



Mitsubishi's electric race car MiEV Evolution III:
a double class victory and 2nd place overall

Triumph on Pikes Peak



For Mitsubishi, the year's most famous mountain race in the world, the Pikes Peak International Hill Climb, finished with impressive success. Mitsubishi's two MiEV Evolution III race cars took 1st and 2nd place in the Electric Modified class. Tetsuro Aikawa President and COO of Mitsubishi Motors Corporation (MMC) visited dSPACE Japan K.K. to express his thanks for supporting the racing team.

The two MiEV Evolution III race cars clearly dominated their class and landed a remarkable double victory in the modified electric vehicle (EV) class. One of the electric race drivers even finished at 2nd place overall (in a field of around 70 cars, mostly non-electric) and achieved two sector bests. The results are truly striking proof that advanced electric drives are extremely efficient and competitive. The secret behind the MiEV Evolution III's propulsion is its high-capacity battery and electric

wheel-drive system with four electric motors, developing a total output of 450 kW (612 hp).

Continuous Development Work

Mitsubishi's success with their third evolutionary stage of the MiEV Evolution series is the result of continuous development work, and it proves the company's outstanding expertise in the field of electric drives. By no means is this success just an end in itself or a flashy public relations gimmick. The data obtained from the race car is being fed into

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Met after the race event: Mr. Shigeru Matsui, Ms. Misaki Watanabe, Mr. Hitoshi Kidokoro, Mr. Hitoshi Arima, from dSPACE and Mr. Tetsuro Aikawa, Mr. Hiroshi Masuoka, Mr. Nobuo Momose from MMC (from left to right).



“The systems provided by dSPACE have contributed to our company’s vehicle development, and with these systems we were able to achieve such accomplishments as the construction of the control system for our advanced vehicle Outlander PHEV in a short time period. At the Pikes Peak International Hill Climb 2014, with the MiEV Evolution III, we really appreciated the significant role the systems played in realizing a long-cherished class victory by thoroughly bringing out the full performance of the EV and S-AWC (Super All Wheel Control) controls, etc.”

Tetsuro Aikawa, President and COO, Mitsubishi Motors Corporation

Mitsubishi’s series development of electric drive technologies and into controller optimizations of their S-AWC (Super All Wheel Control) drive system.

Sophisticated controls

Mitsubishi used dSPACE’s prototyping system MicroAutoBox II, which acts as the central control unit that coordinates and controls the four electric motors and brake systems. It also estimates motor running and drive battery conditions by analyzing data from a wide variety of sensors and ECUs. Engineering support and on-the-job training led by dSPACE

experts helped Mitsubishi engineers cope with and handle the demanding control tasks.

Debriefing success

After the race, Mitsubishi and dSPACE got together to discuss the great achievements and how they were accomplished. Mr. Tetsuro Aikawa, President and COO of Mitsubishi Motors, Mr. Nobuo Momose, Deputy General Manager of the EV Business Office, and Mr. Hiroshi Masuoka, race driver of the MMC Pikes Peak EV Challenge team and Senior Expert of the Public Relations Department, visited dSPACE Japan K.K. in Tokyo

and expressed their sincere thanks and respect for dSPACE’s sponsoring and support. The close cooperation on an engineering level has made the relationship between Mitsubishi and dSPACE even stronger. And the achievements in vehicle performance have already been applied to electronic control units in Mitsubishi’s passenger cars, such as the plug-in hybrid Outlander PHEV. dSPACE is pleased to be part of this success. Congratulations to the whole team at MMC – dSPACE is looking forward to the next race events. ■



Hitoshi Arima (President of dSPACE K.K.) receives a personalized memorial photo from Tetsuro Aikawa and Hiroshi Masuoka.



Together, Hitoshi Arima and Tetsuro Aikawa read the letter of appreciation sent by Dr. Herbert Hanselmann, CEO of dSPACE.



The MiEV Evolution III: four electric motors with a total output of 450 kW (612 hp).



Hiroshi Masuoka, race driver and Senior Expert of the PR Department, gives insights on the race event.



Inspiring conversations about the successful outcome of the close cooperation between Mitsubishi and dSPACE.