Proposal to create a new IEEE-SA SCC type 2 -- **SCC Transportation**

a) A scope of work for the SCC.

Coordinates IEEE activities for the technologies related to transportation, especially in the areas of connected vehicles, autonomous/automated vehicles, and other types of transportation electrification. These technologies include but are not limited to Mobile Apps, Sensor Networks, and Communications that allow human to vehicle, vehicle to vehicle, vehicle to infrastructure, vehicle to platform, and vehicle to everything exchange of information and data. This scope also includes the development of guides, recommended practices, standards, and common definitions of terms.

b) Supporting material demonstrating the need for and feasibility of the SCC.

"I am writing this email to show my strong support for a SCC Transportation for not only Transportation Electrification Standards but also related areas such as Smart Grid and Internet of Things. The SCC Transportation is needed to accelerate our ability to respond to market areas that are moving fast.

For several years now we have been trying to identify and promote the development of electrified transportation standards. This process has been slow because of the large scope of transportation.

Recently I met with the US Assistant Secretary of Transportation, Gregory Winfrey, and his Staff to discuss his view of the IEEE. He said that to the outside world, the IEEE was a large organization with unclear points of engagement and partnership. This situation is limiting our long range ability to work with the US Department of Transportation.

It is my recommendation that we implement a SCC Transportation to support the fast moving industry areas of transportation and others. My fear is that if we don't, our existing and future customers will get their support from other organizations and not the IEEE."

-- Lee Stogner, Chair, IEEE Transportation Electrification Initiative

"Unifying IEEE leadership in transportation and related technologies is important in establishing standards for developing technologies. I strongly endorse the use of IEEE-SA SCC Transportation as an approach to coordinate IEEE standard activities in transportation and related technologies, sponsor new standards in cross-disciplinary areas (e.g. connected vehicles, autonomous/automated vehicles, electric vehicle), and represent IEEE standards in the transportation industry and communities. In addition, this SCC provides a new collaboration model between IEEE-SA and IEEE TAB. Typically, an IEEE Future Directions initiative will exist for two to three years before being assimilated into a Society, Technical Committee or Council. An IEEE-SA standard can take two to four years to establish. If the IEEE FD initiative and IEEE-SA standard occur in serial, the technology may take four to seven years before industry sees a standard. Most industries will consider other alternatives to an IEEE-SA standard process. The use of IEEE-SA SCC offers the IEEE-SA the capability to commence with a standard after the IEEE FD initiative is started and reduce the window by two or three years, an interval that is critical to industry."

-- Stephen Dukes, Member of IEEE-SA Standards Board (TAB representative)

c) A statement explaining why the SCC should undertake the sponsorship of standards in a particular subject area rather than the current committees of IEEE Societies or Councils.

Emerging technologies that are related to connected vehicles, autonomous/automated vehicles, and other types of transportation electrification are calling for collaboration among multiple disciplines that are not covered by the scope of any single IEEE Society.

This SCC will reemphasize IEEE's leadership and improve IEEE's visibility in the domain of transportation, especially in the areas of connected vehicles, autonomous/automated vehicles, and other types of transportation electrification. The SCC will serve as the focal point for the IEEE Societies to collaborate on standards development covering this converging technology space. This would include but not be limited to Vehicular Technology Society, Communications Society, Computer Society, Intelligent Transportation Systems Society, Consumer Electronics Society, Electron Devices Society, Industrial Electronics Society, Power Electronics Society, Industry Applications Society, Engineering in Medicine and Biology Society, and Power and Energy Society.

d) A nominee for chair, including a statement of his or her willingness to serve.

Dr. Yu Yuan (M '04-SM '10)   *Dr. Yu Yuan is a veteran researcher and practitioner in the areas of Vehicular Technology, Intelligent Transportation Systems, Consumer Electronics, and Internet of Things. He has been serving on the IEEE-SA Standards Board since 2012. He is also serving as the Chair of Vehicular Technology Committee in IEEE Consumer Electronics Society, the Chair of Technical Committee on Software Infrastructure in IEEE ITS Society, and the Publicity Chair of Land Transportation Division of IEEE Vehicular Technology Society. In addition, he is serving on the TRB Standing Committee on Urban Transportation Data and Information Systems (ABJ30), the TRB Standing Committee on Information Systems and Technology (ABJ50), the TRB Standing Committee on Vehicle-Highway Automation (AHB30), the IFAC Technical Committee on Automotive Control (TC 7.1), the IFAC Technical Committee on Transportation Systems (TC 7.4), and the IFAC Technical Committee on Intelligent Autonomous Vehicles (TC 7.5). Dr. Yuan is a senior member of IEEE and a senior member of ACM. He is also a member of Sigma Xi, AAAS, SAE, ITE, and ASME.*

Statement: *Considering the growing importance of transportation in human life and world economy as well as IEEE's achievements in related technology areas, I believe IEEE is facing a big chance of becoming a globally well-known leading force in transportation and related standardization. I have been working on and will continue to be committed to this goal with my expertise, efforts and connections. It will be my great honor and pleasure to be of service to this SCC and all the supporting IEEE Societies/Councils.*

e) A budget that estimates annual resource requirements and identifies sources of revenue to support the activity.

Zero budget.

f) An opportunity for the IEEE Society/Council to sponsor the work.

As the transportation related technologies span multiple societies, it is believed that the creation of an SCC will provide multiple societal engagements in the collaboration and promote a positive affect related to the convergence of these technologies. We would invite any interested society to join and become part of this SCC.