

TUTORIAL SESSION – TUESDAY NOVEMBER 15, 2022

THAI CHITLADA 1 - 2ND FL, Marriott Marquis Queen's Park, Bangkok Thailand

[HTTPS://WWW.IEEE802.ORG/802TELE_CALENDAR.HTML](https://www.ieee802.org/802tele_calendar.html)

SESSION 1

6:00 PM-7:20 PM BANGKOK
TIME

TITLE OF TUTORIAL: AMP IoT Technologies and Applications

NAME OF PRESENTERS, THEIR AFFILIATIONS AND CONTACT INFO:

Presenter Name	Affiliation	Email Address
Prof. Hao Min	Fudan University	hmin@fudan.edu.cn
Dr. Heng Pan	Finsiot Inc.	pan.heng@finsiot.com

ABSTRACT:

This tutorial introduces the key Ambient Power (AMP) communication concepts and technologies required to implement ambient power enabled IoT (AmbIoT) devices. Potential application areas and advantages of AmbIoT systems will also be introduced.

SESSION 2

7:30 PM-8:50 PM BANGKOK
TIME

TITLE OF TUTORIAL: Wi-Fi Meets ML: Re-thinking Next-generation Wi-Fi Networks

NAME OF PRESENTERS, THEIR AFFILIATIONS AND CONTACT INFO:

Presenter Name	Affiliation	Email Address
Szymon Szott	AGH University of Science and Technology	szott@agh.edu.pl
Boris Bellalta	UPF Barcelona	boris.bellalta@upf.edu

ABSTRACT:

This tutorial introduces the key Artificial Intelligence/Machine Learning (AI/ML) concepts that are essential to understanding the application of AI/ML, concisely presenting the basics of Supervised Learning, Unsupervised Learning, and Reinforcement Learning techniques. We also describe network architectural aspects to support ML, such as centralized and distributed model training and deployment. The second part of the tutorial describes representative use

cases where AI/ML techniques are used to improve IEEE 802.11 performance, covering several examples in detail. Finally, to end the tutorial, we discuss a list of open challenges to adopting AI/ML in IEEE 802.11.

TITLE OF TUTORIAL: IEEE 802 Working Group and Technical Advisory Group status

NAME OF PRESENTERS, THEIR AFFILIATIONS AND CONTACT INFO:

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ABSTRACT:

During the IEEE 802 Executive Committee workshop on Saturday 16 July 2022, there was a discussion about using the existing tools to promote more inter Working Group (WG) and Technical Advisory Group (TAG) collaboration and coordination. One of these existing tools is the IEEE 802 Plenary Session tutorial program and this tutorial is intended to promote more collaboration and coordination. During this tutorial, each IEEE 802 WG and TAG will provide a status report listing each of their projects, under consideration and in progress, including a brief overview of the technology under consideration.