

**2018 TRB Technical Activities Council Blue Ribbon Nomination**  
***Community Building and Mentoring***  
**Traffic Control Device Challenge**

Prior to the 2017 TRB Annual Meeting (AM), the Standing Committee on Traffic Control Devices-AHB50 initiated the inaugural **Traffic Control Device Challenge** (TCDC). The TCDC is a collaborative program that both TRB and the American Traffic Safety Services Association (ATSSA) support. A goal of the TCDC is promote innovation and stimulate ideas in the traffic control device space. The TCDC has been designed for student participation and helps attract the next generation of professionals as well as help accelerate their careers.

The TCDC starts with ideas from ATSSA's Circle of Innovation, where agency operators and owners gather to describe their biggest challenges and concerns in the traffic control device area. A TCDC theme area is then selected from the Circle of Innovation notes. In 2017 the theme was "traffic control devices for CAVs" and in 2018 the theme is "traffic control devices for wrong way driving." Participants submit their ideas to the Traffic Control Devices committee prior to the AM. Qualifying finalists are invited to a TRB AM poster session where a panel of judges visits with each team to discuss their ideas. The judges complete evaluation forms that are used to select the top three teams. ATSSA provides the winning teams travel costs to attend Traffic Expo, and cash awards.

The inaugural TCDC was successfully completed last year. Submissions from 12 schools were received and 9 participated in the AM Poster Session. Photos from three of the teams are shown below.



The winning teams attended the ATSSA Traffic Expo in Phoenix and received their cash awards. At the ATSSA Traffic Expo, each team participated in Traffic Talk sessions where they shared their ideas with industry. Photos from the ATSSA Traffic Expo with the winners are shown below.



- First Place (\$1,500)  
*Electronic Beacon to Guide Autonomous Vehicles through Work Zones*  
Owen Hitchcock, Kristin Kersavage, Lingyu Li, Xiao Liang, Xu Lin  
Penn State University
- Second Place (\$1,000)  
*The New Generation Steering Wheel Cover*  
Jelena Karapetrovic  
New Mexico State University
- Third Place (\$500)  
*The Pima County Split-Face Marker*  
Garrett Anderson, Vincent Morello, Lindsey Willman  
University of Arizona

The success of the first TCDC has provided wind on our back and the program has already been released for 2018. <http://expo.atssa.com/docs/TCDCChallengeGuidelines2018.pdf>

The TCDC is a unique idea within the TRB community as far as we know. We've been able to attract new members, engage with young professionals in new ways, and spur out-of-the-box traffic control device ideas. Partnering with ATSSA has been a win-win in many ways. Finally, this idea is easily transferable to other Standing Committees.

While the Standing Committee on Traffic Control Devices implements traditional activities that fall within the community building and mentoring description, we feel that the TCDC is an innovation that merits consideration the 2018 blue ribbon award for community building and mentoring. Thank you for your consideration.