Special Interest Groups(SIG) on AI Empowered Internet of Vehicles

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Scope and Objectives

Internet of Vehicles (IoV) (including UAVs) empower vehicles to communicate with the surrounding environment and remote servers, enabling a wide range of on-the-go services, including road safety, infotainment, intelligent transportation, data acquisition. To better support IoV, heterogeneous networks (terrestrial networks, aerial networks and satellite networks) and heterogeneous resources (communication, computing and storage) expects to be integrated to provide service anywhere and anytime.

In such a dynamic and complex scenario, many technical challenges arise, e.g., high mobility of vehicles, stringent of service requirements, multi-dimensional randomness, great heterogeneity, etc. Artificial intelligence (AI) has great potential to address these technical challenges and manage heterogeneous resources efficiently to meet different quality of service (QoS) requirements of IoV.

This SIG group aims to provide a platform for researchers and developers from both industry and academia to exchange ideas, discuss key technologies, and share latest results, to promote the development of AI empowered IoV.

Recent Update

➢ Conference/workshop organizations

- IEEE INFOCOM Workshop on Pervasive Network Intelligence for 6G Networks (PerAI-6G) (30+ submissions), May 2023.
- 31st Biennial Symposium on Communications (BSC 2023), July 2023.
- IEEE ICCC 2023 Workshop on Edge Intelligence for 6G Networks (26 submissions), August 2023.
- EAI MONAMI 2023 - 13th EAI International Conference on Mobile Networks and Management, October 2023.
- The 15th International Workshop on Cyberspace Security and Artificial Intelligence (CAI-2023), November 2023.

➢ Webinars

- “RingSFL: An Adaptive Split Federated Learning Towards Taming Client Heterogeneity,” Dr. Nan Cheng, Xidian University, China, September 2023.

Recent Update

➢ Ongoing Activities

- ICCSPA'24- The 6th International Conference on Communications, Signal Processing, and their Applications, Istanbul, Türkiye, July 2024.

➢ Future Plans

- Continue to organize workshop/conferences/SI
- Organize webinars on emerging topics

Thank you !
Welcome!