SurfNet

SURFNET **WORKSHOP** 2014
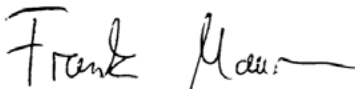
October 7 - 10, Calgary, AB
nsercsurfnet.ca

*Dear **SurfNet**,*

It is with great pleasure and some sadness that I intro-duce our last SurfNet workshop. Pleasure, in that we have another opportunity to hear and experience the incredible research our team has completed in the last 5 years, and sadness for this is the last time our group gathers together under the context of SurfNet.

I want to take this brief opportunity to thank you for your commitment, innovative ideas and commraderie throughout the network, and also for enabling me to lead an incredible group of researchers and students.

Best wishes for the future!

Frank Maurer,
Principal Investigator, SurfNet

TUESDAY / **OCT 7**

8:00am	BREAKFAST + Registration (TFDL, Gallery Hall)
9:00am	*Innovator's Toolkit* (for students/PDFs) TFDL 403 & 405 * registered event
10am	MORNING Break (TFDL, Gallery Hall)
10:30am	*Innovator's Toolkit* continues
12pm	LUNCH (TFDL, Gallery Hall)
1:00pm	*Innovator's Toolkit* continues
2pm	AFTERNOON Break (TFDL, Gallery Hall)
2:30pm	*Innovator's Toolkit* continues until 4pm

THERE IS NO SCHEDULED DINNER THIS EVENING

INNOVATOR'S **TOOLKIT** SERIES

SurfNet is excited to offer our students, Postdoctoral Fellows and interns an incredible opportunity to partake in the *Innovator's Toolkit Series* as part of the SurfNet Workshop 2014.

This is based on the highly received toolkit series from **Innovate Calgary** and is specifically created for our group as a one-day workshop, held on October 7, 2014, in collaboration with the **Hunter Centre for Entrepreneurship and Innovation** at the University of Calgary.

The *Innovator's Toolkit Series* is geared towards innovators from all science & engineering disciplines and will cover six important aspects to company development, including:

Market Discovery
Business Model Design
Market Capture
People and Leadership
Intellectual Property Strategy
Money & Milestones

This is a registered event.

UNIVERSITY OF CALGARY
HASKAYNE SCHOOL OF BUSINESS
Hunter Centre for Entrepreneurship and Innovation

INNOVATE
CALGARY

WEDNESDAY / **OCT 8**

8:00am	BREAKFAST + Registration (TFDL, Gallery Hall)
9:00am	Opening Remarks: Frank Maurer Theme Talks / Overview (Theme 1: Sheelagh Carpendale & Stacey Scott; Theme 2: Robert Biddle & Kevin Schneider; Theme 3: Nicholas Graham & Carl Gutwin)
10am	MORNING Break (TFDL, Gallery Hall)
10:30am	Minute Madness! Students have 1 minute to showcase recent projects. (see listings)
12pm	LUNCH (TFDL, Gallery Hall)
1:00pm	Two concurrent workshops, please choose one! There is no need to sign up.

Workshop 1 (TFDL 440B): *Theories and Applications of Social Science for Interactive Surfaces*
Tutorial Leaders: Dr. Stacey Scott, Victor Cheung; Collaborative Systems Laboratory, University of Waterloo
There is an increasing trend in the human-computer interaction (HCI) and interactive tabletop and surfaces (ITS) communities towards the application of social theories describing human and social behaviour into our technology designs. For example, social theories that describe how people utilize different spatial distances to engage in different types of interactions with others, called

Proxemic Zones of Personal Space, have been appropriated by ITS researchers to create new forms of interactive surface interactions, called proxemic interactions. Beyond proxemics, there is a multitude of useful social theories that ITS researchers can and should utilize in their system interfaces and interaction designs to better leverage potential users' existing social and spatial interaction practices in order to improve the effectiveness and usability of their systems. This tutorial will provide a brief overview of seminal social theories, and provide examples of how these theories can be applied to the design of interactive surfaces.

Workshop 2 (TFDL 440C): *Data Visualization Tools*
Tutorial Leader: John Brosz, Visualization Research Coordinator, LCR Information Technology, University of Calgary
This workshop provides an overview of existing visualization software and web applications. Although not exhaustive the aim of this workshop is to provide a broad overview of popular tools as well as their purposes and strengths.

2:30pm   AFTERNOON Break (TFDL, Gallery Hall)

3:00pm   Two concurrent workshops, please choose one! There is no need to sign up.

Workshop 1 (TFDL 440B): *All Your Devices Belong To Us: Using the Society Of Devices Toolkit To Create Multi-Surface Environments*
Tutorial Leaders: Teddy Seyed, Edwin Chan, Yuxi Wang, Alaa Azazi; Agile Surface Engineering Lab, University of Calgary
In this tutorial, we present our latest work, the Society of Devices (SoD) Toolkit, which allow developers to create interactive multi-surface environments. The SoD toolkit has a number of interesting features that include multiple Microsoft Kinect sensors

being used to create larger room spaces, the ability to assign data to locations, devices or people in the environment and a host of other neat interactions. In this tutorial, we go over the basics of setting up an SoD environment, and a set of small sample applications meant to demonstrate a wide variety of possible scenarios with SoD.

Workshop 2 (TFDL 440C): *Introduction to Tableau*
Tuturial Leader: John Brosz, Visualization Research Coordinator, LCR Information Technology, University of Calgary
Tableau is a multi-purpose data visualization tool that produces a wide variety of visualization types and can publish interactive visualizations to the web. This workshop provides a brief introduction running through various both simple and advanced examples of using Tableau to create visualizations. Please bring a laptop with the Tableau's desktop trial preinstalled (available at http://www.tableausoftware.com/products/trial) and ready to use.

6:30	DINNER (Senate Room, Hotel Alma)
	Cash bar

7pm	Keynote: Eugene Fiume
	Do we need an 'off' switch for always-on digital media?
	Closing Remarks: Frank Maurer

Eugene Fiume is Professor and past Chair of the Department of Computer Science at the University of Toronto, where he also co-directs the Dynamic Graphics Project. He is Director of the Masters of Science in Applied Computing programme, is Principal Investigator of a $6M CFI/ORF project on the construction of a digital media and systems lab. He has recently accepted the role of the next Scientific Director of the GRAND NCE in 2015.

Eugene's research interests include most aspects of realistic computer graphics, including computer animation, modelling natural phenomena, and illumination, as well as strong interests in internet based imaging, image repositories, software systems and parallel algorithms. He has written two books and (co-)authored over 130 papers on these topics. Fourteen doctoral students and 45 masters students have graduated under his supervision. He has won two teaching awards, as well as Innovation Awards from ITRC for research in computer graphics, Burroughs-Wellcome for biomedical research; an NSERC Synergy Award for innovation and industrial collaboration in visual modelling; the 2014 CHCCS Achievement Award; and was elected Eurographic Fellow in 2014.

His industrial interests include technology transfer in the Information Technology area, internet-based applications, digital media, wireless and multimedia systems, web-based services, large-scale computation, and the interaction of information technology and business.

8:30am   BREAKFAST
                      (TFDL, Gallery Hall)

9:30am   Please choose one of the following work
                      shops to attend. There is no need to sign up.

Workshop 1 (TFDL 440B): *Hacking with MT4j*
Tutorial Leader: Craig Anslow, Mitacs and Eyes High Postdoctoral
Research Scholar, University of Calgary
MT4j - Multi-touch for Java (http://mt4j.org) is an open source
Java framework, created for rapid development of visually rich
applications. MT4j is designed to support different kinds of in-
put devices including Android based phones, common PCs and
notebooks, to large-scale ambient displays, as well as different
operating systems. The framework has a special focus on making
multi-touch software development easier and more efficient. In
this tutorial, I will describe the framework and demonstrate some
examples.

Workshop 2 (TFDL 440C): *Simple Multi-touch Toolkit (with Android
support)*
Tutorial Leaders: Kalev Sikes (UOIT), Christopher Collins (UOIT), &
Mark Hancock (University of Waterloo)
Developing multi-touch applications can be difficult and tedious,
especially for people without a programming background. The
Simple Multi-touch Toolkit, a library for Processing and Java,
unifies all the most common touch input devices, including TUIO,
Windows Touch, and now Android (with limited support), and
sports simple, easy-to-understand syntax. Accessible, yet power-
ful, it opens up the realm of touch to the inexperienced program-
mer, and makes coding multi-touch interactions much easier. Free
download here: http://vialab.science.uoit.ca/SMT/. Please bring
your laptop and a touch device, if you have one.

**SurfNet Advisory Board Meeting (9:30-1pm): Theme Leads + Advisory Board please meet in TFDL 410

11am	MORNING Break (TFDL, Gallery Hall)
11:30am	Start setting up for Industry Open House (TFDL 440 A&D, Gallery Hall, Vis Studio/466B)
1:00pm	LUNCH (TFDL, Gallery Hall)
2pm	Continue set up for Industry Open House. This time is also your chance to see what others are up to! All demos should be ready, posters up, and spaces clean for Industry Open House starting at 5pm.
3:30pm	AFTERNOON Break (TFDL, Gallery Hall)
5:00-8:00pm	Industry Open House Casual, open format, all within the TFDL (Gallery Hall, 440 A/D, Vis Studio 466B). APPETIZER RECEPTION with cash bar.
8:00pm	Industry Open House closes. Tear down, clean up and return hardware. Ensure spaces are left clean and empty of all personal items.

FRIDAY / **OCT 10: NETWORKING TOUR**

* THIS IS A REGISTERED EVENT
** DEPARTURE DAY FOR THOSE NOT ATTENDING THE TOUR

8:30am	Meet in lobby of Aloft Hotel. Breakfast to-go will be provided for those going on the tour only.
9:00am	Depart Aloft Hotel for the Rocky Mountains.
10:30am	Arrive Johnston Canyon Lower Falls. Easy-level hike to falls, 1 hour round trip, 1.2 km one way; 30 m elevation gain.
11:30am	Depart falls for Banff Gondola. Ride up Mount Rundle, lunch in the bistro at the top. Explore and return back to the bottom via gondola or walk down.
2:30pm	Bus leaves Gondola parking lot for Banff Upper Hot Springs. People that do not want to go to the Hot Springs, will be dropped off in the town site at the Banff Park Museum parking lot (@ Buffalo St & Banff Ave).
4:00pm	Bus picks up people from the town site, same location as drop off.
4:15pm	Bus picks up people from the Hot Springs.
4:45pm	Pit-stop in Canmore if interested, otherwise, return to Calgary via Highway #1A through Exshaw, Morley, and Cochrane.
7:00pm	Arrive in Calgary, back at hotel.

MAPS AND CONTACT **INFORMATION**

WIRELESS ACCESS ON CAMPUS
Account: surf.net PW: Tfdl2014
This will work on AIRUC and AIRUCSECURE

NETWORK MANAGER
Robin Arseneault
Office: ICT 528, 403.220.5904
Cell: 403.399.3889 Email: raarsene@ucalgary.ca

HOTEL ALMA
169 University Gate NW, Calgary, Alberta, Canada T2N 1N4
Toll Free: 1.877.498.3203, Phone: 403.220.3203
stay@hotelalma.ca   http://www.hotelalma.ca

Located on the University of Calgary Campus, and just minutes
from the Taylor Family Digital Library

MAPS AND CONTACT **INFORMATION**

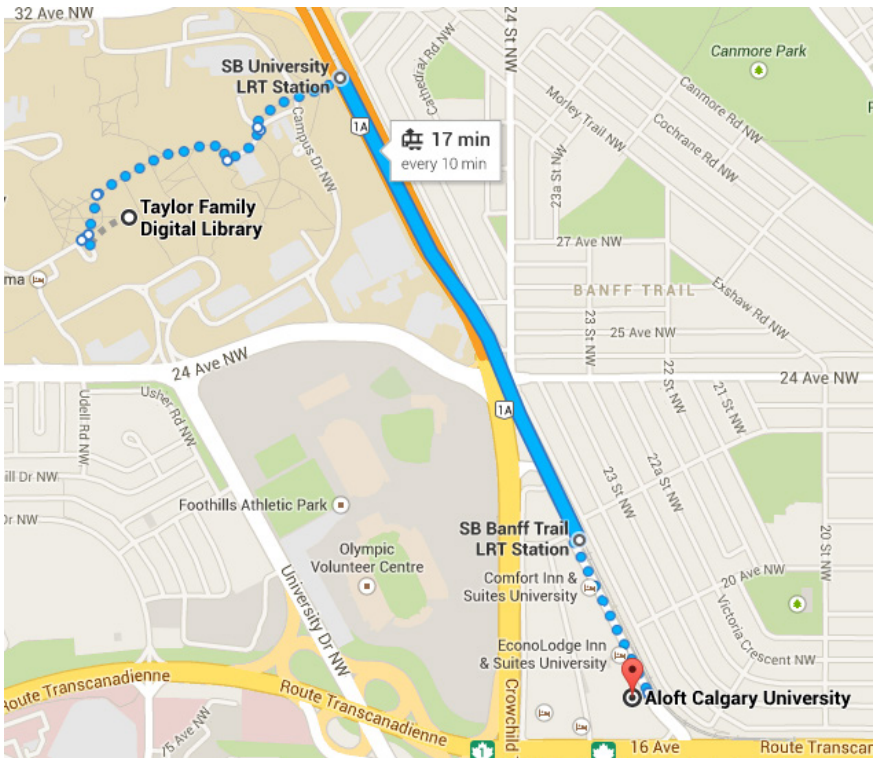**ALOFT CALGARY UNIVERSITY HOTEL**
2359 Banff Trail NW
Calgary, AB T2M 4L2
Phone: (1)(403) 289-1973
http://www.aloftcalgaryuniversity.com

Located one short train stop from the University of Calgary, or a 30 minute walk.

CTrain from Aloft to TFDL. $3 one-way (takes coin, debit or credit), vaid for 90 min. Please keep all train tickets for reimbursement! Without the ticket we cannot reimburse you. We can also provide train tickets upon registration day.

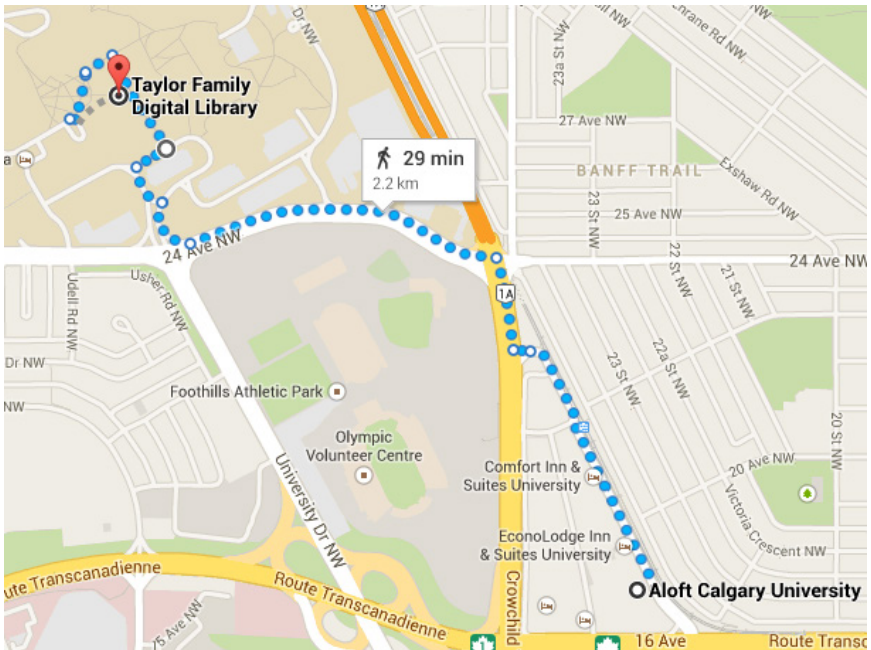# MAPS AND CONTACT **INFORMATION**

ALOFT CALGARY UNIVERSITY HOTEL
2359 Banff Trail NW
Calgary, AB T2M 4L2
Phone: (1)(403) 289-1973
http://www.aloftcalgaryuniversity.com

Walking between locations is also possible.

CAMPUS SECURITY
Phone: 403-220-5333
Email: campus.security@ucalgary.ca

SURFNET IS..

Advisory Board:
Andrea Benoit, Hakan Erdogmus, Bruce Gilkes, Michael Haller, Kori Inkpen Quinn, Dave Thomas, Jennifer van Zelm

Principal Investigator: Frank Maurer

Theme Leads:
Theme 1: *Humanizing the Digital Interface*
Sheelagh Carpendale + Stacey Scott

Theme 2: *Improving Software Time to Market*
 Robert Biddle + Kevin Schneider

Theme 3: *Building Infrastructure for Digital Surfaces*
Nicholas Graham + Carl Gutwin

Network Researchers:
Saul Greenberg, Jorg Kienzie, Philippe Kruchten, Regan Mandryk

Collaborating Researchers:
Scott Bateman, Anastasia Bezerianos, Sebastian Boring, Jeff Boyd, Sonia Chiasson, Christopher Collins, Pierre Dragicevic, Elise Fear, Daniel Fekete, Mark Hancock, Rashina Hoda, Pourang Irani, Petra Isenberg, Timothy Lethbridge, Angela Martin, Miguel Nacenta, Neil Randall, Ehud Sharlin, Anthony Tang, Xin Wang

Network Manager: Robin Arseneault

Business Development Manager: Jeff LaFrenz

SurfNet would like to give special thanks to the following funding agency, industry partners and institutions that have supported this network since 2009!