

REGULAR PAPERS ISSUE

334 A Survey of Deep Learning on Mobile Devices: Applications, Optimizations, Challenges, and Research Opportunities

By T. Zhao, Y. Xie, Y. Wang, J. Cheng, X. Guo, B. Hu, and Y. Chen

| CONTRIBUTED PAPER | This article surveys the state-of-the-art literature that focuses on deep learning optimization for mobile applications and devices.

355 Wearable Photoplethysmography for Cardiovascular Monitoring

By P. H. Charlton, P. A. Kyriacou, J. Mant, V. Marozas, P. Chowienczyk, and J. Alastruey

| CONTRIBUTED PAPER | This article summarizes the key literature on wearable photoplethysmography and points to future directions in this field.

382 Synchronous Reluctance Machines: A Comprehensive Review and Technology Comparison

By M. Murataliyev, M. Degano, M. Di Nardo, N. Bianchi, and C. Gerada

| CONTRIBUTED PAPER | This article reviews the promising synchronous reluctance machine technology, covering its background and evolution, as well as the latest developments in the field.

DEPARTMENTS

322 SCANNING THE ISSUE

324 POINT OF VIEW

Electrification, Decarbonization, and the Future Carbon-Free Grid: The Role of Energy Storage in the Electric Grid Infrastructure

R. Masiello, R. Fioravanti, B. Chalamala, and H. Passell

400 FUTURE SPECIAL ISSUE/SPECIAL SECTIONS

March 2022 | Volume 110 | Number 3

Proceedings OF THE IEEE

A Survey of Deep Learning on Mobile Devices: Applications, Optimizations, Challenges, and Research Opportunities
Wearable Photoplethysmography for Cardiovascular Monitoring
Synchronous Reluctance Machines: A Comprehensive Review and Technology Comparison
Point of View: Electrification, Decarbonization, and the Future Carbon-Free Grid: The Role of Energy Storage in the Electric Grid Infrastructure



On the Cover:

Our cover image this month is a nod to the topic of deep learning techniques used on powerful mobile devices, which is a growing trend in recent years.