

IEEE

# SYSTEMS JOURNAL

A PUBLICATION OF THE IEEE SYSTEMS COUNCIL

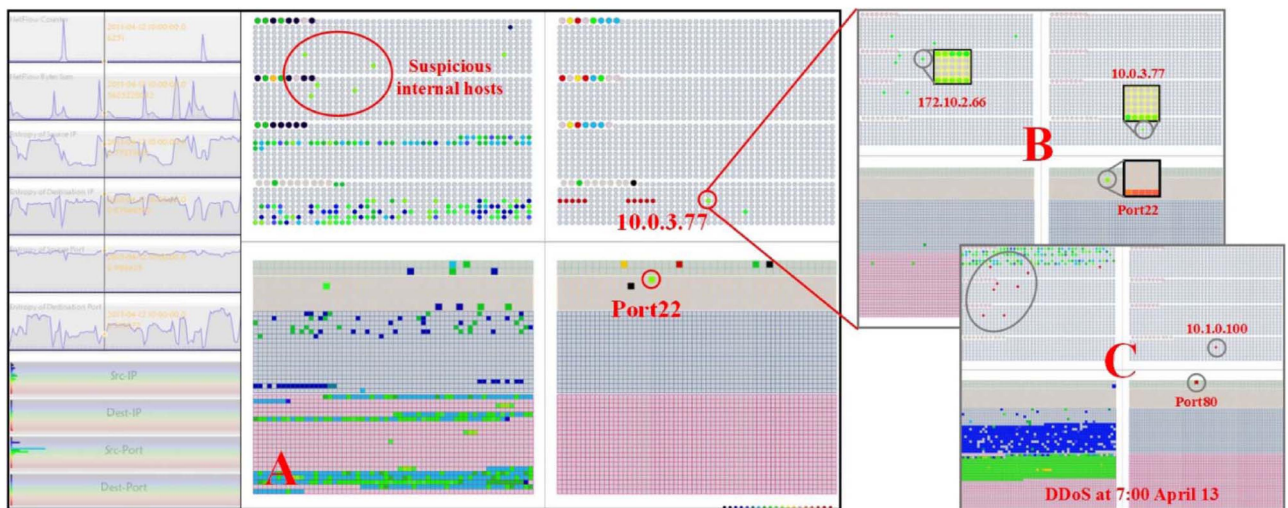
DECEMBER 2016

VOLUME 10

NUMBER 4

ISJEB2

(ISSN 1937-9234)



IEEE

# SYSTEMS JOURNAL

A PUBLICATION OF THE IEEE SYSTEMS COUNCIL

DECEMBER 2016

VOLUME 10

NUMBER 4

ISJEB2

(ISSN 1937-9234)

---

EDITORIAL

Editorial . . . . . *V. Piuri* 1303

---

PAPERS

Multilayered Impact Evaluation Model for Attacking Missions . . . . .	<i>Y. Sun, T.-Y. Wu, X. Liu, and M. S. Obaidat</i>	1304
System Dynamics of a Refined Epidemic Model for Infection Propagation Over Complex Networks . . . . .	<i>A. Dadlani, M. S. Kumar, S. Murugan, and K. Kim</i>	1316
Slow-Paced Persistent Network Attacks Analysis and Detection Using Spectrum Analysis . . . . .	<i>L. M. Chen, S.-W. Hsiao, M. C. Chen, and W. Liao</i>	1326
Using Geolocation for the Strategic Preincident Preparation of an IT Forensics Analysis . . . . .	<i>R. Koch, M. Golling, L. Stiemert, and G. D. Rodosek</i>	1338
A Matrix-Based Visualization System for Network Traffic Forensics . . . . .	<i>R. Shi, M. Yang, Y. Zhao, F. Zhou, W. Huang, and S. Zhang</i>	1350
Leakage Detection and Risk Assessment on Privacy for Android Applications: LRPdroid . . . . .	<i>N.-W. Lo, K.-H. Yeh, and C.-Y. Fan</i>	1361
Lightweight and Energy-Efficient Mutual Authentication and Key Agreement Scheme With User Anonymity for Secure Communication in Global Mobility Networks . . . . .	<i>P. Gope and T. Hwang</i>	1370
Demand-Based Coverage and Connectivity-Preserving Routing in Wireless Sensor Networks . . . . .	<i>H. P. Gupta and S. V. Rao</i>	1380
Benchmarking the Effect of Flow Exporters and Protocol Filters on Botnet Traffic Classification . . . . .	<i>F. Haddadi and A. N. Zincir-Heywood</i>	1390
Router Node Placement With Service Priority in Wireless Mesh Networks Using Simulated Annealing With Momentum Terms . . . . .	<i>C.-C. Lin, L. Shu, and D.-J. Deng</i>	1402
A Web of Things Framework for RESTful Applications and Its Experimentation in a Smart City . . . . .	<i>F. Paganelli, S. Turchi, and D. Giuli</i>	1412
Availability Is Not Enough: Minimizing Joint Response Time in Peer-Assisted Cloud Storage Systems . . . . .	<i>M.-H. Chen, Y.-C. Tung, S.-H. Hung, K. C.-J. Lin, and C.-F. Chou</i>	1424
Unsupervised Learning of Dynamic Resource Provisioning Policies for Cloud-Hosted Multitier Web Applications . . . . .	<i>W. Iqbal, M. N. Dailey, and D. Carrera</i>	1435
Operational Cost Optimization for Cloud Computing Data Centers Using Renewable Energy . . . . .	<i>S. Chen, S. Irving, and L. Peng</i>	1447
Pre-Filter-Copy: Efficient and Self-Adaptive Live Migration of Virtual Machines . . . . .	<i>Y. Ruan, Z. Cao, and Z. Cui</i>	1459
Less Is More: Creating Spectrum Reuse Opportunities via Power Control for OFDMA Femtocell Networks . . . . .	<i>J. Wang, L. Wang, Q. Wu, P. Yang, Y. Xu, and J. Wang</i>	1470
WDM/OCDM Energy-Efficient Networks Based on Heuristic Ant Colony Optimization . . . . .	<i>M. de Paula Marques, F. R. Durand, and T. Abrão</i>	1482

---

(Contents Continued on Page 1302)



(Contents Continued from Page 1301)

---

Stackelberg-Game-Based Dynamic Spectrum Access in Heterogeneous Wireless Systems . . . . .	
. . . . .	<i>D. B. Rawat, S. Shetty, and C. Xin</i>
Assessing the Feasibility of Passive and BAP RFID Communications on Construction Site Scenarios. . . . .	1494
. . . . .	<i>L. Zeng, D. Grau, and Y. Xiao</i>
	1505

---

2016 INDEX . . . . .	Available online at <a href="http://ieeexplore.ieee.org">http://ieeexplore.ieee.org</a>
----------------------	---

---