

# SEMINAR MAY 6, 2019

## HÅKAN FRISINGER'S SCHOLARSHIP 2018

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2018 Håkan Frisinger's Scholarship is awarded to Sonia Yeh, Professor in Transport and Energy Systems in the Department of Space, Earth and Environment at Chalmers University of technology, for her innovative research concerning sustainable transport and developing solutions for mobility.

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# HÅKAN FRISINGER

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Håkan Frisinger was born in 1928 in Skövde, Sweden. He became Master of Science in Mechanical Engineering at Chalmers University of Technology, Göteborg, Sweden in 1951. He has, with the exception of a short employment period as a Production Manager at AB Bahco, always worked within the Volvo Group, within various heavy manufacturing units (earlier known as Volvo Skövdeverken and Volvo Bergslagsverken), successively as a mechanical engineer, materials management Director, Head of Production Technology and finally as Device and Location Manager. During a five-year-period, he was appointed Head of Group staff at the Product and Production Co-ordination.

In 1975, Håkan Frisinger became Head of the newly formed Industrial division, at Volvo Cars, that included product development and production. In connection with the creation of Volvo Cars AB in 1978, he was appointed Executive Director. In 1983, Håkan Frisinger became the Chief Executive Officer of AB

Volvo, from which position he resigned in retirement 1987. He acted as Chairman of the Board from 1997.

When Håkan Frisinger resigned in April 1999, the general assembly of Volvo shareholders granted an amount of 10 MSEK in order to honour him through the creation of The Håkan Frisinger Foundation for Transportation Research. The purpose of the Foundation is to "support the scientific research and development in the transportation area, preferably at Chalmers University of Technology." The Håkan Frisinger Award was established in 2001 and granted since then once a year.

## H. FRISINGER FOUNDATION FOR TRANSPORTATION RESEARCH

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The purpose of the foundation is to promote scientific research and development in the field of transportation by granting scholarships. Since 2001, the foundation annually awards a scholarship of SEK 250,000, to a researcher at a Swedish university. The scholarship promotes research and development in the field of transportation, and primarily rewards already achieved accomplishments.

# AWARDEES SINCE 2001

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| <b>2017</b> | Professor Jonas Sjöberg<br><i>Chalmers tekniska högskola</i>  | <b>2009</b> | Professor Magnus Skoglundh<br><i>Chalmers tekniska högskola</i>   |
| <b>2016</b> | Professor Louise Olsson,<br><i>Chalmers tekniska högskola</i>   | <b>2008</b> | Bitr. Professor Pål Börjesson<br><i>Lunds universitet</i>         |
| <b>2015</b> | Adj. Professor Astrid Linder<br><i>Statens väg- &amp; transportforskningsinstitut</i><br>Professor Mats Svensson<br><i>Chalmers tekniska högskola</i> | <b>2007</b> | Professor Wolfgang Kropp<br><i>Chalmers tekniska högskola</i>     |
| <b>2014</b> | Professor Margareta Friman<br><i>Karlstads universitet</i>  | <b>2006</b> | Professor Marcus Aldén<br><i>Lunds universitet</i>                |
| <b>2013</b> | Professor Lars Nielsen<br><i>Linköpings universitet</i>   | <b>2005</b> | Professor Bo Egardt<br><i>Chalmers tekniska högskola</i>          |
| <b>2012</b> | Professor Ingemar Denbratt<br><i>Chalmers tekniska högskola</i>   | <b>2004</b> | Professor Michael Patriksson<br><i>Chalmers tekniska högskola</i> |
| <b>2011</b> | Professor Annika Stensson Trigell<br><i>Kungliga tekniska högskolan</i>   | <b>2003</b> | Professor Bengt Andersson<br><i>Chalmers tekniska högskola</i>    |
| <b>2010</b> | Professor Bengt Johansson<br><i>Lunds universitet</i>   | <b>2002</b> | Bitr. Professor Dag Wedelin<br><i>Chalmers tekniska högskola</i>  |
|             |   | <b>2001</b> | Professor Per Lövsund<br><i>Chalmers tekniska högskola</i>        |

# PROGRAMME

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This seminar will be held entirely in English.

- 13.00 – 13.30**      Opening of the ceremony by Chalmers and VREF representatives
- 13.30– 14.00**      Lecture by Sonia Yeh, Professor in Transport and Energy Systems in the Department of Space, Earth and Environment at Chalmers University of technology  
*“On the path to sustainable transport and energy systems”*
- 14.00 – 14.10**      Pause
- 14.10 – 14.40**      Lecture by Dr. Rafael H. M. Pereira, Researcher at the Institute for Applied Economic Research (Ipea), Brazil  
*“Equity concerns in transport: where we stand and where we are heading”*
- 14.40 – 15.10**      Lecture by Yusak Susilo, Professor in Transport Analysis and Policy at the Royal Institute of Technology  
*“The impacts of automation to mobility behaviours”*
- 15.10 – 16.00**      Refreshments

**Moderator:** Maria Grahn, Researcher, Department of Space, Earth and Environment, Physical Resource Theory; Director of Energy Area of Advance at Chalmers University of Technology

# SONIA YEH

*Professor in Transport and Energy Systems in the Department of Space, Earth and Environment at Chalmers University of technology*

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## ON THE PATH TO SUSTAINABLE TRANSPORT AND ENERGY SYSTEMS

Transport is essential for individual welfare and for the functioning of any economy. It also has a number of negative externalities: global climate change, air pollution, accidents, energy security, and congestions. The transport sector is also undergoing unprecedented transformations toward clean fuel vehicles, autonomous vehicles and mobility as a service (MaaS). However, there are unforeseen problems and uncertainties. How will the transformations unfold? Are the policies driving the right behaviors? Are there unintended consequences? Sonia Yeh will explore the challenges and review how research tools such as modelling, lifecycle analysis and big data can guide this transition toward a sustainable future.



**Dr. Sonia Yeh** is Professor in Transport and Energy Systems in the Department of Space, Earth and Environment. Her expertise is in energy economics and energy system modeling, alternative transportation fuels, sustainability standards, technological change, and consumer behavior and urban mobility. Her role as Professor of Transport and Energy Systems is building ties with faculty, researchers and students whose research interests lie in the distinct disciplines of energy, system modeling, sustainability, and ICT, and bring them together in an emerging space of system modeling for the sustainability of integrated mobility. Throughout her work, she has advised and worked broadly with U.S. state and international advisers, policymakers, a wide range of stakeholder groups and academic researchers in developing climate policies toward reducing the environmental impacts and GHG emissions from transport.

Between 2007 and 2014, she co-led a large collaborative team from the University of California (UC) Davis and UC Berkeley advising the U.S. states of California and Oregon, and British Columbia, Canada to design and implement a market-based carbon policy (Low Carbon Fuel Standard (LCFS) and Clean Fuel Standard (CFS)) targeting GHG emission reductions from the transport sector. She received Academic Federation Award for Excellence in Research (Sole Recipient) by the UC Davis in 2014 and was appointed as Adlerbertska visiting professor at Chalmers University of Technology in 2015. She served as Fulbright Distinguished Chair Professor in Alternative Energy Technology in 2016-2017.

# RAFAEL PEREIRA

*Researcher at the Institute for Applied Economic Research (Ipea), Brazil*

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## EQUITY CONCERNS IN TRANSPORT: WHERE WE STAND AND WHERE WE ARE HEADING

Urban and transport policies play a key role in shaping the ease with which people from different social groups and income levels can access out-of-home activities, such as job opportunities, health and educational services. Over the past decades, researchers and policy makers started paying more attention to the accessibility impacts of these policies and their implications for the promotion of just and inclusive cities. This presentation will bring an overview of the literature on transportation equity and accessibility. Empirical case studies will be used to discuss the question of what makes a transport policy just, and to draw attention to some future research directions in the field.



**Dr. Rafael H. M. Pereira** is a researcher at the Institute for Applied Economic Research (Ipea) in Brazil. He has a background in sociology and demography; he obtained his PhD in Geography from the Transport Studies Unit (TSU) at Oxford University.

Rafael's research is broadly centred on the role of urban and transport policies in shaping the spatial organization of cities, human mobility patterns and related health and social inequalities.

Rafael's doctoral research focused on questions of distributive justice and transportation equity. The research is grounded on contemporary philosophical theories of justice and it further develops on case studies that discuss the equity implications of the transport legacies from sports mega-events in Rio de Janeiro (Brazil), investigating who benefited from the new transport developments in Rio. The methodology developed in his work contributes to the study of multimodal transport networks to assess the accessibility and equity impacts of transportation policies in both ex-post evaluations of implemented projects but also in ex-ante scenario analysis of projects in their early planning stages. Rafael was recently awarded the 2017 Lee Schipper Memorial Scholarship.



# YUSAK SUSILO

*Professor in Transport Analysis and Policy at the Royal Institute of Technology*

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## THE IMPACTS OF AUTOMATION TO MOBILITY BEHAVIOURS

This is a general presentation, which will revisit the promise and the plausible pitfall of the autonomous technologies to our mobility behaviours. In particular, on the impacts of such technologies in changing the nature of our daily life and things that we can do with our travel. The presentation will be closed with revisiting some assumptions that we tend to believe in the events of automation in transport system and a quick glimpse of lessons that we have gathered during the deployment of autonomous bus on mixed public roads in Stockholm.



**Dr. Yusak O. Susilo** is a Professor in Transport Analysis and Policy at the Royal Institute of Technology. His main research interest lies in the intersection between transport and urban planning, transport policy, decision-making processes and behavioural interactions modelling. He received his doctoral degree from the Department of Urban Management, Kyoto University, Japan.

He has been/is a principal investigator and co-investigator in various international and national projects, including the development of an open-source smartphone based travel diary collector app (MEILI), deployed in 5 different cities at 3 different continents for evaluating of the impacts of autonomous buses deployment as a public transport service in a mixed public roads in Stockholm.

He is currently serving as a board member of the International Association for Travel Behaviour Research (IATBR) and an associate editor of Transportation, European Transport Research Review and Journal of Transport and Health.

## VOLVO RESEARCH AND EDUCATIONAL FOUNDATIONS (VREF)

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The Volvo Research and Educational Foundations (VREF), is the collective name under which four foundations collaborate to finance research and education in the areas of transportation, environment and energy. Since the turn of the Century, these foundations – through VREF – have focused on the area Future Urban Transport (FUT) with the subtitle, “How to deal with complexity.”

The four VREF foundations are:

- Volvo Research Foundation,
- Volvo Educational Foundation,
- Dr. Pehr G. Gyllenhammar Foundation,
- Håkan Frisinger Foundation for Transport Research.

VREF invests in programs and projects with mission to:

- Support the development of new knowledge on ideas and solutions that can contribute to equitable access and sustainable urban transport;
- Support the development of educational and outreach programs in the area of equitable access and sustainable urban transport;
- Contribute to the dissemination and implementation of research findings among both university researchers, practitioners, decision makers and other relevant stakeholders;
- Support demonstrative examples and change processes

## CHALMERS UNIVERSITY OF TECHNOLOGY

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Chalmers University of Technology conducts research and offers education in technology, science, shipping and architecture with a sustainable future as its global vision. Chalmers is well known for providing an effective environment for innovation and has 13 departments. Graphene Flagship, an FET Flagship initiative by the European Commission, is coordinated by Chalmers. Situated in Gothenburg, Sweden, Chalmers has 10,300 full-time students and 3,100 employees.





**CHALMERS**