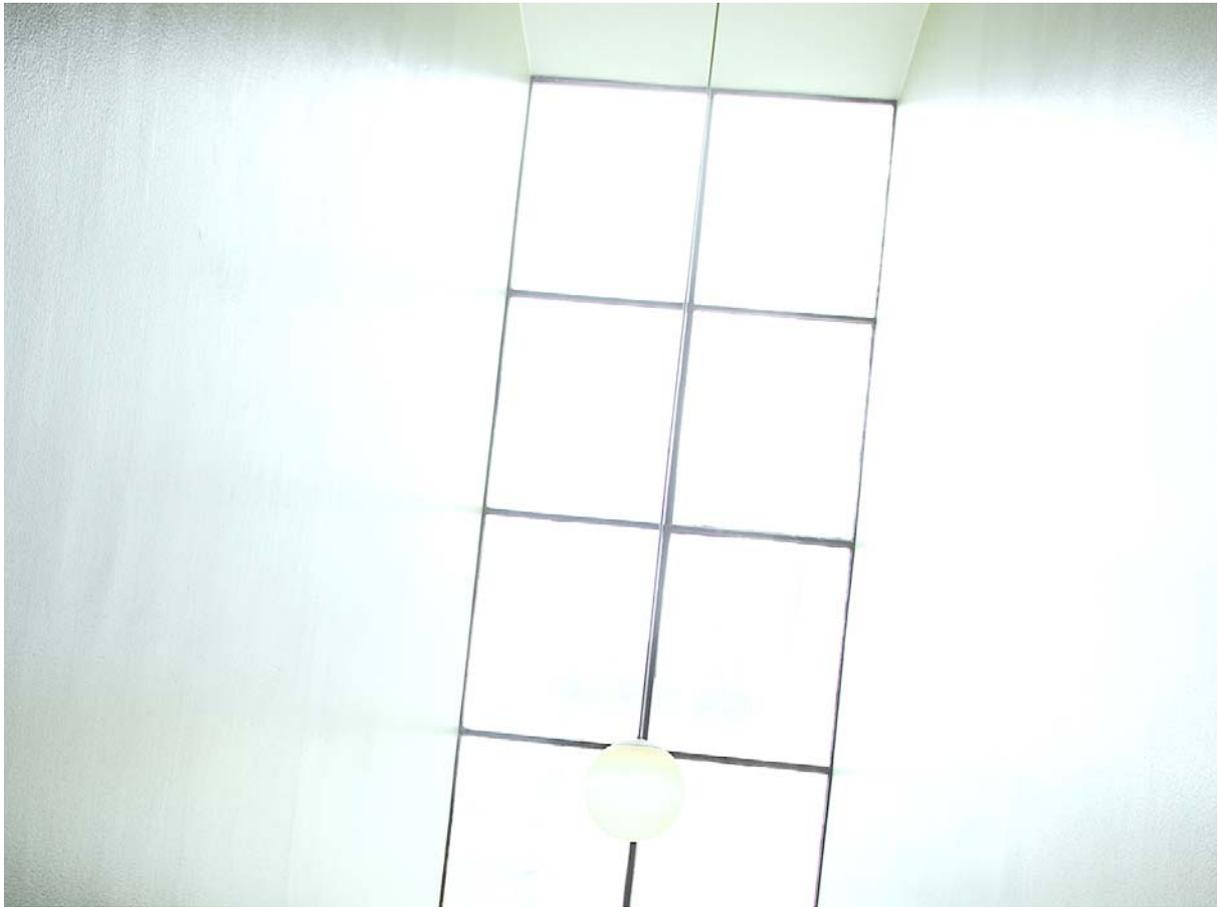




KTH-Sustainability Research Day 2012

Research for the environment, and a
sustainable brighter tomorrow

Thursday 11 October, 13:00 to 19:00
Nymble, Drottning Kristinas väg 15



Program

13:15 **Welcome and introduction to sustainability at KTH**

Science and art for the environment and a sustainable brighter tomorrow - *what does it mean?*

An introduction of the research at KTH and who is doing what

Göran Finnveden, Professor, Vice-President for Sustainable Development

Teresia Sandberg, Project co-ordinator, KTH-Sustainability/Sustainable Campus

Birgitta Westin, Environmental Manager, Sustainable Campus

13:40 **Which are the challenges and opportunities in reaching a sustainable society of tomorrow?**

The role of policy making and co-operation

Stefan Löfven, Leader of the Swedish Social Democratic Party, former board member of KTH

Questions from the participants

Presentations of the research at KTH

Fredrik Gröndahl, Associate Professor, Industrial Ecology

Åsa Moberg, Head of Division of Environmental strategies Research (FMS)

Åsa Svenfelt, Head of Division of Environmental strategies Research (FMS)

Mattias Höjer, Centre for Sustainable Communications (CESC)

Stefan Östlund Dean of School of Electrical Engineering

14:30 **How can we ensure that research of highest scientific quality, will also contribute to a sustainable development?**

How important is sustainability and what kind of research strategies will come?

Anna Ledin, Secretary General, Formas

Music

Bort allt vad oro gör, Fjärlil vingad syns på Haga, of Carl Michael Bellman

Kongl. Teknologkören

Discussion at the tables

Presentations of the research at KTH

Gen Larsson, Professor, Head of Division of Bioprocess Technology

Torkel Berglund, associate professor, Biochemistry

Björn Palm, Professor, Head of Division Energy Technology

Semida Silveira, Professor, Head of Division of Energy and Climate Studies

Mikael Nybacka, Assistant Professor, Deputy Director and Communication Manager, KTH Transport Platform

15:15 Coffee break

15:40 When is the research worth spreading?

Innovation and needs-driven research

Jonas Brändström, Chief Strategy Officer, Eco-Innovation, Vinnova

Discussion at the tables

Presentations of the research at KTH

Sara Ilstedt, Professor product and service design, Green Leap

Teo Enlund, Industrial Designer, Green Leap

Anders Wörman, Professor, Division of Water Resources Engineering

Staffan Laestadius, Professor of Industrial Dynamics, head of section for Industrial Dynamics

Mats Johansson, Professor, Head of Division, Fibre and Polymer Technology

16:25 What challenges can we address?

Presentations of the research at KTH

Karin Edwardsson Björnberg, PhD, Division of Philosophy

Conrad Luttröpp, Professor, Machine Design

Hans Lind, Professor, Vice Head of Division of building and real estate economics;

Per Ahlfors, Professor, Head of Division, Energy Processes

Prosun Bhattacharya, Professor, KTH-International Groundwater Arsenic Research Group

KTH-Sustainability Doctorate Platform

Björn Frostell, Associate Professor, Industrial Ecology

Josefin Wangel, PhD, Division of Environmental Strategies Research, Centre for Sustainable Communications

Emma Strömberg, Ph.D, CHE/Polymeric materials

Summary of the day with Furhat

Joakim Gustafsson, Associate Professor, Department of speech music and hearing

17:00 Mingle and food

Food is served and the student bar opens for mingle with students and the participants.

19:00 End of the day

Keynote speakers



Stefan Löfven
Leader
Swedish Social
Democratic Party



Anna Ledin
Secretary General
Formas



Jonas Brändström
Chief Strategy Officer
Eco-Innovation, Vinnova

Presentations of the research at KTH



Fredrik Gröndahl



Åsa Moberg



Åsa Svenfelt



Mattias Höjer



Stefan Östlund



Gen Larsson



Torkel Berglund



Björn Palm



Semida Silveira



Mikael Nybacka



Sara Ilstedt



Teo Enlund



Anders Wörman



Staffan Laestadius



Mats Johansson



Karin Edvardsson
Björnberg



Conrad Luttrupp



Hans Lind



Per Alvfors



Prosun Bhattacharya

Research for Environment and Sustainable Development at KTH

Active participation in the development towards a sustainable society is part of KTH's responsibility.

This includes contributing to the shift towards sustainable technical and social systems that meet our needs, such as our needs for food and drink, warmth, housing, transportation, communication and relaxation. With around 50 research teams working within the field of the environment and sustainable development, KTH's operations act as a driving force within this shift by improving, develop-

ing, analysing and evaluating society's and industry's resources.

Research groups and centres

Around 50 research groups at KTH feature the environment and sustainable development as either the central aspect of their operations or a key component of the research carried out within their specific field. In addition to this, KTH is involved – sometimes as a driving force – in around a dozen centres linked to the environment and sustainable development. Here, research is carried out primarily within new areas, often in partnership with society and industry.

Read more about KTH-Sustainability
on page 18

Participants list

Saeed Abbasi

Ph.D student, ITM

Saeed Abbasi started his Ph.D studies in May 2009 in the field of airborne particles from rail transport. There are many different components in the rail transport that are subject to wear. Wear processes generate particles which may become airborne in the ambient air. The main objective of the ongoing research is to find means to reduce the total amount of airborne particles, in particular the sub-micron sized.

Tigist Fetene Adane

Ph.D student, ITM/ Production Engineering

I am a Ph.D student, in the department of Production Engineering and management /ITM since march 2012. My The research area that I am working on is "Resource conservative for sustainable manufacturing – in the perspective of economic and environmental aspect and product recovery".

Mohammad Ahmadi Achachlouei

Ph.D student, School of ABE,

Division for Environmental Strategies Research

Ph.D candidate in Planning and Decision Analysis, specialization in Environmental Strategic Analysis. Research interest: Environmental assessment of information and communication technology (ICT) and media solutions from a life cycle perspective. Current research projects: (1) Life cycle assessment of a magazine, both print and tablet editions, (2) Environmental assessment (energy use, carbon footprint, etc.) of electronic distribution of media over internet and mobile networks: a literature review

Per Alvfors

Professor, CHE, Energy Processes

My main research interest is within the area of renewable fuels from a system perspective, relating to potential issues for raw materials, process integration of the production phase and the end user related questions concerning how, where and when to use a specific product in the transportation systems as effectively as possible. This research is partly conducted together with doctoral students within the national research school, the Energy Systems Programme. I am the coordinator for the School of Chemical Science and Engineering, in the KTH Energy Platform and a board member of "E3", the Swedish Knowledge Centre for Renewable Fuels.

Christine Ambell

Project Administrator, MSc, KTH-Sustainability

Any questions about this event? Please, ask me.

Saman Amir

Student, KTH Infra and Karolinska Institute

I have a keen interest in sustainability issues ranging from sustainable transportation to sustainable businesses. Currently I'm planning to integrate my knowledge of sustainability into healthcare. I have a masters degree from KTH in Spatial Planning and Sustainable Infrastructure.

Zereay Aragaw

Student, Architecture and built environment/Environmental Engineering and Sustainable Infrastructure (EESI)

Yevgeniya Arushanyan

Research Engineer, ABE school, div. of Environmental strategies research - fms

Working with various Life Cycle assessment projects within div. of Environmental strategies research and Center for Sustainable Communications (CESC). Worked in the following projects: Environmental assessment of waste policy instruments in Sweden (within the program Towards Sustainable Waste Management <http://www.hallbaravfallshantering.se/>), Environmental assessment of print and online newspapers (Alma Media, <http://cesc.kth.se/research/environmental-performance-of-alma-media-products/>), Local Television Content Production: Editorial Process Structure and Climate Impacts – a Case Study.

Farazee Asif

Ph.D student, ITM, IIP

Kristina AtKisson

Manager of environment and sustainable development, Karolinska Institutet

Anna Aullon

ABE-LWR

Bekir Hasan Bekir

Chemical science and Engineering

Mats Berg

Professor, Engineering Sciences

Prof. in Railway Technology (2003-). Member of the board of KTH Railway Group (2004-). Since 2012 head of Division of Road and Rail Vehicles (Dep. of Aeronautical and Vehicle Engineering). Work on e.g. energy consumption and related emissions (CO2 etc) from rail traffic, both passenger and freight traffic.

Katharina Berndt

School of Architecture and the Built Environment (ABE) Arkitektur

Kevin Billinghamurst

Senior Editor, KIR

I am responsible for news production at kth.se/en. Recent articles with sustainability focus are e.g. "Study Calls on China to Modernise Cooking Fuels", "Research Maps Policy, Technology Path for Bolivian Biogas", "Save the City, Save the Planet", and "Renewable Energy Research to Focus on Africa". Will attend this event to find new story ideas.

Ashis Biswas

Ph.D Student, ABE School, Department of Land and Water Resources Engineering

M.Sc in Analytical Chemistry, University of Kalyani, West Bengal, India. Project title: Potentiality of brown sand aquifers as safe drinking water source in arsenic affected region of West Bengal, India. This Ph.D project attempts to assess the potentiality of brown sand aquifers as safe drinking water source within shallow depth. The specific objectives are identification and hydrogeochemical characterization of brown sand aquifers as well as delineation of its regional distribution and long term sustainability to provide safe drinking water in arsenic affected region of West Bengal, India.

Marcus Bjelkemyr

Ph.D, ITM/IIP & MDH/PR

I'm currently leading a MISTRA funded project on industrial waste management, where the purpose is to assess the delimiting factors for making improvements. In the project we will address the current state, future scenarios, patterns, and environmental assessment, all done in close collaboration with eight Swedish machining and waste managing companies. I also have an interest in closed-loop systems (e.g. remanufacturing) and have previously worked with complex engineering systems.

Anna Björklund

Associate Professor, ABE, Environmental Strategies Research - fms

Life cycle assessment (LCA) of waste management, energy, transportation infrastructure. Integration of LCA in strategic planning.

Johan Blaus

Business Coordinator, KTH Business Liaison

Bajibabu Bollepalli

Ph.D Student, Computer Science for Communication/ TMH

I am a Ph.D student in TMH. My work is mainly concerned about the speech signal processing. Currently, I am working in Text-to-Speech (TTS) project.

Magnus Bonde

Research Engineer, School of Architecture and the Built Environment (ABE)

Miriam Börjesson Rivera

Research Engineer, fms + CESC - Center for Sustainable Communication

Carlos Cano Viktorsson

Ph.D student, Div history of tech, sci & environment

I have a background in social and cultural anthropology with a focus on computer and systems studies where my main interests have been in looking at the use of communication technologies from an anthropological perspective. In my current Ph.D research work I look at both recent and historical examples of how institutional drivers and barriers may affect any

present attempts at fomenting a more environmentally and resourcefully friendly city development in Stockholm through the use of information and communication technologies.

Guihong Cao(Annie)

Ph.D Student

Yanbin Chen

Student, Sustainable Technology

Yuwa Chompoobutrgool

Ph.D student, Electric Power Systems

S Anders Christensson

Ph.D Student, FHS/MVI/LVA & CSC

I conduct research in command and control system or C2-Systems (in Swedish Ledningssystem) at the Swedish National Defence College. Since its a difference between leadership and C2-system at any organisational level both are needed to be able to command and control. I focus on the C2-system in general but the how to represent specifically. Command and control's purpose is to make differences in any external system. Environment, Quality of life, social, economical, infrastructure, governmental or political systems are al complex systems. The purpose to make differences in these complex systems is therefore of great interest to study. Sustainability, resilience are two words aimed to figure out systems arcetypes to command and control towards purposeful differences.

Jose Lorena Guimaraes Da Silva

Student

Erik Danfors

Docent, Mark- och vattenteknik, KTH

Retired researcher and lecturer of Dept of Land and Water Resources KTH and involved in environmental problems especially dealing with water balance. I am keen to follow the meeting if it is possible

Ipsit Dash

Student, KTH, SEEK

Renaud De Montaignac

Student

Piergiuseppe Di Marco

Ph.D Student, EES

I received the M.Sc. degree in telecommunications engineering from the University of L'Aquila, Italy, in 2008. I am currently working towards the Ph.D. degree in telecommunications at the Automatic Control Laboratory, School of Electrical Engineering at KTH, Stockholm. My research interests include modeling, design, and optimization for wireless sensor networks.

Jinfeng Du

Ph.D student, EE/Communication Theory

Jinfeng received his B.Eng from USTC in 2004, M.Sc. and Tekn. Lic. from KTH in 2006 and 2008, respectively. He is currently a Ph.D student in Telecommunications in Communication Theory Lab at EE school. Jinfeng's research activity includes multi-carrier communication system design and implementation, modulation design and optimization, network information theory, and cooperative communication. His research activities target at managing interference in wireless communication systems, and the results will help to improve the spectrum and energy efficiency in the future wireless communication systems.

Lele Duan

Ph.D, Chemistry

My research project is visible light-driven water splitting (water + light \rightarrow hydrogen + oxygen). Water is converted to molecular hydrogen and oxygen with solar energy as the driving force. The burning of hydrogen releases energy and produces water as the only product. This will provide us a green and sustainable way to get energy without production of waste. Currently, I am developing catalysts that enhance the water splitting process.

Veronica Dunér

Student, KTH, SEEK

Hannes Ebner

Ph.D Student, MID/CSC/KTH

The focus of Hannes' research lies on modern Web architectures and Linked Open Data to support sustainability and technology enhanced learning. He is one of the organisers behind "Green Hackathon", a series of events where creative minds get together to create and implement new ideas for a more sustainable future.

Karin Edvardsson Björnberg

Ph.D/Assistant Professor, ABE, Division of Philosophy

Assistant Professor of Environmental Philosophy in the Department of Philosophy and History of Technology. I received my Ph.D in 2008. In my thesis "Rational Goal-Setting in Environmental Policy: Foundations and Applications" I present a model for rational goal-setting and illustrate how it can be applied in evaluations of public policies concerning sustainable development and environmental quality. I am generally interested in finding out how environmental policies, and in particular climate policies, can be made efficient, just and legitimate. In the last 5 years, I have been involved in a number of research programmes focusing on the environment, such as Climatoools and Mistra Biotech. In 2010-2012, I was a Marie Curie Fellow at the London School of Economics and Political Science (LSE).

Elisabeth Ekener Petersen

Ph.D student, ABE/fms

I have a background as an environmental consultant widening the scope to sustainability. I took part of the process of negotiating ISO 26000 Social responsibility on an international level. Since 2010 I've done research on Social LCA and published two papers on the subject this spring. Also involved in a Future Cities campaign, nominated as Though Leader for Social Sustainability, in my consultant role (which I preserved). Planning to do further research on Social LCA, likely to receive funding for that shortly.

Emelie Elmertoft

Student, KTH, SEEK

Teo Enlund

KTH, Green Leap

Mine Ercan

Student, KTH

Elina Eriksson

Ph.D-student, MID/CSC/KTH

Been doing research on development of technology and work environment at public authorities. Focus on practice and change.

Inga-Maj Eriksson

Adjunct Professor, ABE, Urban and Regional Studies

Briefly my work concerns the integration of transport issues into urban and regional planning.

I am an adjunct Professor from the Swedish Transport Administration, working 20% at division of Urban and Regional Studies, dep of Urban Planning and Environment, KTH. My broad research theme is the integration of transport issues into Urban and Regional Planning. One of my efforts is to encourage more cooperation between the department of Transport Science and dep of Urban Planning and Environment.

Ingrid Eriksson Berg

Procurement officer, Universitetsförvaltningen

Kristin Fahlberg

Ph.D Student, ITM Industrial Ecology

I am researching how local municipalities response on climate mitigation, how they build up the climate strategies. Mainly I focus on their target setting and system delimitations, scope of authority of GHG emissions, the municipalities toolkit to act on climate mitigation. My research has also included local energy and GHG scenario development.

Mana Farrokhsereht

student in energy engineering, KTH

Nakisa Farrokhsereht

student, KTH

Göran Finnveden

Professor, Vice-President for sustainable development, KTH

Julie Floch-Brenaud

Student

Anders Flodström

Professor, ITM

Once upon a time, a internationally recognized researcher (H index close to 50) within catalysis for environmental applications and within materials for solar cell application. Rector at LiU, KTH and Swedish University chancellor.

Board, executive board, vice chair and chair of EIT (European Institute of Innovation and Technology). responsible for EIT SIA for Horizon 2020. Responsible for EIT development of higher education within Climate mitigation and adaptation, Sustainable energy and Future ICT. Chair of ESBRI, .se and PIEp.

Andrea Fornara

Ph.D, ICT-FNM & YKI-Ytekemiska Institutet

Joel Franklin

Associate Professor, ABE/Transport & Location Analysis

Dr. Franklin is Associate Professor at the Division for Transport and Location Analysis at KTH. He is also Director of Studies for the Department of Transport Science, as well as Programme Director for the Master of Science in Transport and Geoinformation Technology. Dr. Franklin's research interests include transport and land use interactions, congestion pricing, transport equity, and transport system reliability. Among other things, Dr. Franklin is currently coordinating a multi-national research project examining acceptability and cooperation aspects of road pricing in multiple European settings.

Johan Franzén

Researcher, Chemistry/Organic Chemistry

The key concepts in our research is an ambition to develop new and more efficient catalysts for chemical transformations as well as the development of novel synthetic strategies to complex organic materials with high efficiency, atom economy and precise control of stereochemistry.

Hugo Gaillard

Student

Vincent Gliniewicz

Student, KTH, SEEK

Maria Fernanda Gómez Galindo

Lic., EGI/ECS

María F. Gómez has 15 years professional experience related to the energy and environment fields in the private and public sectors. This experience includes developing lectures in energy engineering, planning and development of different industrial projects, and evaluating environmental projects to be intended for reducing air emissions by using clean fuels.

She joined the Energy and Climate Studies program in May 2008. Her current doctoral research focuses on how to devise and implement technologies that provide electricity access, incorporate the goals of social inclusion and promote sustainable development.

Katja Gradin

Ph.D-student, ITM MMK

Camilla Grunditz

Coordinator, ECE

Maria Gustafson

KTH Research Office

Faraz Habib

Student

Thewodros Nigusse Haile

Student

Dipti Halder

Ph.D Student, ABE, Department of Land and Water Resources Engineering

M.Sc in Analytical Chemistry, University of Kalyani, West Bengal, India. Research Project title: Evaluation of Dietary Arsenic Exposure in Arsenic Affected Regions of West Bengal, India

Camille Hamon

Ph.D student, Electrical Engineering / Electric Power Systems

Research: A rational system for primary and secondary control in Nordel with large amounts of wind power

Mats Hanson

Professor

Anna Hedlund-Åström

Ph.D, ITM Machine Design

My research interest especially concerns EcoDesign in connection to polymer composite materials. The use of polymer composite materials is increasing especially in transporting products. Since this material group can present both high strength/weight and high stiffness/weight ratios they give the possibility to decrease structural weight and thereby increase transport capacity or decrease fuel consumption. Life cycle assessment, LCA, has been used to compare polymer composite sandwich materials with other structural materials as aluminium and steel.

Dorian Marc Henricot

Student

Greger Henriksson

PhD, ABE, Environmental Strategies

Hélène Hermansson

PbF, KTH Division of Philosophy

My current project deals with issues of equality as regards risks in a changing society. As risks are often unevenly distributed, some individuals are always exposed to more and larger risks than others. Several aspects contribute to this asymmetrical distribution, e.g. class, sex, age and ethnicity. The focus within this project is on groups of individuals who are often excluded from the norm of some given social practice; in this case, outside the norms of risk research and risk management. Epistemological and ethical aspects of risks are discussed by using tools from feminist philosophy. The emphasis is on uneven distributions of risks between men and women.

Ghader Heravi

Student, Materials Department

Erik Hjort

Student

Mark Howells

Professor, ITM Division of Energy Systems Analysis

Mark Howells is Professor in Energy Systems Analysis. The field of research covers energy systems analysis, methodological development and modelling of energy systems in global and regional perspectives with the aim to develop decision support systems for decision makers. Please see: www.desa.kth.se for an overview of our work

Bernhard Huber

Communication Officer,

CESC - Centre for Sustainable Communications

Paul Hudson

Ph.D, Biotechnology

Research in my group is centered on the use of cyanobacteria for production of bioplastics and biofuels. We utilize metabolic engineering of the cyanobacteria host as well as introduction of foreign genes to transform cyanobacteria into photosynthetic cell factories.

Maria Hult

Communication Manager, ABE

Maria Håkansson

Assistant Professor, ABE

My main research interest is on professional roles, planning and decision processes in relation to sustainable development and environmental issues, including the use of knowledge and socio-cultural conditions. Thesis (2005) discuss how environmental aspects is integrated in local planning, mainly on strategic level, the professional cultures impact on communication and cooperation, as well as understanding of the environmental and sustainability area. Project about regional growth and sustainable development.

Johan Högström

Research engineer, ITM / Industrial ecology

Mattias Höjer

Professor, CSC/CESC and ABE/fms

Responsible for PhD-education in Environmental Strategic Analysis, the Master-level course Futures studies and forecasts, the PhD course Futures studies, and for PhD course in Environmental Strategic Methods.

My PhD-thesis from 2000 was on long-time futures studies on sustainable development with a focus on environment, transport and information technology in the future city. After the dissertation my research has been mainly focused on futures studies of sustainable cities, especially on energy use in cities. I have also been doing some work on futures studies and the Swedish environmental quality objectives and some on how to develop feminist futures.

Sara Ilstedt

Professor, Green Leap /CSC/ITM

Sara Ilstedt Hjelm has a MfA in Industrial design and a Ph.D in human-computer interaction. Her research has focused on issues such as health, wellbeing and sustainable design. She was in the team that developed the award winning relaxation game "Brainball" 2001. Her team was also awarded "The coolest invention of the year" by Time magazine 2006 for "Flower Lamp", a lamp that rewards energy saving. She has been publishing extensively in books, journals and conferences and was editor of the anthology "Under Ytan - en antologi om designforskning" about Swedish design research.

Per Jacobsson

Senior advisor, Industrial Ecology

Director of KTH Center for Environmental Science 1997-2007. Secretary of several KTH investigations on environment and sustainability. Currently designing a doctorate course platform and reviewing environment and sustainability in KTH programmes for KTH-Sustainability.

Anna Jakus

Event Co-ordinator, Stockholm School of Entrepreneurship

Patric Jansson

Head of Division, ABE/Geodesy & Geoinformatics

Researcher in Applied Geodesy. Geodesy studies the shape of the Earth and its gravitational field in a three-dimensional time-varying space. Geodetic R&D has a long tradition in Sweden – with KTH, Chalmers and Lantmäteriet as strong actors, nationally and internationally. Applied Geodesy is an expansion towards practical work and neighboring subject fields (Photogrammetry/Remote Sensing and techniques like GPS Positioning and Airborne Laserscanning). Land uplift, melting glaciers, sea level changes, tectonic movements, erosion etc. can be determined within some millimeters.

Mats Johansson

Professor, CHE

The research is focused on thermoset polymers for thin film applications, e.g. organic coatings, resin synthesis, and monomers from renewable resources. The correlation between monomer structure and processing conditions (radiation, air drying, or thermally induced polymerization) on the final thermoset properties. Resin structures based on hyperbranched polymers is another area of interest.

Danuta Kaczmarzyk

Ph.D, KTH School of Biotechnology/ Cyanobacteria group

I have just joined the Cyanobacteria group within Department of Proteomics as a post-doctoral researcher. The focus of my work will be metabolic engineering of cyanobacteria in order to increase production of biofuels.

Petter Johansson

Ph.D Student, Indek

I'm a Ph.D. student in Business Development and Entrepreneurship at the department of Industrial Economics and Management. My research focuses on technological shifts in energy, industry and technological life cycles and how energy related inventions from technological academic research become innovations in industry and society. My main case is the heat pump industry, but other energy related branches such as electrical engine, fuel cells, solar energy and bio fuels are included as well.

Varena Junge

Student/ Consult, KTH Division of Industrial Ecology

Arne Kaijser

Professor, ABE, Division of Historical studies of science, technology and environment

I am Professor in History of Technology and have been at KTH for 20 years. Much of my research has dealt with the historical development of energy systems and other infrastructural systems, in Sweden as well as in other nations. Currently I am involved in three projects, one focussing on the infrastructural transformation of Europe since 1850, one on the history of computing in Sweden 1950-1980, and one on the geopolitics of energy with a focus on Swedish dependencies on imported fuels.

Cecilia Kalin

Ph.D, ABE, LWR

My Ph.D. thesis is to develop methods for simulating greenhouse gases from different ecosystems. The ecosystems will include boreal forest, grasslands and marshland. The research is needed to decide whether different ecosystems are net sources or net sinks of greenhouse gases, and what factors affect the greenhouse gas emission.

Maria Kanellopoulou

Ph.D student, Chemical engineering

I am a Chemical Engineer doing Ph.D in Rare Earth Elements. I am very interested in the sustainable development

through my work. I would be very glad to participate in the event. I have attended a workshop in Krakow three months ago about Sustainable Development.

Tatjana Karpenja

Projekt manager, Innventia / Hållbara Lösningar

My name is Tatjana Karpenja, project manager at research institute Innventia, Stockholm.

I work with environmental issues and sustainability assessment. The tools that I use to analyse process, products and value chains are life cycle assessment (LCA), carbon footprint, branch common environmental indicators.

I am active in the following areas: packaging value chain, multi-criteria analysis of traditional and new/innovative materials, waste management and paper industry.

Aleh Kliatsko

Ph.D student, School of Industrial Engineering and Management/ Department of Energy Technology

Olga Kordas

Ph.D, ITM/ Industrial Ecology

My current research interests include participatory backcasting, stakeholder involvement in building more sustainable innovation and more sustainable energy systems. My current research activities are related to (a) backcasting study on more sustainable heating and cooling in Ukraine, which is part of the FP7 funded ERAIHM project; (b) stakeholders involvement in building shared visions of sustainable energy systems in cities of the Baltic Sea Region within SI/SIDA Thematic partnership ReENERGY; (c) evaluation of use of participatory backcasting as a method for stakeholders learning in WBC within EU SDTRAIN project.

Behzad Kordnejad

Ph.D Student, ABE/ Traffic and Logistics

Research areas: Logistic and och Intermodal transports. Project leader for the research project: "Regionalt kombitranportsystem i en storstadsregion – en systemstudie i Mälardalen"

Timo Koski

Professor, SCI

Research in biostatistics and statistical theory.

Anna Kramers

Tech. Lic. Ph.D Student, KTH Architecture and the built environment, Environmental strategic analysis, CESC

Anna Kramers has 25 years of experience in the field of Information and Communication Technologies from firms like Ericsson and Cap Gemini. Her research field is smart sustainable cities and she is currently involved in two research projects. Cities is a project with the aim to understand how ICT can contribute to cities climate targets on an overall view. TRACS, Travel planners for sustainable cities is a project that examines how advanced multimodal traveller information systems can encourage travellers to chose public transport, walking and cycling.

Begum Kultur

MSc, KTH Energy Technology Department

I am about to complete my Master of Science degree on Sustainable Energy Engineering. I have done my master thesis at Ericsson AB Stockholm. It was a project on life cycle assessment of a solar-powered base station, which has been designed for the last 1 billion people living in the rural areas. The pilot region for this project was Dungunab, Sudan. I am now interested in LCA, EPD, ecolabelling. I have an ongoing project on International EPD system of Sweden, to link the system to Turkish market via a sustainability consultancy firm.

Merce Labordena

Student

Staffan Laestadius

Professor, ITM/ Indek

Professor of industrial dynamics. Research in industrial and technical transitions taking place and made necessary as a consequence of environmental degradation in general and climate change in particular.

Gen Larsson

Professor, Biotechnology/Bioprocess engineering

Tore Johan Larsson

Professor, Centre for Health & Building

Full-scale housing lab for life-long dwelling Systems for distributed care Manual handling in old age Greenhouse and aquaponics in housing design

Rafael Laurenti

Ph.D Student, ITM, Industrial Ecology

In his Ph.D, Rafael uses Systems Thinking and System Dynamics Modelling and Simulation to explore the role of product design in fostering sustainable production, consumption and waste management systems. Rafael argues that the most important sustainability issues that product design can be responsible for are overconsumption, depletion of natural resources, externalities, rebound effect and economic inequalities. His research interests relate to Complex Systems modelling and simulations applied to environmental management and sustainability issues.

Anna Ledin

Secretary general, Professor, Formas

Fredrick Lekarp

Coordinator - KTH InnoEnergy, Reserach Office

Erik Levlín

Docent, ABE school Land and Water Resources Engineering

2008 Associate Professor in Environmental Engineering. Ph.D exam 1993 with a doctors thesis about Corrosion of water pipe systems. Have after that studied sewage sludge handling and phosphorus recovery. Since 2008 beeing engaged in the work with research projects at Hammarby Sjöstadswerk which KTH and IVL Svenska Miljöinstitutet jointly get from Stockholm Vatten. From August 2002 to Jan-

uary 2003 I served as environmental investigator for the Environmental Office, Government of Åland.

Chen Hao Lin

Student

Hans Lind

Professor, ABE, Fastigheter och Byggande

Eva-Rut Lindberg

TDr, architect, STH

I am an architect from KTH that made my licentiate treatise about earth and clay as building materials in Sweden and countries with similar climate. I am now a Ph.D since December last year but have no ongoing projects at the moment. I am planning to write a book about earth and clay as building material as there is "a white spot on the map" about knowledge of its use in Sweden from the 18th century and today.

Göran Lindbergh

Professor, Chemical Science and Engineering, Applied Electrochemistry

Linus Linde

Student, KTH, SEEK

Bradley Loewen

Student, KTH, SEEK

Boon Shen Loh

Sebastian Lourduoss

Professor, ICT, Materials and Nanophysics

Research in photonic materials and devices for more than 25 years. Developed attractive technology for high speed lasers for tele- and data communication. Currently working on three major projects: (1) integration of electronics and photonics on single platform, (2) mid-infrared lasers for gas sensing/ monitoring, medical diagnosis, biosensing and spectroscopy and (3) photo-enhanced thermionic emission solar cells. The second one is directly related to environment safety and third one related to energy harvesting.

Johan Lundberg

Editorial Director, Formas

I am an editor of the webbmagazine "Miljöforskning".

Conrad Luttrupp

Professor, ITM/MMK

My research interest is EcoDesign and I am responsible for the EcoDesign group at the department of Machine Design. We give EcoDesign courses for undergraduate students at KTH and for industry in Sweden. I had the opportunity to introduce EcoDesign more widely on Swedish Television in November 2008 and on Swedish Radio in February 2009

Donnie SC Lygonis

Tech Transfer Manager, KTH Innovation

I work at KTH Innovation with commercialization of research and ideas, and often come in contact with sustainability issues.

Bruce Lyne

Professor, CHE Div. Surface and Corrosion Science

I teach a popular doctoral course at KTH on Managing the Innovation Process. Case studies emphasize the importance of sustainability and environmentally responsible products in marketing new products. In part this is based on work that I did for the Canadian research council on nanocrystalline cellulose, a major effort in Canada to substitute renewable resources from the forest for oil-based products. My background is from research management at International Paper and in managing a research institute which was in part devoted to reformulating products with environmentally friendly components.

Nina Lövehagen

Senior research engineer, Ericsson AB

Nina Lövehagen is a senior research engineer at Ericsson Research in Stockholm, Sweden, involved in the Centre for Sustainable Communications (CESC) at KTH in Stockholm, Sweden.

Nicklas Magnusson

Student, KTH

Lars Marcus

Professor, KTH School of Architecture

Lars Marcus is an architect, associate Professor and research leader in Urban Design at KTH School of Architecture. He is director of the research group Spatial Analysis and Design (SAD) in the field of Spatial Morphology, the study of how spatial form generated by architecture and urban design supports, structures and sets limits to people's use of space as an aspect of everyday life and, in extension, conditions critical social, economic and ecological processes. He is co-founder of the international MSc-program Urban Planning and Design, later developed into a three track program Sustainable Urban Planning and Design (SUPD), which he also chaired. He is also founder and partner in the consultancy firm Spacescape, performing spatial analysis, design support and policy development in architectural and urban projects for architects, municipalities and real estate companies.

Elodie Lucie Guylaine Martin

Student

Azemeraw Tadesse Mengistu

Student

Oana Mihaescu

Ph.D, HUI Research AB/ Högskolan Dalarna

I am a specialist in environmental science with focus on brownfields redevelopment, sustainable transportation, and urban and regional development management and policy. I

work mainly with quantitative research methods and particularly with spatial regression models to assess the impact of various types of events and phenomena on their surroundings. More recently I started to also apply spatial modeling to non-geographical units in retail-related studies.

Sofia Miliutenko

Ph.D student, Environmental Strategies Research

Åsa Moberg

Assistant Professor, Head of Division,

Division of Environmental Strategies Research - fms, ABESchool

Most of my research is in the field of environmental and sustainability assessment, mainly related to solutions for communication and media. Many of my projects are within Centre for Sustainable Communications -CESC. I am also involved in education in this field. A currently up-coming project is "Scenarios and sustainability impacts in the information society".

Adib Mudir

Student, Sustainable urban planning and Design

Zari Musavi

Student, KTH, SEEK

Christos Nanouris

Consult

Jessica Nihlén Fahlquist

Ph.D, Philosophy

Postdoctoral researcher with dual affiliation at the Philosophy Section at TU Delft in The Netherlands and KTH. Ongoing project: Risk Politics and Moral Emotions, led by Sabine Roeser. My part of the project focuses on risk communication, and I am interested in the problems of climate change communication. Have one published paper in environmental ethics, "Moral Responsibility for Environmental Problems - Individual or Institutional?" Journal of Agricultural and Environmental Ethics, have talked about responsibility for sustainability at two workshops, climate change and responsibility at two conferences. Work in progress: Paper: "Responsibility for Sustainability - Individual Virtue and Institutional Tasks". General research interests: ethics of technology and engineering, environmental ethics, public health ethics.

Katarina Nilsson Lannerstedt

Student, KTH, SEEK

Inger Norell

PhD stud, ABE, Architecture

Maria Noring

Ph.D student, ABE/fms

Valuation studies of ecosystem services within two ongoing projects: Ecosystem services in the Arctic in particular in relation to oil spill; Biodiversity in Swedish coastal waters affected by hazardous compounds.

Inger Odnevall Wallinder

Professor, KTH/Surface and Corrosion Science

Main research activities combine surface characterization of corrosion phenomena with the generation of quantitative bio-accessibility data and speciation analysis and its correlation to toxicological aspects. The ultimate goal is of this highly interdisciplinary research approach is to increase the general knowledge and understanding of environmental and health aspects of metal dispersion from metals and alloys used in a large variety of applications ranging from external buildings, food related utensils and surfaces to implants materials and particles.

Anna Ohlsson

Ph.D, Biotechnology/Biochemistry

Stress and defense in plants; use the plants' own mechanisms with the goal to develop environmentally friendly methods as alternatives to pesticides in forestry and agriculture.

Malin Olofsson

Ph.D Student, ITM, Indek

Malin Olofsson is a Ph.D. student at the department of Business Development and Entrepreneurship at INDEK since January 2012. Malins research interest lies in business development in product based companies within the field of renewable and energy efficiency. The research focuses on successful small businesses and the innovation system surrounding them. Malin also works part time at the department of Business Liaison at KTH. Primarily with projects that includes energy, material or transport related issues were SMEs and KTH researchers cooperate, such as for example the EU financed project Kunskapslotsen. Malin also organizes TEDx events and AIMday conferences and is a part of the Energy Platform team at KTH. Her main areas of interest are: Business development within product based enterprises in the energy field.

Monika Olsson

Director of studies, Industrial Ecology/ITM

Ashish Parekh

Student, KTH - Industrial Ecology

Rahmet Parilti

MSc, Chemical Science and Engineering

Valérie Pedersén

Master of Science Student, KTH

Master of Science Student at KTH. Ongoing project : www.Innovated.se

Clas-Göran Persson

Adjunct Professor, ABE/Geodesy & Geoinformatics

Adjoint Professor in Applied Geodesy.

Geodesy studies the shape of the Earth and its gravitational field in a three-dimensional time-varying space. Geodetic R&D has a long tradition in Sweden – with KTH, Chalmers and Lantmäteriet as strong actors, nationally and internationally. Applied Geodesy is an expansion towards practical work and neighboring subject fields (Photogrammetry/Remote Sensing and techniques like GPS Positioning and Airborne Laserscanning). Land uplift, melting glaciers, sea level changes, tectonic movements, erosion etc. can be determined within some mm.

Lydia Petchelt

Student

Malin Picha

Ph.D Student, MID, CSC

I am a Ph.D student in media technology with a sustainability angle. I have published three papers so far. The papers have a focus on work processes and their environmental impact. I have looked at a local daily newspaper, a monthly magazine and a local TV-station. My licentiate is planned for December 2012. My studies are done in cooperation with Centre for Sustainable Communications at KTH.

Estrella Piechulek

KTH

Im a masters student at KTH, specializing in energy and environment.

Sofia Pouligidou

Ph.D student, Environmental Strategies Research -fms

My research is related to the integration of environmental aspects during product design and development and more specifically when it comes to vehicle design. I am looking into the methods and tools that can be used by engineer designers for that purpose and by performing interviews with them we are trying to define their requirements and ideas. As case study we are also looking on material selection processes and how existing tools (e.g. LCA) can be of help during these processes. An overall goal is to provide engineers with a selection process that among other traditional properties of the materials it considers and merges environmental aspects as well. Such process will eventually lead to more environmentally conscious and friendly design.

Dainius Rupsys

Jakob Sahlin

Student, KTH, SEEK

Alessandro Sanches Pereira

Pb.D Student, ECS/EGI/ITM

My research project seeks to improve the strategic use of these supply chains, in particular the use of the concept of sustainable supply chain management in order to reinforce the sustainability aspects of forest-based systems and to guarantee their multiple services in promoting sustainable development.

Alessandro has 10 years professional experience working with the private and public sectors in topics related to cleaner production and industrial ecology. This includes developing lectures in environmental engineering programmes, planning and development of projects, and evaluating environmental impacts. He joined the Energy and Climate Studies program in September 2010 as a researcher in the field of sustainable energy systems. His current research is focused on the sustainable supply chain management in the forestry industry.

Teresia Sandberg

Project coordinator, M.Sc, KTH-Sustainability

As project coordinator in KTH-Sustainability, I have a lot of different tasks. Some examples are to coordinate and administer ongoing projects, run my own projects, build up our website and keep it updated, write newsletters, prepare our monthly meetings, write protocols and take part in different networks within environment and sustainability that KTH is member of. I also work to build up KTH's environmental management system, especially the areas related to education, research and co-operation with society, which are the focus areas of KTH-Sustainability

Thomas Sandberg

Professor, Dep of Industrial Economics and Management

Professor (em) in energy business at the Department of industrial economics and management. My main research interest since around 2000 is the transformation of energy business and energy systems: How energy business changes and is changed by the energy systems, and how the latter are restructured due to technical development, institutional changes, environmental and climate changes. Electricity systems, how competitive markets are introduced, promoting and hindering factors and actors for the development of decentralized, sustainable power production and how this creates new business opportunities. Sustainable energy systems in cities and the business opportunities they create. Earlier my research focus was in the organisation field: Organisational models promoting efficiency, humanity and democracy. Current research: Sustainable energy systems in advanced cities. The potential for small-scale CHP in Sweden. The reregulation of the Swedish power market.

Ingo Sander

Associate Professor, ICT

Ingo Sander holds a position as associate Professor in Electronic System Design at KTH. His main research interests are located in the area of embedded systems, which are key to implement intelligent and power-efficient sustainable systems. He has participated in several European projects and leads the activities in the ForSyDe project, a design methodology for heterogeneous embedded systems. ForSyDe WWW: <https://forsyde.ict.kth.se/>

Jan Scheffel

Professor, EES, Fusion Plasma Physics

I develop new, more efficient computational methods for time-dependent problems in fusion plasma physics related to plasma confinement.

I am also head of fusion public information in Sweden, within the European EFDA agreement.

Anders Schönning

Student, KTH, SEEK

Omar Shafqat

Pb.D Candidate, ITM/Dept of Energy Technology

I am involved with research in the field of energy and built environment. Currently, I am working with an Eco city project in Wuxi, China. We are involved in analyzing the energy system with an aim to reduce carbon foot print and energy consumption. My main areas of interest are energy systems, energy efficiency in built environment and modeling energy use. I have also been working with renovation of multifamily buildings with a special focus on miljon program.

Catharina Silfverbrand Lindh

Teacher, CHE/IP

Teacher in Analytical Chemistry and Chemical Measuring Techniques. Participate as teacher in the course Sustainable Development and the Chemical Engineer. Member of KTHS and Environmental Representative for CHE.

Mariana Silva

Student, ECS Department

Michel Silvestri

Senior Lecturer, Karolinska Institutet

Coordinator of Sustainable Development in Education at Karolinska Institutet.

Temporary Coordinator of the open network Stockholm Students for Sustainability.

Mark Smith

Professor, ICT

Xingqiang Song

Pb.D, Division of Industrial Ecology

Juliana Sora da Silva

Student

Erik Stenberg

Head of Department, Architecture

Erik Stenberg is an architect, teacher, and head of department at the KTH School of Architecture in Stockholm, Sweden. He has been teaching studio at the foundation level for the past eleven years. During the last decade he has also engaged in the politics of restructuring the large scale modernist housing areas in Sweden. He has redesigned apartments, organized a housing fair, and started an introductory architecture school in Tensta, one of Stockholm's largest modernist housing areas.

Emma Strömberg

Ph.D, CHE/Polymeric materials

My field is: Strategies for Sustainable Polymeric Materials. The research focuses on characterisation of the material properties of virgin and recycled polymeric materials, biomedical materials, biopolymers, natural composite materials and nanocomposites as well as biofilm formation on the materials surfaces and the prevention of biofouling. The environmental interactions of the polymeric materials and the adhesion of microorganisms provide the fundamentals for the design of new materials with antimicrobial properties. Special significance in the research is aimed at the release of low molecular weight compounds and nanoparticles during the degradation of the material. Projects and Interests: EQP - Sustainable recycling of plastics - closing the life cycle of polymeric materials in engineering applications Prevention of biofilm adhesion to composites and nanocomposites. Influence on material and electrical performance in long-term perspective Design of biodegradable biocomposites with tuned degradation time

Atsuhito Sugiyama

Student

Örjan Svane

Professor, ABE, Urban Planning and Environment

Örjan has long experience as a practising architect, doing project design and implementation as well as resident consultation, mainly applied to the refurbishment of housing. He also practised within the field of sustainable construction. These themes he combined in his research. He has participated in research also on households, housing and sustainability and on experimental eco-building. Since the early 2000s, his research focus is on strategic planning and governance, energy and climate issues, all under the umbrella term of urban sustainable development.

Väino Tarandi

Professor, ABE, Fastigheter och Byggnade

Väino Tarandi is Professor in IT in Construction, with focus on collaboration over the whole lifecycle of buildings and the built environment. The BIM Collaboration Lab is now under construction for through life support of the virtual world built on open international standards.

Amir Vadie

Student

Sören Vahland

Student

Lihui Wang

Professor, ITM/IIP

Professor Wang is the new Professor of Sustainable Production at the department of Industrial Production within the ITM school (starting November 2012).

Josefin Wangel

Ph.D, ABE fms - Division of Environmental Strategies Research and CESC - Centre for Sustainable Communications

Josefin Wangel is a researcher at fms –the division of Environmental Strategies Research and CESC – Centre for Sustainable Communications. In June 2012 she defended her thesis “Making Futures: On Targets, Measures and Governance in Backcasting and Planning for Sustainability”. Josefin has been a teacher in the field of sustainable urban development in numerous bachelor and master’s courses at KTH since 2007. One of her main research interests is how futures studies could be used to promote sustainability in urban development and design, with a focus on institutions,

actors and governance; another is the connection between sustainable city discourses and social practices. Josefin has published numerous papers in e.g. Futures, Technological Forecasting and Social Change, Energy Efficiency, and International Journal of Sustainable Urban Development. Josefin is also part of KTH Sustainability for which she works with looking into how sustainability issues could be integrated in more courses and programs at KTH.

Birgitta Westin

Environmental Manager, B.Sc,

Universitetsförvaltningen, miljö- och byggnadsavdelningen

Pierre-Alban Vilain

Student

Emilie von Essen

Head of Media Relations, Forskningsrådet Formas

Ramon Wyss

Vice-President for international affairs, Professor, Science

Haoxin Xu

Student

Xing Yin

Student, KTH/SUPD

My major is Sustainable Urban Planning And Design.

Carl-Mikael Zetterling

Professor, ICT Integrated Devices and Circuits

My research is focused on Silicon Carbide devices and circuits for energy efficient high voltage and high temperature applications. Several areas related to energy are possible, for instance oil and gas drilling, combustion monitoring, nuclear energy neutron detection. A new area in the group will be sustainable electronics.

Hongyu Zhang

Student,

Environmental Engineering and Sustainable Infrastructure

I am doing thesis on environmental soil data analysis. It will be very interesting to discuss what the future will be, what kind of society we are going to have, and how can we achieve a sustainable development.

Karin Öberg

Project manager, Green Leap

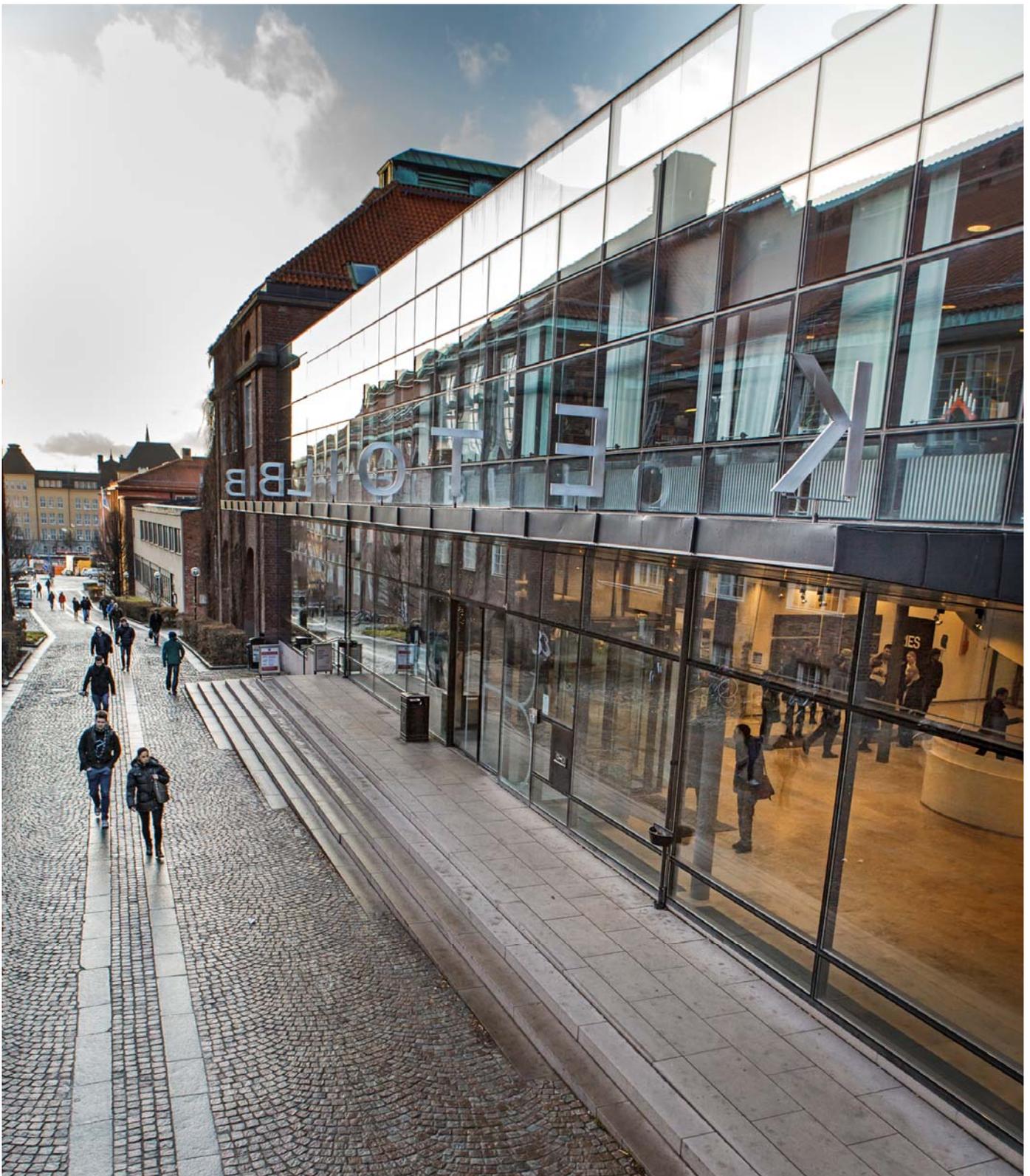
The project I am working with is called Zero Emission

Campus Lab with is a project aiming to lower the carbon emissions related to KTH campus activities and buildings. In this first phase we will map research, establish contact with researchers and initiate projects at KTH that can take the project further.

Stefan Östlund

Professor, EES

Dean at the School of Electrical Engineering.



Environmental and Sustainable Development Work at KTH

KTH contributes to sustainable development by providing educational programmes, conducting research and by interacting with the surrounding community.

Through its activities, KTH also impacts the environment in practical terms through the consumption of materials and water, energy and chemicals, travel and transport and construction, and indirectly through purchasing and procurement. Technical development is essential for sustainable development. It is also the driving force of KTH research and education. Future engineers must be able to develop new products, services and systems that contribute to sustainable development. Technological development alone is not sufficient, technical solutions must be applied so that sustainability potential is fully utilised. Research and education must

establish a holistic approach in which use is integrated into a life cycle mindset.

Two important areas

KTH has chosen to divide the strategic and practical work into two areas: KTH-Sustainability and Sustainable Campus.

Where KTH-Sustainability is responsible for teaching, research and co-operation; and where Sustainable Campus is responsible for the university's internal environmental management.

In 2011 the KTH Sustainability Council (KTH-S) was founded in order to work on the environment and sustainable development of KTH's research, education and collaboration. KTH-S is an advisory body to the President and prepare matters for the Faculty Council. It is headed by Vice President for Sustainable Development and consists of teacher and student representatives, and the KTH Environmental Manager.



The team



Göran Finnveden
Vice President for
Sustainable
Development



Birgitta Westin
Environmental Manager



Teresia Sandberg
Project co-ordinator
KTH-Sustainability



Christine Ambell
Project Administrator
KTH-Sustainability



Malin Picha
Project Communicator
KTH-Sustainability

KTH-Sustainability council

Göran Finnveden, *chairman and vice-president for sustainable development*
Sara Ilstedt, *teacher representative*
Mattias Höjer, *teacher representative*
Anders Karlström, *teacher representative*
Per Lundqvist, *teacher representative*
Gunnar Malm, *teacher representative*
Catharina Silfverbrand Lindh, *teacher representative*
Joakim Engström, *student representative*
Omar Shafqat, *doctoral student representative*
Birgitta Westin, *temporarily environmental manager*
Anna-Karin Högfeltdt, *co-opted member*
Fredrik Gröndahl, *co-opted member*
Teresia Sandberg, *project coordinator, secretary*

Environmental representatives

(Miljöombud)
Elisabeth Hochschorner, *ABE*
Sara Tyskeng, *ABE*
Holger Berling, *BIO*
Sofie Sibia, *BIO*
Catharina Silfverbrand Lindh, *CHE*
Malin Eriksson, *CSC*
Chris Druid, *ECE*
Håkan Ferm, *EES*
Markus Hidell, *ICT*
George Askew, *ICT*
Fredrik Gröndahl, *ITM*
Erik Edstam, *SCI*
Amal Lahlou, *STH*
Leif Svanblom, *UF*
Conny Fält, *Lokalservice/UF*

Science and art
for the environment and
a sustainable brighter tomorrow
- what does it mean?



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