

• **Editorial-Chief**

Jiro Yoshizawa

• **Editorial Advisors**

Koji Kuwahara

Aoi Kuriyama

Hiroyuki Teranishi

Satoshi Watanabe

Junji Sukeno

Kenichiro Kurahashi

Yoshinori Watanabe

Takao Ikai

Kunihiko Egawa

Masami Taniguchi

Ken Hirakida

Futoshi Ohama

Yumi Kimura

Yoshihiro Yamaguchi

Nobuyuki Mizorogi

Yoshiaki Taniguchi

• **Vol. 195 Feature Articles Editor**

Kanako Inoue

• **Editorial Inquiries**

Jiro Yoshizawa

Corporate Productivity Planning &

Engineering Dept.

Fax: +81-3-3218-2465

Mitsubishi Electric Advance is published on line quarterly (in March, June, September, and December) by Mitsubishi Electric Corporation. Copyright © 2026 by Mitsubishi Electric Corporation; all rights reserved. Printed in Japan.

The company names and product names described herein are the trademarks or registered trademarks of the respective companies.

CONTENTS

Foreword

The Greatest Risk of AI is Ignoring it 1
by *Fujio Toriumi*

Technical Reports

Future Vision of Railway EMS with “Serendie” 2
by *Yasutaka Imamura, Kosuke shinji*

“MHPB” Module: Driving Innovation in Future of Battery Solutions 9
by *Tatsuya Morioka*

Railway Air Conditioning Systems for European Market Using Natural Refrigerant R290 (Propane) 14
by *Takeshi Inoue, Wahei Shingu*

Precis

Mitsubishi Electric Corporation is advancing a range of transformation initiatives to achieve DX (Digital Transformation) and GX (Green Transformation), with the aim of creating safe and environmentally friendly mobility infrastructure for all. This issue features the Railway Energy Management Solution (EMS), which uses “Serendie,” as a DX-related topic, along with the next-generation battery module “MHPB” and railway air-conditioning systems using the natural refrigerant R290 as GX-related topics.