

Two Days International Workshop on Introduction to Federated Learning and Privacy-Preserving Machine Learning with Flower Labs

Date: 12th September 2024 and 19th September 2024

Venue: Online (Zoom)

Overview

The International Workshop on “*Introduction to Federated Learning and Privacy-Preserving Machine Learning with Flower Labs*,” held online in collaboration with the Department of Electronics and Communication Engineering, Amity School of Engineering and Technology, AUUP and Flower Lab, UK, on September 12 and 19, 2024, was a resounding success. Featuring keynote sessions by distinguished experts from the University of Cambridge and Flower Lab, UK including Prof. Dr. Nicholas Lane, Dr. Yan Gao, Dr. Mohammad Naseri, Dr. Heng Pan, and Dr. Javier Fajardo. The workshop provided in-depth insights into the evolving landscape of Federated Learning and its real-world applications. The event witnessed active participation and engagement from students and faculty, made possible by the meticulous planning and dedication of the CSSP Club team under the guidance of Prof. (Dr.) Ashwani Kumar Dubey, Dr. Shubhra Dixit and Dr. Richa Sharma. Special appreciation goes to the entire student organizing team: Mr Piyush Kumar, Ms Pranamika Sharma, Ms Riya Jain, Ms Vanya Taela, Mr Bhumik Yadav, Ms Shanessa Patnaik, Ms Neel Agarwal, Mr Navya Prasad, Mr Arjun Prasad, and Ms Shilpi Sharma of CSSP Club, Deptt of ECE, ASET, AUUP, Noida, India for their outstanding efforts. This workshop not only fostered knowledge exchange but also laid the foundation for future collaborations in the domain of secure and distributed AI technologies.

Distinguished Experts from the University of Cambridge and Flower Lab, UK:

- 1) **Prof. (Dr.) Nicholas Lane**, Co-Founder of Flower Lab
- 2) **Dr Yan Gao**, Researcher, Flower Lab, UK
- 3) **Dr. Mohammad Naseri**, Researcher, Flower Lab, UK
- 4) **Dr. Heng Pan**, Researcher, Flower Lab, UK
- 5) **Dr. Javier Fajardo**, Researcher, Flower Lab, UK

The collage features several key elements from the workshop:

- Workshop Posters:** Promotional materials for the "Introduction to federated learning and privacy-preserving ML with Flower workshop" and "Introduction to FL and Privacy-preserving ML with Flower".
- Zoom Meeting Interface:** A screenshot of a Zoom meeting showing a grid of participants and a shared screen.
- Slide: Privacy and Security in Federated Learning**: A slide with a yellow background and the text "Privacy and Security in Federated Learning".
- Slide: ClientApp and ServerApp**: A slide showing terminal output for installing the Flower framework: `flwr new flwr run pip install flwr`.
- Slide: Challenges of Federated Learning**: A slide with a white background and a yellow header, listing "Labeled data is not always naturally available (users are also unreliable)" and "Non-IID Data".
- Organizing Team and Tutorial Team:** Lists of names and photos of the individuals who organized and presented at the workshop.