

REGULAR PAPERS ISSUE

856 5G Key Technologies for Smart Railways

By B. Ai, A. F. Molisch, M. Rupp, and Z.-D. Zhong

| CONTRIBUTED PAPER | This article presents a complete framework of 5G technologies for smart railways and points to exciting future research directions.

894 Towards Robust Pattern Recognition: A Review

By X.-Y. Zhang, C.-L. Liu and C. Y. Suen

| CONTRIBUTED PAPER | This article reviews robustness in pattern recognition from the perspective of breaking three basic and implicit assumptions, which form the foundation of most pattern recognition models.

923 Indoor Millimeter-Wave Systems: Design and Performance Evaluation

By J. Kibilda, A. B. MacKenzie, M. J. Abdel-Rahman, S. K. Yoo, L. Galati Giordano, S. L. Cotton, N. Marchetti, W. Saad, W. G. Scanlon, A. Garcia-Rodriguez, D. López-Pérez, H. Claussen, and L. A. DaSilva

| CONTRIBUTED PAPER | This article brings together multiple strands of research to provide a comprehensive and integrated framework for the design and performance evaluation of indoor mmWave systems.

945 Methodology for Maximizing Information Transmission of Haptic Devices: A Survey

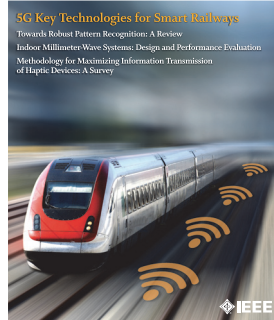
By H. Z. Tan, S. Choi, F. W. Y. Lau, and F. Abnoui

| CONTRIBUTED PAPER | This article surveys the information transmission capability of haptic devices, and ways of maximizing it.

DEPARTMENTS

854 SCANNING THE ISSUE

966 FUTURE SPECIAL ISSUE/SPECIAL SECTIONS



On the Cover:
Our cover image this month beautifully captures the topic of the article on innovative technologies for smart railway communication.