

## Program for the 7<sup>th</sup> IEEE Vertical and Topical Internet of Things Summit at RWW2024

### Theme: Intelligent Biomedical Applications

Date and Time	Session	Program and Speakers
	<b>Link</b>	Session 1 Recording MP4 File
<b>January 24th, 2024 Wednesday</b>  01:30pm-03:30pm EST 12:30pm-02:30pm CST  In person and online	<b>Session 1</b>	<b>Chair and Moderator: Jasmin Grosinger</b> <ul style="list-style-type: none"><li>• <i>Opening Remarks</i></li><li>• <i>“Technologies that drive the Internet of Things and Intelligent Biomedical Applications.”</i>, <b>Adam Drobot</b>, Chairman, OpenTechWorks Inc., Wayne, Pennsylvania, USA <a href="https://rww2024.iot.ieee.org/sites/rww2024.iot.ieee.org/files/01-24-2024-RWW2024-Adam-Drobot.pdf">https://rww2024.iot.ieee.org/sites/rww2024.iot.ieee.org/files/01-24-2024-RWW2024-Adam-Drobot.pdf</a></li><li>• <i>“Bringing Your Doctor and Personal Trainer to Your Wrist With SPOT.”</i>, <b>Scott Hanson</b>, Chief Technology Officer, and founder of Ambiq, Austin, Texas USA <a href="https://rww2024.iot.ieee.org/sites/rww2024.iot.ieee.org/files/01-24-2024-RWW2024-Scott-Hanson.pdf">https://rww2024.iot.ieee.org/sites/rww2024.iot.ieee.org/files/01-24-2024-RWW2024-Scott-Hanson.pdf</a></li><li>• <i>Discussion and Q&amp;A</i></li></ul> <p><i>(For those attending in person coffee and snacks will be available as part of the RWW2024 shared coffee break at 3:00pm CST)</i></p>

Date and Time	Session	Program and Speakers
	<p><b>Link</b></p>	<p><b>Session 2 Recording MP4 File</b></p>
<p><b>January 24th, 2024 Wednesday</b></p> <p>04:00pm-06:00pm EST 03:00pm-05:00pm CST</p> <p>In person and online</p>	<p><b>Session 2</b></p>	<p><b>Chair and Moderator: Charlie Jackson</b></p> <ul style="list-style-type: none"> <li>• <b>“Computational Label-free Microscopy and Point-of-care Sensing.”, Dr. Aydogan Ozcan</b>, California NanoSystems Institute, University of California at Los Angeles (UCLA), Los Angeles, California, USA  <a href="https://rww2024.iot.ieee.org/sites/rww2024.iot.ieee.org/files/01-24-2024-RWW2024-Aydogan-Ozcan.pdf">https://rww2024.iot.ieee.org/sites/rww2024.iot.ieee.org/files/01-24-2024-RWW2024-Aydogan-Ozcan.pdf</a></li> <li>• <b>“RF Design for Intelligent Biomedical Applications.”, Jasmin Grosinger</b>, Institute of Microwave and Photonic Engineering, Graz University of Technology, Graz, Austria and Tohoku University, Chen Kono Laboratory, Sendai, Japan.  <a href="https://rww2024.iot.ieee.org/sites/rww2024.iot.ieee.org/files/02-06-2024-RWW2024-Jasmin-Grosinger.pdf">https://rww2024.iot.ieee.org/sites/rww2024.iot.ieee.org/files/02-06-2024-RWW2024-Jasmin-Grosinger.pdf</a></li> <li>• <b>“Developing Standards to Improve TIPPSS for Connected Healthcare - Trust, Identity, Privacy, Protection, Safety and Security”</b>, Florence Hudson, Founder and CEO of FDHint LLC., and Executive Director Northeast Big Data Innovation Hub at Columbia University, New York, New York, USA  <a href="https://rww2024.iot.ieee.org/sites/rww2024.iot.ieee.org/files/01-22-2024-RWW2024-Florence-Hudson.pdf">https://rww2024.iot.ieee.org/sites/rww2024.iot.ieee.org/files/01-22-2024-RWW2024-Florence-Hudson.pdf</a></li> <li>• <b>Discussion and Q&amp;A</b></li> </ul> <p><i>(For those attending in person coffee and snacks will be available as part of the RWW2024 shared coffee break at 3:00pm CST)</i></p>

Date and Time	Session	Program and Speakers
	<b>Link</b>	<b>Session 3</b> Recording MP4 File
<p><b>January 29th, 2024 Monday</b></p> <p>11:30am-01:30pm EST 10:30am-12:30pm CST</p> <p>Virtual online</p>	<b>Session 3</b>	<p><b>Chair and Moderator: J.C. Chiao</b></p> <ul style="list-style-type: none"> <li> <p><b>“IoT Big Data Orchestration for Precision Medicine.”, Dr. Qingxue Zhang</b>, Indiana University and Purdue University at Indianapolis, Indianapolis, Indiana, USA</p> <p><a href="https://rww2024.iot.ieee.org/sites/rww2024.iot.ieee.org/files/01-29-2024-RWW2024-Quigxhue-Zhang.pdf">https://rww2024.iot.ieee.org/sites/rww2024.iot.ieee.org/files/01-29-2024-RWW2024-Quigxhue-Zhang.pdf</a></p> </li> <li> <p><b>“Integration of Brain Computer Interfaces in IoT.”, Jose Gonzalez-España</b>, Electrical and Computer Engineering, Noninvasive Brain-Machine Interface Systems Lab, University of Huston, Huston, Texas, USA, with <b>Lianne Sánchez-Rodríguez</b>, SIEEE, and <b>Jose Luis Contreras-Vidal</b>, FIEEE.</p> <p><a href="https://rww2024.iot.ieee.org/sites/rww2024.iot.ieee.org/files/01-28-2024-RWW2024-Jose-Gonzalez-Espana.pdf">https://rww2024.iot.ieee.org/sites/rww2024.iot.ieee.org/files/01-28-2024-RWW2024-Jose-Gonzalez-Espana.pdf</a></p> </li> <li> <p><b>“Recent Commercialization and Preclinical Studies of Biomedical Radar Sensors”, Professor Changzhi Li</b>, Department of Electrical &amp; Computer Engineering, Texas Tech University, Lubbock, Texas, USA</p> <p><a href="https://rww2024.iot.ieee.org/sites/rww2024.iot.ieee.org/files/01-29-2024-RWW2024-Changzhi-Li.pdf">https://rww2024.iot.ieee.org/sites/rww2024.iot.ieee.org/files/01-29-2024-RWW2024-Changzhi-Li.pdf</a></p> </li> <li> <p><b>Discussion and Q&amp;A</b></p> </li> </ul>

Date and Time	Session	Program and Speakers
	<p><b>Link</b></p>	<p><b>Session 4 Recording MP4 File</b></p>
<p><b>January 30th, 2024 Tuesday</b></p> <p>11:30am-01:30pm EST 10:30am-12:30pm CST</p> <p>Virtual online</p>	<p><b>Session 4</b></p>	<p><b>Chair and Moderator: Adam Drobot</b></p> <ul style="list-style-type: none"> <li> <p>• <b>“Low-Power Sensing and Wireless Communications Circuits.”</b>, <b>Prof. Patrick P. Mercier</b>, Principal Investigator, Energy-Efficient Microsystems Lab, Co-Director, Center for Wearable Sensors University of California, San Diego, USA</p> <p><a href="https://rww2024.iot.ieee.org/sites/rww2024.iot.ieee.org/files/01-30-2024-RWW2024-Patrick-Mercier.pdf">https://rww2024.iot.ieee.org/sites/rww2024.iot.ieee.org/files/01-30-2024-RWW2024-Patrick-Mercier.pdf</a></p> </li> <li> <p>• <b>“Microwave-Enabled Sustainable Wearables: Devices to Systems.”</b>, <b>Prof. Mahmoud Wagih</b>, University of Glasgow, Glasgow, Scotland UK</p> <p><a href="https://rww2024.iot.ieee.org/sites/rww2024.iot.ieee.org/files/02-04-2024-RWW2024-Mahmoud-Wagih.pdf">https://rww2024.iot.ieee.org/sites/rww2024.iot.ieee.org/files/02-04-2024-RWW2024-Mahmoud-Wagih.pdf</a></p> </li> <li> <p>• <b>“Introduction to the NIBIB at NIH: Medical Devices Program and Grant Mechanisms.”</b>, <b>Dr. Jessica Falcone</b>, Program Director, Bioengineering Division National Institute of Biomedical Imaging and Bioengineering (NIBIB), National Institutes of Health (NIH), Bethesda, Maryland, USA</p> <p><a href="https://rww2024.iot.ieee.org/sites/rww2024.iot.ieee.org/files/01-30-2024-RWW2024-Jessica-Falcone.pdf">https://rww2024.iot.ieee.org/sites/rww2024.iot.ieee.org/files/01-30-2024-RWW2024-Jessica-Falcone.pdf</a></p> </li> <li> <p>• <b>Discussion and Q&amp;A</b></p> </li> </ul>

Date and Time	Session	Program and Speakers
	<p><b>Link</b></p>	<p><b>Session 5</b> Recording MP4 File</p>
<p><b>January 31st, 2024</b> <b>Wednesday</b></p> <p>11:30am-01:30pm EST 10:30am-12:30pm CST</p> <p>Virtual online</p>	<p><b>Session 5</b></p>	<p><b>Chair and Moderator: Charlie Jackson</b></p> <ul style="list-style-type: none"> <li>• <b><i>“Navigation in Knowledge Spaces with Interactive and Adaptive Information Visualization”</i></b>, <b>Prof. Tobias Schreck</b>, Institute of Computer Graphics and Knowledge Visualization at Graz University of Technology, Graz, Austria  <a href="https://rww2024.iot.ieee.org/sites/rww2024.iot.ieee.org/files/01-31-2024-RWW2024-Tobias-Schreck.pdf">https://rww2024.iot.ieee.org/sites/rww2024.iot.ieee.org/files/01-31-2024-RWW2024-Tobias-Schreck.pdf</a></li> <li>• <b><i>“The Ear as a new form of brain and body interface for intelligent health applications.”</i></b>, <b>Yuchen Xu</b>, Research Scientist at Aizip Inc, Cupertino, California, USA  <a href="https://rww2024.iot.ieee.org/sites/rww2024.iot.ieee.org/files/01-31-2024-RWW2024-Yuchen-Xu.pdf">https://rww2024.iot.ieee.org/sites/rww2024.iot.ieee.org/files/01-31-2024-RWW2024-Yuchen-Xu.pdf</a></li> <li>• <b><i>“Non-invasive Brain-Computer Interfaces for movement control in paralyzed individuals: Graz' State of the Art.”</i></b>, <b>Prof. Gernot Müller-Putz</b>, Graz University of Technology, Graz, Austria  <a href="https://rww2024.iot.ieee.org/sites/rww2024.iot.ieee.org/files/02-04-2024-WW2024-Gernot-Mueller-Putz.pdf">https://rww2024.iot.ieee.org/sites/rww2024.iot.ieee.org/files/02-04-2024-WW2024-Gernot-Mueller-Putz.pdf</a></li> <li>• <b><i>Discussion and Q&amp;A</i></b></li> </ul>

Date and Time	Session	Program and Speakers
	<p><b>Link</b></p>	<p><b>Session 6</b> Recording MP4 File</p>
<p><b>February 1st, 2024 Thursday</b></p> <p>11:30am-01:30pm EST 10:30am-12:30pm CST</p> <p>Virtual online</p>	<p><b>Session 6</b></p>	<p><b>Chair and Moderator: Jasmin Grosinger</b></p> <ul style="list-style-type: none"> <li>• <b><i>“Catalyzing the Integration of Zero-Power Wireless Sensors into medical devices and pharmaceuticals to enhance Personalized Medicine.”, Dr. Sara Amendola</i></b>, Co-founder, and CEO of RADIO6ENSE, Rome, Italy   <a href="https://rww2024.iot.ieee.org/sites/rww2024.iot.ieee.org/files/02-09-2024-RWW2024-Sara-Amendola.pdf">https://rww2024.iot.ieee.org/sites/rww2024.iot.ieee.org/files/02-09-2024-RWW2024-Sara-Amendola.pdf</a></li> <li>• <b><i>“Design Aspects for Small Brain-implantable Antennas.”, Leena Ukkonen</i></b>, Faculty of Medicine and Health Technology, Tampere University, Tampere, Finland   <a href="https://rww2024.iot.ieee.org/sites/rww2024.iot.ieee.org/files/01-26-2024-RWW2024-Leena-Ukkonen.pdf">https://rww2024.iot.ieee.org/sites/rww2024.iot.ieee.org/files/01-26-2024-RWW2024-Leena-Ukkonen.pdf</a></li> <li>• <b><i>“Internet of the Brain for epileptic seizure prediction.”, Magdy A. Bayoumi</i></b>, Department Head and Professor, Department of Electrical and Computer Engineering, University of Louisiana at Lafayette, Lafayette, Louisiana, USA   <a href="https://rww2024.iot.ieee.org/sites/rww2024.iot.ieee.org/files/02-08-2024-RWW2024-Magdy-Bayoumi.pdf">https://rww2024.iot.ieee.org/sites/rww2024.iot.ieee.org/files/02-08-2024-RWW2024-Magdy-Bayoumi.pdf</a></li> <li>• <b><i>Discussion and Q&amp;A</i></b></li> </ul>

Date and Time	Session	Program and Speakers
	<p><b>Link</b></p>	<p><b>Session 7 Recording MP4 File</b></p>
<p><b>February 2nd, 2024 Friday</b></p> <p>11:30am-01:30pm EST 10:30am-12:30pm CST</p> <p>Virtual online</p>	<p><b>Session 7</b></p>	<p><b>Chairs and Moderators: J.C. Chiao, Adam Drobot, Jasmin Grosinger, and Charlie Jackson</b></p> <ul style="list-style-type: none"> <li>• <b><i>“Microwave breast screening: simulations, hardware, experiments with phantoms and volunteers – what have we learned?”</i></b>, Prof. <b>Milica Popović</b>, McGill University, Montreal, Canada   <a href="https://rww2024.iot.ieee.org/sites/rww2024.iot.ieee.org/files/01-30-2024-RWW2024-Milica-Popovic.pdf">https://rww2024.iot.ieee.org/sites/rww2024.iot.ieee.org/files/01-30-2024-RWW2024-Milica-Popovic.pdf</a> </li> <li>• <b><i>“Machine-Learning Techniques to Enhance High-Frequency Electroporation Treatments and Other Biomedical Applications.”</i></b>, Prof. <b>Luciano Tarricone</b>, IEEE Fellow, University of Salento, Lecce, Italy   <a href="https://rww2024.iot.ieee.org/sites/rww2024.iot.ieee.org/files/01-30-2024-RWW2024-Luciano-Tarricone.pdf">https://rww2024.iot.ieee.org/sites/rww2024.iot.ieee.org/files/01-30-2024-RWW2024-Luciano-Tarricone.pdf</a> </li> <li>• <b><i>“Microwaves Technology for Medical Applications.”</i></b>, <b>J.C. Chiao</b>, Southern Methodist University, Dallas, Texas USA   <a href="https://rww2024.iot.ieee.org/sites/rww2024.iot.ieee.org/files/02-02-2024-WW2024-J-C-Chaio.pdf">https://rww2024.iot.ieee.org/sites/rww2024.iot.ieee.org/files/02-02-2024-WW2024-J-C-Chaio.pdf</a> </li> <li>• <b><i>Roundtable Discussion, Q&amp;A, and Summit Wrap-up</i></b></li> </ul>