



# Program of NSF CBL Semiannual Meeting 2018

*Creating Intelligence*

National Science Foundation Center for Big Learning



November 26 – November 28, 2018, Eugene, OR



## Reception - Monday, November 26, Ford Alumni Center Ballroom

6:30pm – 8:30pm Welcome Reception (Ford Alumni Center - Ballroom)

## Day 1: Tuesday, November 27, Ford Alumni Center Ballroom

8:00am Participant Registration

8:00am - 8:30am Breakfast and Networking Time

8:30am - 8:45am Welcome Remarks (Dr. David O. Conover, Vice President for Research&Innovation, UO)

8:45am - 9:15am Center Updates (CBL Directors)

9:15am - 9:30am Industry Advisory Board Introductions (IAB Chairs)

9:30am - 9:35am NSF IUCRC Overview and Welcome (Dr. Dmitri Perkins, NSF Program Director)

9:35am - 9:50am Coffee Break

9:50am - 10:20am Level of Interest Feedback Evaluation (LIFE) Form Overview (Ms. Connie Chang, Center Evaluator)

10:20 am - 12:20 pm Project Review Presentations (DL Systems and Models) and LIFE  
Chair: Andy Li

(8m+2m) * 10	10 projects: 8 minutes presentation and 2 minutes for QA and LIFE Form by IAB members	PIs
P001	B1-S DeepCloud: An Intelligent Platform by the Community and for the Community	Andy Li (UF), Yugi Lee (UMKC), Allen Malony (UO)
P002	F1-M Bidirectional Deep Learning Architecture for Scene Understanding	Jose Principe (UF)
P003	M1-V Deep Learning for Future Video Compression	Zhu Li, Sejun Song (UMKC)
P004	O2-M Ontology-based Deep Learning with Explanation for Human Behavior Prediction	Dejing Dou (UO)
P005	F2-M GraphBTM: Graph Enhanced VAE for Biterm Topic Model	Andy Li (UF)

15 Minutes Break.

P006	M2-S Smart-ARM: Smart Streaming Telemetry for Agile and Resilient Management of Wireless and Mobile Software Defined Networking	Sejun Song (UMKC)
P007	F3-M TPR Learning: a Symbolic Neural Approach for Vision Language Intelligence	Dapeng Oliver Wu (UF)
P008	F4-M Adaptive Manifold Learning for Multi-Sensor Translation and Fusion given Missing Data	Alina Zare, Paul Gader (UF)
P009	O4-N Multilingual Knowledge Alignment with Embedding Representation Learning	Ji Wu, Dejing Dou (UO)
P010	M3-T Mobile Edge Depth Sensing and Point Cloud Services for Auto Driving	Zhu Li (UMKC)

12:30pm - 1:30pm Lunch

1:30pm - 3:30pm Project Review Presentations (DL Applications: Business, Health, IoT, Security) and LIFE Form  
Session Chair: Zhu Li

(8m+2m) * 10	10 projects: 8 minutes presentation and 2 minutes for QA and LIFE Form by IAB members	PIs
P011	M5-M Low Resolution and Quality Image Understanding	Zhu Li (UMKC)
P012	O5-B Deep Learning for Improving Stock Market Investment	Zhibin (Ben) Yang (UO)
P013	O3-B Ontology-based Interpretable Deep Learning for Consumer Complaint Explanation and Analysis	NhatHai Phan (NJIT/UO)
P014	F7-S Intelligent Assistant Platform	Andy Li, Dapeng Wu, Amy Pan (UF)
P015	F6-V Machine-Learning-Enabled Video Coding Strategy for Object Detection	Dapeng Wu (UF)

CBL Host: University of Oregon

Location: Ford Alumni Center, Ballroom, 1720 E 13th Avenue, Eugene, OR  
Contact: Dejing Dou (1-541-221-0425) or Gong (Eric) Zhang (1-206-747-9971)

**15 Minutes Break.**

		<b>PIs</b>
<b>P016</b>	F5-T <b>DeepSLAM: Visual Intelligence for Navigation and Planning</b>	Warren Dixon, Andy Li (UF)
<b>P017</b>	M4-V <b>Querying Images via Knowledge Graphs</b>	Praveen Rao (UMKC)
<b>P018</b>	O6-T <b>Advanced Product Differentiation using Deep Learning</b>	Joe Sventek (UO)
<b>P019</b>	O7-H <b>Using Machine Learning to Discover How the Brain Works</b>	Allen Malony (UO)
<b>P020</b>	O1-N <b>Semantic Deep Learning for Electronic Health Records</b>	Dejing Dou (UO)

3:30pm - 3:45pm **Coffee Break**

3:45pm - 5:15pm **New Site Presentation and Poster Sessions (Poster Exhibition and Demos) Session Chair: Dejing Dou**

		<b>PI</b>
1 potential new site (Northwestern): 15 minutes presentation and 5 minutes for QA		
<b>P021</b>	N1-H <b>AI in Medicine Research at Northwestern</b>	Aggelos K. Katsaggelos (Northwestern)

		<b>PIs</b>
<b>S001-S020</b>	S001-S020 posters are for the same 20 projects as the P001-P020 presentations	
<b>S021</b>	O8-B <b>Automatic Customer Service for Mobile Phone Users</b>	Dejing Dou, Ji Wu (UO)
<b>S022</b>	M6-T <b>DeepRobo: Cognitive Robotics with Distributed and Collaborative Deep Learning</b>	Yugi Lee (UMKC)
<b>S023</b>	M7-T <b>DeepLite: Deep Learning with IOT and Mobile Devices</b>	Yugi Lee (UMKC)

5:15pm - 6:15pm **Closed IAB Meeting**

6:15pm - 6:30pm **Review of evening and Day 2 activities (CBL Directors)**

6:30pm – 8:30pm **Dinner**

**Day 2: Wednesday, November 28th, Ford Alumni Center Ballroom**

8:00am - 8:30am **Arrival and Breakfast**

8:30am-10:00am **LIFE Form Review and Discussion (All)**

10:00am -10:15am **Coffee Break**

10:15am - 10:45am **CBL Business Discussions (CBL Faculty, IAB, and NSF): Budgets, Efforts, Center Model, etc**

10:45am-11:15am **Closed IAB Meeting (NSF and IAB)**

11:15am-11:30am **IAB Report Out**

11:30am -12:00pm **Panel Discussions (IAB representatives and CBL Faculty members)**

12:00pm-12:20pm **Action Items and Plans for Next Semiannual Meeting (IAB, NSF, and CBL Directors)**

12:20pm-12:30pm **Summary and Closing Remarks (All)**

12:30pm - 1:30pm **Lunch**

**Adjourn**

<b>Notations</b>		<b>WiFi Access Information</b>
<b>Team</b>	Site#index-ProjectCategories for all talks	1. Guest Wireless <ul style="list-style-type: none"> <li>• Select <b>UO Guest</b> on your device</li> <li>• Create an account for 7-day Internet access at no cost</li> </ul> 2. Eduroam <ul style="list-style-type: none"> <li>• Select <b>eduroam</b> on your device</li> <li>• Log in with your username and password from your home institution</li> </ul>
<b>Presentations</b>	For LIFE Form online, we use <b>P1 to P20</b> to index the presented projects.	
<b>Posters</b>	We use <b>S1 to S20</b> to index the posters of the presented projects. Additional Posters include S21-S23.	
<b>Site/Center-wide Team</b>	B for CBL, F for UF, O for UO, M for UMKC, N for Northwestern	
<b>Project Categories</b>	M for Models and Algorithms, S for Systems and Platforms, and A for General Applications (B for Business, C for Cybersecurity, H for Health and Biology, N for NLP, V for Vision, T for IoT and Robotics)	

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