Breakout Session 3: Enabling Technologies for Automated Vehicles

• **Summary of Key Findings and Lessons Learned**

  • Broad array of current topics
    • Positioning and Localization
    • Cybersecurity
    • Digital Infrastructure (double session)
    • Sensing and Perception
    • On-Board Computational Technologies
    • Cellular/5G vs 802.11p-based Communications
  
  • ...but there could have been more
    • Two tracks?
    • Synergism: the “I” talking with the “V” good, but sometimes the perspectives, technologies and lexicon are different, e.g., HDMaps means different things to different stakeholders (vehicle industry, governments, global regions)
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• Summary of Key Findings and Lessons Learned (Cont’d)
  • Technology tutorials, e.g.,
    • Advances in crowdsourced localization techniques
    • Emerging lightweight cryptographic techniques
    • Different approaches to HD maps – from all angles (vehicle industry suppliers, industry standards, government initiatives, road striping inventiveness) and all flavors (resolution, latency)
    • AI/Neural Networks: philosophies and implementation
    • Exposition of DSRC and Cellular/5G ‘debate’
  • What did we miss?
    • Government orientation, given that the “I” is primarily owned and operated by them
    • End-to-end approach: technologies at back office
    • Forward looking research – focus was on contemporary work, not more ‘forward leaning’ research
    • Focus on expert discussion on gaps
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**Recommended Action Items**

- Multiple tracks to satisfy disparate stakeholders and disciplines
- Need to consider different mix / new items
  - Radar
  - Mmw
  - More research voices
- Keep up the good work, Executive Committee: a big room and comfy chairs for this breakout is a good thing. After all, the Silicon Valley and technology types need a place to go and creature comforts.