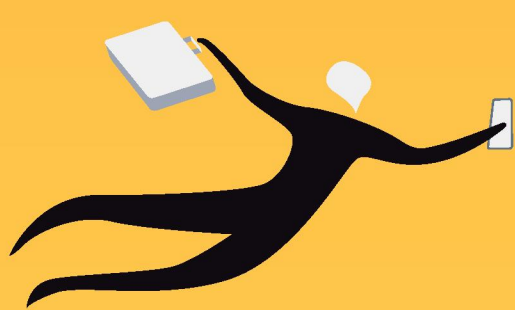


January/February 2016

IT Professional

Technology Solutions for the Enterprise



CYBERSPACE AND ENERGY MANAGEMENT

DESCRIBING HUMAN CAPABILITIES, P. 10
IT AND FUTURE EMPLOYMENT, P. 62



IEEE  computer society

www.computer.org/itpro



Cyberspace and Energy Management



IN THIS ISSUE

18

Interventions in Cyberspace: Status and Trends

Jawwad A. Shamsi, Sherali Zeadally, and Zafar Nasir

Cyberinterventions such as attacks and exploits can severely affect critical infrastructures and people's everyday activities. In this context, we must understand the dimensions and scope of cyberattacks and assess measures to enhance cybersystem security.

26

ICAM: A Foundation for Trusted Identities in Cyberspace

William Stallings

The US government's Identity, Credential, and Access Management (ICAM) strategy aims to provide a secure, manageable, and user-friendly foundation for building a trustworthy identity ecosystem among government agencies, state and local partners, and the private sector.

34

Bringing Desktop Applications to the Web

Borling Chen, Ho-Pang Hsu, and Yu-Lun Huang

The authors' desktop application service framework enables a Web server to host desktop applications and users to access them through a browser. The framework helps a virtual desktop cloud reduce bandwidth consumption by supporting browser-based access.

42

IT-Driven Power Grid Demand Response for Datacenters

Enrique Castro-Leon

In power grids, demand-response mechanisms integrate demand management into the power scheduling process. IT will play a crucial role in managing such mechanisms for datacenters, allowing more efficient power scheduling.

January/February 2016
Volume 18, Number 1

IT Professional

Technology Solutions for the Enterprise



50

IT Energy Conservation at Work: People Don't Always Act the Way They Feel
Carol Pollard

Organizations might want to improve energy-conservation efforts at the employee level. The author's test of a simple device attached to individual workstations shows that positive attitudes toward energy conservation don't always translate into actions.

COLUMNS AND DEPARTMENTS

4 From the Editors

IT Pro 2016: A Look Ahead
San Murugesan

8 Reviewer Thanks

IT Professional Acknowledges Its 2015 Reviewers and Guest Editors

10 Trends

Cyber-Physical-Human Systems: Putting People in the Loop

Sulayman K. Sowe, Eric Simmon, Koji Zettsu, Frederic de Vault, and Irena Bojanova

14 IT in Emerging Markets

The Road to the Chinese Smart City: Progress, Challenges, and Future Directions

Chao Chen, Zhu Wang, and Bin Guo

58 Data Analytics

Really, Really Big Data: NASA at the Forefront of Analytics

Seth Earley

62 IT and Future Employment

Automation and Future Unemployment

George Strawn

40 IEEE CS Information

61 Advertiser Index

Inside
Back
Cover

Call for Papers: Digital Innovation and Strategic Transformation

On the Web: computer.org/itpro

For more information on computing topics, visit the Computer Society Digital Library at www.computer.org/csdl.