ITEMS MARKED IN RED ARE ONLY FOR NSF SITE VISIT TEAM
ITEMS HIGHLIGHTED IN YELLOW ARE RESTRICTED ACCESS FOR CERTAIN PARTICIPANTS

December 1 2015

Pickup: Walk from Nittany Lion Inn (at 7:20 a.m. for NSF Team) to IST 113. Prof. Das meets the site visit team in Lobby.

7:30 a.m.- 8:00 a.m. *Breakfast.*

8:00 – 8:55 a.m Session 1: Introductions/Overview. IST 113 Cybertorium

8:00 – 8:15 Introductions by NSF Program Manager
Greetings from Nick Jones, Provost, Penn State
Amr Elnashai, Dean, Penn State

8:15 – 8:45 Overview of Expeditions Project: Narayanan

8:45 – 8:55 Design Driver Demo

9:00-10:30 a.m Session 2: Research Thrusts IST 222 (additional seating: 218)

9:00 – 9:30 Research Thrust I – Vision Foundations – L. Itti, USC and R. Desimone, MIT

9:30 – 10:00 Research Thrust II – Hardware Innovations – G. Cauwenberghs, UCSD; V. Narayanan, PSU; S. Levitan, Pitt; and P. Wong, Stanford

10:00 – 10:30 Research Thrust III – Usability and Privacy – M. Rosson, PSU; D. Kifer, PSU and L. Giles, PSU

Morning Break (Snacks/Coffee Available)

(Only for NSF team) 10:30– 11:00 NSF Executive Session/ Break IST 360H

10:30-11:00 Poster/Demo Set up time for students

11:00-11:40a.m. Session 3: Education IST 222 (additional seating: 218)

Curricular Design, Chita Das, PSU
Student Professional Development - S. Advani, Graduate Student, PSU
K-12 Education – Narayanan and Kelly Forest, Teacher, Grier Girls School, Tyrone, PA
Undergraduate Research and Labs – Kevin Irick, YCP and Ikenna Okafor, PSU

11:40-12:15 Session 4: *Leadership and Collaborations* **IST 222 (additional seating: 218)**

Center Organization and Collaboration – Levitan, Pitt
Student Perspective: Interaction across disciplines and Industry – William Tsai, PSU
Global Interactions - Narayanan, PSU
Prof. Liping Shi, Director, Center for Brain Inspired Computing Research(CBICR), Tsinghua University.
Prof. Yu Cao, Tsinghua University
Prof. Marvin Chang, Associate Executive Director, National Program for Intelligent Electronics (NPIE) of Taiwan
Prof. Luca Benini, ETH Zurich, Chief Architect ST P21012 (Via Webex)

12:15 – 1:30 Lunch and Posters and Demo Second floor Foyer
(See attached Sheet for list of Posters/Demos)

1:30-1:45 Private Meeting with students (Students/Postdocs only with Site visitors) IST 223

1:45 – 2:15 NSF Executive Session *(30 minutes) IST 360H*

2:15-2:45 Short In-Depth Talks **IST 222 (additional seating: 218)**

Advances in Vision – Alan Yuille, UCLA
Spiking neuromorphic systems with nanoelectronic synapses for online learning – Siddarth Joshi, UCSD and Burc Etyyilmaz, Stanford

2:45 – 3:15 Knowledge Transfer – Das/Carroll

Educational Outcomes – Chita Das, PSU
Applying the advances for assisting Visually Impaired – Jack Carroll, PSU
Michelle McManus, National Federation of Blind, State College Chapter
Industry Interactions – Led by Narayanan, PSU
Timothy Melano, IBM Almaden,
Pradip Bose and Alper Buyuktosunoglu, IBM Watson
Nilesh Ahuja, Intel (Vision)
Tanay Karnik, Intel (Circuits and Systems)
Jaydeep Kulkarni, Intel (Emerging Technology/Devices)
Yasuki Tanabe, Toshiba
Chris Emmons, ARM (Via Webex)
Vijay Raghavan, Vebinary Solutions
Greg Link, Magic Leap (Via Webex)
Mark Nitzberg, A9 ((Via Webex)
James Coughlan (Via Webex)
Benjamin Wheeler, US Navy

3:15-3:30 Summary: Opportunities and the Road Ahead – Narayanan and Team

3:30-4:30 Snack Break

3:30-4:30 NSF Executive Session: *Site Visit Review Team to Develop Issues/Concerns for Clarification (1 hour).*

4:30-5:00 Meeting with Lead-PI and others to deliver a list of issues/questions: (30-45 minutes)**:**

6:00 – 9:00 PM *Working dinner for Visual Cortex Team and Collaborators*

December 2 2015

Pickup: *7:30 a.m.*

7:30 A.M. - 8:30 A.M. Breakfast.

8:30 A.M. **Clarification of Issues Raised by the Site Visit Review Team** *(One to one and a half hours) Meeting with the PIs and other key staff to respond to questions from the site visit review team members. Please prepare enough copies of the overheads for all the visitors and your team.*

NSF Team
Report Writing - *10:00 A.M. to 2:30 P.M: Site Visit Team prepares Site Visit Report*

Expedition Team 10-2:30: Working Session: Talks/Interactions with Industry/International Collaborators (FOR Expedition Team)

Presentation of Site Visit report to Expeditions Leadership Team *– 2:30pm-3:30 pm (ONLY PIs and NSF Team)*

Students and Industry interaction session 2:30pm-3:30 pm

Conclusion of Site Visit - *3:30 PM.*

DAY 2 (IST 222) – Industry Interaction – Only for Industry/International Advisers and Visual Cortex on Silicon Team (VCOS) – Not externally reviewed.

10-11:30: Embedded Vision: Applications Perspective (Moderated by Kevin Irick, SiliconScapes)

Panelist (make 10 minute presentation; followed by Q&A with VCOS Team)
Visually Impaired Assistance: Mark Nitzberg, Amazon A9 (Via Webex)
Visually Impaired Assistance: James Coughlan, Smith-Kettlewell Eye Research Institute (Via Webex)
Automotive - Yasuki Tanabe, Toshiba, Japan
Health Care - Vijay Raghavan, Vebinary Solutions
Automotive – Nilesh Ahuja. Intel

Q&A to begin with lead questions from the following
Laurent Itti/Alan Yuille - Seek Algorithm Clarifications/Needs
Mary Beth Rosson/Dan Kifer – Interface and Privacy Clarification/Needs

11:30-12:00 International Perspective (Moderated by Wang Yu, Tsinghua University)

Luping Shi
Director of Center for Brain Inspired Computing Research(CBICR), Tsinghua University
The status and future of brain inspired computing research at Tsinghua University

1:00-2:30 Embedded Vision: Hardware Perspective (Moderated by Marvin Chang, National Tsinghua University, Taiwan)
IBM TrueNorth - Timothy Melano, IBM Almaden
IBM Accelerator Design – Pradip Bose and Alper Buyuktosungolu Watson, IBM Watson
Intel Neuromorphic Program Overview – Tanay Karnik, Intel
Influence of Emerging Devices on new architectures – Jaydeep Kulkarni, Intel

Q&A to begin with lead questions from the following
Suman Datta/Philip Wong – Emerging Technology Impact
Gert Cauwenberghs/Levitan – System/Circuit Architecture

2:30-3:30 Poster Session - Student Interactions with Industry; Follow up and Q&A based on posters; presentations – more one to one to identify continued partnerships for next year