



2023 ETI Summer School -- Agenda

Advanced Manufacturing for Nonproliferation ---- Part II (in-person)

August 14 – 18, 2023, Georgia Institute of Technology / ORNL

Contact: Kierra Payne (kierra.payne@me.gatech.edu)

Yuguo Tao (yuguo.tao@gatech.edu, cell phone #: 404-563-9934)

❖ Monday, Aug. 14 (Arrive ATL)

- Arrive in Atlanta.
- Stay at a hotel near GT.

❖ Tuesday, Aug. 15 (Georgia Tech)

| Time | Activity / Location | Lead |
|---------------------|--|--|
| 8:30 am ~ 9:00 am | Welcome & Introduction (Seminar Room 3-47, Gilbert Hillhouse Boggs building) | Yuguo Tao |
| 9:00 am ~ 12:00 pm | Flowers Invention Studio, Manufacturing Related Disciplines Complex (MRDC) | Domenic DiCarlo (Amit Jariwala's team) |
| 12:00 pm ~ 12:55 pm | Lunch (Conference Room 4211, MRDC) | Kierra Payne |
| 1:00 pm ~ 4:00 pm | Flowers Invention Studio, MRDC | Domenic DiCarlo (Amit Jariwala's team) |
| 4:00 pm | Adjourn | |

❖ Wednesday, Aug. 16 (Georgia Tech)

| Time | Activity / Location | Lead |
|---------------------|--|-----------------------------|
| 8:45 am ~ 9:00 am | Seminar Room 3-47, Gilbert Hillhouse Boggs building | Yuguo Tao |
| 9:00 am ~ 11:30 am | Montgomery Machining Mall – MMM (MRDC) | Scott Elliott |
| 11:30 am ~ 12:30 pm | Lunch (Conference Room 4211, MRDC) | Kierra Payne |
| 12:30 pm ~ 1:00 pm | Transit time (pack up and drive to Advanced Manufacturing Pilot Facility: 575 14th St NW, Atlanta) | Yuguo Tao |
| 1:00 pm ~ 2:15 pm | Advanced Manufacturing Pilot Facility – AMPF | Steven Sheffield |
| 2:30 pm ~ 3:00 pm | Tour of GT Student Competition Center (SCC) | Jake Tompkins |
| 3:00 pm ~ 7:00 pm | Drive up to ORNL (Fairfield Inn & Suites Knoxville Turkey Creek) | Steven Biegalski, Yuguo Tao |
| 7:00 pm | Adjourn | |

❖ Thursday, Aug. 17 (ORNL tours)

| Time | Activity / Location | Lead |
|-------------------|---|-----------------------------|
| 7:45 am ~ 8:15 am | Drive from hotel to ORNL Visitor Center | Yuguo Tao |
| 8:15 am ~ 4:30 pm | ORNL (see details below) | ORNL team |
| 4:30 pm ~ 8:30 pm | Depart and return to Atlanta | Steven Biegalski, Yuguo Tao |
| 8:30 pm | Adjourn | |

❖ Friday, Aug. 18 (Depart ATL)

**Visit to Oak Ridge National Laboratory's (ORNL)
 By the Enabling Technologies and Innovation Consortium (ETI)
 Thursday – August 17, 2023**

Objective: Review ORNL's Additive Manufacturing (AM) Capabilities with Emphasis on Nuclear Security and Nuclear Nonproliferation

ORNL Contact: Ben Thomas | Phone: 865-574-5438 (office); 865-216-3508 (cell) | Email: thomasbjr@ornl.gov
 ETI Contact: Steven Biegalski | Phone: 404-385-5973 | Email: steven.biegalski@me.gatech.edu

| Time | Event/Activity | Location | Lead |
|----------|--|--|--------------------------------|
| 8:15 am | Arrival & Badging at ORNL Visitor Center | 1 Bethel Valley Road, Oak Ridge | Ben Thomas |
| 8:45 am | Welcome, Opening Remarks and Introductions | Building 5700, Room MS-A104 | Ben Thomas Philip Bingham |
| 8:50 am | ETI Summer School in Additive Manufacturing: An Emerging Technology for Nuclear Nonproliferation | Building 5700, Room MS-A104 | Steven Biegalski |
| 9:00 am | An Overview of ORNL and the Nuclear Nonproliferation Division | Building 5700, Room MS-A104 | Cary Crawford |
| 9:30 am | AM Application for Nuclear Security | Building 5700, Room MS-A104 | Oscar Martinez |
| 9:55 am | Investigating Direct Ink Writing for Advanced Fuel Fabrication | Building 5700, Room MS-A104 | Patrick Snarr |
| 10:20 am | Break – Transition to Tour Frontier | | |
| 10:30 am | Tour Frontier: High Performance Computing | | Jamie Finney |
| 11:15 am | Transition to the Manufacturing Demonstration Facility (MDF) | 2350 Hardin Valley Center (HVC), Knoxville | All |
| Noon | Working Lunch: An Overview of the MDF | 2350 HVC, Room 311 | Suresh Babu |
| 1:00 pm | MDF Tour | MDF Tour | Bob Slattery |
| 2:00 pm | Powder Bed Overview | MDF, CR-311 | Jason Mayeur |
| 2:30 pm | Born Qualified (in-situ process monitoring + data) | MDF, CR-311 | Vincent Paquit |
| 3:00 pm | Direct Energy Deposition (DED) Overview | MDF, CR-311 | Joshua Vaughan Andrzej Nycz |
| 3:30 pm | Finishing Overview | MDF, CR-311 | Chris Tyler |
| 4:00 pm | Closeout Discussions | 2350 HVC, Room 311 | All |
| 4:30 pm | Adjourn | | All |