

Lazar Berbakov

Lični podaci:

Datum rođenja: 6. oktobar 1983.
Mesto rođenja: Novi Sad, Srbija



Obrazovanje:

Doktorske studije, 2008. – 2013.

Fakultet: Universitat Politècnica de Catalunya, Barcelona, Španija
Departman: Teorija Signala i Komunikacija
Naslov doktorske teze: Collaborative Beamforming Schemes for Wireless Sensor Networks with Energy Harvesting Capabilities

Master studije, 2002. – 2007.

Fakultet: Fakultet Tehničkih Nauka, Novi Sad, Srbija
Departman: Energetika, Elektronika I Telekomunikacije
Naslov master teze: Zavisnost performansi sistema za prepoznavanje govora na srpskom jeziku od izbora obeležja

Kursevi i seminari:

2013. Course for Software Defined Radio, Castelldefels, Španija
2013. Internet of Things seminar, Barcelona, Španija
2012. Tutorial on Car-to-Car communications, Poznan, Poljska
2011. GREENET seminar on Writing Academic papers and Patents, Castelldefels, Španija
2009. Wireless Communications seminar by Prof. Andrea Goldsmith, Barcelona, Španija
2007. SimLab kurs "Parallel Numerical Simulation", Bitola, Makedonija
2007. Letnja škola "MPI - Parallel computing", Budva, Crna Gora

Stipendije:

2008. – 2013. Ministarstvo Prosvete Španije, FPU stipendija za doktorske studije.
2006. Izvršno veće Vojvodine, Stipendija za studentsku razmenu.

Radno iskustvo:

Jan.2014. – ...

Institut Mihajlo Pupin, Beograd, Srbija, www.pupin.rs

Radno mesto: Naučni saradnik

Radno iskustvo:

Istraživanje: Energetska efikasnost u bežičnim senzorskim mrežama, Algoritmi za pozicioniranje u zatvorenim prostorima
Klijentska i serverska aplikacija za lokalizaciju

Učestvovanje u projektu:

SPARTACUS (Satellite Based Asset Tracking for Supporting Emergency Management in Crisis Operations)

Okt.2008. – Jul. 2013.

CTTC (Centre Tecnològic de Telecomunicacions de Catalunya)
Barcelona, Španija, www.cttc.es

Radno mesto: Doktorant

Radno iskustvo:

Istraživanje: Kooperativno formiranje dijagrama zračenja u senzorskim mrežama. Distribuirana fazna sinhronizacija za senzorske mreže. Optimalna raspodela snage za senzorske mreže sa "energy harvesting" mogućnostima.

Matematička analiza i implementacija metoda za distribuirano formiranje dijagrama zračenja i optimalnu raspodelu snage u senzorskim mrežama.

Učestvovanje u projektu:

JUNTOS (Joint soUrce and chaNnel cooperaTive netwOrkS):
Sep 2011. – Jul 2013.

Project manager: Deniz Gunduz, PhD

Jul – Sep. 2006.

Telefónica del Perú, Lima, Perú

Radno mesto: Student na razmeni, IAESTE

Radno iskustvo:

Testiranje MIMO sistema za WiMax mrežu u Perú.

2002. – 2007.

Radio klub Novi Sad, Srbija

Radno mesto: Predavač na kursevima za radio-amatere

Radno iskustvo:

Teoretska i praktična obuka na kursevima za amaterske radio operatore. Oko 40 polaznika uspešno položilo završni ispit.

Nagrade:

2006,2007	Specijalna nagrada Univerziteta u Novom Sadu
2004.	1. mesto na nacionalnom Radio-amaterskom takmičenju
2000.	2. mesto na nacionalnom takmičenju iz Brze Telegrafije
2000.	1. mesto na regionalnom takmičenju iz Osnova Elektrotehnike

Trenutna profesionalna interesovanja:

- Bežične Senzorske Mreže
- Kooperativne komunikacije
- Pozicioniranje u zatvorenim prostorima

Poznavanje računarskih programa:

MS-DOS, Windows, Ubuntu Linux, MS Office, Adobe Photoshop, Wordpress, C/C++, Java, Android, MPI library, Matlab, Maple, Latex, CakePHP, JavaScript

Članstva u profesionalnim organizacijama:

- Član Instituta za Elektro-inženjere - IEEE
- Savez Radioamatera Srbije

Jezici:

- | | |
|---------------|--------------|
| - srpski: | maternji |
| - engleski: | viši nivo |
| - španski: | viši nivo |
| - katalonski: | osnovni nivo |
| - grčki: | srednji nivo |

Odabrane publikacije:

Časopisi:

Lazar Berbakov, Carles Antón-Haro, and Javier Matamoros, Joint optimization of transmission policies for collaborative beamforming with energy harvesting sensors. IEEE Transactions on Wireless Communications, Volume 13, Issue 7, June 2014, Pages 3496 - 3509.

Lazar Berbakov, Carles Antón-Haro, and Javier Matamoros, Optimal Transmission Policy for Cooperative Transmission with Energy Harvesting and Battery Operated Sensor Nodes. Elsevier Signal Processing Journal, Volume 93, Issue 11, November 2013, Pages 3159–3170.

Konferencije:

Lazar Berbakov, Bogdan Pavković and Sanja Vraneš, Smart Indoor Positioning System for Situation Awareness in Emergency Situations, in Proceedings of ISSASIM 2015, Sep 2015, Valencia (Spain).

Lazar Berbakov, Bogdan Pavković and Sanja Vraneš, Smart-phone application for autonomous indoor positioning, in Proceedings of IEEE I2MTC 2015 conference, May 2015, Pisa (Italy).

Stefan Trailović, Lazar Berbakov, Dejan Todorović, Vukašin Ristić, Nikola Nenadić, Iva Salom, Analiza kvaliteta različitih realizacija AAC audio kodeka na ARM procesorskim arhitekturama, in Proceedings of 22nd Telecommunications Forum (TELFOR 2014), Nov. 2014, Belgrade (Serbia).

Lazar Berbakov, Marko Beko, Distributed Carrier Synchronization and Data Transmission in Wireless Sensor Networks, in Proceedings of 22nd Telecommunications Forum (TELFOR 2014), Nov. 2014, Belgrade (Serbia).

Bogdan Pavković, Lazar Berbakov, Miloš Milenković, Sanja Vraneš, Situation awareness and decision support tools for response phase of emergency management: a short survey, in Proceedings of 4th DEXA Workshop on Information Systems for Situation Awareness and Situation Management (ISSASiM), Sep. 2014, Munich (Germany).

Javier Matamoros, Carles Antón-Haro, David Gregoratti, L. Berbakov, Distributed Beamforming Control with One-bit of Feedback, in Proceedings of European Wireless Conference, May. 2014, Barcelona (Spain).

Lazar Berbakov, Carles Anton-Haro and Javier Matamoros, Optimal Transmission Policy for Collaborative Beamforming with Finite Energy Storage Capacity, in Proceedings of IEEE International Symposium on Personal, Indoor and Mobile Radio Communications (PIMRC 2013), Sep. 2013, London (UK).

Lazar Berbakov, Javier Matamoros, and Carles Antón-Haro, Greedy transmission strategies for collaborative beamforming with energy harvesting sensors, in Proceedings of 7th International ITG Workshop on Smart Antennas (WSA 2013), March 2013, Stuttgart (Germany)

Lazar Berbakov, Javier Matamoros, and Carles Antón-Haro, Optimal Transmission Policy for Distributed Beamforming with Energy Harvesting and Battery Operated Sensor Nodes, in Proceedings of International Symposium on Wireless Communication Systems (ISWCS 2012), Aug. 2012, Paris (France).

Lazar Berbakov, Carles Antón-Haro, and Javier Matamoros, Decentralized phase synchronization scheme for distributed beamforming in WSN with quantized phase feedback, in

Proceedings of Future Network Mobile Summit (FUNEMS 2012), July 2012, Berlin (Germany).

Lazar Berbakov, Carles Antón-Haro, and Javier Matamoros, Distributed beamforming using one bit of feedback: AWGN analysis, in Proceedings of 18th European Wireless Conference (EW 2012), Apr. 2012, Poznan (Poland).

Lazar Berbakov, Javier Matamoros, and Carles Antón-Haro, Decentralized phase synchronization scheme for collaborative beamforming in wireless sensor networks, in Proceedings of 19th European Signal Processing Conference (EUSIPCO 2011), Sep. 2011, Barcelona (Spain).

Lazar Berbakov, Carles Antón-Haro, and Javier Matamoros, Distributed beamforming with sidelobe control using one bit of feedback, in Proceedings of 73rd Vehicular Technology Conference (VTC Spring 2011), May 2011, Budapest (Hungary).

Lazar Berbakov, Nikša Jakovljević, Zavisnost performansi sistema za prepoznavanje govora od izbora obeležja, širine i preklapanja prozora, 15th TELFOR Conference 2007, Belgrade, Serbia.

Lazar Berbakov, Nikša Jakovljević, Izrada sistema za automatsko prepoznavanje govora na srpskom jeziku korišćenjem programskog alata HTK, 51st ETRAN Conference 2007, Igalo, Montenegro.