

• **Editorial-Chief**

Hideyuki Ichiyama

• **Editorial Advisors**

- Masayuki Sato
- Hisao Takahashi
- Takumi Yurusa
- Yukiko Funada
- Hiroyuki Teranishi
- Kenichi Uto
- Tsutomu Matsubara
- Yasumasa Yamanaga
- Takao Ikai
- Takanori Ueda
- Hiroshi Usui
- Satoru Yamaguchi
- Hideya Tadokoro
- Yoshihiro Yamaguchi
- Kazuki Yamanaka
- Yuichiro Arata
- Kohei Miki

• **Vol. 181 Feature Articles Editor**

Kiyoto Kawauchi

• **Editorial Inquiries**

Hideyuki Ichiyama
 Corporate Productivity Engineering &
 Logistics 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 © 2023 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

Technical Reports

Introduction of Internet of Things Suite “ClariSense” Design Guides1
 by Yohei Matsuura

Fast Algorithm for Large-Scale Optimization Problems Accelerating System Collaboration6
 by Hideya Shibata

A Production Improvement Framework for Reducing Environmental Load while Maintaining Productivity10
 by Takaomi Sato, Shuhei Kawaguchi and Kento Kikuchi

Versatile Mobile Robot System Realizing Contactless and Manpower-saving Solutions16
 by Kengo Akaho and Shunsuke Miyaoka

Precis

Mitsubishi Electric has established four business areas to achieve sustainable management: “Infrastructure,” “Industry and Mobility,” “Life,” and “Business Platform.” This special feature covers “Information Technology for Realizing Sustainable Societies (The second part),” which is the foundation that supports all four areas. The first part was published in ADVANCE vol. 180. Please read it.