Definition and Test of Ko-PER Perception Messages

Technology Transfer from simTD

Intersection
• Intersection Geometry and Topology (MAP)
• Traffic Light Information (SPaT – Signal Phase and Timing)

Vehicle
• Vehicle State Information (CAM – Cooperative Awareness Message)

Advanced Ko-PER Messages for Cooperative Applications

Inter-Vehicle Perception
• Cooperative Perception Message (CPM) featuring:
  • Ego Information (EIS)
    • Global Position
    • 3D-Orientation
    • Vehicle Dynamics & Covariance
    • Field of View (FoV)
  • Perceived Dynamic Objects (PDO)
    • Object Class & Dimension
    • Object Dynamics & Covariance

Cooperative Positioning
• Localization Message (CLM)
  • GPS-Raw Data
  • Vehicle Dynamics
  • Level Arms

Several Novel Types of DEN Messages to
➢ Support Safety in Longitudinal Traffic &
➢ Cooperatively Protect Vulnerable Road Users

• Sudden Velocity Change (SVC)
• Sudden Lateral Displacement (SLD)
• Surprise Behavior of Pedestrians & Two-Wheelers (PED&BIC&CYC)