Telematics and Advanced Transportation Services

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Abstract. Our Telematics and Advanced Transportation Alliance, a minor alliance between academia and industry was founded by Ministry of Science and Technology, Taiwan in 2012. In order to enhance the technical ability of telematics and provide advanced and high-quality transportation services, our alliance consists of scholars and experts from the areas of telematics and advanced traffic management. The core technologies of the alliance include Controller Area Network (CAN) bus, CANopen communication technology for Industry 4.0, WAVE DSRC networks, APP hardware/software integration, big data analysis for driving safety, and fleet management services. Our alliance has more than twenty industry members so far and has held more than 80 technical seminars, promotional activities, education training programs, and factory visits. In addition to providing personnel trainings, technical services and industry guidance for our members, innovation cooperation services are highlighted to strengthen industry academic cooperation. To integrate resource and promote services, two new core technologies, CANopen communication technology for Industry 4.0 and analysis service of intersections and reasons prone to accidents, are provided to our members and we also promote the open Internet of Vehicle (IoV) platform developed by our alliance. To strengthen the industry upgrade and guidance, seven core technologies and IoV platform are used to integrate our members' products and assist them to get resources from Taiwan government. For autonomous operation and sustainable development, competitive advantages of our core technologies are used to develop new products and new technologies with our members to achieve the sustainability of our alliance.

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