Second Keynote Address

Automotive Enhanced Vision Systems - Issues Arising from Placing Users in the Loop

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It is well known that Enhanced Vision Systems (EVS) improve pilot situational awareness and assist flight task performance, making them a firmly established flight deck technology in the Avionics domain. While similar technologies hold the promise of bringing parallel benefits to the everyday driver, Automotive EVS is currently a nascent technology for numerous reasons. In this presentation, a unique Automotive EVS system will be described and several concept applications will be reviewed. Subsequently, a set of issues that emerge from the nature of user-system interaction, the unique features of the automotive domain and associated system -ilities. Included in this discussion are aspects of system reliability, system availability, user acceptability, user adaptability and the important task of building user trust through reliable and hierarchical importance ranking and management of information presented on Automotive EVS.

Speaker:
Tom is the Lab Group Manager of the Human Machine Interface group within the Vehicle Development Research Lab at GM in Warren Michigan. He is responsible for developing next generation interfaces that enable safer, more efficient and pleasurable human interactions with GM vehicle interiors. This technical domain is comprised of User Centered Design process development, use of Design Language for brand differentiation and harmonious experience, in addition to the traditional focus of information management, display and control, and user human factors/usability testing.

In addition to holding a PhD in Physical Chemistry from Northwestern University, Tom has an MBA from the University of Iowa. He began his career at the Rockwell Science Center where he developed high energy density materials for use as propellants and chemical laser fuels. From there he transferred to Rockwell Collins to lead organizations in the development of avionics HMI and display technologies. There, he ascended to the position of Air Transport Director of Technology and Product Planning. Tom then joined Guardian Industries Science Center as the Director of Sputtered Films Technology, leading an organization charged with developing thin film optics technologies and products. Finally, he was the Director of Advanced Technology at Guardian prior to joining GM in 2006.