# **Amit Dvir**

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### **EDUCATION:**

2004 - 2008 PhD student in Communication Systems Engineering, Ben-Gurion University of the Negev, Beer-Sheva, Israel. (Degree expected: Spring 2009)

**Topic:** Optimizing Traffic Parameters in Wireless Network Communication Backbones.

Advisor: Prof Michael Segal.

2002 - 2004 M.Sc. in Electro-Optical Engineering, Ben-Gurion University of the Negev, Beer-Sheva, Israel.

**Topic/Thesis**: SPLAST: A Novel Approach for Multicasting in Mobile Wireless Ad Hoc Networks.

Advisor: Prof Michael Segal and Dr. Yehuda Ben-Shimol.

1998 - 2002 B.Sc. in Communication Systems Engineering, Ben-Gurion University of the Negev, Beer-Sheva, Israel.

### PROFESSIONAL EXPERIENCE:

2004 - present Research Assistant, Ben Gurion University, Beer-Sheva, Israel.

- Optimizing Traffic Parameters.
- Wi-Max and Wi-Fi combination.
- Routing problems in MMR systems.
- 2004 2005 Consultanted, Tadiran Telecom Ltd, Israel.
  - Designed and simulated an army communication network.
- Summer internship in TU Dresden, Vodafone Department, Germany.
  - Researched on "Bit Loading Algorithm in OFDM"
  - Worked under the direct supervision of Professor Gerhard Fettwies, Head of the Vodafone Department.

2000-2002 QA and technical support, NESS-ISI, Clalit Health Services, Beer-Sheva, Israel.

• QA and technical support for a unique medical applications that operate in clinics and hospitals.

## **TEACHING EXPERIENCE:**

2002 - present Lecturer in the Department of Communication Systems Engineering, Ben-Gurion University, Beer-Sheva, Israel.

Courses:

- Introduction to Computer Science (Java).
- Introduction to Communication Networks.
- Network Architecture (Data link and Network layers protocols).

2002 - present Teaching assistant in the Department of Communication Systems Engineering, Ben-Gurion University, Beer-Sheva, Israel.

Courses taught:

- Algorithms in Sensor Networks.
- Network Programming.
- C++ fundamental programming.
- Introduction to Computer Science (Using OO/Java).
- Communication Networks (Layers Phy-Network).

2002 - present Tutor on student projects in the Department of Communication Systems Engineering, Ben-Gurion University, Beer-Sheva, Israel. Projects name:

- Wi-Fi, Wi-MAX Combination, won "The Hubert Burda Prizes for Innovation Awarded" and "The IDF's Computer Service Directorate awarded".
- MMR Routing algorithm.
- Cores in Sensor Networks.

# RESEARCH AND DEVELOPMENT ACTIVITIES:

2004 - present Optimizing Traffic Parameters in Wireless Network Communication

Backbones.

Institution: Ben-Gurion University of the Negev

Supervisor: Dr. Michael Segal.

2008 – present Reviewer – MobiHoc 2008, MobiHoc 2009, AlgoSensor 2009.

2006 - present Wi-Fi, Wi-MAX Combination.

Institution: Ben-Gurion University of the Negev

Company: Intel (2006 - 2007), BGU (2007 – present)

Supervisor: Dr. Michael Segal.

2006 - 2008 Radar Project

Institution: Ben-Gurion University of the Negev

Company: Deutsche Telekom Supervisor: Dr. Michael Segal.

2007 – 2008 MMR Routing algorithm.

Institution: Ben-Gurion University of the Negev

Company: Remon - Israel 4G Consortium

Supervisor: Dr. Michael Segal.

2002 - 2004 Developed a new routing algorithm for static and mobile wireless ad hoc

networks.

Institution: Ben-Gurion University of the Negev

Supervisors: Dr. Michael Segal and Dr Yehuda Ben-Shimol.

1998-2002 Optimal directional antenna positioning.

Institution: Ben-Gurion University of the Negev

Supervisor: Dr. Michael Segal and Dr Yehuda Ben-Shimol.

### **Publications:**

- 1. B. Ben-Moshe, Y. Ben-Yehezkel, Y. Ben-Shimol, **A. Dvir** and M. Segal "An Automated Wireless Fixed-Access Network Antenna Positioning Algorithm", *Journal of Heuristics*. 2006
- 2. Y. Ben-Shimol, **A. Dvir** and M. Segal, "SPLAST: A Novel Approach for Multicasting in Mobile Wireless Ad Hoc Networks", *Network Theory and Applications: Special issue on Advances in wireless networks and mobile computing*, 2008.
- 3. **A. Dvir** and M. Segal, "Placing and Maintaining a Core Node in Wireless Ad Hoc Sensor Network", *Journal of Wireless Communications and Mobile Computing*, Accepted.
- 4. **A. Dvir** and M. Segal, "The (*k*, *l*) Coredian Tree for Ad Hoc Networks", *Ad Hoc & Sensor Wireless Networks*, 6(1-2): 123-144, 2008.
- 5. **A. Dvir** and N. Carlsson, "Power-aware Recovery for Geographic Routing", Wireless Communication and Networking (IEEE WCNC) 2009.
- 6. B. Ben-Moshe, **A. Dvir**, M. Segal, and A. Tamir, "Centdian Computation for Sensor Networks", submitted, 2009.

## AREAS OF INTEREST:

- Intelligent Transportation Systems.
- Vehicle Positioning Systems.
- Sensor Networks.
- Ad Hoc Networks.
- Body Area Networks.
- Wi-Fi and Wi-Max Combination.

## **PROGRAMING:**

- Java.
- C++.
- C.
- Matlab.
- Omnet/NS2.
- TinyOS.

# **ACADEMIC AWARDS:**

2006: Student Travel Grant IEEE CCNC06

2003: Intel's Excellency Award for Higher Academic Degree Studies.

2002: Teva's Excellency Award.

# LANGUAGE SKILLS:

- Hebrew Mother Tongue.
- English Very good.