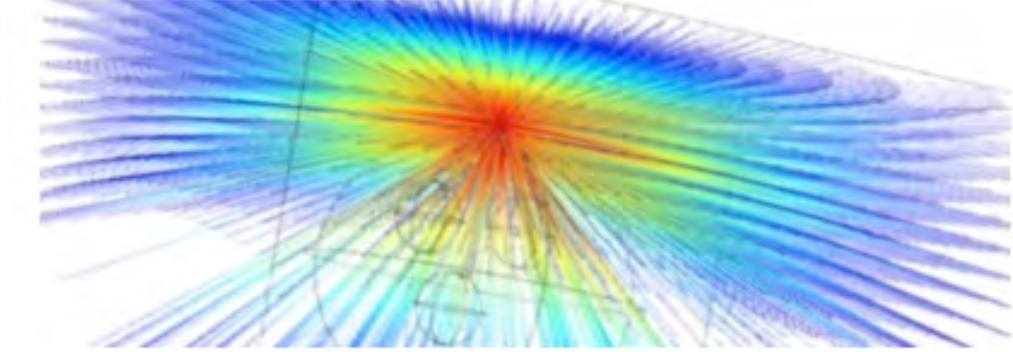


EIC/CSSE LUNCH MEETING

Meeting Date: Friday, **04 March , 2016** at 12 noon at Oak Bay Recreation Centre

PLEASE NOTE: NETWORKING FROM 11:30 AM; THE MEETING WILL START PROMPTLY AT NOON



Imaging Systems Development at UVic Focused on an Acoustic Medical Imager For Routine Prostate Examination



Dr. Rodney Herring P.Eng.

Associate Professor

Centre for Biomedical Research

Centre for Advanced Materials and Related Technologies (CAMTEC)

Director Advanced Microscopy Facility

Background:

Dr. Rodney Herring is an expert at finding things that are difficult to see. Whether it is a tumor hiding in the soft tissues of the human body or a protein crystal that is more than 100,000 times smaller than the width of a human hair, Herring can capture an image of it. An associate professor for the University of Victoria's Department of Mechanical Engineering, Herring spends much of his time designing innovative imaging devices that have a wide range of applications.

Abstract:

A brief review will be given of imaging systems based on electrons, ions, lasers, acoustic beams and radio waves being developed in Herring's Research group. The presentation will then focus on an acoustic imaging system referred to as, "Diffuse Acoustic Confocal Imager" (DACI) conceived specifically for providing a routine prostate examination. Three of DACI's special features include being able to produce a three-dimensional image of the prostate using confocal microscopy, distinguish the difference between the prostate's diseased tissue and healthy tissue using DACI's ability to measure the speed-of-sound and, if diseased tissue is found, offer a means to immediately treat the diseased tissue using beam heating and ablation.

Additionally, DACI is able to measure the prostate's temperature enabling it to monitor the treatment process, possibly providing a cure for some types of prostate diseases including cancer.

DACI's beauty is its simplicity consisting of one acoustic emitter, one focusing lens and one linear array detector. Its optical and mechanical design though is unique providing a perspective view of the prostate from within the body, not from the outside like other imagers such as Ultrasound, made possible by placing the acoustic beam source beside the prostate within the bladder from which the acoustic beam looks out of the body passing through the prostate for examination of the prostate's state, structure and function.

Location:

We will meet in the (upper level) Sports View Lounge at the Oak Bay Rec Centre, 1975 Bee Street (just south from Fort Street one block east of Foul Bay Road).

Free in-lot and on-street parking is available.

Price:

A buffet lunch will include salad, hot entrée, dessert, tea/coffee and a cash bar.

Price members and guests \$22.00*

Students \$ 10.00

* a voluntary contribution towards the costs for students.

Cash is collected during lunch (If paying by cheque, please make it payable to the VIB of EIC).

PLEASE CONFIRM your attendance to:

DR. ROBIN BLACK (robincblack@shaw.ca)

cc BRUCE BARNEWALL (lbarnewall@shaw.ca)

or tel: (BRUCE) (250)386-9442

Deadlines:

29FEB16 preliminary count and names tags prepared

02MAR16 final count and kitchen order made

WE MUST GUARANTEE A MINIMUM NUMBER OF ATTENDEES TO THE CATERER AND ALSO WANT TO ENSURE THAT WE HAVE SUFFICIENT BUFFET AND DESSERT FOR EVERYONE.

UVIC SPOTLIGHT

At each monthly meeting we provide a UVic Student Group the opportunity to introduce themselves and provide some background on their projects and pitch any input they would like from the community. Chrystal Phan from UVic's Alumni Annual Giving Office is coordinating these presentations.

UVic ECOSat Group

UVic ECOSat is a student group who has for the past four years competed in the Canadian Satellite Design Challenge (CSDC) hosted by Geocentrix Technologies, and supported by prominent market partners Boeing, MDA Space, Advanced Robotics, and UrtheCast). The challenge helps universities structure new research and expertise through the development of a 3U CubeSat measuring 10x10x34 cm with a mass less than 4 kg. Their initial satellite placed third in the national competition in 2012 and achieved first place in 2014, securing a launch into Earth's orbit.

Presenter:



Graham Looney – Project Manager

Graham Looney is a third year undergraduate student at the University of Victoria, pursuing a bachelors of arts in political science with a minor in business. After being wilfully roped into a meeting by his engineering obsessed roommate, Graham joined ECOSat in 2014 and began working as an outreach and social media coordinator, and was elected as project manager in 2015. With a background in club management and leadership development, and a passion for space technology, Graham's roles in ECOSat include project scheduling, resource allocation, communications, and outreach.

EIC CSSE 12 February 2016 meeting – Greater Victoria Harbour Authority

Dropbox link for photos and documents

<https://www.dropbox.com/sh/g5orpega1kg8zlp/AAAXod18dUrcBHZJeLINLhqWa?dl=0>

Future Meeting Dates

01APR16	Dr. Alona Fyshe + AGM	What Does Language Look Like in the Brain
06MAY16	Dr. Alan Winter	Genomics – Technologies Next Wave