Curriculum Vitae

Petar Šolić (Scientific Personal Identification Number – 313610)

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Education:

- High school training: Economy (finished 2004)
- M. S. in Computer Science (finished 2008) – focus on the design of web applications
- Ph. D. in Communications/Computer science (Increasing throughput in RFID systems with large number of tags) (finished 2014)

Research projects:

- ICT Systems and Services Based on Integration of Information " (P023-0231924-1661) supported by the Ministry of Science and Technology of the Republic of Croatia. (2008-2013)
- Research in Telecommunications – In cooperation with Ericsson N.T. (2009)

Research interests:

- Information systems development, Localization and RFID technology, Communication protocols in RFID, RFID application, Energy harvesting, Software Defined Radio development

Awards and Achievements:

- State student schoolarship (2002 - 2004)
- Worldwide finalist – Microsoft Imagine Cup 2007, August 2007 („es .NET" – Software design category)

Teaching Experience (2008-):

- Information Theory and Communications related courses

Publications:

SCI publications:

1. **P. Šolić**, J. Radić, N. Rožić, „Energy Efficient Tag Estimation Method for ALOHA-based RFID systems", *IEEE Sensors Journal,* Vol. 14, No. 10, 2014*,* pp. 3637 – 3647,
2. M. Russo, **P. Šolić**, and M. Stella, „Probabilistic Modeling of Harvested GSM Energy and its Application in Extending UHF RFID Tags Reading Range", *Journal of electromagnetic waves and applications, 2013,*
3. **P. Šolić**, J. Radić, and N. Rožić, "Software Defined Radio Based Implementation of RFID Tag in Next Generation Mobiles*", IEEE Transactions on Consumer Electronics*, Vol 58. No. 3, 2012, pp. 1051-1055. ,
4. **P. Šolić**, J. Radić, and N. Rožić, "Algorithm for Deriving Optimal Frame Size in Passive RFID UHF Class1-Gen2 Standard Using Combinatorial Model Boundaries", *Automatika: časopis za automatiku, mjerenje, elektroniku, računarstvo i komunikacije*, Vol 51. No. 3, 2010, pp. 255-263

Other journal publications:

1. D. Begušić, N. Rožić, J.Rodrigues, **P. Šolić**, "21st SoftCOM Conference: Bringing Together Academy and Industry". *IEEE communications magazine(Global Comunications Newletter)*, Vol 1 (2014) ; p.p. 2-4
2. **P. Šolić**, M. Šarić, M. Stella, „RFID reader-tag communication throughput analysis using Gen2 Q-algorithm frame adaptation scheme". *International Journal of Circuits, Systems, and Signal Processing,*Vol. 8, 2014, pp. 233-239

3. M. Šarić, M. Stella, **P. Šolić**, *„Scene Text Extraction using K-means Clustering in HSI Color Space: Influence of Color Distance Measure“* “. *International Journal of Circuits, Systems, and Signal Processing,*Vol. 7, No. 5, 2013, pp. 294-301
4. **P. Šolić**, J. Radić, N. Rožić, and M. Russo, “Linear model of Adapting Frame Size in DFSA of Passive GEN2 RFID systems”, *WSEAS transactions on communications*, 2010, No. 9, pp. 495-504
5. **P. Šolić**, N. Rožić, and J. Radić, “Rfid-based solution for galleries and museums visit modeling using markov model, bbns and map decisions“ , *International Journal of Intelligent Information and Database Systems (IJIIDS)*, Vol 4, No. 6, 2010, pp. 532−551

Conference publications:

1. **P.Šolić**, M. Šarić, M. Stella,“Tags/s - RFID reader-tag communication throughput using Gen2 Q-algorithm frame adaptation scheme“, *Recent advances in information sciences - Proceeedings of the 5th European conference of compute science (ECCS'13)*,2013, pp. 100-105
2. M.Šarić, M. Stella**, P. Šolić***, Extraction of Scene Text in HSI Color Space using K-means Clustering with Chromatic and Intensity Distance, Recent advances in information sciences - Proceeedings of the 5th European conference of compute science (ECCS'13),* 2013, pp. 136-141
3. **P. Šolić**, M. Božić-Kudrić, M. Russo, N. Rožić, „Extending the Reading Region of the RFID UHF Gen2 System by HF/UHF Integration“, *Proceedings of the 12th International Conference on Telecommunications (ConTEL 2013)*, p.p. 257-261
4. M. Božić-Kudrić, **P. Šolić**, N. Rožić,“ RFID technology based object tracking system“, *Workshop on Information and Communication Technologies* – SoftCOM 2013 events
5. **P. Šolić**, J. Radić, H. Dujmić, M. Šarić, M. Russo, M. Stella, D. Begušić, N. Rožić, „Improved Linearized Combinatorial Model (ILCM) for Optimal Frame Size Selection in ALOHA-based RFID Systems“, *2013 IEEE International Conference on Communications Workshops (ICC)*, p.p. 1092-1097
6. **P. Šolić**, J. Radić, and N. Rožić, “Linearized Combinatorial Model for Optimal Frame Selection in Gen2 RFID System”, *Proceedings of the 2012 IEEE International Conference on RFID (IEEE RFID 2012),* pp. 89-94
7. **P. Šolić**, M. Šarić, D. Stipaničev, “ISPRS: Intelligent Services for Poverty Reduction Schemes”, *Recent Researches in Neural Networks, Fuzzy Systems, Evolutionary Computing and Automation (Proceedings of 12th WSEAS conference on Fuzzy Systems) 2011*, pp. 219-224
8. **P. Šolić**, J. Radić, N. Rožić, and M. Russo, “LookUp Algorithm for Adapting Frame Size in DFSA of Passive UHF-GEN2 RFID”, *New Aspects of Telecommunications and Informatics (TELE-INFO 2010)*, pp. 122-127
9. **P. Šolić**, N. Rožić, S. Marinović, “RFID-based Visitors Modeling for Galleries using Markov Model”, *Proceedings of the 10th International Conference on Telecommunications - ConTEL 2009*, pp. 105 – 110
10. **P. Šolić**, N. Rožić, N. Ukić, “ROADS: RFID Office Application for Document tracking over SIP”, *17th International Conference on Software, Telecommunications and Computer Networks - SoftCOM 2009*, pp. 95 – 100
11. **P. Šolić**, M. Štula, “Konfiguracija OnLine – WEB APLIKACIJA ZA IZBOR OPTIMALNE RAČUNALNE KONFIGURACIJE”, *Workshop on Information and Communication Technologies* – SoftCOM 2008 events

12. **P. Šolić**, "Protokoli RFID EPCglobal C1G2 sustava", SoftCOM 2011 - Research Topics of PhD students in Engineering

Patent:

1. N. Rožić, **P. Šolić**, J. Radić, „Aparat za povećanje učinkovitosti u Slotted ALOHA (SA) sustavima i pripadajuća metoda ((Apparatus for increasing efficiency of Slotted ALOHA systems and method thereof))", (18446744073709551615, HR)

Other:

1. **P.Šolić**, „An example of innovation in ICT: Efficient identification in slotted ALOHA systems", invited lecture – SoftCOM 2012
2. **P. Šolić**, J. Radić, and N. Rožić*, "Apparatus for Increasing Efficiency in Slotted ALOHA Systems and Associated Method", unpublished poster*
3. **P.Šolić**."RFID tehnologija – Radiovalovi u fukciji kontrole i praćenja čovjekove okoline (RFID technology – Radiowaves in function of monitoring and control of human envirnoment)", *Croatian Univesity newspaper „Univesitas" 2013,*
4. **P.Šolić**. *"RFID tehnologija – moderni bar kodovi (RFID technology – modern bar codes)", Lecture at Festival of Science, Split, Croatia 2012.*

Professional activities:

- Reviewer: IEEE Communication Letters (IEEE CL), International Journal of Communication Systems (IJCS), International Journal of Distributed Sensor Networks, Journal of Communication Software and Systems (JCOMSS), IEEE GlobeCOM conference, IEEE ICC conference, IEEE ISCC conference, SoftCOM conference, ConTEL conference
- TPC: SoftCOM 2012, 2013, 2014 - Symposium on RFID and IOT
- SoftCOM 2013 Conference General Secretary, SoftCOM 2014 Conference General Secretary