Workshop

Vertical Cavity Lasers

Chalmers University of Technology

May 20, 2016

The IEEE Photonics Society Sweden Chapter and the Fibre Optic Communications Research Centre (FORCE) at Chalmers invites to a workshop on Vertical Cavity Lasers with IEEE Distinguished Lecturer Professor Eli Kapon from the Swiss Federal Institute of Technology (EPFL) in Lausanne, Switzerland.

The vertical cavity surface emitting laser (VCSEL) is a light source produced in large volumes for data communication, sensing, optical pumping, infrared illumination and industrial heating. Research on VCSELs enable steadily improving performance, new innovative VCSEL designs, VCSELs in new material systems to expand the range of wavelengths and applications, and light source integration for silicon-based photonic integrated circuits. The workshop will shed light on some of these developments.

Program

09:00-10:00	Registration and coffee
10:00-10:10	Welcome Anders Larsson, Chalmers University of Technology, Göteborg, Sweden
10:10-11:10	**Long Wavelength Vertical Cavity Surface Emitting Lasers** Eli Kapon, IEEE Distinguished Lecturer, EPFL, Lausanne, Switzerland
11:10-11:50	**Progress and Challenges in Electrically Pumped GaN-based VCSELs** Åsa Haglund, Chalmers University of Technology, Göteborg, Sweden
11:50-13:00	Lunch
13:00-13:40	**Energy-Efficient Oxide-Confined VCSELs for Optical Interconnects** Philip Moser, TU Berlin, Berlin, Germany
13:40-14:20	**High Speed 850 nm VCSELs and Multi-Wavelength VCSEL Arrays** Erik Haglund, Chalmers University of Technology, Göteborg, Sweden
14:20-15:00	**Progress on VCSELs with Reduced-Vertical-Dimensions via All-Semiconductor Subwavelength HCGs** James Lott, TU Berlin, Berlin, Germany
15:00-15:30	Coffee
15:30-16:10	**Hybrid Vertical Cavity Lasers on SOI Waveguides** Il-Sug Chung, DTU, Lyngby, Denmark
16:10-16:50	**Hybrid Cavity Short Wavelength VCSELs on Silicon** Emanuel Haglund, Chalmers University of Technology, Göteborg, Sweden

The workshop is held in the lecture hall Kollektorn at the Department of Microtechnology and Nanoscience at Chalmers University of Technology with address Kemivägen 9. Directions can be found at: www.chalmers.se/en/departments/mc2/contact/Documents/MC2-map.pdf

The workshop, including lunch and coffee, is free of charge. Register no later than May 6 by sending an email to Anders Larsson at: anders.larsson@chalmers.se