Parking and Transportation Committee Meeting Minutes
3/29/2022
Via Zoom

Members Present: Sam Avery, Paul Hanley, Pamella Hughes, Kara Park, Debra Trusty, David Wittenberg
Staff/Others Present: Brian McClatchey, Dan McGehee, Frank Mitros, Erin Shane, Debby Zumbach and Carrie Brus
Members/Staff Absent: David Keffala-Gerhard, Kevin Larson, Jacob Odgaard, Brian Shanahan, Rebecca Wilson

Meeting began at 3:02pm

Carrie took roll call based on Zoom attendance

Approval of Meeting Minutes
- Moved and seconded to approve minutes

Presentation given by Professor Dan McGehee
- 30th year at Iowa
- Came to Iowa after grad school
- 6 years ago, took over as Director at NADS (National Advanced Driving Simulator)
- National Advanced Driving Simulator Mission
  - Make our roads safer by researching the connection between humans and vehicles
  - Driving age ranges from 14 to over 100
  - Over 36k fatalities in US each year in vehicular accidents
  - Goal is to eliminate crashes
- Research vehicles on campus
- On-road research is becoming more valuable
  - Some vehicle examples:
    - Volvo XC90
    - Tesla Model S75D
    - Lincoln MKZ
    - Camry
    - Ford Transit shuttle bus
- Active Research
  - Automated vehicles
    - Transition of control
    - How quickly will drivers’ transition?
    - How does interface design impact that transition?
    - How does a driver’s understanding of adaptive cruise control affect driving performance?
  - Automated Driving System for Rural America
    - Lack of hard surface and lack of paint
    - Automated vehicles rely on paint on the road
    - Looking into different technology that can help
    - Improve safety
    - Represent rural roads in ADS testing
    - Enhance mobility
    - Provide data
  - Drowsy Driving Research
    - Drowsiness Alerts
    - Do they work?
    - How do they influence decision made by drivers?
    - Do drivers know how drowsy they really are?
  - Driving Safety Analyses
    - Tracking devices on farm equipment recorded passing vehicles
    - Adults in the back seat during crashes
    - Road conversions
    - Creating a crash data dictionary
  - Teens at the Wheel
    - Does a teen’s ability to anticipate hazards change after new-driver training?
  - Cannabis and Driving
    - How do you ID who is too impaired to drive due to cannabis use?
    - Identify brain markers
    - Cannabis impairment detection app
    - Prevalence of drugs in crash subjects reported to the Emergency Dept
- Role of COVID
  - Human subjects testing
• Challenges ahead
  • Overmarketing of automation capabilities
  • Changing expectations
  • Surveys show that public not knowledgeable
  • Once you drive one, it can change your assumptions

• History
  • The automatic transmission in 1942
  • Cruise control became available in 1958
    • Called the “auto pilot”
  • Advanced Driver Assistance Systems (ADAS)
    • What cars can see today
  • Mycardoeswhat.org
    • Know more and drive safer
  • Subaru Eyesight
  • Adaptive Cruise Control
    • Set speed
    • Set gap
  • Lane keeping assist
    • Keep you in the center of the lane

• Levels of driving automation
  • Up to Level 2 in production right now
  • What does the human in the driver’s seat have to do vs what is automated?

• Operational Design Domain
  • Perhaps the most important element of automated driving
    • Roadway types
    • Geographic area
    • Speed range
    • Environmental conditions

• Cadillac Super Cruise
  • Referred to “freeway automation”
  • Must keep eyes straight ahead
  • Only works on specially mapped freeways

• Areas of leadership to consider
  • Robot parking attendants to write tickets 24/7
  • All-Electric Vehicles

• Questions/Feedback
  • Driving at night, blinding lights from other vehicles
    • Studying “adaptive headlights”
    • Detect pedestrians or bicycles
    • Aim a light at those groups from the vehicle
    • Would be interesting to experiment with that technology on CAMBUS
    • Volvo is the most advanced on this technology so far
  • Help with parking between lines in parking ramps
    • Tesla has the best technology for parking right now
  • Hi-def mapping
    • Original mapping
    • Constantly changing
    • Develop own maps

• Gender equity issue with crash dummies
  • Extremely expensive to make
  • Air bags used improperly with a child in the front seat
  • Seat belts used improperly with pregnant women
  • Tracking equity in automated transportation

• Where can people charge their electric vehicles?
  • Grocery stores are an option
  • Electric outlet in your garage

Housekeeping Items
  • Next meeting is April 22 at 3pm via Zoom
  • Continued meetings with UIHC regarding issuance of tickets to employees in parking ramps
  • Would like to see a possible field trip out to see NADS

Adjourn
  • Motion to adjourn and seconded
  • Meeting ended at 3:53pm