tiny ML. Talks

Enabling Ultra-low Power Machine Learning at the Edge

"TinyML In-Person Workshop in Switzerland - Synthara AG"

Anup Kini – Lead engineer, Synthara

June 29, 2023







Thank you, **tinyML Strategic Partners**, for committing to take tinyML to the next Level, together









brainchip















































Executive Strategic Partners





The Leading Development Platform for Edge ML

edgeimpulse.com

Qualcomm Al research

Advancing Al research to make efficient Al ubiquitous

Power efficiency

Model design, compression, quantization, algorithms, efficient hardware, software tool

Personalization

Continuous learning, contextual, always-on, privacy-preserved, distributed learning

Efficient learning

Robust learning through minimal data, unsupervised learning, on-device learning

A platform to scale Al across the industry



Perception

Object detection, speech recognition, contextual fusion

Reasoning



Edge cloud





Cloud

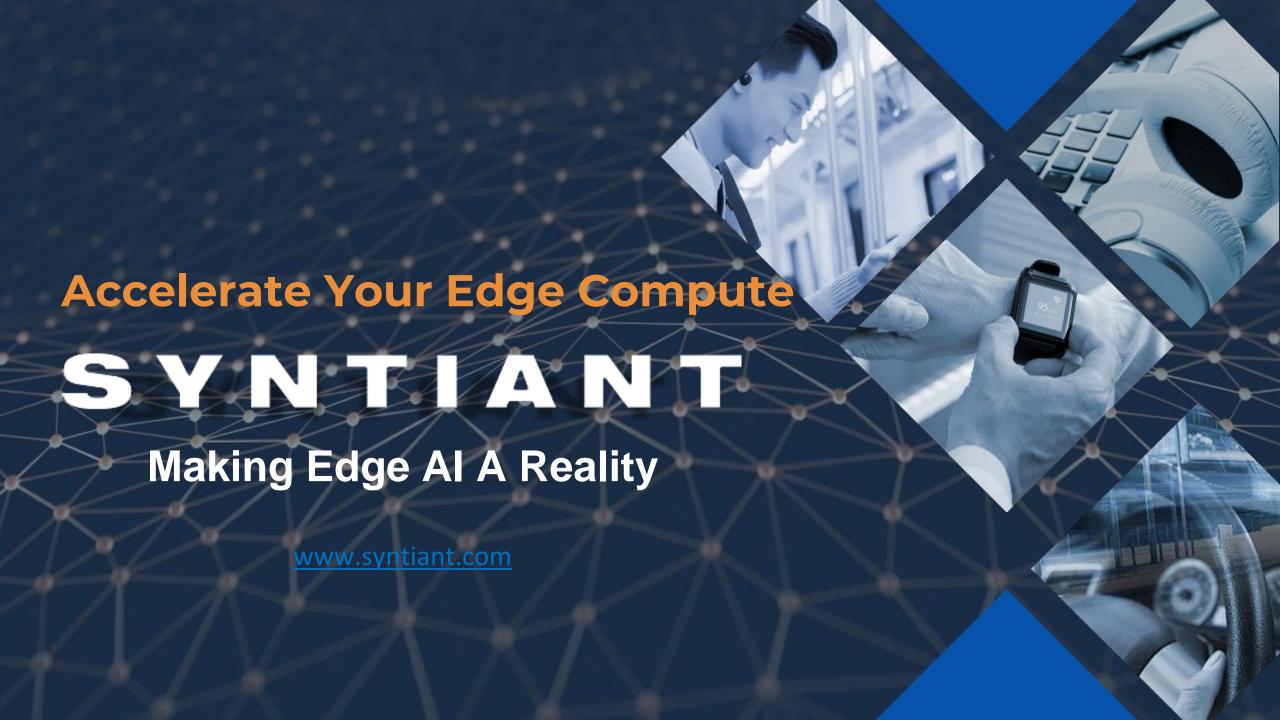




IoT/IIoT





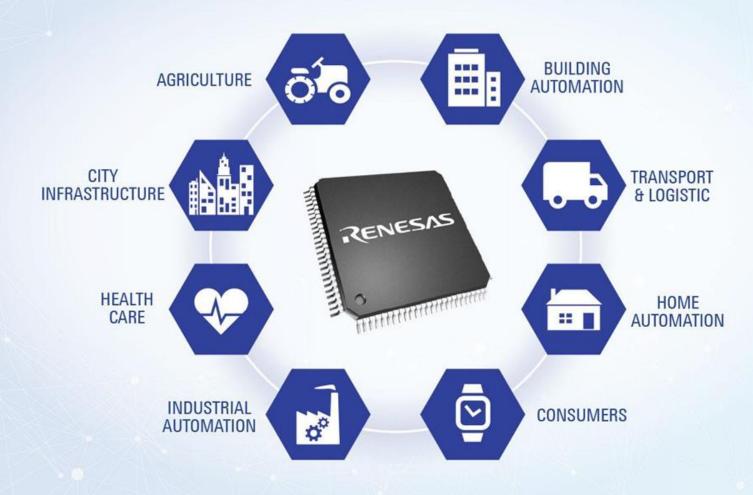






Platinum Strategic Partners

Renesas is enabling the next generation of Al-powered solutions that will revolutionize every industry sector.



renesas.com





DEPLOY VISION AI AT THE EDGE AT SCALE





Gold Strategic Partners





Where what if becomes what is.

Witness potential made possible at analog.com.





arduino.cc/pro

🏂 Made In Italy

arm Al



















Arm Al Virtual Tech Talks

The latest in AI trends, technologies & best practices from Arm and our Ecosystem Partners.

Demos, code examples, workshops, panel sessions and much more!

Fortnightly Tuesday @ 4pm GMT/8am PT

Find out more: www.arm.com/techtalks



Driving decarbonization and digitalization. Together.

Infineon serving all target markets as

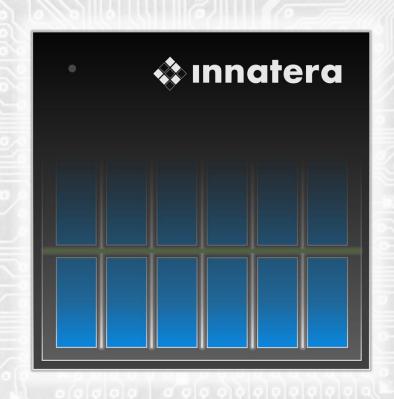
Leader in Power Systems and IoT



www.infineon.com



NEUROMORPHIC INTELLIGENCE FOR THE SENSOR-EDGE



www.innatera.com



Microsoft

The Right Edge Al Touls Can Make Break Your Next Smart IoT Product







ENGINEERING EXCEPTIONAL EXPERIENCES

We engineer exceptional experiences for consumers in the home, at work, in the car, or on the go.

www.synaptics.com







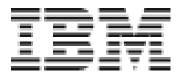
Silver Strategic Partners



brainchip























Join Growing tinyML Communities:



15.2k members in49 Groups in 41 Countries

tinyML - Enabling ultra-low Power ML at the Edge

https://www.meetup.com/tinyML-Enabling-ultra-low-Power-ML-at-the-Edge/





3.7k members & 12.4k followers

The tinyML Community

https://www.linkedin.com/groups/13694488/









Subscribe to tinyML YouTube Channel for updates and notifications (including this video)

www.youtube.com/tinyML





tinyML 4.33K subscribers

9.7k subscribers, 587 videos with 341k views

HOME

VIDEOS

PLAYLISTS

COMMUNITY

CHANNELS

ABOUT

Q









Manuel Roveri: Is on-...

138 views • 4 days ago





47 views • 4 days ago



On Device Learning On Device Learning Forum - Hiroku... Forum - Song Han: O ...

137 views • 4 days ago 132 views • 4 days ago









122 views • 4 days ago

Singapore:... 262 views •

2 weeks ago

tinyML Talks Shenzhen: Data... 511 views •

3 weeks ago

Singapore:... 229 views •

3 weeks ago

tinyML Talks

tinyML Smart Weather Station with Syntiant...

265 views • 3 weeks ago



286 views • 1 month ago





tinyML Auto ML Tutorial with SensiML **Tutorial with Qeexo** 351 views •

1:02:30

1 month ago

tinyML Auto ML

462 views • 2 months ago tinyML Talks Germany: Neural network..

374 views • 2 months ago

tinyML Talks: The new

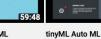
Neuromorphic Analo...



tinyML Trailblazers tinyML Auto ML

133 views • 2 months ago

with Yoram Zylberberg Tutorial with Nota Al 287 views •



336 views • 2 months ago

Tutorial with Neuton







tinyML Auto ML Forum

tinyML Challenge 2022: Smart weather...

378 views • 2 months ago

tinyML Talks South Africa - What is... 214 views •

2 months ago

448 views • 2 months ago tinyML Talks Shenzhen: 分享主题... 159 views •

2 months ago

tinyML Auto ML Forum - Paneldiscussion

2 months ago

190 views •

2 months ago

545 views •

- Demos

2 months ago









EMEA 2023

https://www.tinyml.org/event/emea-2023

More sponsorships are available: sponsorships@tinyML.org





Reminders

Slides & Videos will be posted tomorrow





tinyml.org/forums

youtube.com/tinyml



Please use the Q&A window for your questions







Anup Kini



Anup Kini is a lead engineer at Synthara. Anup holds a Master of Science in Communication Electronics from the Linköping University. He has more than 9 years of experience in RTL and FPGA design and implementation.





Thank you, **tinyML Strategic Partners**, for committing to take tinyML to the next Level, together









brainchip















































Copyright Notice

This multimedia file is copyright © 2023 by tinyML Foundation. All rights reserved. It may not be duplicated or distributed in any form without prior written approval.

tinyML[®] is a registered trademark of the tinyML Foundation.

www.tinyml.org





Copyright Notice

This presentation in this publication was presented as a tinyML® Talks webcast. The content reflects the opinion of the author(s) and their respective companies. The inclusion of presentations in this publication does not constitute an endorsement by tinyML Foundation or the sponsors.

There is no copyright protection claimed by this publication. However, each presentation is the work of the authors and their respective companies and may contain copyrighted material. As such, it is strongly encouraged that any use reflect proper acknowledgement to the appropriate source. Any questions regarding the use of any materials presented should be directed to the author(s) or their companies.

tinyML is a registered trademark of the tinyML Foundation.

www.tinyml.org