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:

   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)

   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, Jees 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](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](http://www.uta.edu/maps/?id=440)  
Directions to Hereford University Center: [https://goo.gl/maps/4vKjxAK8PjF2](https://goo.gl/maps/4vKjxAK8PjF2)  
Map of Hereford University Center (meeting is in Carlisle Suite, Room 235): [https://goo.gl/x4vLIC](https://goo.gl/x4vLIC)

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Wifi Username: **evt-iab**  
Wifi Password: **iPerform16**

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