

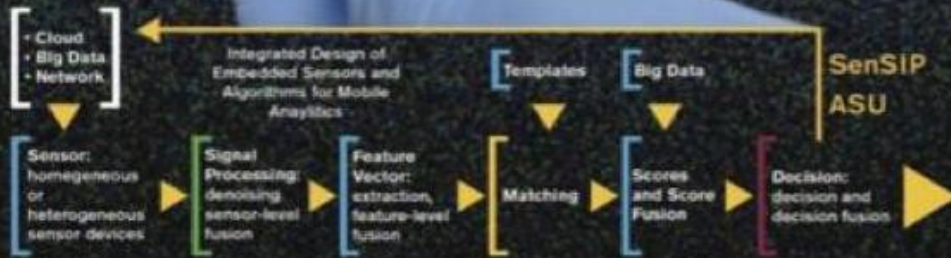
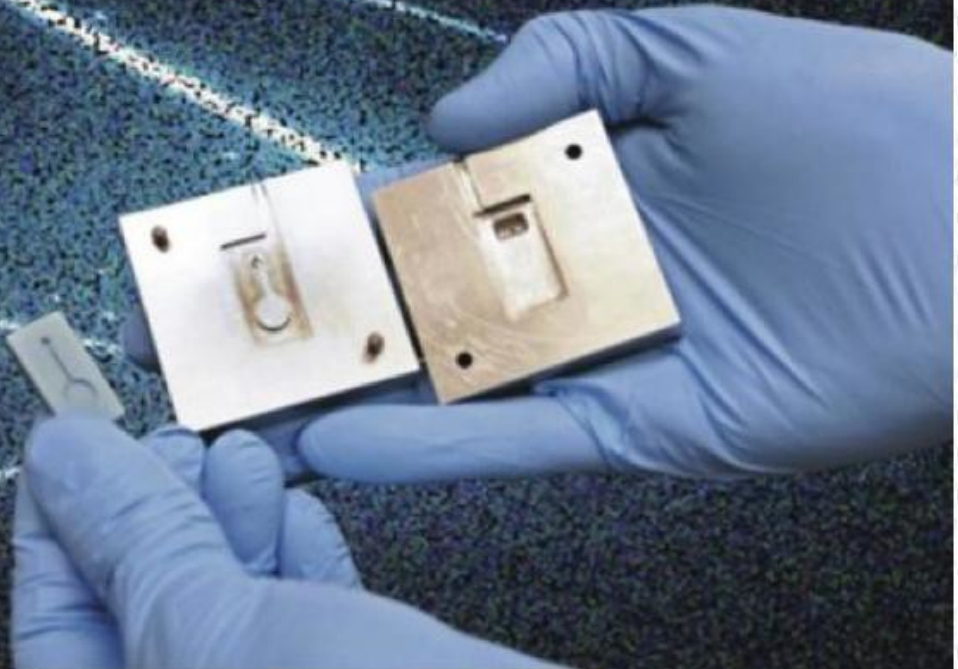


Industry-University Workshop on **Sensors and Machine Learning**

SENS MACH 2021

WHERE SENSORS AND ALGORITHMS COME TOGETHER

November 9, 2021



Collaborative with
Tiny ML



**Call for Participation: Industry – University Hybrid Meeting
Sensors and Machine Learning
Industry-University Event, November 9, 2021, 8:30am-11:30am**
Industry, ASU & TinyML Presentations

Virtual Meeting
Link to be sent after registration



Includes Tiny Machine Learning (TinyML™) Seminars

TinyML is trademark of the TinyML foundation.

Event Sponsored in part by the [ASU SenSIP Center](#) (an NSF I/UCRC Site)

Registration is free but Required – [Register Here](#) - Zoom URL will be sent after Registration

Final SensMACH 2021 Program – Collaborative with the TinyML Phoenix Chapter

Tuesday November 9^h 2021

Session Chair: Steve Whalley

- 8:30-8:40 – Opening Remarks A. Spanias and Steve Whalley, Lightsense
- 8:40-8:50 – The Tiny ML Foundation and the Phoenix TinyML Chapter, Evgeni Gousev, Qualcomm
- 8:50-9:20 – Arizona Heat and the MaRTy Project, Ariane Middel, ASU AME & SCAI
- 9:20-9:35 - Spatial AI on the edge, Erik Kokalj, Luxonis
- 9:35-9:50 – TinyML technologies and Neuromorphic Computing, Katina Michael ASU SFIS & SCAI
- 9:50-10:05 – Arizona Heat and Tiny ML R&D Opportunities, Suren Jayasuriya ASU AME & ECEE
- 10:05-10:20 – Far-Field Speech Recognition at MCU-based Edge Device, Jongmin Lee, NXP
- 10:20-10:35 –On-Device Joint Human-Machine Decision Assessment for Remotely Operated Vehicles, Theo Theocharides, KIOS Center, UCy
- 10:35-10:50 – IoT use-cases enabled by embedded machine learning using ultra-low power motion sensors, Dan Sadler, NXP
- 10:50-11:05 - Machine Learning applied to Spectroscopy for Rapid Detection of Pathogens, Mike Stanley, Lightsense
- 11:05 Discussion
- 11:30 Adjourn

[Register Here](#)

Industry-University Workshop on Sensors & Machine Learning
In collaboration with the [tinyML Foundation](#)

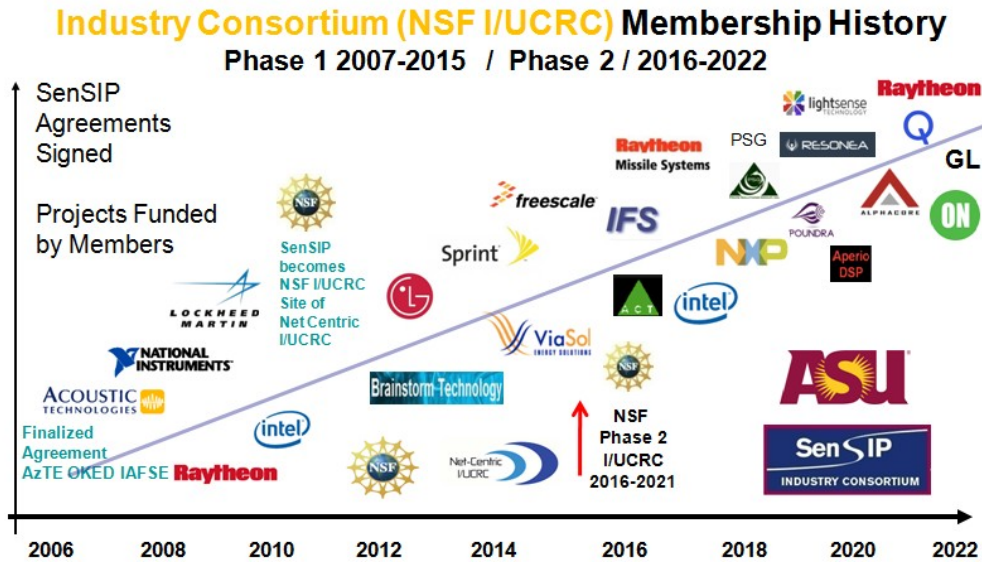
tinyML Foundation
Enabling ultra-low Power Machine Learning at the Edge



tinyML Foundation is a non-profit professional organization focused on supporting the fast-growing branch of ultra-low power machine learning technologies dealing with machine intelligence at the

[tinyML](#)

The sensors signal and information processing ([SenSIP](#)) center and industry consortium was established in 2007. SenSIP houses use-inspired research and trains students in areas that include sensor and information systems, machine learning, digital signal and image processing, and wireless sensor networks. Applications addressed include integrated sensing, biosensors, security, sustainability, 5G and low power systems, radar, and vehicular sensing. The center is also an Industry/University Cooperative Research Center (I/UCRC) sponsored by NSF and several industry members and government labs. Industry members of SenSIP include: CI Labs, NXP, ON Semi, Qualcomm, Raytheon, Sprint (T-mobile) and several SBIR type companies: Alphacore, Lightsense, PSG, Poundra and Resonea. The membership history since 2007 is shown below:



Previous SensMACH Meetings



- Program [2020](#) Virtual
- Program [2019](#) at San Diego
- Program [2018](#) at Napa Valley
- Program [2017](#) at San Jose
- Program [2016](#) at Scottsdale



Evgeni Gousev, Qualcomm



Ariane Middel, ASU



Steve Whalley, TinyML



Mike Stanley, Lightsense



Katina Michael, ASU



Jongmin Lee, NXP



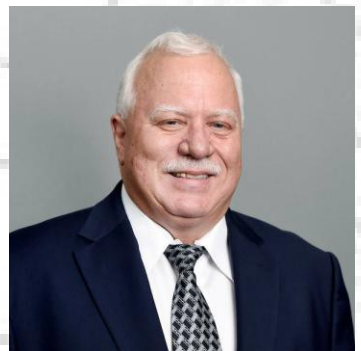
Erik Kokalj, Luxonis



Suren Jayasuriya, ASU



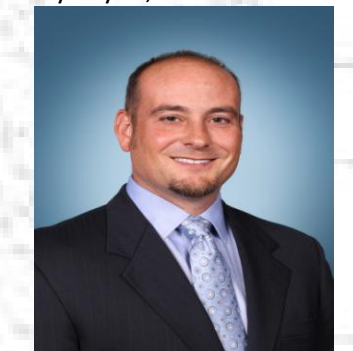
Ruby Sayed, Coordinator ASU



Andreas Spanias, ASU SenSIP



Olga Goremichina,
Coordinator TinyML



Dan Sadler, NXP

[Register Here](#)

SenSIP is sponsored in part by the NSF award 1540040. TinyML sponsors are listed at <https://www.tinyml.org/sponsors/>