

## Publications

### Articles in Refereed Journals

1. Supeng Leng, Liren Zhang, **Huirong Fu**, and Jianjun Yang, "Mobility Analysis of Mobile Hosts with Random Walking in Ad Hoc Networks," *Computer Networks*, in press.
2. Kumar V. Mangipudi, Rajendra S. Katti, and **Huirong Fu**, "Authentication and Key Agreement Protocols Preserving Anonymity," *International Journal of Network Security*, vol. 3, no. 3, pp. 259-270, 2007.
3. Supeng Leng, Liren Zhang, **Huirong Fu**, and Jianjun Yang, "A Novel Location Service Protocol Based on K-Hop Clustering for Mobile Ad Hoc Networks," *IEEE Transactions on Vehicular Technology*, in press.
4. **Huirong Fu**, "On Parameter Estimation of a Simple Real-Time Flow Aggregation Model," *International Journal of Communication Systems*, vol. 19, pp. 795-808, 2006.
5. **Huirong Fu** and Ming Zhang, "On-line Adaptive Firewall Allocation in Internet Data Center," *Computer Communications, Elsevier Science*, vol. 29, pp.1858-1867, 2006.
6. **Huirong Fu** and Liren Zhang, "Variable Segmentation Scheme Based on Video Characteristics for Dynamic Bandwidth Allocation in Support of Video on Demand Service," *International Journal of Communication Systems*, vol. 16, no. 10, pp. 923-934, 2003.
7. **Huirong Fu** and Liren Zhang, "Low Cost Pre-stored Video Transmission across Networks," *Computer Communications, Elsevier Science*, vol. 26, no. 18, pp. 2061-2069, 2003.
8. **Huirong Fu** and Edward W. Knightly, "A Simple Model of Real-Time Flow Aggregation," *IEEE/ACM Transactions on Networking*, vol. 11, no. 3, pp. 422-435, 2003.
9. Liren Zhang and **Huirong Fu**, "Adaptive Dynamic Bandwidth Allocation Based on Playback Tunnel to Support Video on Demand Service over ATM Networks," *Computer Communications, Elsevier Science*, vol. 24, no. 15-16, pp. 1485-1496, 2001.
10. Liren Zhang, **Huirong Fu**, and Chee Hock Ng, "Dynamic Bandwidth Allocation and Buffer Dimensioning under Equal Segment Scheme to Support Video-on-Demand Services," *International Journal of Communication Systems*, vol. 14, no. 10, pp. 941-960, 2001.
11. Liren Zhang and **Huirong Fu**, "Optional Dynamic Bandwidth Allocation Based on Playback Tunnel to Support Video on Demand Service in Virtual Private Networks," *Computer Communications, Elsevier Science*, vol. 24, no. 11, pp. 1019-1030, 2001.

12. Liren Zhang and **Huirong Fu**, "Dynamic Bandwidth Allocation and Buffer Dimensioning for Supporting Video-on-Demand Services in Virtual Private Networks," *Computer Communications, Special Issue on Support of Multimedia Communications over the Internet, Elsevier Science*, vol. 23, no. 14-15, pp. 1410-1424, 2000.
13. Liren Zhang and **Huirong Fu**, "A Novel Scheme of Transporting Pre-Stored MPEG Video in ATM Networks," *Computer Communications, Elsevier Science*, vol. 23, no. 2, pp. 133-148, 2000.

#### **Articles in Conference Proceedings**

14. Shoua Yang, Shanti Sukumaran, Dipali Yermalkar, Hesiri Weerasinghe, Huirong Fu, "Security and Privacy: Open Issues with RFID," *International Conference on Security and Management (SAM'07)*, June 2007, Las Vegas, Nevada.
15. Slobodan Dokic, Andrea Kulesh, Megha Dombal, and Huirong Fu, "An Overview of Multi-modal Biometrics for Authentication," *International Conference on Security and Management (SAM'07)*, June 2007, Las Vegas, Nevada.
16. Jason D. Watson, Mark Pellerito, Charlie Gladden, and Huirong Fu, "Simulation and Analysis of Extended Brake Lights for Inter-Vehicle Communication Networks," *IEEE SAHNS'07*, June 2007, Toronto, CA.
17. Michael Dustin, Jagadish Shankarappa, Michael Petrowski, Hesiri Weerasinghe and Huirong Fu, "Analysis of Key Management in Wireless Sensor Networks," *IEEE EIT'07*, May 2007, Chicago, IL.
18. Dmitriy Martynov, Jason Roman, Samir Vaidya, and Huirong Fu, "Design and Implementation of an Intrusion Detection System for Wireless Sensor Networks," *IEEE EIT'07*, May 2007, Chicago, IL.
19. Bryan Fleming, Jason Watson, Mark Pellerito, and **Huirong Fu**, "Prevention of DoS Attacks on Inter-Vehicle Communications," *SAE 2007 World Congress*, Detroit, MI, April 2007.
20. **Huirong Fu**, Satoshi Kawamura, and Chengzhi Li, "Blom-Based Q-Composite: A Generalized Framework of Random Key Pre-Distribution Schemes for Wireless Sensor Networks," *IEEE/RSJ International Conference on Intelligent Robotics and System (IROS)*, 2006, Beijing, China, Oct. 2006.
21. David Foster, Laura Stapleton, and **Huirong Fu**, "Secure Remote Electronic Voting," *the Sixth IEEE International Conference on Electro/Information Technology (EIT)*, MI, USA, Jun. 2006.
22. Imad H. Elhadj, **Huirong Fu**, Adrian Padilla, and Daniel Aloï, "Keyless Message Authentication by Verifying Position and Velocity for Inter-Vehicle Communication," *SAE 2006 World Congress*, Detroit, MI, Apr. 2006.

23. **Huirong Fu** and Hector Aybar, "Hierarchical Mobile Certificate Authority for Heterogeneous Wireless Ad Hoc Networks: Architecture and Protocols," *SAE 2006 World Congress*, Detroit, MI, Apr. 2006.
24. **Huirong Fu**, Satoshi Kawamura, Ming Zhang, and Liren Zhang, "Replication Attack on Random Key Pre-distribution Schemes for Wireless Sensor Networks," *IEEE Information Assurance Workshop*, West Point, NY, USA, Jun. 2005.
25. **Huirong Fu**, Vivek Goel, Elangovan Murugaiyan, Sudhan Shanmugasundaram, and Liren Zhang, "Unified Solution to Registration, Authentication and Billing for Wireless Hotspots: Architecture and Protocols," *International Conference on Wireless Networks (ICWN'05)*, Las Vegas, Nevada, Jun. 2005.
26. Sanjay Ramaswamy, **Huirong Fu**, and Kendall E. Nygard, "Simulation Study of Multiple Black Holes Attack on Mobile Ad Hoc Networks," *International Conference on Wireless Networks (ICWN'05)*, Las Vegas, Nevada, Jun. 2005.
27. Kumar Mangipudi, Nagaraja Malneedi, Rajendra Katti, and **Huirong Fu**, "Attacks and Solutions on Aydos-Savas-Koç's Wireless Authentication Protocol," *IEEE GLOBECOM'04*, Dallas, Texas, Nov./Dec. 2004.
28. Benzir M. Ahmed, Tanjina Helaly, and **Huirong Fu**, "Secure Routing in Wireless Mobile Ad Hoc Networks without the Support of Key Management Infrastructure," *International Conference on Wireless Networks (ICWN'04)*, Las Vegas, Nevada, Jun. 2004.
29. Satoshi Kawamura, **Huirong Fu**, Meegeum Choi, and Shanhong Wu, "End-to-End Mobility Management: A Two-Phase Deployment Scheme for Personal Use," *International Conference on Wireless Networks (ICWN'04)*, Las Vegas, Nevada, Jun. 2004.
30. **Huirong Fu** and Liren Zhang, "Video Segmentation for Transporting Pre-Stored Video across Networks," *International Conference on Computer Applications in Industry and Engineering (CAINE)*, Las Vegas, Nevada, Nov. 2003.
31. Ming Zhang and **Huirong Fu**, "OPNET Simulation of Dynamic Firewalls Migration in Internet Data Centers," *OPNETWORK'03*, Washington DC, Aug. 2003.
32. Sanjay Ramaswamy, **Huirong Fu**, Manohar Sreekantaradhya, John Dixon, and Kendall Nygard, "Prevention of Cooperative Black Hole Attack in Wireless Ad Hoc Networks," *International Conference on Wireless Networks (ICWN'03)*, Las Vegas, Nevada, Jun. 2003.
33. Supranamaya Sranjan, Jerry Rolia, **Huirong Fu**, and Edward W. Knightly, "QoS-Driven Server Migration for Internet Data Centers," *IWQoS'02*, Miami, Florida, May 2002.
34. **Huirong Fu** and Edward W. Knightly, "Aggregation and Scalable QoS: A Performance Study," *IWQoS'01*, Karlsruhe, Germany, Jun. 2001.

35. Liren Zhang and **Huirong Fu**, “Adaptive Bandwidth Allocation Based on Playback Tunnel to Support Video on Demand Service over VPN networks,” *Networld+Interop 2000 Engineers Conference*, Las Vegas, Nevada, May 2000.
36. **Huirong Fu** and Liren Zhang, “Adaptive Bandwidth Allocation Based on Playback Tunnel in Support of Video on Demand Service over ATM Networks,” *the Fifth International Conference on Computer Science and Informatics (CS&I’00)*, Atlantic City, New Jersey, Feb. 2000.
37. **Huirong Fu** and Liren Zhang, “Optimized Dynamic Bandwidth Allocation Based on Playback Tunnel for Supporting Video on Demand Service,” *the 2nd International Conference on Information, Communications & Signal Processing (ICICS’99)*, Singapore, Dec. 1999.
38. **Huirong Fu**, Liren Zhang, Chee Hock Ng, and Krishnappa R. Subramanian, “A Novel Scheme of Transporting Pre-Stored MPEG Video in ATM Networks,” *IEEE International Conference on Networks (ICON’99)*, Brisbane, Australia, Sept. 1999.
39. Liren Zhang, **Huirong Fu**, and Lee Wu Yu, “Bandwidth Allocation and Buffer Dimensioning for the Transmission of Pre-Stored MPEG VBR Video in ATM Networks,” *International Symposium on Intelligent Multimedia and Distance Education (ISIMADE’99)*, Baden, Germany, Aug. 1999.
40. **Huirong Fu**, Liren Zhang, and Chee Hock Ng, “Dynamic Bandwidth Allocation and Buffer Dimensioning under Equal Segment Divisioning Scheme to Support Video on Demand Service,” *Engineers Conferences on Broadband Access, Technologies, Systems and Services*, Las Vegas, Nevada, May 1999.