

## **Abstracts**

In the 21<sup>st</sup> century, the technology development mainstream is the interdisciplinary integration, together with the human-centered technologies (i.e., Human-Technologies, HT) that emphasizes on friendly service for human rather than the forced adaptation by human. Intelligent Transportation Systems (ITS) represents a typical human-centered large-scale and highly complex dynamic system, while it is the mainstream of the development of next-generation technologies. ITS is an integrated discipline of sensing, controls, computers, electronics, communications and traffic management

This lecture discusses some achievements of HT-ITS in Taiwan, including ITS information and communication platform, traffic dynamics simulation platform, driving safety assistance systems, and intelligent control technologies applied to next generation smart vehicles. Some real-life demonstrations of Advanced Traveler Information Systems (ATIS) and Advanced Vehicle Control and Safety Systems (AVCSS) on our experimental car are also shown in this lecture.

We believe that the proposed efforts will in turn enrich our research and teaching environment, reinforce our academic strength and open up new territory applications for each discipline. Equally importantly, the success of our efforts should bring social and economical benefits, in addition to academic values.