Centre for Innovative Ultrasound Solutions

For health care, maritime, and oil & gas

CIUS fall conference 27-28. November 2018

Venue: Clarion Hotel and Congress Center, Brattørkaia 1, 7010 Trondheim, Phone: 73 92 55 00

Programme

Tuesday 27. Nov. 2018

08.00, *Registration & refreshments*

09.00 – 11.30 Networking work shop for CIUS PhDs, Postdocs and researchers
With Sverre Haugen, Meyer-Haugen consulting

Pitch:
What do you associate with networking? Forced conversations over a cup of coffee at a conference, or leaders landing the corner office job by knowing the right people? You need to reconsider! This mini seminar focus on what network building between people really is. The seminar provides perspectives on to how to build successful networks. You will get practical advice on how to build sustainable and fruitful relation with others at work and privately.

Biography:
Sverre Haugen has been country manager for Nova, the largest top talent network for the Nordic countries. In this job, he has supported recruitment to several of the largest business and enterprises in these countries. He also has several years of experience from Accenture, where he was main responsible for recruiting to Norway. Sverre Haugen has worked as a headhunter, IT consultant and programmer. In 2016 he published the book Jobbsøkerkoden. The book emphasizes the importance of understanding employer perspective and leveraging this when writing the application and communicating with the potential new employer. Sverre Haugen is a highly engaging speaker and effective communicator within recruitment, networking, motivation and communication.

11.30-12.15 *Lunch*

12.15-16.00 Deep learning (DL) and artificial intelligence (AI) in medical diagnosis and clinical practice
12.15- 12.45 Medical practice in 2050, PhD and Senior consultant Håkon Olav Leira, NTNU/St. Olavs Hospital and PhD Thomas Langø, Research director, SINTEF
12.45-13.15 Introduction to DL/AI methodology with examples from (ultrasound) imaging, Professor Lasse Løvstakken and Postdoc Erik Smistad, CIUS, NTNU
13.15-13.45 The Core of an AI Breakthrough: Reinforcement Learning and Deep Learning, Professor Keith Downing, Department of Computer Science/Norwegian Open AI lab, NTNU

13.45-14.15 *Refreshments -Break*

14.15-14.45 Artificial Intelligence Augmentation: How A.I. can augment human cognition, PhD Karina Vold, Leverhulme Centre for the Future of Intelligence, Cambridge University

14.45-15.15 The IBM Watsonmedical imaging experience, Koen Van de Perre, Director International Sales EyeCare & Solution Management, IBM Watson Health

15.15-15.45 Digital Twins and AI, Professor Frank Lindseth, Department of Computer Science/Norwegian Open AI lab, NTNU

15.45-16.00 Summary and Discussion

16.00 END Day 1

19.00 CIUS dinner
Venue: Kraft Bodega, Brattørkaia 17B, 7010 Trondheim

Wednesday 28. Nov. 2018

08.00-08.30 *Registration & refreshments*

08.30-08.40 Opening and presentation of CIUS' results for 2018, information about RCN's midway evaluation of SFIs, Asta Håberg, CIUS

08.40-08.45 Introduction of ISB's Ultrasound group's new Innovation manager Tormod Njølstad, NTNU

08.45-11.30 Cardiac flow session
08.45-09.15 Ultrasound based quantitative flow measurements in cardiology, Professor of cardiology Svend Aakhus, NTNU
09.15-09.40 3D HPRF Doppler in valvular heart disease, PhD students Erik Andreas Rye Berg, Stefano Fiorentini, Torvald Espeland and Researcher Jørgen Avdal, NTNU
09.40-10.00 Flow measurements in coronary bypass surgery, Erik Swendsen, CSO Medistim

10.00-10.15 *Refreshments -Break*

10.15-10.30 Comp. fluid dynamics in non-invasive coronary flow diagnosis, PostDoc Lucas Muller, Structural mechanics, NTNU
10.30-10.50 3D Intracardiac flow: PhD students Morten Wigen and Annichen Søyland Daae, NTNU
10.50-11.10 Improved methods for measuring and characterizing flow with ultrasound, PhD Bastien Denarie, GE vingmed
11.10-11.30 Flow behind steel casing, PhD students Anders Talberg and Cristiana Golfetto, NTNU

11.30 -12.30 *Lunch*

12.30-14.35 Underwater (acoustics) session
12.30-12.55 Multichannel transducer for use in high speed underwater acoustic communication, Jacob Hiden Rudander, KM/UiO
12.55-13.15 Increased performance with modulated transmission in swath sonar bathymetry, PhD student Antoine Blachet, UiO
13.15-13.40 Improving visualization in sonar with the right colour map, Researcher Roy Hansen, FFI/UiO

13.40-14.10 *Refreshments -Break*

14.10 -14.35 Piezocomposite ultrasound transducers, Associate professor Alan Hunter, University of Bath/UiO

14.35-15.35 Medical imaging session

15:35-14.55 Visualization of shear waves from time-harmonic ultrasound elastography, Postodoc Yuchel Karabiyik, UiO
14.55-15.15 Dynamic range alterations in adaptive ultrasound beamforming, PhD student Ole Marius, UiO
15.15- 15.35 Studying the origin of reverberation noise in echocardiography, PhD student Ali Fatemi, NTNU

15.35-16.00 Updates and closing
15.35-15.45 Update on innovation in CIUS, Svein-Erik Måsøy, CISU industry liaisons, NTNU
15.45 Closing remarks from Eva Nilssen, CIUS Board director and Programme Manager GE Healthcare

16.00 *Official programme adjourned*

16.00 – 16.45 CIUS corporate partner meeting

Corporate partner meeting to select the two corporate partner board members up for election, organized by Eva Nilsen, CIUS Board director and Programme Manager GE Healthcare