

# Media Technology Institute

**June 21-23, 2022**  
La Crosse Radisson ~ Wisconsin

## TUESDAY - JUNE 21

Registration 8 a.m. - 6:30 p.m.

### Media Technology Institute

9 a.m.  
**Introductions, Welcome, Agenda, Housekeeping**

9:15 a.m.  
**Getting to Know You Exercises**  
Bill Hubbard



Bill Hubbard

9:45 a.m.  
**The Business of Broadcasting**  
Bill Hubbard

Staff relationships can make or break an organization. We will discuss how various employee groups interact. Discussion will also include basic business concepts and how understanding those can make your conversations with management and staff more productive.

10:45 p.m. **Break**

11 a.m.  
**Virtualization – “What? Broadcasting isn’t real!?”**  
Jeff Welton, Nautel

A virtualization prep discussion: Whether you’re all for augmented reality and can’t wait for autonomous everything or you think that running on ‘somebody else’s computer’ is the worst idea ever and rue the day that automation was invented, some level of virtualization will invariably happen in your facility sooner rather than later.



Jeff Welton

12 p.m. **Lunch (Provided)**

1 p.m.  
**Data Networking and Infrastructure – “When Worlds Collide”**  
Alex Hartman, WPR

Discussion of broadcast data network design and infrastructure.



Alex Hartman

2:30 p.m. **Break**

2:45 p.m.  
**Small group activity – Design Your Data Network**  
Alex Hartman, Jeff Welton, and Bill Hubbard

3:45 p.m.  
**Feedback, wrap up, review Wednesday schedule**

4 p.m.  
**Reception – Followed by dinner on your own**

## WEDNESDAY - JUNE 22

Registration 8 a.m. - 6:30 p.m.

### Engineering Day

9 a.m. – 9:45 a.m.

**Ransomware**  
Nancy Douglass and Jay Mielke

Costly, stressful, and enormously time consuming. Cyber-attacks are a threat to ANY computer connected to the internet. You can lose everything. Learn how one small Wisconsin radio station found out the hard way how important it is to protect and save your files, and what they did to recover from a triple cyber-attack.



Nancy Douglass



Jay Mielke

9:45 – 10 a.m. - Break

10 a.m. – 10:45 a.m.

**Security**  
Alex Hartman



Alex Hartman

10:45 a.m. – 12 p.m.

**Ransomware - Roundtables**

12 p.m. – 1:15 p.m. - Lunch

1:15 p.m. – 2 p.m.  
**Teaching the Next Generation**  
Jeff Welton and Scott Mink

Thoughts on how to show an IT-centric 20’something how the big volts work, in a way they can retain that hopefully won’t kill them. This discussion will focus on trying to get the mentoring bug to bite, as we see more older engineers retiring out of the industry and fewer younger folks coming in. It’s going to become even more critical to get the younger engineers, who are mostly IT oriented and have much less experience with RF and HV, bitten with the “radio bug” that infected most of us at a young age. This discussion will focus on ways to try to create that interest, to promote safety and provide skills and some psychology to try to pass along the knowledge that’s needed to keep the watts flowing, as we keep the AC to RF converters purring.



Jeff Welton

2:00 p.m. **Break**

3:30 p.m.  
**Youth Apprenticeship a Workforce Planning Solution for Broadcast Technical Professionals**  
Amelia Phillips, DWD

For nearly 30 years, the Wisconsin Department of Workforce Development has run successful apprenticeship programs in many different occupational areas, matching motivated high school students with Wisconsin businesses. Many of these apprentices progress to becoming valued and skilled members of these industry occupations. Candidates have expressed an interest in learning more about technical careers in broadcasting, and DWD has partnered with industry experts to develop a new Youth Apprenticeship Media Broadcast Technician pathway to introduce youth into radio and TV broadcasting and allied fields.



Amelia Phillips

3 p.m. – 3:45 p.m.  
**More on the Future of Recruiting**

3:45 p.m. – 4:30 p.m.  
**Apprenticeship – Roundtables**

## THURSDAY - JUNE 23

Registration 8 a.m. - 6:30 p.m.

### Media Technology Institute

8:45 a.m.

**Transmitter Site Essentials and What to Watch For**  
Jeff Welton, Nautel

Just what the title says. What you need to know about transmitter site safety and design and what to watch out for when you walk in the door.



Jeff Welton

9:45 a.m. **Break**

10 a.m.  
**Broadcast Antenna Systems – RF Inspection Tips**  
Eric Wandel, Wavepoint Research

The good, the bad and the ugly. Real world case studies of actual problems encountered, and solutions employed in antenna and transmission systems.

11:15 a.m.  
**Role of the Chief Operator and Preparing for Inspection**  
Tim Laes, Midwest Communications;

Tom Weeden, WBA ABIP  
This session describes the specific responsibilities of a Chief Operator of a broadcast system including record keeping and legal requirements and the Alternate Broadcast Inspection Program and what is important to the FCC and therefore to your license.



Tim Laes



Tom Weeden

12 p.m. **Lunch (Provided)**

1 p.m.  
**Antenna Designs, Gains, Patterns and Examples**  
Nicole Starrett, Dielectric

This session will give an overview of the HFSS FM pattern study process and will demonstrate a few simulation models available for volunteers to try out or give their input on. Nicole will also touch on drone measurement analysis and share a few scale model antennas to help students visualize what the simulations illustrate.



Nicole Starrett

2 p.m.  
**Depart for Site Tour**

A guided tour of a transmitter facility in the La Crosse area.

4 p.m. **Pluses and Deltas – Wrap up**

4:30 p.m. **Return to Radisson**

Underwriting by



Thank You!



Join the Summer Conference

5:45 p.m. – 7:15 p.m.  
**Reception - La Crosse Queen**

7:30 p.m. – 10 p.m.  
**Dinner at the Waterfront (328 Front St S)**