
AD-HOC NETWORKING

IFIP – The International Federation for Information Processing

IFIP was founded in 1960 under the auspices of UNESCO, following the First World Computer Congress held in Paris the previous year. An umbrella organization for societies working in information processing, IFIP's aim is two-fold: to support information processing within its member countries and to encourage technology transfer to developing nations. As its mission statement clearly states,

IFIP's mission is to be the leading, truly international, apolitical organization which encourages and assists in the development, exploitation and application of information technology for the benefit of all people.

IFIP is a non-profitmaking organization, run almost solely by 2500 volunteers. It operates through a number of technical committees, which organize events and publications. IFIP's events range from an international congress to local seminars, but the most important are:

- The IFIP World Computer Congress, held every second year;
- Open conferences;
- Working conferences.

The flagship event is the IFIP World Computer Congress, at which both invited and contributed papers are presented. Contributed papers are rigorously refereed and the rejection rate is high.

As with the Congress, participation in the open conferences is open to all and papers may be invited or submitted. Again, submitted papers are stringently refereed.

The working conferences are structured differently. They are usually run by a working group and attendance is small and by invitation only. Their purpose is to create an atmosphere conducive to innovation and development. Refereeing is less rigorous and papers are subjected to extensive group discussion.

Publications arising from IFIP events vary. The papers presented at the IFIP World Computer Congress and at open conferences are published as conference proceedings, while the results of the working conferences are often published as collections of selected and edited papers.

Any national society whose primary activity is in information may apply to become a full member of IFIP, although full membership is restricted to one society per country. Full members are entitled to vote at the annual General Assembly, National societies preferring a less committed involvement may apply for associate or corresponding membership. Associate members enjoy the same benefits as full members, but without voting rights. Corresponding members are not represented in IFIP bodies. Affiliated membership is open to non-national societies, and individual and honorary membership schemes are also offered.

AD-HOC NETWORKING

***IFIP 19th World Computer Congress, TC-6, IFIP
Interactive Conference on Ad-Hoc Networking, August
20-25, 2006, Santiago, Chile***

Edited by

Khaldoun Al Agha

LRI, Paris XI University, France



Springer

Library of Congress Control Number: 2006927826

Ad-Hoc Networking

Edited by K. Al Agha

p. cm. (IFIP International Federation for Information Processing, a Springer Series in Computer Science)

ISSN: 1571-5736 / 1861-2288 (Internet)

ISBN: 10: 0-387-34635-X

ISBN: 13: 9780-387-34635-9

eISBN: 10: 0-387-34738-0

Printed on acid-free paper

Copyright © 2006 by International Federation for Information Processing.

All rights reserved. This work may not be translated or copied in whole or in part without the written permission of the publisher (Springer Science+Business Media, LLC, 233 Spring Street, New York, NY 10013, USA), except for brief excerpts in connection with reviews or scholarly analysis. Use in connection with any form of information storage and retrieval, electronic adaptation, computer software, or by similar or dissimilar methodology now known or hereafter developed is forbidden.

The use in this publication of trade names, trademarks, service marks and similar terms, even if they are not identified as such, is not to be taken as an expression of opinion as to whether or not they are subject to proprietary rights.

Printed in the United States of America.

9 8 7 6 5 4 3 2 1
springer.com

Table of Contents

1. TCP Performance over Geo-routing for High Mobility: Vehicle Grids and Airborne Swarms, *Jiwei Chen, Mario Gerla and Yeng-Zhong Lee*, USA (invited paper)...p.1
2. An Efficient QoS Routing Protocol for Mobile Ad-Hoc Networks, *Inwhae Joe, Yong Jin Park*, Korea...p.17
3. On a QoS Intrusion Tolerant Routing protocol in Ad-hoc Networks, *Neila Krichene, Noureddine Boudriga*, Tunisia...p.29
4. Randomized Permutation Routing in Multi-hop Ad Hoc Networks with Unknown destinations, *Djibo Karimou, Jean Frédéric Myoupo*, France...p.47
5. Beaconless Position-Based Routing with Guaranteed Delivery for Wireless Ad hoc and Sensor Networks, *Mohit Chawla, Nishith Goel, Kalai Kalaichelvan, Amiya Nayak and Ivan Stojmenovic*, India/Canada...p.61
6. Frad-hoc: A framework to Routing Ad-hoc Networks, *Underléa Cabreira Corrêa, Carlos Barros Montez, Vitorio Bruno Mazzola, M.A.R. Dantas*, Brazil...p.71
7. An AODV-Based Clustering and Routing Scheme for Mobile Ad hoc Networks, *Hua Lu, Mieso K. Denko*, Canada...p.83
8. Adapting SLP To Ad-Hoc Environment, *Janne Pietiäinen, Jussi Saarinen, Pekka Vuorela, Tommi Mikkonen* Finland...p.99
9. A Design Framework for Wireless Sensor Networks, *Mats Neovius, Lu Yan*, Finland...p.119
10. IEEE 802.11 Throughput and Delay Analysis for mixed real time and normal data traffic, *Matias Arenas P., Walter Grote H*, Chile...p.129
11. Wireless Networks in industrial environments: State of the art and Issues, *Xavier Carcelle, Tuan Dang, Catherine Devic*, France...p.141

12. DHT-based Functionalities Using Hypercubes, *José Ignacio Alvarez-Hamelin, Aline Viana, Marcelo Amorim*, France...p.157
13. ADMP: An Adaptive Multicast Routing Protocol for Mobile Ad Hoc Networks, *Rolando Menchaca-Mendez, Ricardo Menchaca-Mendez, J. J. Garcia-Luna-Aceves*, USA...p.177