How innovation is driving mobility

Today and for future generations

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♦ Advanced Safety Vehicle (ASV) project in Japan
  • Achievement of ASV Project in Phase 1 to 4
  • Discussion point in Phase 5

♦ ITS Informal Group in WP. 29
ASV Project

- Observing the forward situation
- Emitting a sound alarm
- Activating brake system

Steering Angle Sensor
Millimetre-wave radar
Alarm
Electronic Braking System (EBS)
Yaw rate sensor
Computer
ASV Project

Towards widespread use of autonomous technologies
- Increase the social acceptance
- Information to users

New Technology
- Communication technology
- Progress of autonomous technology

Phase 1
1991
- Study technological possibilities

Phase 2
1996
- Research and develop for market introduction

Phase 3
2001
- Promote popularization and develop new technologies

Phase 4
2006
- Challenge and future contribute to accident reduction

Industry, Academia and Government
ASV Project
Design Principle

Driver Assistance

Driver monitors ASV operation
Safe driving with ASV

ASV assistance
Driver control

Proper understanding by other drivers
Proper understanding by pedestrians

Driver Acceptance
Social Acceptance
ASV Project

Discussion Points of the ASV Project Phase 5

✓ Significant advance of active safety performance

- The goal is to further development of significant advance of active safety performance.

- Discuss and define a concept of active safety technologies

- Providing the information to the society, considering the latest technology level and social receptivity of ASV.
ASV Project

Discussion Points of the ASV Project Phase 5

✓ Communication-based systems that respond to not only vehicles but also pedestrians
  - Further development of new technologies for communication-based systems
  - Further study of the practical use
    • Vehicle to vehicle communications systems
    • Vehicle to pedestrians communications systems

(Audio voice)
Pong! (sound alert)
Be careful of the motorcycle backward!

Caution!
ITS Informal Group in WP.29

Co-Chair: Japan/U.K.

Background:
- Rapid growth of In-Vehicle ITS technologies
- Necessity of appropriate consideration of safety for proper development and deployment

Achievement:
- Establish warning principle at 154th session of WP.29 held in June 2011

Future works
- Considering control principle “keeping drivers in the loop”
Thank you for your attention