

## Eyuphan Bulut

Department of Computer Science, Rensselaer Polytechnic Institute  
110 8th Street, Troy, NY, 12180, USA, 1-469-422-5653  
e-mail : bulute@cs.rpi.edu  
web : www.cs.rpi.edu/~bulute

### EDUCATION

- 2007 - Now* **Ph.D. Rensselaer Polytechnic Institute**, Troy, NY (expected to graduate in 2010)  
Department of Computer Science  
**Thesis:** Opportunistic Routing Algorithms in Delay Tolerant Networks  
**Research Interests:** Wireless Ad hoc and Sensor Networks: Routing, Coverage and Connectivity Issues, Cost-Quality Tradeoff, Target Tracking.  
**Advisor:** Prof. Boleslaw K. Szymanski  
GPA: 4.00/4.00
- 2005 - 2007* **M.S. Bilkent University**, Ankara, Turkey  
Department of Computer Engineering  
**Thesis:** Connectivity and Coverage Preserving Sleep Scheduling Mechanism with Predictive Coverage and Multiple Mode Selections in Wireless Sensor Networks  
**Advisor:** Asst. Prof. Ibrahim Korpeoglu  
GPA: 3.93/4.00
- 2001 - 2005* **B.S. Bilkent University**, Ankara, Turkey  
Department of Computer Engineering, Full scholarship awarded by the University  
GPA: 3.60/ 4.00

### ACADEMIC AND INDUSTRIAL EXPERIENCE

- 2007 - Now* Member of Center for Pervasive Computing and Networking at RPI  
Teaching Assistant: Data Structures and Algorithms, Operating Systems  
Research Assistant
- 2005 - 2007* Member of Networks and Systems Research Group at Bilkent University  
Teaching Assistant: Object-oriented Software Engineering, Operating Systems, Introduction to Computing for Social Sciences
- Summer 04* Member of Peer-to-Peer Systems Research Group at Bilkent University  
Developed Gnutella-like P2P Network simulator via CSIM Engine
- Summer 03* Summer internship in Simetri Software Inc., Ankara, Turkey  
Worked on Microsoft Visual Studio .NET applications

### ACADEMIC RESEARCH AND PUBLICATIONS

#### Journals

- ❖ Z.Wang, E.Bulut, B.Szymanski "**Distributed Energy Efficient Target Tracking with Binary Sensor Networks**", accepted to appear in ACM Transactions on Sensor Networks, 2009.
- ❖ E.Bulut, Z.Wang, B.Szymanski "**Cost Effective Multi-Period Spraying for Routing in Delay Tolerant Networks**", submitted to IEEE/ACM Transactions on Networking (under second review)
- ❖ E.Bulut, I.Korpeoglu "**Sleep Scheduling with Expected Common Coverage in Wireless Sensor Networks**", submitted to Springer Wireless Networks (under second review).

#### Conference Papers

- ❖ E.Bulut, Z.Wang, B.Szymanski "**Cost Efficient Erasure Coding based Routing in Delay Tolerant Networks**", to appear in ICC 2010.
- ❖ E.Bulut, Z.Wang, B.Szymanski "**The Effect of Neighbor Graph Connectivity on Coverage Redundancy in Wireless Sensor Networks**", to appear in ICC 2010.
- ❖ E.Bulut, Z.Wang, B.Szymanski "**Impact of Social Networks in Delay Tolerant Routing**", to appear in Proceedings of Globecom 2009.

- ❖ Z.Wang, E.Bulut, B.Szymanski "**Distributed Target Tracking with Directional Binary Sensor Networks**", to appear in Proceedings of Globecom 2009.
- ❖ Z.Wang, E.Bulut, B.Szymanski "**Energy Efficient Collision Aware Multipath Routing for Wireless Sensor Networks**", In Proceedings of ICC 2009.
- ❖ E.Bulut, J.Zheng, Z.Wang, B.Szymanski "**Balancing the Cost-Quality Tradeoff in Cooperative Ad hoc and Sensor Networks**", In Proceedings of IEEE MILCOM, San Diego Convention Center, CA, November 2008.
- ❖ E.Bulut, Z.Wang, B.Szymanski "**Minimizing Average Spraying Cost for Routing in Delay Tolerant Networks**", Second Annual Conference of International Technology Alliance (ITA), ACITA, Imperial College London, September 2008.
- ❖ E.Bulut, Z.Wang, B.Szymanski "**Time Dependent Message Spraying for Routing in Intermittently Connected Networks**", In Proceedings of Globecom, New Orleans, November 2008.
- ❖ Z.Wang, E.Bulut, B.Szymanski "**Distributed Target Tracking with Imperfect Binary Sensor Networks**", In Proceedings of Globecom, New Orleans, November 2008.
- ❖ E.Bulut, W. Zijian, B. Szymanski, "**Cost-Quality Tradeoff in Cooperative Sensor Networking**", ICC2008 COCONET Workshop, 2008.
- ❖ Z.Wang, E.Bulut, B.Szymanski, "**A Distributed Cooperative Target Tracking with Binary Sensor Networks**", ICC2008 CoopNet Workshop, 2008.
- ❖ E.Bulut, I.Korpeoglu, "**DSSP: A Dynamic Sleep Scheduling Protocol for Prolonging the Lifetime of Wireless Sensor Networks**" Third IEEE International Workshop on Heterogeneous Wireless Networks, in conjunction with AINA, 2007.
- ❖ E.Bulut, T.Capin, "**Key Frame Extraction from Motion Capture Data by Curve Saliency**", CASA 2007 – Computer Animation and Social Agents, 2007.

#### Submitted Conference Papers

- ❖ E.Bulut, S.C.Geyik, B.Szymanski "**Conditional Shortest Path Routing in Delay Tolerant Networks**", submitted to WoWMoM 2010.
- ❖ E.Bulut, S.C.Geyik, B.Szymanski "**Conditionality Improves Routing Performance in Delay Tolerant Networks**", submitted to SECON 2010.

**Reviewed Papers for:** ACM Transactions on Sensor Networks, IEEE Transactions on Parallel and Distributed Systems, ACITA 2008, ACITA 2009, ICC 2010.

#### PROJECTS

##### 2007 – Now **International Technology Alliance (ITA) Project:**

Project 9: Complexity Management of Sensor Data Infrastructure

Developing new algorithms for Information processing and retrieval paradigms in sensor networks

##### 2006 – 2007 **TUBITAK Project:**

Supporting Real-time Traffic in Wireless Ad Hoc and Sensor Networks

TUBITAK: The Scientific and Technological Research Council of Turkey

##### 2005 – 2006 **NewCom, EU Research Project:**

Development of a Bluetooth Network Simulator to be used in comparison of Bluetooth and Zigbee technologies, wrote a report on design of a **Bluetooth Simulator**

##### 2004 – 2005 **Senior Project:**

Wireless Multi-hop Ad Hoc Network Middleware and Applications for Pocket PCs using .NET Platform

#### QUALIFICATIONS

Programming Languages: Java, C, C++, C#, SQL, Assembly (Mips), HTML, Javascript, MATLAB

Operating Systems: Unix/Linux, Microsoft Windows Family OS

Awards: Full Scholarship by RPI and Bilkent University

Gold medal in Mediterranean University Mathematical Olympics

Bronze medal in Nationwide Mathematical Olympics, Turkey