

• **Editorial-Chief**

Hideyuki Ichiyama

• **Editorial Advisors**

*Omi Kuriwaki
Daisuke Kashibuchi
Masayuki Sato
Hiroaki Sakai
Takahiro Otsuka
Makoto Sato
Takao Ikai
Kunihiko Egawa
Mineo Okada
Keita Urayama
Eunjin Choi
Kazuki Yamanaka
Ryo Ikehara
Toshihiro Kurita*

• **Vol. 171 Feature Articles Editor**

Masatoshi Katayama

• **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 © 2020 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

Overview	1
by <i>Kengo Tanaka</i>	
Fixed Dome Camera with Improved Impact Resistance	2
by <i>Yoshio Okinishi</i> and <i>Nobuhiro Tachibana</i>	
Video Analysis Solution for Manufacturing Lines	7
by <i>Masahiro Matsue</i> and <i>Shogo Shimizu</i>	
Optical Path Restoration Method for Mesh Networks	12
by <i>Noriaki Nakamura</i> and <i>Sota Yoshida</i>	
Digital Train Radio System for Okinawa Urban Monorail and Tokyo Tama Intercity Monorail	17
by <i>Mamoru Yamazaki</i>	

Precis

Toward realizing a society that is safer, more secure and more comfortable, Mitsubishi Electric Corporation has nurtured its audiovisual and communication technologies over a long period, while focusing on security, video content analysis (VCA), high speed and large capacity, reliability improvement and others.

This special issue introduces various advanced technologies that can enhance security through the use of surveillance cameras, improve productivity at industrial facilities through the use of VCA, enhance the reliability of high-speed large-capacity communications and improve train service management.