**UPitt Infrastructure Sensor Collaboration (UPISC) 2023 Workshop**

Day 1 By Invitation Only:

(Organizers, Steering Committee, Invited Speakers, Invited Panelists)

Date: November 7th

Location: [Energy Innovation Center Pittsburgh (eicpittsburgh.org)](https://www.eicpittsburgh.org/)

The first day of the UPISC workshop will be an information exchange between organizers at **NETL, University of Pittsburgh,** and **workshop steering committee members** as well as an opportunity for **invited speakers and panelists** to prepare for the meeting on the subsequent day. **City of Pittsburgh and other regional stakeholders** will also be invited for a discussion on infrastructure sensing and digital twin needs within the local area surrounding the University of Pittsburgh.

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| ***Time*** | ***Activity*** |
| **Innovation Hall** | **Steering Committee and Conference Organizers Only** |
| 1:00 p.m. | **Welcome Remarks** |
| 1:05 p.m. | **Workshop Planning Updates and Discussion** |
| 1:30 p.m. | **Status Update of UPISC – Action Items and Progress – Discussion of Path Forward** |
| 2:30 p.m. | **Coffee and Networking Break** |
| 3:00 p.m. | **Pittsburgh Public Sector Infrastructure Sensing Needs and Roadmapping (Invited)** |
| **Covestro Room** | **Steering Committee, Conference Organizers, and Invited Speakers / Panelists** |
| 4:00 p.m. | **Overview of Workshop and Final Preparation** |
| 4:15 p.m. | **Adjourn** |
| 4:15 – 6:00 p.m. | **Networking Social Hour and Light Refreshments** |

**UPitt Infrastructure Sensor Collaboration (UPISC) 2023 Workshop**

Open Workshop:

(All Registered Attendees)

Date: November 8th

Location: [Energy Innovation Center Pittsburgh (eicpittsburgh.org)](https://www.eicpittsburgh.org/)

**All events of the open workshop day will be held in the DLC Bright Space Room**

The open workshop program will include all registered attendees.

*Morning Agenda*

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| ***Time*** | ***Activity*** |
| 8:00 a.m. | **Welcome Remarks and Introduction to the Workshop (Objective, Scope, Steering Committee)** |
| 8:10 a.m. | **University and NETL Speaker Introduction** |
| 8:15 a.m. | **UPitt and NETL Speakers – Sensing Collaborations and UPISC**   * 10-min presentation – [Dr. Mike Holland, Science Policy & Research Development](https://www.linkedin.com/in/mjholland01/), [Dr. David Vorp, Sr. Associate Dean for Research& Facilities](https://www.linkedin.com/in/david-vorp-251b1040/), University of Pittsburgh * 10-min presentation – [Dr. Bryan Morreale, Executive Director](https://www.linkedin.com/in/bryan-morreale-43898455/), National Energy Technology Laboratory |
| 8:35 a.m. | **Update on UPISC and Progress on Prioritized Action Items From Workshop #1**   * 10-min Presentation – [Dr. Paul Ohodnicki, RK Mellon Faculty Fellow in Energy](https://www.linkedin.com/in/paul-ohodnicki-366ab115/), University of Pittsburgh * 5-min Q&A |
| 8:50 a.m. | **Keynote Industry Speaker #1** |
| 8:55 a.m. | **Topic One – Keynote – The National Academies Perspective on Infrastructure and Sensing**   * 20-min Presentation – [Dr. Cameron Oskvig, Director Board on Infrastructure and the Constructed Environment](https://www.linkedin.com/in/cameron-oskvig-aa29a9/), National Academy of Sciences * 10-min Q&A |
| 9:25 a.m. | **Workshop Logistics – Day One, Morning** |
| 9:25 a.m. | **Break** |
| 9:40 a.m. | **Topic Two Speaker Introduction** |
| 9:45 a.m. | **Topic Two – Invited – Standardization of Sensing, Data, and Analytics Across Infrastructure Segments**   * 20-min Presentation – [Dr. David Krohn, Managing Partner](https://www.linkedin.com/in/david-krohn-72171465/), IEEE Fiber Optic Sensor Standards, P2067 * 10-min Q&A |
| 10:15 a.m. | **Topic Three Speaker Introduction** |
| 10:20 a.m. | **Topic Three – Sensor Device Technologies Progress Updates (Optical, Passive Wireless, etc.)**   * 15-min Presentation (NETL) [Dr. Ruishu Wright, Research Scientist / Technical Portfolio Lead](https://www.linkedin.com/in/ruishu-f-wright-96b26642/), National Energy Technology Laboratory * 15-min Presentation (Pitt) [Dr. Paul Ohodnicki, RK Mellon Faculty Fellow in Energy](https://www.linkedin.com/in/paul-ohodnicki-366ab115/), University of Pittsburgh * 10-min Q&A |
| 11:00 a.m. | **Panel on Sensing Opportunities and Needs in H2 Infrastructure (Dr. Wright Moderator)**  **Industry, University and National Lab Perspective**   * 5 min Panelist 1 (DOE Program) – [Evan Frye, Physical Scientist](https://www.linkedin.com/in/evanjamesfrye/), US Department of Energy Headquarters * 5 min Panelist 2 (National Lab and H2 Hubs) – [Dr. William Buttner, Senior Engineer](https://www.linkedin.com/in/william-buttner-6ab0a7226/), National Renewable Energy Lab * 5 min Panelist 3 (NETL Technology) – Dr. Nate Weiland, National Energy Technology Lab * 5 Min Panelist 4 (Industry) – [Dr. Chris Moore, Technical Program Manager](https://www.linkedin.com/in/chris-moore-gti/), GTI Energy * 5-min Panelist 5 (Industry) – [Dr. Troy Demmer, CPO, Cofounder](https://www.linkedin.com/in/troy-demmer-27037526/), Gecko Robotics * Other Panelists - To Be Announced * 35-min Moderated Q&A |
| 12:00 p.m. | **Logistical Announcements / Lunch / Networking Break** |

*Afternoon Agenda*

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| ***Time*** | ***Activity*** |
| 1:15 p.m. | **Afternoon Announcements** |
| 1:20 p.m. | **Keynote Speaker #2 Introduction** |
| 1:25 p.m. | **Topic Four – Keynote – Digital Twins Applied to Infrastructure Sensing**   * 20-min Presentation – [Dr. Arvind Tiwari, Program Manager](https://www.linkedin.com/in/arvind-kumar-tiwari-95224019/), GE Vernova * 10-min Q&A |
| 1:55 p.m. | **Topic Five Speaker Introduction** |
| 2:00 p.m. | **Topic Five – Invited – Electric Power Grid Sensing, Analytics, and Digital Twins**   * 20-min Presentation – [Jeremy Gill, Interim Chief Information Officer](https://www.linkedin.com/in/jeremyngill/), Duquesne Light Company * 10-min Q&A |
| 2:30 p.m. | **Topic Six Speaker Introduction** |
| 2:35 p.m. | **Topic Six – Invited – Open Standards in Wireless Sensors**   * 20-min Presentation – [Christopher Ziolkowski, R&D Manager, Sensors and Actuators](https://www.linkedin.com/in/christopher-ziolkowski-b3672a29/), GTI Energy and Wi-SUN Alliance * 10-min Q&A |
| 3:05 p.m. | **Break** |
| 3:30 p.m. | **Panel on Sensing Opportunities and Needs in Transportation / Civil Infrastructure (Dr. Ohodnicki Moderator)**  **Industry, University and National Lab Perspective**   * 5-min Panelist 1 (DOT Representative) – [Chris Atkinson, Deputy Director](https://www.linkedin.com/in/chrisatkinson55/), ARPA-I / Department of Transportation * 5-min Panelist 2 (Technologies – U. Pitt.) – [Dr. Piervincenzo Rizzo, Full Professor](https://www.linkedin.com/in/piervincenzo-rizzo-73828452/), University of Pittsburgh * 5-min Panelist 3 (IRISE Consortium – U. Pitt.) – Joseph Szczur, Executive Director of IRISE Consortium, University of Pittsburgh * 5-min Panelist 4 (City of Pittsburgh) – [Chase Klingensmith, Autonomous Vehicles Policy Analyst](https://www.linkedin.com/in/chaseklingensmith/), City of Pittsburgh * 5-min Panelist 5 (City of Pittsburgh) – [Michael Bethune, Policy Analyst](https://www.linkedin.com/in/michael-c-bethune/), City of Pittsburgh * Other Panelists - To Be Announced * 35-min Moderated Q&A |
| 4:30 p.m. | **Summary of Action Items and Preparation for Report Out** |
| 4:35 p.m. | **Looking to the Future and Next Steps (Ohodnicki, Wright, Steering Committee)**   * Workshop closeout report discussion * Where we go from here and how to be involved * Etc. |
| 4:45 p.m. | **Final Remarks and Poster Session Summary** |
| 5:00 p.m. – 6:30 p.m. | **Poster Session with a Social Hour and Light Refreshments** |