

---

# IEEJ Industry Applications Society

## *Board of Society*

**President:** Shinzo Tamai, Toshiba Mitsubishi-Electric Industrial Systems

**Editor in Chief:** Takaharu Takeshita, Nagoya Institute of Technology

**Vice Presidents:** Kouetsu Fujita, Fuji Electric and Kiyoshi Ohishi, Nagaoka University of Technology

**Officers, Planning & General Affairs:** Mikihiko Matsui, Tokyo Polytechnic University and Yasushi Matsumoto, Fuji Electric

**Officers, Treasurers:** Kazumasa Ide, Hitachi and Takashi Yamashita, NTT Facilities Research Institute

**Officers, Editorial Affairs:** Hideaki Fujita, Tokyo Institute of Technology and Yosuke Nakazawa, Toshiba

**Officers, R&D Management:** Tatsuo Teratani, Toyota Motor and Hiroyuki Ohsaki, The University of Tokyo

**Globalization Promotion Charge:** Toshihisa Shimizu, Tokyo Metropolitan University

**Auditors:** Teruo Yoshino, Toshiba Mitsubishi-Electric Industrial Systems and Ichiro Miki, Meiji University

**Officers:** Masaki Eguchi, Sharp, Kazunobu Ohyama, Daikin Industries, Atsuo Kawamura, Yokohama National University, Hisao Kubota, Meiji University, Shouji Shimomura, Shibaura Institute of Technology, Yasuyuki Nishida, Chiba Institute of Technology, Yoichi Hori, The University of Tokyo, and Toshiyuki Murakami, Keio University

## *R&D Steering Committee*

**Chairperson:** Kouetsu Fujita, Fuji Electric

**Vice Chairpersons:** Tatsuo Teratani, Toyota Motor and Hiroyuki Ohsaki, The University of Tokyo

**Secretaries:** Masaaki Shibata, Seikei University and Hitoshi Hasegawa, Railway Technical Research Institute

**Members:** Motohiro Kawafuku, Nagoya Institute of Technology, Masahiro Kimata, Mitsubishi Electric, Atsuhiko Kuzumaki, Toshiba, Hirokazu Seki, Chiba Institute of Technology, Toshiaki Tsuji, Saitama University, Hitoshi Haga, Nagaoka University of Technology, Takashi Izumi, Nihon University, Norimitsu Ichikawa, Kogakuin University, Kazunobu Ohyama, Daikin Industries, Tsuneo Ogura, Toshiba, Tomoo Katauri, Toshiba, Hisao Kubota, Meiji University, Masaru Sakuma, Waterworks Bureau of Tokyo Metropolitan Government, Tatsuo Teratani, Toyota Motor, Kazushi Nakano, University of Electro-Communications, Hideo Nakamura, Nihon University, Hiroshi Hashimoto, Advanced Institute of Industrial Technology, Hideaki Minakata, Chiba Institute of Technology, Katsumi Yamazaki, Chiba Institute of Technology and Hiroyuki Wakiwaka, Shinshu University

## *Global Activity Committee*

**Chairperson:** Toshihisa Shimizu, Tokyo Metropolitan University, **Vice Chairperson:** Yasuyuki Nishida, Chiba Institute of Technology

**Secretary:** Takashi Yamashita, NTT Facilities Research Institute

**Members:** Kiyoshi Ohishi, Nagaoka University of Technology, Toshiyuki Murakami, Keio University, Kazumasa Ide, Hitachi, Yoichi Hori, The University of Tokyo, Hiroyuki Ohsaki, The University of Tokyo, Hisao Kubota, Meiji University, Kazunobu Ohyama, Daikin Industries, Atsuo Kawamura, Yokohama National University, Ichiro Miki, Meiji University, Suzuo Saito, Toshiba, and Mikihiko Matsui, Tokyo Polytechnic University

## *Editorial Committee*

**Chairperson:** Kiyoshi Ohishi, Nagaoka University of Technology

**Vice Chairperson:** Hideaki Fujita, Tokyo Institute of Technology and Yosuke Nakazawa, Toshiba

**Secretary:** Takafumi Domoto, Toshiba and Seiichiro Katsura, Keio University

**Member:** Katsuyuki Kamei, Mitsubishi Electric, Hitoshi Hasegawa, Railway Technical Research Institute, Shouji Shimomura, Shibaura Institute of Technology, Akihisa Matsushita, Toshiba, Ikuya Sato, Fuji Electric, Nobutaka Bando, Japan Aerospace Exploration Agency, Shuji Watanabe, Matsue College of Technology, Hiroshi Igarashi, Tokyo Denki University, Katsushi Terazono, Yaskawa Electric, Masakazu Michihira, Kobe City College of Technology, Shinichi Yamaguchi, Mitsubishi Electric, Satomi Hattori, Shizuoka Institute of Science and Technology, Akira Kikuchi, Hitachi, Hiroyuki Sugahara, Railway Technical Research Institute, Makoto Hagiwara, Tokyo Institute of Technology, Shinichi Nomura, Meiji University, Ryogo Kubo, Keio University, Satoshi Kikuchi, Hitachi, Ruben Inzunza, Toshiba Mitsubishi-Electric Industrial Systems, Hironobu Minowa, NTT, Hirotohi Kawai, Toshiba, Masaharu Nakanishi, Hitachi, Mitsuyoshi Ejiri, Meidensha, Toshimasa Miyazaki, Nagaoka University of Technology, Naoto Kikuchi, Toyota Central R&D Labs., Atsushi Kato, Sumitomo Heavy Industries, Mitsunori Kamo, Yaskawa Electric, Keiichi Morinaga, Toyo Denki Seizo and Masaki Ishibashi, Tokyo Metropolitan College of Industrial Technology

## *Program Committee*

**Editor in Chief:** Takaharu Takeshita, Nagoya Institute of Technology

**Secretary:** Toshiyuki Murakami, Keio University

### *Semiconductor Power Converter Subcommittee (D1)*

**Chairperson:** Noriyuki Kimura, Osaka Institute of Technology, **Vice Chairperson:** Hirohito Funato, Utsunomiya University,

**Secretary:** Hideki Ayano, Tokyo National College of Technology, Masahito Shouyama, Kyushu University, and Yosuke Nakazawa, Toshiba

### *Industrial Instrumentation and Control Subcommittee (D2)*

**Chairperson:** Masayuki Morimoto, Tokai University, **Vice Chairperson:** Takashi Yamaguchi, Ricoh

**Secretary:** Makoto Iwasaki, Nagoya Institute of Technology, Satoru Takahashi, Kagawa University, Satoshi Komada, Mie University, and Yasue Mitsukura, Keio University

### *Rotating Machinery, Motor Drive, Linear Drives, Subcommittee (D3)*

**Chairperson:** Haruyuki Kometani, Mitsubishi Electric, **Vice Chairperson:** Toshiaki Murai, JR Central

**Secretary:** Toshihiko Noguchi, Shizuoka University, Tsuyoshi Higuchi, Nagasaki University, Isao Hirotsuka, Chubu University, Hiroyuki Mikami, Hitachi, and Mitsuhiro Kawamura, Toshiba Mitsubishi-Electric Industrial Systems

### *Vehicle Technology, Intelligent Transport Systems, Home and Consumer Appliances Subcommittee (D4)*

**Chairperson:** Masayuki Morimoto, Tokai University, **Vice Chairperson:** Shinji Doki, Nagoya University

**Secretary:** Yoshio Hamamatsu, Nihon University and Yoshio Togashi, Sanyo Electric

### *Monozukuri, Innovative Industrial System, Transportation and Electric Railway, Production Facility Control, Public Plant Engineering Subcommittee (D5)*

**Chairperson:** Noriyuki Kimura, Osaka Institute of Technology, **Vice Chairperson:** Katsuyuki Kamei, Mitsubishi Electric

**Secretary:** Keiichiro Kondo, Chiba University, Norimitsu Ichikawa, Kogakuin University, Kenji Suzuki, University of Tsukuba, and Kazuaki Yuuki, Toshiba