



## SPECIAL ISSUE

### SPECIAL ISSUE ON FOUNDATIONS AND TRENDS IN LOCALIZATION TECHNOLOGIES—PART II

Edited by M. Z. Win, R. M. Buehrer, G. Chrisikos, A. Conti, H. V. Poor

#### 1136 A Theoretical Foundation of Network Localization and Navigation

By M. Z. Win, Y. Shen, and W. Dai

**|INVITED PAPER|** This paper provides a theoretical foundation for the design of localization and navigation networks, paving the way to a new level of performance via spatiotemporal cooperation.

#### 1166 Received-Signal-Strength-Based Localization in Wireless Sensor Networks

By R. Niu, A. Vempaty, and P. K. Varshney

**|INVITED PAPER|** This paper presents an overview of recent developments in received-signal-strength-based localization for wireless sensor networks, with an emphasis on minimizing the communication overheads.

#### 1183 A Survey on the Impact of Multipath on Wideband Time-of-Arrival-Based Localization

By S. Aditya, A. F. Molisch, and H. M. Behairy

**|INVITED PAPER|** This paper overviews the state-of-the-art techniques that address the effects of multipath on localization accuracy in complex environments.

#### 1204 Distributed Localization: A Linear Theory

By S. Safavi, U. A. Khan, S. Kar, and J. M. F. Moura

**|INVITED PAPER|** This paper presents a cooperative linear distributed iterative solution for localization in a 5G-enabled IoT environment where many low-power mobile agents do not have direct access to anchors.

#### 1224 Network Operation Strategies for Efficient Localization and Navigation

By M. Z. Win, W. Dai, Y. Shen, G. Chrisikos, and H. V. Poor

**|INVITED PAPER|** This paper provides network operation strategies, including node prioritization, node activation, and node deployment to improve the localization performance and prolong the network lifetime.

## DEPARTMENTS

#### 1126 POINT OF VIEW

Nurturing the Growth of a National Infrastructure in Emerging Technologies

By R. Z. Makki, V. V. Zhirnov, R. K. Cavin, S. Issa, and M. Iansiti

#### 1132 SCANNING THE ISSUE

Foundations and Trends in Localization Technologies—Part II

By M. Z. Win, R. M. Buehrer, G. Chrisikos, A. Conti, and H. V. Poor

#### 1255 SCANNING OUR PAST

Origins of the IEEE Medal of Honor

By D. P. Bart and J. B. Bart

#### 1267 FUTURE SPECIAL ISSUE/SPECIAL SECTIONS



**On the Cover:** The month's cover image is an artist's rendition of network localization and navigation, a main topic of this special issue, displaying spatiotemporal cooperation with information ellipses.