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## FOREWORD

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### Special Section on Microwave and Millimeter-Wave Technology

With the recent and rapid growth of wireless applications (5G, WLAN, WPT system, millimeter-wave radars, wireless/biomedical sensors), there are increasing demands of high performance/small size/low cost microwave/millimeter-wave/sub-millimeter-wave (THz band) devices/circuits/components/sub-systems and their integration technologies for advanced wireless systems. The purpose of this Special Section is to publish and stimulate the latest researches and developments in this technical field.

In August, 2015, the IEEE International Symposium on Radio-Frequency Integration Technology (RFIT2015) was held successfully at Tohoku University Sakura Hall in Sendai, Japan, with more than 135 participants and 85 accepted papers. In this symposium, recent progress of microwave and millimeter-wave integration technologies was presented and discussed. This special section has solicited paper submissions not only from people who presented their papers in the RFIT2015, but also from all people engaging in the microwave/millimeter-wave technical field.

The editorial committee has selected 16 excellent papers (3 invited papers, 11 regular papers and 2 brief papers) for publication. The first two invited papers describe novel integration and fabrication technologies (RF semiconductor integrated circuit (RF HySIC) technology and microwave passive circuits fabricated by printing technology). The last invited paper describes the basic theory of S-parameters.

Finally, I would like to express my sincere appreciation for the dedicated work by the secretaries, the associate editors and the reviewers of this editorial committee.

#### Special Section Editorial Committee

##### Secretaries:

Hiroshi Okazaki (NTT DOCOMO), Masataka Ohira (Saitama University), Mizuki Motoyoshi (Tohoku University)

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Noriharu Suematsu, Guest Editor-in-Chief

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**Noriharu Suematsu** (*Senior Member*) received the B.S., M.S., and Dr. Eng. degrees in electronics and communication engineering from Waseda University, Tokyo, Japan. Since 2010, he has been a professor at the Research Institute of Electrical Communication, Tohoku University, Sendai, Japan. In 1987, he joined the Mitsubishi Electric Corporation, Kanagawa, Japan, where he had been engaged in research and development of microwave and millimeter-wave transceiver technologies for wireless, ITS and satellite communication systems. From 1992 to 1993, he was a visiting researcher at the University of Leeds, Leeds, U.K. Professor Suematsu was the general chair of the 2015 IEEE International Symposium on Radio-Frequency Integration Technology (RFIT2015). His current interests are in RF CMOS/SDR/digital RF devices and systems for various wireless communication systems.

