



Future trends in the automobile industry and the impact on the die casting industry



Session Chairperson: Nano-Cast corporation Masao Kikuchi

Special lecture 1

Presentation of scenario concerning reduction of consuming fossil fuel/ energy for automobile and spread of electric vehicle

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At the United Nations Climate Change Summit in September 2019, most of the developed and emerging economies made a commitment to reduce CO₂ emissions to 45% by 2030 and zero emissions by 2050. If we do not take effective measures immediately, and if we do not reach this target within 10 years, global warming of 1.5 above pre-industrial levels will put us in a crisis situation that humans are unable to deal with at all by themselves. The transportation sector has relied almost entirely on petroleum-based fuels to date. Among them, four-wheeled vehicles use gasoline or diesel oil as the main fuel, and they cause 18% of CO₂ emissions in the world. Future development scenarios for engine vehicles including fuel diversification and next-generation vehicles like HV, PHV, EV and FCV will be presented with consideration of customer needs and effects to reduce CO₂ emissions, etc. And then, the need for manufactures supporting this industry to reduce CO₂ emissions with a sense of crisis will be suggested.

Special lecture 2

Automobile trends and needs for diecast

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Currently, automobile industry is entering the age of "Once in the century major revolution" led by CASE. There is an increasing demand for weight reduction and electrification as a shift toward decarbonization. Expectations toward automobile do not stop here. There is a movement to evolve mobility to provide enrichment to their lives by providing various services and freedom to move around for many people. The concept itself toward cars is changing under this environment. New possibilities have been explored for materials to build vehicles and shift in process application. Die cast process has already demonstrated high producibility and been the major contribution tool for development for many years,

I would like to consider how the die cast process can add more value and continue providing support for future production and the improvement effort led by automobile.