## MSEC 2019 AGENDA

### TUESDAY, OCTOBER 22

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<tr>
<th>Time</th>
<th>Program</th>
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<tbody>
<tr>
<td>5:30–7:00pm</td>
<td>Welcome Reception</td>
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### WEDNESDAY, OCTOBER 23

<table>
<thead>
<tr>
<th>Time</th>
<th>Program</th>
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<tr>
<td>7:00–8:00am</td>
<td>Registration and Breakfast</td>
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<tr>
<td>8:00–8:10</td>
<td>Welcome Remarks — Dave Anderson, President, SEMI Americas</td>
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<td>8:10–8:25</td>
<td>Opening Remarks — John Chong, PhD, Chair, MSIG Governing Council; CEO, Jib Technology</td>
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### SESSION 1  MEMS & SENSORS: 2020 AND BEYOND

#### Keynote Introduction — Dave Kirsch, Platinum Sponsor; MSIG Governing Council Member and Past Chair; Vice President and General Manager, EV Group

- **8:25–8:55**  
  KEYNOTE — How Software Makes MEMS Sensors into Smart Systems
  Stefan Finkbeiner, CEO and General Manager, Bosch Sensortec

- **8:55–9:25**  
  KEYNOTE — Evolving 5G NR to Connect the Internet of Things
  Tingfang Ji, PhD, Senior Director of Engineering in Wireless R&D, Qualcomm Technologies

- **9:25–9:55**  
  KEYNOTE — Food Chain 4.0: Trusted, Smarter and Sustainable
  Rajendra Rao, General Manager, IBM Food Trust™

- **9:55–10:25**  
  Networking Break

- **10:25–10:55**  
  KEYNOTE — Why the Future of Machine Learning Is Tiny
  Nick Kreeger, Senior Software Engineer, Google Brain

- **10:55–11:15**  
  KEYNOTE PANEL DISCUSSION

### SESSION 2 TECHNOLOGY SHOWCASE

#### Technology Showcase Overview — Stephen Whalley, Managing Director, Microtech Ventures

- **11:15–11:20**  
  Technology Showcase Overview
  Stephen Whalley, Managing Director, Microtech Ventures

- **11:20–11:25**  
  Overcoming Challenges in MEMS Manufacturing
  Jessica Gomez, Founder and CEO, Rogue Valley Microdevices

- **11:25–11:30**  
  Technology Showcase: A Year After Winning
  Marc Rippen, Founder and CEO, Alertgy

- **11:30–11:40**  
  Sensing the World with the Syntiant Neural Decision Processor
  Jeremy Holleman, CTO, Syntiant

- **11:40–11:50**  
  Making Sensors AI Smart Is Easier Than You Think
  Marc Dupaquier, Managing Director and Co-founder, Cartesiam

- **11:50–12:00**  
  Pioneering the Internet of Biology with BioMEMS
  Ross Bundy, Chief Production Officer and Co-founder, Cardea

### SESSION 3 MARKET, APPLICATIONS, AND TECHNOLOGY TRENDS

#### Session Chair — Evgeni Gousev, PhD, Senior Director, Qualcomm Technologies

- **2:30–2:55**  
  Emerging MEMS & Sensors Technologies to Watch as We Enter a New Decade
  Alissa Fitzgerald, Founder and Managing Member, A.M. Fitzgerald & Associates

- **2:55–3:20**  
  Digitizing Dirt to Dinner with the Blockchain of Food and Sensors
  Rachel Gabato, COO, ripe.io

- **3:20–3:45**  
  Networking Break

- **3:45–4:15**  
  A Glimpse of the MEMS Future
  Jérôme Azemar, Technical Project Development Director, Yole Développement

### Additional Events

- **12:00–12:10**  
  Disposable Silicon for Continuous Biomarker Monitoring
  Joshua Windmiller, CTO, Biolinq

- **12:10–12:20**  
  High Dynamic Range/Low Noise IMU to Prevent Tommy John Surgery
  Benjamin Hansen, VP Biomechanics and Innovation, Motus Global

- **12:20–12:30**  
  High Resolution 3D Cameras
  Paul Banks, CEO, TetraVue

- **12:30–2:00**  
  Networking Lunch and Technology Showcase Demonstrations — Sponsor: OKMETIC

- **2:00–2:30**  
  Session Chair — Melissa Grupen-Shemansky, CTO and FlexTech Executive Director, SEMI

- **2:30–2:55**  
  Lauren Boteler, PhD, Technical Assistant to the Director, U.S. Army Research Laboratory

- **3:20–3:50**  
  Networking Break

- **3:50–4:15**  
  MEMS, Sensors, and Microtechnology Startups: Current and Emerging Trends
  Mike Pinelis, President and CEO, Microtech Ventures

- **4:15–4:40**  
  How Silicon Catalyst Helps to Grow MEMS and Sensors Startups
  Nick Kepler, COO, Silicon Catalyst

- **4:40–5:05**  
  A Glimpse of the MEMS Future
  Jérôme Azemar, Technical Project Development Director, Yole Développement

- **5:05–5:15**  
  Closing Remarks — Carmelo Sansone, Director, SEMI-MSIG

- **6:00–8:00**  
  Networking Dinner and Presentation of the MSIG Hall of Fame Awards

- **8:00–9:30**  
  Networking Post-dinner Reception
THURSDAY, OCTOBER 24

7:00–8:00am Breakfast

8:00–8:10 Welcome—Carmelo Sansone, Director, SEMI-MSIG

8:10–8:40 KEYNOTE—From MES to Yield Optimization: Data Management and Data Science for Advanced Process Control
Michael O’Connell, Chief Analytics Officer, TIBCO Software

SESSION 4 MEMS MANUFACTURING TRENDS
Session Chair—Michelle Bourke, Senior Director of Strategic Marketing, Customer Support Business Group, Lam Research

8:40–9:05 Table Stakes: Waterproofing Is the New Must Have in MEMS & Sensors
Zsolt Pulai, EVP of Engineering and Technology, HZO

9:05–9:30 Advancing Quality and Reliability of MEMS for Security and Safety Applications
Dave Monk, VP and General Manager, Motion Sensors, NXP Semiconductors

9:30–9:55 Analyze-first Architecture for Ultra-low-power Always-on Sensing
Tom Doyle, CEO and Founder, Aspinity

9:55–10:25 Networking Break

SESSION 5 MEMS, SENSORS, AND IMAGING INNOVATION: SYSTEMS AND SOLUTIONS OVERVIEW
Session Chair—Uma Krishnamoorthy, Director, Research and Technology Center North America, Microsensors and Systems Technologies; Multiphysics Modeling and Simulation, Robert Bosch

10:25–10:50 Toward Sensor Solutions for Pervasive Gas Monitoring
Radislav Potyrailo, Principal Scientist, Micro and Optoelectronics, GE Global Research

10:50–11:15 Gas Sensors and the Infrastructure for Smart Buildings
Sreeni Rao, S Director, TDK

11:15–11:40 A Revolutionary MEMS Technology for Ultra-high Performance Microphones
Marc Fueldner, Head of MEMS Design and Product Engineering Group, Infineon Technologies

11:40–1:15 Networking Lunch and Topic Discussion

1:15–1:40 A Revolutionary MEMS Technology for Ultra-high Performance Microphones
Marc Fueldner, Head of MEMS Design and Product Engineering Group, Infineon Technologies

1:40–2:20 Revolutionizing the IoT Market and Demand Generation for Sensors with LPWAN
Sara Brown, VP of Marketing, Multi-Tech Systems

PANEL DISCUSSION—LoRaWAN Market Opportunity
Panelists:
• Marc Pégulu, VP of Internet of Things for the Wireless and Sensing Products Group, Semtech
• John Brzozowski, CTO, MachineQ, A Comcast Company

2:20–3:00 KEYNOTE—MEMS and Systems in the Digital Future
Albert Pisano, Walter J. Zable, Distinguished Professor and Dean, University of California, San Diego, Jacobs School of Engineering

3:00–3:10 Announcement of the Technology Showcase Winner
Stephen Whalley, Managing Director, Microtech Ventures

3:10–3:20 Closing Remarks—Carmelo Sansone, Director, SEMI-MSIG

Schedule subject to change

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Questions? Contact Michelle Fabianio, mfabiano@semi.org