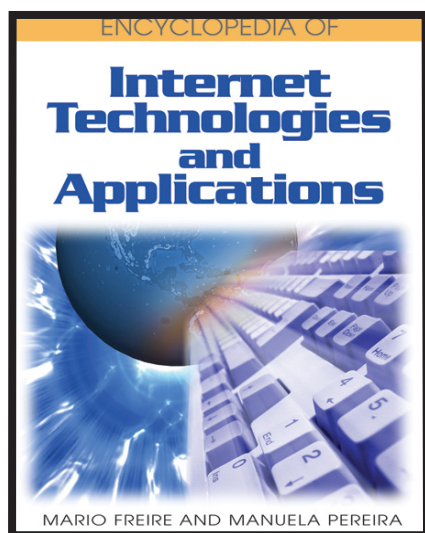


New Release September 2007

Encyclopedia of Internet Technologies and Applications



Edited by: Mario Freire and Manuela Pereira, University of Beira Interior, Portugal

13-digit ISBN: 978-1-59140-993-9

789 pages; 2008 Copyright

Price: US \$365.00 (hardcover*)

Pre-Pub Price**: US \$345.00

Online Access only***: US \$325.00

Illustrations: figures, tables (8 1/2" x 11")

Translation Rights: World

*Paperback is not available. **Pre-pub price is good until October 1, 2007.

***Online access is for libraries and is good for the life of the edition.

"This encyclopedia provides a written compendium for the dissemination of knowledge and to improve our understanding in the area of Internet technologies and applications."

-Mario Freire, University of Beira Interior, Portugal

Subject:

Internet and Web Technologies and Services; Computer Networking Technology; Software/Systems Engineering, Programming, Analysis, and Design; Information Security, Privacy, and Ethics; Mobile Computing and Communication Technologies; Business/Management Information Technology and Systems

Market:

This comprehensive encyclopedia is essential to the reference collections of all academic and research libraries as well as all those interested in gaining the latest knowledge on Internet technologies and applications. Researchers, practitioners, educators, engineers, consultants, managers, and students in a full range of IT-related fields and industries will also benefit.

The **Encyclopedia of Internet Technologies and Applications** discusses the extraordinary importance of Internet technologies, with a particular focus on the Web. Discussing the architecture and service technologies of the World Wide Web, the **Encyclopedia of Internet Technologies and Applications** includes comprehensive research on Web services, Semantic Web, and Web-based e-activities, among others.

This reference tool is the single source for information on the world's greatest network, and provides a wealth of information for the average Internet consumer, as well as for an expert in the field of networking and Internet technologies. This comprehensive reference provides libraries with the most thorough examination of Internet technologies and applications—an essential resource in supporting the information needs of researchers in a variety of related fields.



Excellent addition to your library! Recommend to your acquisitions librarian.

www.info-sci-ref.com

Encyclopedia of Internet Technologies and Applications

Edited by: Mario Freire and Manuela Pereira, University of Beira Interior, Portugal

Contributors

Abdou, Alaa, United Arab Emirates University (UAEU), UAE
Abuelma'atti, Omar, Liverpool John Moores University, UK
Al Zarooni, Sameera, United Arab Emirates University (UAEU), UAE
Alexiou, Antonios, Research Academic Computer Technology Institute and University of Patras, Greece
Androulidakis, S., Hellenic Telecommunications Organization S.A., Greece
Antonellis, Dimitrios, Research Academic Computer Technology Institute and University of Patras, Greece
Atmaca, Tülin, Institut National des Télécommunications, France
Averweg, Udo, Information Services, eThekweni Municipality & University of KwaZulu-Natal, South Africa
Babiarz, Rachel, France Telecom R&D Division, France
BASICEVIC, Ilija, Faculty of Technology Sciences, Novisad, Serbia
Baumgarten, Matthias, University of Ulster, Ireland
Bedo, Jean-Sebastien, France Telecom R&D Division, France
Bertino, Elisa, Purdue University, USA
Bose, Indranil, The University of Hong Kong, Hong Kong
Bosin, Andrea, Università degli Studi di Cagliari, Italy
Bouras, Christos, Research Academic Computer Technology Institute and University of Patras, Greece
Breslin, Peter, University of Ulster, Ireland
Burgess, Mark, Oslo University College, Norway
Carvalho de Gouveia, Fabricio, Technical University of Berlin, Germany
Chen, Thomas M., Southern Methodist University, USA
Cheong Chu, Kin, Hong Kong Institute of Vocational Education (Tsing Yi), Hong Kong
Chiang, Chia-Chu, University of Arkansas at Little Rock, USA
Chlamtac, Imrich, CREATE-NET, Italy
Chodorek, Agnieszka, Kielce University of Technology, Poland
Chodorek, Robert R., The AGH University of Science and Technology, Poland
Choi, Hongsik, Virginia Commonwealth University, USA
Chun, Fong Man, The University of Hong Kong, Hong Kong
Correia, N. S. C., University of Algarve, Portugal
Cripps, Helen, Edith Cowan University, Australia
Curado, Marília, CISUC/DEI, Portugal
Curran, Kevin, University of Ulster, Ireland
Czirkos, Zoltán, Budapest University of

Technology and Economics, Budapest
Delgado Kloos, Carlos, University Carlos III of Madrid, Spain
Despotopoulos, Y., NTUA, Greece
Dessi, Nicoletta, Università degli Studi di Cagliari, Italy
Donoso, Yezid, Universidad del Norte, Colombia
Doutoglou, T., Hellenic Telecommunications Organization S.A., Greece
Dutta, Ashutosh, Telcordia Technologies, USA
El Guemhioui, Karim, University of Quebec in Outaouais, Canada
Encheva, Sylvia, Stord-Haugesund University College, Norway
Erwin, Geoff, Cape Peninsula University of Technology, South Africa
Esmahi, Larbi, Athabasca University, Canada
Fabregat, Ramón, Girona University, Spain
Fafali, P., NTUA, Greece
Fensel, Dieter, DERI Innsbruck, Austria
Fergus, Paul, Liverpool John Moores University, UK
Fernanda Michel, Neila, State University of Campinas, Brazil
Fernández Veiga, Manuel, Universidade de Vigo, Spain
Ferrari, Elena, Università degli Studi dell'Insubria, Italy
Fu, Lixin, The University of North Carolina at Greensboro, USA
Gay, Gregory R., University of Toronto, Canada
George, Alexandra, University of London, UK
Giannaka, Eri, Research Academic Computer Technology Institute and University of Patras, Greece
Gkamas, Apostolos, Research Academic Computer Technology Institute and University of Patras, Greece
Goodridge, Wayne, Barbados Community College, Barbados
Grazia Fugini, Maria, Politecnico di Milano, Italy
Greenidge, Charles, University of the West Indies, Barbados
Gregori, Enrico, Italian National Research Council (CNR) – IIT, Italy
Griffiths, Mark, Nottingham Trent University, UK
Gritzalis, Stefanos, University of the Aegean, Greece
Gumbleton, Gary, University of Ulster, Ireland
Guo, Huaqun, Institute for Infocomm Research and National University of Singapore, Singapore
Gutiérrez, Jairo A., University of Auckland, New Zealand
Gutiérrez, Sergio, University Carlos III of Madrid, Spain
Hanke, Henrik, University of Duisburg-Essen, Germany
Herrería-Alonso, Sergio, Universidade de Vigo, Spain
Hosszú, Gábor, Budapest University of Technology and Economics, Budapest

Hu, Wen-Chen, University of North Dakota, USA
Hua, Winnie W., CTS Inc., USA
Huang, Yu-An, National Chi Nan University, Taiwan
Kagkalis, D., Hellenic Telecommunications Organization S.A., Greece
Kamthan, Pankaj, Concordia University, Canada
Karamolegkos, Pantelis N., Telecommunications Laboratory School of Electrical and Computer Engineering, NTUA, Greece
Karnouskos, Stamatis, SAP Research, Germany
Kim, Byungjip, Korea Advanced Institute of Science and Technology, Korea
Kim, Kyungbaek, University of California, Irvine, USA
Kok, Trina, Institute for Infocomm Research, A*STAR, Singapore
Kovács, Ferenc, Budapest University of Technology and Economics, Budapest
Lambrinoudakis, Costas, University of the Aegean, Greece
Lee, Heejo, Korea University, South Korea
Lee, Kyeongja, Ecole Centrale de Lille, France
Lee, Sheng-Chien, University of Florida, USA
Lewis, John, University of Liverpool, UK
Li, Tonghong, Universidad Politécnica de Madrid, Spain
Liberati, Diego, Consiglio Nazionale della Ricerche, Italy
Lin, Chad, Curtin University of Technology, Australia
Liotta, Antonio, University of Essex, UK
López-García, Cándido, Universidade de Vigo, Spain
Luis Saldanha da Fonseca, Nelson, State University of Campinas, Brazil
Magedanz, Thomas, Technical University of Berlin, Germany
Mara de Araújo Espíndula Lima, Michele, Federal University of Pernambuco, Brazil
McLaughlin, Kevin, University of Ulster, Ireland
Medeiros, M. C. R., University of Algarve, Portugal
Melliari-Smith, P. M., University of California, Santa Barbara, USA
Mellouk, Abdelhamid, LISSI/SCITC, University of Paris XII – Val de Marne, France
Merabti, Madjid, Liverpool John Moores University, UK
Minogiannis, N., NTUA, Greece
Miorandi, Daniele, CREATE-NET, Italy
Mirri, Silvia, University of Bologna, Italy
Moser, L. E., University of California, Santa Barbara, USA
Mulvenna, Maurice, University of Ulster, Ireland
Neumann, Alf, University of Cologne, Germany
Ngho, Lek-Heng, Institute for Infocomm Research, A*STAR, Singapore
Nguyen, Viet Hung, Institut National des Télécommunications, France
Nogueira, António, University of Aveiro, Institute of Telecommunications Aveiro, Portugal
Nugent, Chris, University of Ulster,

Ireland
O'Kane, Pádraig, University of Ulster, Ireland
Oredope, Adetola, University of Essex, UK
Orosz, Mihály, Budapest University of Technology and Economics, Budapest
Pacheco, António, Instituto Superior Técnico – UTL, Portugal
Palaniappan, Sellappan, Malaysia University of Science and Technology, Malaysia
Pardele, Raymond, Budapest University of Technology and Economics, Budapest
Pardo, Abelardo, University Carlos III of Madrid, Spain
Park, Daeyeon, Korea Advanced Institute of Science and Technology, Korea
Park, Kuen, Korea University, South Korea
Parke, Adrian, Nottingham Trent University, UK
Patikis, G., Hellenic Telecommunications Organization S.A., Greece
Patikis, Yiorgos, Hellenic Telecommunications Organization S.A., Greece
Patrikakis, Charalampos, Telecommunications Laboratory School of Electrical and Computer Engineering, NTUA, Greece
Perego, Andrea, Università degli Studi dell'Insubria, Italy
Pes, Barbara, Università degli Studi di Cagliari, Italy
Peter, Hadrian, University of the West Indies, Barbados
Petkov, Don, Eastern Connecticut State University, USA
Piero Zarri, Gian, Université Paris IV, France
Popovic, Miroslav, Faculty of Technology Sciences, Novisad, Serbia
Predoiu, Livia, University of Mannheim, Germany
Primpas, Dimitris, Research Academic Computer Technology Institute and University of Patras, Greece
Prior, Rui, Institute of Telecommunications – University of Porto, Portugal
Protonotarios, Emmanuel, Telecommunications Laboratory School of Electrical and Computer Engineering, NTUA, Greece
Radaideh, Moh'd A., HR General Directorate, UAE
Rahmani, Ahmed, Ecole Centrale de Lille, France
Ramadani, Ylber, Athabasca University, Canada
Raptis, Lampros, National Technical University of Athens, Greece
Richly, Gábor, Budapest University of Technology and Economics, Budapest
Rincón, David, Technical University of Catalonia (UPC), Spain
Robertson, William, Dalhousie University, Canada
Rodríguez Pérez, Miguel, Universidade de Vigo, Spain
Roman, Dumitru, DERI Innsbruck, Austria
Saha, Debashis, Indian Institute of Management (IIM) Calcutta, India
Sallent, Sebastià, Technical University of Catalonia (UPC), Spain
Salomoni, Paola, University of Bologna,

Italy
Salvador, Paulo, University of Aveiro, Institute of Telecommunications Aveiro, Portugal
Santos, Vitor, Microsoft, Portugal
São Mamede, Henrique, Universidade Aberta, Portugal
Sardar, Bhaskar, Jadavpur University, India
Sargento, Susana, Institute of Telecommunications – University of Aveiro, Portugal
Scalabrino, Nicola, CREATE-NET and Italian National Research Council (CNR) – IIT, Italy
Seah, Winston K. G., Institute for Infocomm Research, Singapore
Seng, Wong Kok, Multimedia University, Malaysia
Shan, Tony C., Bank of America, USA
Sher, Muhammad, Technical University of Berlin, Germany
Siddiqui, Farhan, Wayne State University, USA
Smyth, Elaine, University of Ulster, Ireland
Stamos, Kostas, Research Academic Computer Technology Institute and University of Patras, Greece
Stojmenovic, Milica, Carleton University, Canada
Suárez González, Andrés, Universidade de Vigo, Spain
Tally, Gregg W., SPARTA, Inc., USA
Tan, Hwee-Xian, National University of Singapore, Singapore
Tegze, Dávid, Budapest University of Technology and Economics, Budapest
Toguyeni, Armand, Ecole Centrale de Lille, France
Toma, Ioan, DERI Innsbruck, Austria
Tracey, Gary, University of Ulster, Ireland
Tsiatsos, Thrasvoulos, Aristotelean University of Thessaloniki and Research Academic Computer Technology Institute, Greece
Tumin, Sharil, University of Bergen, Norway
Valadas, Rui, University of Aveiro, Institute of Telecommunications Aveiro, Portugal
Vlachos, Kyriacos, University of Patras, Greece
Wong, K. Daniel, Malaysia University of Science and Technology, Malaysia
Wong, Wai-Chong, National University of Singapore, Singapore
Wong, Yew-Fai, Institute for Infocomm Research, A*STAR, Singapore
Yahaya, Nor Adnan, Malaysia University of Science and Technology, Malaysia
Yang, Hung-Jen, National Kaohsiung Normal University, Taiwan
Yang, Seung S., Virginia State University, USA
Zeadally, Sherali, University of the District of Columbia, USA
Zhang, Daqing, Institute for Infocomm Research, Singapore
Zhdanova, Anna V., University of Surrey, UK
Zheng, Song, Institute for Infocomm Research, Singapore
Zhou, Shi, University College London, UK
Ziviani, Artur, National Laboratory for Scientific Computing (LNCC), Brazil

Topics Covered

- Agent-based Web services
- Autonomic networking
- Context-aware service discovery
- Creative information systems
- Data caching
- DNS-based allocation of multicast addresses
- E-collaboration
- E-learning
- Efficient and scalable client-clustering
- Graphical based design tools
- Hackers, hacking and eavesdropping

- Handheld computing and palm OS programming
- Intellectual property and the Internet
- Internet gambling
- Internet measurements
- Internet traffic modeling
- IP multicasting
- IP multimedia subsystem (IMS)
- Java Web application frameworks
- Malicious software
- Multimedia for mobile devices

- Network-based intrusion detection
- Networked appliances and home networking
- Network-layer mobility protocols
- Optical network survivability
- Positive-feedback preference model
- Privacy in the digital world
- Quality of service
- Real-time protocols – RTP/RTCP
- Scalable reservation-based GOS architecture (SRBQ)

- Scaling properties of network traffic
- Security issues with wi-fi networks
- Semantic Web services
- Social and P2P networks on the Internet
- Standards in asynchronous e-learning systems
- Stream control transmission protocol (SCTP)
- TCP and TCP-friendly protocols
- Voice over Internet protocol
- Web content filtering
- Wi-fi technology

About the Editors:

Mário Freire received his BS in electrical engineering and the MSc in systems and automation from the University of Coimbra, Portugal. He received the PhD degree in electrical engineering from the University of Beira Interior, Covilhã, Portugal. He is an Associate Professor of Computer Science at the University of Beira Interior and is the leader of the Network and Multimedia Computing Group. His main research interests include: high-speed networks, network security, Web technologies and applications, and medical informatics.

Manuela Pereira received her BS degree in mathematics and computer science and the MSc degree in computational mathematics from the University of Minho, Braga, Portugal. She received the PhD degree in Signal and Image Processing from the University of Nice Sophia Antipolis, France. She is an Assistant Professor at the Department of Computer Science of the University of Beira Interior, Portugal. Her main research interests include: multiple description coding, joint source/channel coding, image and video coding, wavelet analysis, information theory, image segmentation and real-time video streaming.

Excellent addition to your library! Recommend to your acquisitions librarian.

www.info-sci-ref.com

