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## FOREWORD

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### Special Section on Telecommunication Energy Technology in Conjunction with Main Topics of INTELEC'09

INTELEC (International Telecommunications Energy Conference) is an annual conference which examines and analyzes the latest developments in the telecommunications energy systems and related power processing devices and circuits. Main technical fields of the conference are power electronics and telecommunication power systems, including power conversion, energy management and storage, power system architectures, distributed and micro-grid system, grounding and bonding, physical and thermal design, renewable energy and systems, and electromagnetic compatibility. The INTELEC'09 was held in Incheon, Korea from October 18 through 22, 2009 under the conference theme of "Global Convergence for Smart Energy-Telecommunication." Many valuable papers on energy and power for telecommunication systems both today and in the future were presented at the conference.

IEICE Communications Society technically co-sponsored INTELEC'09, as energy engineering in electronics and communications is one of the important research fields which IEICE Communication Society deals. The special section was planned for presenting the results of the conference and for promoting future progress of R&D in the area of energy and power for communications systems. The editorial committee has carefully reviewed 12 submitted papers (including 5 papers from abroad) and selected 6 papers. We hope these papers will pioneer the ways to new telecommunications energy systems, and also trigger the IEICE members for their R&D progress. All the members of the editorial committee would like to express their sincere appreciation to all the authors and reviewers for their contributions that made this special section a great success.

Members of the Editorial Committee:

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Toshiaki Yachi, Guest Editor-in-Chief

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**Toshiaki Yachi** (*Fellow*) received the B.S., and M.S. degrees from Shizuoka University, Faculty of Engineering, Japan, in 1973 and 1975, and Dr. of E. degree from Shizuoka University, Graduate School of Electronic Science and Technology in 1986, respectively. He joined NTT Electrical Communications Laboratories in 1975, where he researched and developed power semiconductor devices, planar magnetic devices, DC-DC converters, on-board power supplies, photovoltaic systems and fuel cell systems. In 2002, he joined the Faculty of Engineering, Tokyo University of Science as a Professor. He is currently engaged in research on distributed power supplies, individual photovoltaic systems and micro-fuel-cells. Prof. Yachi is a member of the IEE of Japan and the Japan Solar Energy Society, and he is a fellow of IEEE. He served as a chairman of the Technical Committee on Energy Engineering in Electronics and Communications in the IEICE during 2004–2005. He also served as Program Committee Chairman of the INTELEC'03, Program Committee Chairman of the 1998 International Symposium Power Semiconductor Devices & ICs (ISPSD'98), Steering Committee Chairman of ISPSD'01, and General Chairman of ISPSD'04.

