

Prof. Mikael Östling Curriculum Vitae/Scientific Qualifications

Personal information

Family Name: Östling
First name: Mikael
Date of Birth: August 26, 1955
Nationality: Swedish
URL: <https://www.kth.se/profile/mostling>



Publication Citations (Google Scholar as of April 2022)

h-index 51
Total Citations > 12600
Publications with > 10 citations: 280

Research Field in ERC PE7 and PE3

ORCID ID: 0000-0002-5845-3032

Higher education degree(s)

1980 Master of Science, Engineering Physics, Dept of Technology, Uppsala University, Sweden

Doctoral degree

1983 Doctor of Technology, Electronics, Uppsala University, Dept of Technology, "Development of metallization systems for VLSI technology: the use of RBS and other analytical tools"

Postdoctoral work 1993-94, 1997 and 1999

Visiting professor at Stanford University (Center for Integrated Systems) and University of Florida (Gainesville)

Qualification required for appointment as docent/associate professor

1987 Docent, (Assoc. Prof. degree), KTH, Stockholm, Sweden

Current positions

2017- Deputy President, KTH
1996 - Professor Solid State Electronics, KTH,

Previous positions

2013 - 2017 Head, Department of Electronics, School of ICT, KTH
2004 - 2012 Dean, KTH, School of Information and Communication Technology
2001 - 2004 Head, Department of Microelectronics and IT, KTH
2000 - 2001 Head, Department of Electronics, KTH,
1998 - 2014 Head, Lab division of solid state devices, KTH
1995 - 2000 Director of graduate studies, Department of Electronics, KTH
1990 - 1995 Director of undergraduate studies, Department of Electronics, KTH
1983 - 1996 Researcher, Assistant professor and Associate professor, KTH

Board Memberships

- Board of Directors, Cesaer University Network, 2020-22, Chair workgroup Sustainability.
- Member Scientific Council, National Centre of Scientific Research "Demokritos", Athens, Greece, 2019-

- Chair, Board of Directors, Myfab national infrastructure, 2018-
- Board of Directors, STINT, The Swedish Foundation for International Cooperation in Research and Higher Education 2016-2022
- Board of Directors Kista Science City AB, 2015- ongoing
- Board of Directors, Stockholm Science City Foundation, 2017-22
- Board of Directors, Flemingsberg Science, 2017- ongoing
- SINANO Institute (EU-institute) Elected Board Member 2008-2010, 2011-2013, 2017 -2019
- ENIAC, Swedish rep. in the EU ENIAC Scientific Community Committee Management Team Member 2006-2013
- Board of Governors, Elected Member, IEEE Electron Devices Society, 2011-2016
- ANNA, EU FP6 Scientific Advisory Board Member “European Integrated Activity of Excellence and Networking for Nano- and Micro- Electronics Analysis” 2007-2009
- Chair, Section D: Electronics and Photonics Section, Swedish National Committee for Radio Sciences, Royal Swedish Academy of Sciences, 2003 – 2011
- Advisory board member, Stockholm Innovation and Growth (STING), 2004 – 2012
- Board Member, Electrum Foundation, 2005 - 2012
- Chair, Sveriges Elektro- och Dataingenjörers Riksförening, 2005-2007, Board Member 2003-2007.
- Co-founder and Board Member, TranSiC AB 2005-2011, Company sold to Fairchild Semiconductor
- Board Member, Sweden ICT Research Institute AB, 2005-07
- Board Member, Swedish national program “Thin film Technology Program”(SSF) 2000-2005
- ADCOM Elected Member, IEEE Electron Devices Society, 1999- 2005,
- Chair (founding), IEEE Sweden Electron Devices Chapter 1995-2016

Individuals who have completed their doctoral degree under my supervision

Östling has been the principal- /co-advisor for *47 PhD students* to date.

1989: Stefan Nygren,

1990: Hao Jiang, Shili Zhang,

1991: Thomas Ericsson

1995: Ulf Erlesand,

1996: Nils Lundberg,

1997: Carl-Mikael Zetterling, Tord Karlin

1998: Wlodek Kaplan, Olof Tornblad,

1999: Martin Domeij

2001: Martin Linder, Martin Sanden, Johan Pejnefors, Erik Danielsson

2002: Sang-Kwon Lee, Fanny Dahlqvist, Gunnar Malm

2003: Sten Hellström, Sang-Mo Koo, Erdal Suvar

2004: Erik Haralson, Wei Liu,

2005: Christian Isheden,

2006: Martin von Haartman

2008: Zhen Zhang, Hyung-Seok Lee,

2010: Jun Luo,

2011 Reza Ghandi, Mohammadreza

Kolahdouz, Valur Gudmundsson

2012 Buono Benedetto,

2014 Eugenio Dentoni Litta, Luiga Lanni,

Maziar M Naiini,

2015 Maryam Olyaei

2016 Sam Vaziri, Anderson D Smith,

2017 Arash Salemi,

2018 Ali Asadollahi, Hossein Elahipanah,

Ganesh Jayakumar

2019 Shuoben Hou, Szymon, Szymon

Sollami Delekta

2020 Konstantinos Garidis

2021 Ahmad Abedin, Laura Zurauskait

Society Memberships

IEEE since 1985 (Fellow 2004-), American Vacuum Society 1985-, Electrochemical Society 1984- , Rotary International Stockholm-Kista 2005-

Editorial Board Memberships

2016-19 Editor in Chief, IEEE Journal of Electron Devices Society
2015-21 Series Editor Electronic Materials and Design, River Publishers
2014-20 Editor IEEE J Electron Device Society
2014 Guest Editor MRS Bulletin Special issue New Materials for Post-Si Computing
2014 Guest Editor Solid State Electronics Special issue ULIS
2012 Guest Editor Solid State Electronics Special issue ESSDERC

2011 Guest Editor Solid State Electronics Special issue ISTDM
2005-2013 Editor IEEE Electron Device Letters (impact factor 2.9)
2004 Guest Editor IEEE Trans. Electron Devices, special issue on Rf Applications

International scientific Committee Memberships (past 10 years)

- ESSDERC (European Solid State Devices Conference), Chair of the Steering Committee 2018-19, Technical Program Chair 2011, Technical Program Committee member, 1997-2011, Track chair 2005-2008, 2015-22
- Device Research Conference (DRC), Executive committee, 2015
- International Electronic Devices meeting (IEDM) 2013-14
- International Symposium on Power Semiconductor Devices (ISPSD) 2012 -
- Device Research Conference (DRC), member of the technical program committee, 2009-2014
- General Chair ULIS (Ultimate Integration on Silicon) 2014
- General Chair ISTDM 2010
- International Symposium on Device Research (ISDRS), European Chair, 2003-
- Member, IEEE Graduate Student Fellowship Committee, 2001-2003
- IEEE Cleo Brunetti Award Committee member 2014-16
- IEEE EDS Vice President 2014-15
- IEEE EDS Fellow Committee 2016-17
- IEEE EDS Publications and Products Committee 2016-2019

Program Director (most recent)

2015-2018 **VR** (Framework): 1D devices for Ge and 2D materials utilizing 3D integration technology
2014-2016 **VR**: iGRAPHENE - Integrated Graphene Photonics
2014-2018 **KAW**: WOV Working on Venus
2014-2019 **SSF**: Germanium nanowire transistors for sequential 3D integration
2009-2011 **VR**: Fundamental noise studies on strain-engineered and high-mobility nano-scale transistors
2006-2007 **SSF**: Nanoelectronic MOSFET program
2006-2008 **SSF**: Silicon Nanoelectronics Programme, NEMO

Coordinator of EU Projects (past 10 years)

2014-2016 **ERC Proof of Concept** iPUBLIC - Inkjet Printed Ultrafast Batteries and Large-scale Integrated Capacitors
2009-2014 **ERC Advanced Investigator Grant** Open silicon based research platform for emerging devices - OSIRIS
2011-2012 **FP7 FET Flagship** proposal project Guardian Angeles (KTH project leader)
2010-2013 **FP7 NANOFUNCTION**
Acronyms; KAW = Knut and Alice Wallenberg Foundation, VR = Swedish Research Council, VINNOVA = Sweden's innovation agency, SSF = The Swedish Foundation for Strategic

Research, ERC = European Research Council, FP 7 = European Framework Programs 7.

Awards and Special Commissions

2014 SER Prize (The Swedish Electro and Computer Society)

First recipient of the European Research Council Advanced Grant 2009

Fellow IEEE 2004, Distinguished Lecturer, IEEE Electron Devices Society 1997-

Senior Research Scholar, J. William Fulbright Scholarship, 1993-94,

Alm Scholarship 1991 and 1993, KTH

Some Key publications

1. M. Östling, R. Ghandi and C. Zetterling, "SiC power devices — Present status, applications and future perspective," *2011 IEEE 23rd International Symposium on Power Semiconductor Devices and ICs*, 2011, pp. 10-15, doi: 10.1109/ISPSD.2011.5890778. *cited by 190*
2. L. Lanni, B. G. Malm, M. Östling and C. Zetterling, "500 C Bipolar Integrated OR/NOR Gate in 4H-SiC," *IEEE Electron Device Letters*, vol. 34, no. 9, pp. 1091-1093, Sept. 2013, Cited by 100
doi: 10.1109/LED.2013.2272649.
3. M Haartman, M Östling, "Low-frequency noise in advanced MOS devices" Text book *Springer Science & Business Media 2007*, ISBN 1402059108, *cited by 298*
4. J Li, F Ye, S Vaziri, M Muhammed, MC Lemme, M Östling "Efficient inkjet printing of graphene" *Advanced materials* 25 (29), 3985-3992 2013, *cited by 454*
doi.org/10.1002/adma.201300361
5. Shi-Li Zhang & Mikael Östling "Metal Silicides in CMOS Technology: Past, Present, and Future Trends," *Critical Reviews in Solid State and Materials Sciences*, 28:1, 1-129, (2003) *cited by 411*
DOI: 10.1080/10408430390802431