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SUMMARY

The Process of Establishing Railway Hybrid Traction Systems at JR East

Hiroshi NOMOTO

To reduce the environmental impact of its non-electrified lines, JR East started to develop a diesel hybrid system in 2000 and went on to develop a fuel cell hybrid system. After having validated the diesel hybrid system for two years using a test car, JR East launched the world’s first commercial service of diesel hybrid train in 2007. This article presents the concepts underlying the development of hybrid systems at JR East, explaining the systems’ configurations, control methods, and their respective approaches to utilizing multiple energy sources efficiently.

Approaches of Tokyo Corporation for Environmental Considerations in Stations

Toshio ITO

With increasing awareness of global environmental issues at home and abroad, environmental considerations in business activities have become fashionable for corporations as one of the social responsibilities that they must bear. In such a social condition, the company won Minister of Land, Infrastructure, Transport and Tourism Prize in No. 18 global environment grand prix. As for this, an action to the various environmental consideration that we performed continuously was evaluated. This paper introduces the examples of architectural environmental considerations of Tokyo Corporation in stations and related facilities, including the actual measured value after their completion.

Global Environmental Preservation Activities by West Japan Railway Company

Takashi ASO

In order to prevent global warming problems, various activities have already been carried out by West Japan Railway Company, not only making energy saving cars. This report describes some of the activities taken by the company and its employees.

Development of Gauge Change Train in Japan

Hitoshi WAKIYA

The development of gauge change trains in Japan started in 1997. In August 2002, the Gauge Change Train Technology Research Consortium was founded by the 12 member companies consisting of JR companies and makers concerned, and has been developing the train sponsored by the Japan Railway Construction, Transport and Technology Agency. This article reports the outline of the first phase test cars and their running test and the outline of the second phase test cars.

Improving the Operation Diagram of the Tokaido Shinkansen - Development of Train Setting Simulation System

Kenichi FUKAMI

This article describes the development of train setting simulation system which enables to improve the operation diagram of the Tokaido Shinkansen. Passengers’ demand will be expected to increase in the future, and so the operation diagram which must be more densely scheduled should be provided with even better equipment conditions. To solve the problem, we have developed the train setting simulation system.

R & D POINT

Institute for Transport Policy Studies

Kazuhisa FUKASAKU

FACTS & ANALYSIS

Change of Quantity in Passenger Railway Transport

Japan Railway Engineers’ Association

NEWS

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Detailed examined result screen of minimum headway