



Industry Advisory Board (IAB) Meeting Agenda

The University of Tennessee |
Knoxville

**Cherokee Farms on the
University of Tennessee-Knoxville Campus**
2641 Osprey Vista Way,
Knoxville, TN 37920



Parking Day 1:

Will be outside the IAMM Building : Parking is Free: It is across from the Building: <https://research.utk.edu/iamm/facilities-programs/iamm-hq/>

MONDAY, APR 24, 2023

8:00 am		Participant Registration (Check in at Registration Table Sign in)
8:00 am	RM 145	Breakfast and Networking Time
8:30 am	RM 147	Remarks from: Marc Gibson (Assoc. Vice Chancellor Office of Research UTK) Matthew Mench (UTK / Dean of Tickle College of Engineering, Condra Chair, and Chancellor’s Professor) Cynthia Sides (U of A / Assistant VC for Research and Innovation, Director of Research Advancement)
8:45 am		Welcome Remarks (S. El-Ghazaly (Center Director), Uche Wejinya (Assoc. Site Director), J Volakis/D. Pavlidis and A. Fathy (Site directors);

9:00 am	State of the Center (S. El- Ghazaly, M. Lanoue)
09:30 am	NSF Program Director's Update (P. Balan) (C. Leach)
	Evaluator's Comments (E. Sundstrom (Center Evaluator))
9:50 am	BREAK
Note: Posters will be set up during the duration of the presentations. The poster viewing will be at 2:45 PM	
10:15 am	<p>Update Existing Project Presentations (10 mins each) + (5 mins/ Q&A)</p> <p><i>Project #003</i></p> <p>Title: Wireless powering of IoT devices with 5G network</p> <p>Researchers: Ahmedullah Aziz, Ozlem Kilic, Maria Hernandez Rivero</p> <p>Presented by: UTK</p> <p>Industry POC: TBD</p>
10:30 am	<p><i>Project #004</i></p> <p>Title: High-Frequency Transistors for Next-Generation Communication Systems</p> <p>Researchers: Sohiel Nouri, Amirreza Ghadimi Avval, Samir El-Ghazaly</p> <p>Presented by: U of A</p> <p>Industry POC: RF Pyramids Samir El-Ghazaly</p>
10:45 am	<p><i>Project #002</i></p> <p>Title: Passive Impedance Matching and Embedded-Chip Package Brain Implant for Wireless Neuropotential Record</p> <p>Researchers: Melany Gutierrez Hernandez, Yeahia Saeed, Satheesh Bojja Venkatakrishnan, Raj Pulugurtha, John Volakis</p> <p>Presented by: FIU</p> <p>Industry POC: Nano Dimensions</p>

<p>11:00 am</p>	<p>Project #006</p> <p>Title: Developing DL-Based applications for more intelligent radar systems</p> <p>Researchers: Jian Liu, Chandler Bauder, TianHao Wu</p> <p>Presented by: UTK</p> <p>Industry POC: MaXentric Technologies (Houman Gharjari)</p>
<p>11:15 am</p>	<p>Project #005</p> <p>Title: mmWave LTCC Components & Hybrid Package Integration</p> <p>Researchers: Md Rakibur Rahman, Yeahia Saeed, Raj Pulugurtha, Satheesh Bojja Venkatakrishnan, John Volakis</p> <p>Presented by: FIU</p> <p>Industry POC: Yi Yang Vibrantz Corporation</p>
<p>11:30 am</p>	<p>Project #009</p> <p>Title: Radars for Tracking Fast Moving Objects</p> <p>Researchers: Abdel Kareem Moadi, Aly Fathy</p> <p>Presented by: UTK</p> <p>Industry POC: MIT/LL (Mohamed Abouzahra)</p> <p>Industry POC: TBD</p>
<p>11:45 am</p>	<p>Title: Project Supplemental update on START</p> <p>Researchers: Jingxian Wu</p> <p>Presented by: U of A</p>

11:55 am	Open Discussion Period
12:00 pm	RM 145 LUNCH
1:00 pm	<p>New Project Presentations (10 mins each) + (5 mins / Questions)</p> <p><i>Project #012</i></p> <p>Title: Development of 28-millimeter wave link for Northwest Arkansas</p> <p>Researchers: Uche Wejinya Samir El-Ghazaly</p> <p>Presented by: U of A</p> <p>Technical POC: TOWNES TELECOMMUNICATION Chris Sibert & Adam Dixon</p>
1:15 pm	<p><i>Project #013</i></p> <p>Title: Miniature Communication and Computation Architecture for Super High Resolution RADAR Imaging.</p> <p>Researchers: Aly E Fathy, Ben Clark, Abdel-Kareem Moadi</p> <p>Presented by: UTK</p> <p>Technical POC: Mongi- Abidi Phelps2020</p>
1:30 pm	<p><i>Project #008</i></p> <p>Title: Additively Manufactured Passive mm Wave circuit design and characterization</p> <p>Researchers: Ghaleb AlDuhni, Raj Pulugurtha, Satheesh Bojja Venkatakrishnan, John Volakis</p> <p>Presented by: FIU</p> <p>Industry POC: Mudit Khasgiwala Applied Materials (AMAT)</p>
1:45 pm	<p><i>Project #014</i></p> <p>Title: "Scalable, De-Centralized, System-Wide Oscillator Synchronization for Solar-Powered Satellites"</p> <p>Researchers: Aly Fathy, Ben Clark</p> <p>Presented by: UTK</p> <p>Industry POC: Brian Tierney, Chris Rodenbeck) (NRL)</p>

2:00 pm	<p>Project #011</p> <p>Title: UWB Software Ratios with Muri-Ori apertures and Low Cost Back-Ends</p> <p>Researchers: Kefayet Ullah , John Volakis</p> <p>Presented by: FIU</p> <p>Industry POC: Jim Hirst III MITRE</p>
2:15 pm	<p>Project #015</p> <p>Title: Extreme Environment 5G Communications Integrated Circuit for Point-to-Point Communications</p> <p>Researchers: Jeff Dix</p> <p>Presented by: U of A</p> <p>Industry POC: TBD</p>

2:30 pm	BREAK
2:45 pm	Poster Viewing
	<p>Posters:</p> <p>Poster #003</p> <p>Title: Wireless powering of IoT devices with 5G network</p> <p>Researchers: Ahmedullah Aziz, Ozlem Kilic, Maria Hernandez Rivero</p> <p>Poster #004</p> <p>Title: High-Frequency Transistors for Next-Generation Communication Systems</p> <p>Researchers: Sohiel Nouri, Amirreza Ghadimi Avval, Samir El-Ghazaly</p> <p>Poster #002</p> <p>Title: Passive Impedance Matching and Embedded-Chip Package Brain Implant for Wireless Neuropotential Record</p>

Researchers: Melany Gutierrez Hernandez, Yeahia Saeed, Satheesh Bojja Venkatakrishnan, Raj Pulugurtha, John Volakis

Poster #006

Title: Developing DL-Based applications for more intelligent radar systems

Researchers: Jian Liu, Chandler Bauder, TianHao Wu

Poster #005

Title: mmWave LTCC Components & Hybrid Package Integration

Researchers: Md Rakibur Rahman, Yeahia Saeed, Raj Pulugurtha, Satheesh Bojja Venkatakrishnan, John Volakis

Poster #009

Title: Radars for Tracking Fast Moving Objects

Researchers: Abdel Kareem Moadi, Aly Fathy

Poster #008

Title: Additively Manufactured Passive mm Wave circuit design and characterization

Researchers: Ghaleb AlDuhni, Raj Pulugurtha, Satheesh Bojja Venkatakrishnan, John Volakis

Poster #012

Title: Development of 28-millimeter wave link for Northwest Arkansas

Researchers: Uche Wejinya | Samir El-Ghazaly

Poster #013

Title: Miniature Communication and Computation Architecture for Super High Resolution RADAR Imaging.

Researchers: Aly E Fathy, Peter Alley

	<p>Poster #008</p> <p>Title: Additively Manufactured Passive mm Wave circuit design and characterization</p> <p>Researchers: Ghaleb AlDuhni, Raj Pulugurtha, Satheesh Bojja Venkatakrishnan, John Volakis</p> <p>Poster #014</p> <p>Title: Solar Beam</p> <p>Researchers: Aly Fathy, Ben Clark</p> <p>Poster #011</p> <p>Title: UWB Software Ratios with Muri-Ori apertures and Low Cost Back-Ends</p> <p>Researchers: Satheesh Bojja Venkatakrishnan, John Volakis</p>
3:45 pm	<p>RM 145</p> <p>IAB Closed Door Session – Including site directors</p> <ol style="list-style-type: none"> 1. Review Minutes from March 2. NSF Expectations/Pain Points <ol style="list-style-type: none"> a. Membership b. Other 3. Voting and agreement of IAB members <ol style="list-style-type: none"> a. Industry needs from IUCRC 4. Project feedback and review of new project
5:00 pm	<p>Recess (End of Day-1 formal meetings)</p>
<p>5:30PM</p> <p>6:30 PM</p> <p>7:15 PM</p> <p>9:30 PM</p>	<p>Head to SunSphere Event</p> <p>Cash Bar Opens</p> <p>Dinner / SunSphere / 8th Floor</p> <p>SEE DETAILS BY CLICKING HERE.</p> <p>There will be info entered her as to when dinner starts, when the tour of the museum begins, and when the festivities conclude.</p> <p>Leave SunSphere event location to head back to hotel, etc.</p>

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Parking Day 2:

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TUESDAY, April 25, 2023

8:30 am	RM 145	Arrival and Breakfast:
		Meetings will take place in the multi-purpose meeting room
9:00 am	RM 145	Project Discussion and Recommendations (IAB & CHECCS members)
10:00 am	RM 145	IAB Meeting (IAB Members and NSF) Projects: Discussion of progress of the research projects, voting and discussion of results, funding recommendation to center leadership. .
10:45 am	RM 145	BREAK
11:15 am	RM 145	IAB Report Out, Discussion (IAB, Center and site directors, NSF)
11:45 am	RM 145	Action Items and Plans for Next Semiannual Meeting (IAB, Center and Site Directors & NSF)
12:00 pm		Summary and Closing Remarks (Universities involved)

Zoom Details: For those attending virtually

Link for Presentations Day 1:

Mark Allen Lanoue is inviting you to a scheduled Zoom meeting.

Join Zoom Meeting

<https://uark.zoom.us/j/84846722199?pwd=RUt4d2J2WUdQYzhVcERTbFU5emxNQTO9>

Meeting ID: 848 4672 2199

Passcode: CHECCs123

One tap mobile

+13126266799,,84846722199#,,,,*980542151# US (Chicago)

+16469313860,,84846722199#,,,,*980542151# US

Dial by your location

+1 312 626 6799 US (Chicago)

+1 646 931 3860 US

+1 929 205 6099 US (New York)

+1 301 715 8592 US (Washington DC)

+1 305 224 1968 US

+1 309 205 3325 US

+1 360 209 5623 US

+1 386 347 5053 US

+1 507 473 4847 US

+1 564 217 2000 US

+1 669 444 9171 US

+1 669 900 6833 US (San Jose)

+1 689 278 1000 US

+1 719 359 4580 US

+1 253 205 0468 US

+1 253 215 8782 US (Tacoma)

+1 346 248 7799 US (Houston)

Meeting ID: 848 4672 2199

Passcode: 980542151

Find your local number: <https://uark.zoom.us/j/kckNnGOJ4n>

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84846722199@zoomcrc.com

Join by H.323

162.255.37.11 (US West)

162.255.36.11 (US East)

115.114.131.7 (India Mumbai)

115.114.115.7 (India Hyderabad)

213.19.144.110 (Amsterdam Netherlands)

213.244.140.110 (Germany)

103.122.166.55 (Australia Sydney)
103.122.167.55 (Australia Melbourne)
149.137.40.110 (Singapore)
64.211.144.160 (Brazil)
149.137.68.253 (Mexico)
69.174.57.160 (Canada Toronto)
65.39.152.160 (Canada Vancouver)
207.226.132.110 (Japan Tokyo)
149.137.24.110 (Japan Osaka)
Meeting ID: 848 4672 2199
Passcode: 980542151