NYU TANDON SCHOOL OF ENGINEERING

UNIVERSITY OF DELAWARE

IEEE Workshop (Virtual):

Reliable and Resilient Digital Manufacturing

September 16 Agenda (All times of US Eastern Times)

10:00 AM **Welcome - Nikhil Gupta (New York University)**
Manufacturing Security - The Necessity, Needs and Trends

10:30 AM **Keynote - Andrew Wells (National Science Foundation)**
NSF Support for Reliable and Resilient Digital Manufacturing

11:30 AM **Shuran Song (Columbia University)**

12:00 AM **Don Jones (Carlisle & Co.)**
Balancing 3D Printing Opportunities and Security for Aftermarket Parts

12:30 AM **Break**

1:00 PM **Jitesh Panchal (Purdue University)**
Design of Traceability and Anti-counterfeiting Schemes for Mechanical Parts

1:30 PM **Mohammad Al-Faruqe (University of California - Irvine)**
Attacks and Defenses through Side-channels of Manufacturing Systems

2:00 PM **Danny Huang (New York University)**
Toward Characterizing Behaviors of Open-source Contributors for Manufacturing Software to Identify Security Risks

2:30 PM **Satish Bukkapatnam (Texas A&M University)**
Cybersecurity for Smart Manufacturing: From Industrial Quality and Integrity to Security Assurance

3:00 PM **Day 1 Closing**

SEPTEMBER 16 & 17
10:00AM – 3:00PM US EDT

https://r2dm-workshop.github.io/
Register at: https://r2dm2021.eventbrite.com/

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IEEE Workshop:
Reliable and Resilient Digital Manufacturing

<u>September 17 Agenda (All times of US Eastern Times)</u>

10:00 AM **Welcome - Nektarios Tsoutsos (University of Delaware)**

10:30 AM **Keynote - Paul Huang (Office of Naval Research)**
Navy Manufacturing Technology (MR) Program

11:30 AM **Mark Yampolskiy (Auburn University)**
Security Threats in AM: Attacks within Cyber and Beyond

12:00 AM **Eric MacDonald (University of Texas - El Paso)**
AM of Elastomer, Ceramic and Metal Multi-functional Structures

12:30 AM **Break**

1:00 PM **Student Presentations**
Judges: Mihail Maniatakos (NYU-Abu Dhabi) and Yan Lu (NIST)

Dimitris Mouris: *Peak Your Frequency: Advanced Search of 3D CAD Files in the Fourier Domain*

Harsh Srivastava: *Determination of Volume Fraction of Fibre Reinforced Composite Materials using Image Processing Techniques*

Caleb Beckwith: *Threat Vector Analysis - Finding Fault in the Pile*

Lars Folkerts: *FSS: Fourier Silhouette Search*

Praveen Sreeramagiri*: Actor-Network Theory as a Tool to Analyze Cyber Threats in Manufacturing*

3:00 PM **Workshop Closing**

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