
Symposium (Oral) | Symposium | Critical Role of Semiconductors in Auto Industry: Future of automotive semiconductors and Challenges by Cutting-Edge researchers

[13a-A307-1~10]Critical Role of Semiconductors in Auto Industry: Future of automotive semiconductors and Challenges by Cutting-Edge researchers

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△ : Presentation by Applicant for JSAP Young Scientists Presentation Award

▲ : English Presentation

▼ : Both of Above

No Mark : None of Above

10:05 AM - 10:45 AM

[13a-A307-2]History and future trends of automotive semiconductors

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The automotive industry is in the midst of a once-in-a-century transformation. The automobile industry began adopting semiconductors in the 1960s, starting with rectifier diodes for alternators. Then, the spread of electronically controlled engines that supported emission control in the 1970s triggered wide-scale installation of semiconductor devices. The automotive industry has typically adopted semiconductors that are several generations older than those in the latest consumer products, because reliability and a proven record have been the industry's first priority in the market. This trend, however, will surely change, as state of the art technology is required to satisfy future demands for the automobile. These new semiconductor technologies will be deployed in future automobiles as automated driving becomes popular. The automobile will come to be regarded not just as property to show status, but as a mobility tool that delivers the joy of driving and meeting people and even opens the door on a new world in the social system.