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| logo_ashrae.png | **DRAFT Agenda** |
| TC 7.5 Fault Detection and Diagnostics Sunday, 6/26/2022 @ 3:00 PM– 3:45 PM EDT  Microsoft Team: [Click here to join the meeting](https://teams.microsoft.com/l/meetup-join/19%3ameeting_NTMxYmNiMzAtYWZiYy00MzViLThjZmMtMjM5NGY4MGRmOTkx%40thread.v2/0?context=%7b%22Tid%22%3a%2214e9186d-b92e-4c6d-b3d6-54b54c168413%22%2c%22Oid%22%3a%222fb3cbd9-583f-446e-9332-da0c2b6fbea1%22%7d)  Meeting ID: 212 188 389 10   Passcode: MqUeta    **Prepared by Liping Wang** |

**Subcommittee Scope:** explore and develop technologies to detect and diagnose common faults in both commercial and residential buildings. The scope of this subcommittee includes (a) identifying and sponsoring research projects to develop new FDD technologies, evaluate existing FDD technologies; provide recommendations to building operators and practical engineers, and develop supporting tools for researchers in FDD areas, and b) organizing programs to disseminate research findings and advancements in FDD areas among ASHRAE members.

Agenda:

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| 0:00 | **Call to Order** |  |
|  | Self-introduction, announce the subcommittee scope. |  |
| 5 mins | **Sessions at current ASHARE conference** |  |
|  | Sunday, June 26, 1:30 PM - 3:00 PM  Conference Paper Session 7  Sensors and Airflow Controls: Making Buildings Smarter through Data and Controls, Room: Sheraton C (LC)  Monday, June 27, 9:45 AM - 10:45 AM  Conference Paper Session 9  Occupant Behavior and Smart Buildings (Posters), Room: Osgoode (LC) |  |
| **2022 Annual ASHRAE conference seminar ideas**  June 25-29, 2022 – Toronto, ON   1. Fundamentals and Applications 2. HVAC&R Systems and Equipment 3. Refrigerants and Refrigeration 4. Grid Resilience and Thermal Storage 5. Pathways to Zero Energy Emissions and Decarbonization 6. Multifamily and Residential Buildings 7. Operations and Maintenance 8. Building Simulation and Virtual Design in Construction 9. Mini Track- Innovative responses to supply chain challenges.   August 9, 2022: Program (Seminar, Forum, Workshop, Debate and Panel) Proposals Due |  |
| 10 mins | **Potential Seminar Ideas for 2021 Winter ASHRAE** |  |
| Automated Alarm Management: DDC alarms used for FDD?  Segment the alarm information into useful pieces. The building operator has to go through all the alarms. Make a presentation to collect information to make an RTAR is a goal. TC1.4: program will be the co-host.  Carol identified three speakers. Plan to submit the seminar proposal if we will have a virtual conference in 2021 winter ASHRAE.  Defer to ASHRAE Winter Conference 2023 in Atlanta | Carol Lomonaco, Kim Barker |
| Moving Beyond Data Overload to Effective Use of Fault Detection and Diagnostics Analytics | Guanjing Lin (Chair), Patric Villaume, Young, Chariti |
| Residential FDD (multiple family residential buildings) review of FDD on residentials.  Submit for 2023 Winter or Summer conference  Li has an accepted conference paper presentation for Toronto conference. | David Yuill, Jin Wen, Zheng O’Neill, Li Song |
| **New ideas?** |  |
| FDD methods for building HVAC systems |  |
| Case study for FDD implementation and testing in buildings  Toronto Conference  David: prevalence faults for buildings with LBNL  1-2 speakers  Liping: FDD testing results for high-performance HVAC systems.  Atlanta Conference  Li Song: Residential FDD case study | David Yuill, Li Song, Liping Wang |
|  | Assessment of FDD in Guideline 36  Idea for ASHRAE 2023 conference | Joe Zhou, Steve Taylor |
| 15 mins | **Update of FDD projects from DOE and DOD** |  |
|  | Current DOE FDD project | Guanjing Lin |
| Current DOD FDD project | Chris Battisti |
| 15 mins | **Update/Discussion of Active project/RTARs/Work Statement** |  |
| WS 1812 Development of AFDD for leakage of ground-source heat pumps (work statement revision) | Zheng O’Neill and Kristen Cetin |
| Evaluation of the Usability of ASHRAE Standard 207  Co-sponsor TC 7.9, Maybe TC 1.4 | Lead by John House  David Shipley |
| **Research Ideas** |  |
| User’s experiences with FDD? How do users respond to the alarms, correct or false? | Austin Rodgers, PNNL  Laura Towsley (laura.towsley@rycom.com).  Scott West  Eric Yang |
| Literature Review and Survey of existing FDD methods and data  ATL - FDD literature review and central location for download data/methods etc. (collection of methods) – existing  Not only compiling but the assessment of new technologies (indicating last large-scale study is 2005)  Characterization (qualitatively) evaluate. IEA 34. | Nick Gayeski, Jin Wen |
| Automated Alarm Management: DDC alarms used for FDD? (automated analytics to correct alarms or utilize alarms) – return the threshold to reduce false alarms in an automated process. | Carol Lomonaco,  Reinhard Seidl, Li Song, Te Qi, John Wallace |
| FDD for connected buildings and communities  A project group for broadening the concept of FDD | Lixia Wu, Zac Siefker, Liping Wang, … |
| **New ideas and discussions** |  |
| Review of fault feature selection (what data to use)? |  |
| Adjourn | | |