



September 22-23, 2016

4th Semi-Annual Industrial Advisory Board Meeting of the NSF I/UCRC iPerform Center

Assistive Technologies to Enhance Human Performance

Please register for the meeting @ <http://tinyurl.com/iperform4>

Hereford University Center

300 W First St
Arlington, TX 76010

Carlisle Suite

2nd Floor, Room 235
[Building Map](#)

Parking

College Park South Garage
[Map](#)

Note: Invited Participants who are not IAB members and are not UTA / UTD faculty or students, are welcome but will need to fill out a Non-Disclosure Agreement (NDA).

DAY 1: Thursday, September 22, 2016

8:30-9:30a ***Participant Registration & Breakfast***

9:30-9:50a ***Welcome Remarks***

Fillia Makedon, Center Director and Site Director, UT Arlington
Ovidiu Daescu, Site Director, UT Dallas
Duane Dimos, Vice President for Research, UT Arlington
Peter Crouch, Dean of the College of Engineering, UTA

9:50-10:20a ***Participant Introductions***

10:20-10:50a ***Introduction to New Center Members (UT San Antonio)***
IAB Closed-Door Meeting #1

10:50-11:20a ***Coffee Break***

11:20a-11:50p ***Presentations by NSF I/UCRC Officers & Center Evaluator***

Dr. Dmitri Perkins, NSF I/UCRC Program Director
Dr. Dee Hoffman, NSF I/UCRC Center Evaluator

11:50-12:50p ***Presentations of Ongoing, Funded Projects – Part 1 10 min talks, 5 min Q&A, & 5 min LIFE Forms***

11:50 – 12:10 ***Framework for Full-Body VR Training Applications***

Ryan McMahan (UTD, Raytheon)
12:05-12:10: Project evaluation: Complete LifeForm

12:10 – 12:30 ***VR for Upper Extremity Rehabilitation***

Shawn Gieser and Fillia Makedon (UTA, VA)
12:25-12:30: Project evaluation: Complete LifeForm

12:30 – 12:50 ***Network Analytics via Graph Sampling***

Gautam Das (UTA, AT&T)
12:45-12:50: Project evaluation: Complete LifeForm

Wifi Network: **UTA Auto Login**

Wifi Username: **evt-iab**

Wifi Password: **iPerform16**

I/UCRC-LIFE Portal: www.iucrc.com

LIFE Portal Password: **iPerformFall4**

- 12:50-2:10p** *Lunch Break and Poster Session (posters will be in adjoining room)*
- 2:10p-3:10p** *Presentations of Ongoing, Funded Projects – Part 2 10 min talks with 5 min short discussion*
- 2:10 – 2:30p *Monitoring & Assessing Human Communication – Leveraging Speech and Language Technology*
John Hansen (UTD)
2:25-2:30: Project evaluation: Complete LifeForm
- 2:30 – 2:50p *Effective Test Generation Using Combinatorial Decision Coverage*
Eric Wong (UTD, NIST)
2:45-2:50: Project evaluation: Complete LifeForm
- 2:50 – 3:10p *Adaptive and Personalized Interactive Systems*
Kostas Tsiakas & Fillia Makedon (UTA, Demokritos)
3:05-3:10: Project evaluation: Complete LifeForm
- 3:10 – 3:15p** *Completion of LIFE Form Review of Ongoing Projects, Questions by IAB Members*

END OF ONGOING PROJECT PRESENTATIONS

- 3:15-3:45p** *Coffee Break*
- 3:45-4:45p** *1st Round Table Discussion: Industry Needs & Feedback on Center Research*
LIFE Form Review of New Projects (posters and oral presentations), Discussion by IAB Members
- 4:45-5:00p** *Day 1 Closing Remarks, Adjourn*
- 6:00-8:00p** *Dinner for IAB members, NSF, and invited guests*

DAY 2: Friday, September 23, 2016

- 8:30-9:30a** *Breakfast, Q&A about Day 2 Program*
- 9:30-10:30a** *Faculty Member Project Pitches 5 min each*
Pitches will include references to posters still on display from Day 1
- 10:30-10:45a** *Coffee Break*
- 10:45-11:45a** *2nd Round Table: Industry Talks on Projects of Interest and Research Needs*
LIFE Form Review of New Projects (posters and oral presentations), Discussion by IAB Members
- 11:45a-12:30p** *IAB Closed-Door Meeting #2: Review of Center, Setting Future Goals*
- 12:30-1:30p** *Box Lunches*
Summary & Closing Remarks, Adjourn

List of Posters:

1. ***CyFuzz: A Differential Testing Framework for Cyber-Physical Systems Development Environments***
Shafiul Chowdhury, Taylor Johnson, & Christoph Csallner (UTA)
2. ***Converting Mobile App UI designs to code with PixelToApp.com***
Christoph Csallner, Tuan Nguyen, & Siva Natarajan (UTA)
3. ***Powered Knee-Ankle Exoskeleton for Providing Body-Weight Support***
Ge Lv, Hanqi Zhu, & Robert D. Gregg (UTD)
4. ***Big Image-Omics Data Analytics for Clinical Outcome Prediction***
Xinliang Zhu, Jiawen Yao, & Junzhou Huang (UTA)
5. ***An Untethered Transfemoral Powered Prosthetic Leg with High Torque Density and Low Reduction***
Toby Elery & Robert D. Gregg (UTD)
6. ***Looking Up the Meaning of Signs - A Computer Vision Tool for Sign Language Users***
Srujana Gattupalli, Alex Dillhoff, Christopher Conly, & Vassilis Athitsos (UTA)
7. ***Monitoring the Network of Large-Scale Container Deployments in Data Centers***
Kun Suo & Jia Rao (UTA)
8. ***Reconfigurable Computing in the Cloud: Platform for Deep Learning***
Dinesh Bhatia (UTD)
9. ***ClaimBuster: Automated, Live Fact-Checking***
Naeemul Hassan, Fatma Arslan, Josue Caraballo, Damian Jimenez, Gensheng Zhang, Chengkai Li, & Mark Tremayne (UTA)
10. ***Data In, Fact Out: Automated Monitoring of Facts by FactWatcher***
Naeemul Hassan, Afroza Sultana, You Wu, Gensheng Zhang, Chengkai Li, Jun Yang, & Cong Yu (UTA)
11. ***Precisely Timed Peripheral Nerve Stimulation During Gait Using a Wireless Implanted Microelectrode Array***
Rebecca Frederick, Robert D. Gregg, & Stuart Cogan (UTD)
12. ***Top-K Source-Destination Pair***
Azade Nazi, Jeess Augustine, Saravanan Thirumuruganathan, Gautam Das, Divesh Srivastava, & Nan Zhang (UTA, QCRI, AT&T Research Labs, George Washington University)

List of Pitches:

1. ***Human Activity Recognition Technologies***
Vassilis Athitsos (UTA)
2. ***Finding Bugs in MathWorks Simulink with CyFuzz***
Christoph Csallner (UTA)

3. ***ClaimBuster: Automated, Live Fact-Checking***
Chengkai Li (UTA)
4. ***End-to-End Performance Monitoring in Virtualized Data Centers***
Jia Rao (UTA)
5. ***The Case for Smart Technologies for Vocational Safety and Health***
Fillia Makedon (UTA)
6. ***Flexible, Powered, Ankle-Foot Orthosis using Electroactive Polymers***
David Allen (UTD)
7. ***Precisely Timed Peripheral Nerve Stimulation During Gait Using a Wireless Implanted Microelectrode Array***
Rebecca Frederick (UTD)
8. ***Mobile Devices for Visuo-Tactile Guidance: Case Study for Emergency Needle Decompression***
Nicholas Gans & Ann Majewicz (UTD)

iPerform Industry Members and Collaborators:

1. **Agillaire, Inc.***
2. **AT&T***
3. **Barrett^**
4. **Bosch***
5. **Dallas Veteran Affairs Research Corp. (VANTHCS)***
6. **Demokritos – National Center for Scientific Research***
7. **National Institute of Standards and Technology***
8. **Raytheon***
9. **SPEETRA***
10. **Texas Instruments***

* = active member

^ = research collaboration company

Additional Information:

Registration link for the meeting: <http://tinyurl.com/iperform4>

Representatives are recommended to bring their own laptops in order to access the LIFE forms online. Wifi and LIFE portal info will be given at the meeting.

Parking at College Park South Garage: <http://www.uta.edu/maps/?id=440>

Directions to Hereford University Center: <https://goo.gl/maps/4vKjxAK8PjF2>

Map of Hereford University Center (meeting is in Carlisle Suite, Room 235): <https://goo.gl/x4vLIC>

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