Research on Safety Technology at Nissan

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Nissan is on its way toward "Vision Zero" that commits 50% reduction of number of fatalities and serious injuries in traffic accidents by 2015 from 1995. This effort consists of a range of advanced vehicle technologies including enhanced vision system, intelligent vehicle control system and so on. In addition to introducing each of such examples, a fundamental concept as a basis for all of the technologies called "Safety Shield" will be discussed. Understanding human driver's behavior was the key to establishment of the core concept that leads to the consistent deployment of the technologies. Thus multi disciplinary research works is more and more important to the future sophisticated produces. Mechanical engineering needs to collaborate not only with other engineering fields but even with scientific fields such as cognitive science. Nissan's experience in this aspect will also be discussed.