**PUBLICATION LIST (all publications peer reviewed)**

**Journals**

J1. F. Lazaro, **C. Stefanovic**, "Finite-Length Analysis of Frameless ALOHA with Multi-User Detection", IEEE Communication Letters, to appear

J2. G. Coralles Madueno, **C. Stefanovic**, P. Popovski, "Reliable and Efficient Access for Alarm-initiated and Regular M2M Traffic in IEEE 802.11ah Systems", IEEE Internet of Things Journal, vol. 3, no. 5, pp. 673-682, October 2016.

J3. E. A. Coelho, D. Wu, J. M. Guerrero, J. C. Vasquez, T. Dragicevic, **C. Stefanovic**, P. Popovski, "Small-Signal Analysis of the Microgrid Secondary Control Considering a Communication Time Delay", IEEE Transactions on Industrial Electronics, vol. 63, no. 10, pp. 6257-6269 October 2016

J4. C. Bockelmann, N. Pratas, H. Nikopour, K. Au, T. Svensson, **C. Stefanovic**, P. Popovski, A. Dekorsy, "Massive Machine-type Communications in 5G: Physical and MAC-layer solutions", IEEE Communications Magazine, vol. 54, no. 3, pp. 59-65, September 2016.

J5. M. Angjelichinoski, **C. Stefanovic**, P. Popovski, H. Liu, P. Loh, F. Blaabjerg, "Multiuser Communication through Power Talk in DC MicroGrids", IEEE Journal on Selected Areas in Communications, Special Issue on Power Line Communications and its Integration with the Networking Ecosystem, vol. 34, no. 7, pp. 2006-2021, July 2016

J6. G. Coralles Madueno, J. J. Nielsen, D. M. Kim, N. K. Pratas, **C. Stefanovic**, P. Popovski, "Assessment of LTE Wireless Access for Monitoring of Energy Distribution in the Smart Grid", IEEE Journal on Selected Areas in Communications, Special Issue on Emerging Technologies in Communications - Smart Grid, vol. 34, no 3., pp. 675-688, March 2016.

J7. M. Angjelichinoski, **C. Stefanovic**, P. Popovski, F. Blaabjerg, "Communication-Theoretic Model of Power Talk for a Single-Bus DC MicroGrid", MDPI Information, March 2016.

J8. J. J. Nielsen, G. C. Madueño, N. K. Pratas, R. B. Sørensen, **C. Stefanovic**, P. Popovski, "What Can Wireless Cellular Technologies Do about the Upcoming Smart Metering Traffic?", IEEE Communications Magazine, vol. 53, no. 9, pp. 41-47, September 2015.

J9. E. Paolini, **C. Stefanovic**, G. Liva, P. Popovski, "Coded Random Access: Applying Codes on Graphs to Design Random Access Protocols", IEEE Communications Magazine, vol. 53, no. 6, pp. 144-150, June 2015.

J10. P. Popovski, O. Simeone, J. J. Nielsen, **C. Stefanovic**, "Interference Spins: Scheduling of Multiple Interfering Two-Way Wireless Links", IEEE Communications Letters, vol. 19, no. 3, pp. 387-390, March 2015.

J11. Q. Shafiee, **C. Stefanovic**, T. Dragicevic, P. Popovski, J.C. Vasquez, J.M. Guerrero, "Robust Networked Control Scheme for Distributed Secondary Control of Islanded MicroGrids", IEEE Transactions on Industrial Electronics, vol. 61, no. 10, pp. 5363-5374, October 2014.

J12. G. Corrales Madueno, **C. Stefanovic**, P. Popovski, "Reliable Reporting for Massive M2M Communications with Periodic Resource Pooling", IEEE Wireless Communications Letters, vol. 3, no. 4, pp. 429-432, August 2014.

J13. **C. Stefanovic**, P. Popovski, "ALOHA Random Access that Operates as a Rateless Code", IEEE Transactions on Communications, vol. 61, no. 11, pp. 4653-4662, November 2013.

J14. H. Thomsen, N. Pratas, **C. Stefanovic**, P. Popovski, "Analysis of the LTE Access Reservation Protocol for Real-Time Traffic", IEEE Communication Letters, vol. 17, no. 8, pp. 1616-1619, August 2013.

J15. H. Thomsen, N. Pratas, **C. Stefanovic**, P. Popovski, "Code-Expanded Radio Access Protocol for M2M Communications", Transactions on Emerging Telecommunications Technologies, vol. 24, no. 4, pp. 355–365, June 2013.

J16. **C. Stefanovic**, D. Vukobratovic, V. Stankovic, R. Fantacci, "Packet-centric approach for distributed sparse-graph coding in wireless ad-hoc networks", Ad Hoc Networks, vol. 11 no.1, pp. 167-181, January 2013.

J17. **C. Stefanovic**, P. Popovski, D. Vukobratovic: "Frameless ALOHA Protocol for Wireless Networks," IEEE Communication Letters, Vol. 16, No. 12, pp. 2087-2090, December 2012.

J18. **C. Stefanovic**, D. Bajic: "On the Search for a Sequence from a Predefined Set of Sequences in Random and Framed Data Streams", IEEE Transactions on Communications, vol. 60, no. 1, pp. 189-197, January 2012.

J19. **C. Stefanovic**, D. Vukobratovic, F. Chiti, L. Niccolai, V. Crnojevic, R. Fantacci, "Urban Infrastructure-to-Vehicle Traffic Data Dissemination Using UEP Rateless Codes", IEEE Journal on Selected Areas in Communications, Special Issue on Vehicular Communications and Networks, vol.29, no.1, pp. 94-102, January 2011.

J20. D. Vukobratovic, **C. Stefanovic**, V. Crnojevic, F. Chiti, R. Fantacci: "Rateless Packet Approach for Data Gathering in Wireless Sensor Networks", IEEE Journal on Selected Areas in Communications, Special Issue on Simple Wireless Sensor Networks Solutions, vol. 28, no. 7, pp. 1169-1179, September 2010.

## Conferences

C1. C. Pielli, **C. Stefanovic**, P. Popovski, M. Zorzi, "Minimizing data distortion of periodically reporting IoT devices with Energy Harvesting", IEEE SECON 2017, accepted for presentation

C2. P. Danzi, M. Angjelichinoski, **C. Stefanovic**, Petar Popovski, "Anti-Jamming Strategy for Distributed Microgrid Control based on Power Talk Communication", IEEE ICC 2017, Workshop on Integrating Communications, Control, and Computing Technologies for Smart Grid, accepted for presentation

C3. F. Clazzer, E. Paolini, I. Mambelli, **C. Stefanovic**, "Irregular Repetition Slotted ALOHA over the Rayleigh Block Fading Channel with Capture", IEEE ICC 2017, accepted for presentation

C4. M. Angjelichinoski, P. Danzi, **C. Stefanovic**, Petar Popovski, "Secure and Robust Authentication for DC MicroGrids based on Power Talk Communication", IEEE ICC 2017, accepted for presentation

C5. N. Pratas, S. Pattathil, **C. Stefanovic**, Petar Popovski, " Massive Machine-Type Communication (mMTC) Access with Integrated Authentication", IEEE ICC 2017, accepted for presentation

C6. M. Angjelichinoski, **C. Stefanovic**, P. Popovski, A. Scaglione, Frede Blaabjerg, "Topology Identification for Multiple-Bus DC MicroGrids via Primary Control Perturbations", IEEE 2nd International Conference on DC Microgrids, accepted for presentation

C7. M. Angjelichinoski, P. Danzi, **C. Stefanovic**, P. Popovski, F. Blaabjerg, "Towards Self-Sustainable Power Systems: DC MicroGrid Optimization via Power Talk", IEEE 2nd International Conference on DC Microgrids, accepted for presentation

C8. F. Lazaro, **C, Stefanovic**, "Finite-Length Analysis of Frameless ALOHA", IEEE SCC 2017, Hamburg, Germany, February 2017.

C9. M. Angjelichinoski, A. Scaglione, P. Popovski, **C. Stefanovic**, "Distributed Estimation of the Operating State of a Single-Bus DC MicroGrid without an External Communication Interface", IEEE GlobalSIP 2016, Washington DC, USA, December 2016.

C10. P. Danzi, **C. Stefanovic**, L. Meng, J. M. Guerrero, P. Popovski, "On the Impact of Wireless Jamming on the Distributed Secondary Microgrid Control", IEEE Globecom 2016, Workshop on Cyber-Physical Smart Grid Security and Resilience, Washington DC, USA, December 2016

C11. M. Angjelichinoski, **C. Stefanovic**, P. Popovski, "Power Talk for Multibus DC MicroGrids: Creating and Optimizing Communication Channels", IEEE Globecom 2016, Washington DC, USA, December 2016.

C12. N. K. Pratas, **C. Stefanovic**, G. Corrales Madueno, P. Popovski, "Random Access for Machine-Type Communication based on Bloom Filtering", IEEE Globecom 2016, Washington DC, USA, December 2016

C13. M. Angjelichinoski, **C. Stefanovic**, P. Popovski, "Modemless Multiple Access Communications over Powerlines for DC Microgrid Control", 9th International Workshop on Multiple Access Communications (MACOM), Aalborg, Denmark, November 2016 (best paper award)

C14. **C. Stefanovic**, D. Vukobratovic, J. Goseling, P. Popovski, "Identifying Randomly Activated Users via Sign-Compute-Resolve on Graphs", IEEE ICC 2016, Workshop on Massive Uncoordinated Access Protocols, Kuala Lumpur, Malaysia, May 2016.

C15. H. Liu, Y. Yang, P. C. Loh, F. Blaabjerg, M. Angjelichinoski, **C. Stefanovic**, P. Popovski, "Power Talk: A Novel Power Line Communication in DC Microgrid", IEEE 8th International Power Electronics and Motion Control Conference (IPEMC-ECCE Asia), Hefei, China, May 2016.

C16. M. Angjelichinoski, **C. Stefanovic**, P. Popovski, H. Liu, P. C. Loh, F. Blaabjerg , "Power Talk: How to Modulate Data over a DC Micro Grid Bus using Power Electronics", IEEE Globecom 2015, San Diego, CA, USA, December 2015.

C17. G. Wunder, **C. Stefanovic**, P. Popovski, "Compressive Coded Random Access for Massive MTC Traffic in 5G Systems", 49th Asilomar Conference on Signals, Systems and Computers, Pacific Grove, CA, USA, November 2015.

C18. M. Angjelichinoski, **C. Stefanovic**, P. Popovski, F. Blaabjerg, "Power Talk in DC Micro Grids: Constellation Design and Error Probability Performance", IEEE SmartGridComm 2015, Miami, FL, USA, November 2015.

C19. G. Corrales Madueno, N. Pratas, **C. Stefanovic**, P. Popovski, "Massive M2M Access with Reliability Guarantees in LTE Systems", IEEE ICC 2015, London, UK, June 2015.

C20. J. Goseling, **C. Stefanovic**, P. Popovski, "A Pseudo-Bayesian Approach to Sign-Compute-Resolve Slotted ALOHA", IEEE ICC 2015, Workshop on Massive Uncoordinated Access Protocols, London, UK, June 2015.

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C23. Y. Ji, **C. Stefanovic**, C. Bockelmann, A. Dekorsy, P. Popovski, "Characterization of Coded Random Access with Compressive Sensing based Multi-User Detection", IEEE Globecom 2014, Austin, TX, USA, December 2014.

C24. G. Corrales Madueno, **C. Stefanovic**, P. Popovski, "Reengineering GSM/GPRS Towards a Dedicated Network for Massive Smart Metering", IEEE SmartGridComm 2014, Venice, Italy, November 2014.

C25. J. Goseling, **C. Stefanovic**, P. Popovski, "Sign-Compute-Resolve for Random Access", 52nd Annual Allerton Conference on Communication, Control, and Computing, Monticello, IL, USA, October 2014.

C26. **C. Stefanovic**, P. Popovski, Lj. Jorguseski, R. Sernec, "SUNSEED – an evolutionary path to smart grid comms over converged telco and energy provider networks", IEEE Global Wireless Summit 2014, Aalborg, May 2014.

C27. **C. Stefanovic**, M. Momoda, P. Popovski, "Exploiting Capture Effect in Frameless ALOHA for Massive Wireless Random Access", IEEE WCNC 2013, Istanbul, Turkey, April 2014.

C28. A. Zanella, M. Zorzi, A. F. dos Santos, P. Popovski, N. Pratas, **C. Stefanovic**, A. Dekorsy, C. Bockelmann, B. Busropan, T. A. H. J. Norp, "M2M massive wireless access: challenges, research

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C30. Q. Shafiee, T. Dragicevic, **C. Stefanovic**, P. Popovski, J.C. Vasquez, J.M. Guerrero, "A Novel Robust Communication Algorithm for Distributed Secondary Control of Islanded MicroGrids", IEEE Energy Conversion Congress and Exposition ECCE 2013, Denver, CO, USA, September 2013.

C31. J. H. Sørensen, **C. Stefanovic**, P. Popovski, "Coded Splitting Tree Protocols", IEEE ISIT 2013, Istanbul, Turkey, July 2013.

C32. **C. Stefanovic**, K. F. Trilingsgaard, N. K. Pratas, P. Popovski, "Joint Estimation and Contention-Resolution Protocol for Wireless Random Access", IEEE ICC 2013, Budapest, Hungary, June 2013.

C33. G. Corrales Madueno, **C. Stefanovic**, P. Popovski, "How Many Smart Meters can be Deployed in a GSM cell?", IEEE ICC 2013, Workshop on Telecommunication Standards, Budapest, Hungary, June 2013.

C34. P. Popovski, **C. Stefanovic**, J. H. Sørensen, "Random access protocols based on rateless codes", Information Theory and Applications Workshop ITA 2013, San Diego, CA, USA, February 2013.

C35. N. Pratas, H. Thomsen, **C. Stefanovic**, P. Popovski, "Code-Expanded Random Access for Machine-Type Communications", IEEE GLOBECOM 2012, Anaheim, CA, USA, December 2012.

C36. **C. Stefanovic**, D. Vukobratovic, V. Crnojevic, V. Stankovic: "A Random Linear Coding Scheme with Perimeter Data Gathering for Wireless Sensor Networks", WONS 2011, Bardonecchia, Italy, January 2011.

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C39. D. Bajic, **C. Stefanovic**, "Statistical Analysis of Search for Set of Sequences in Random and Framed Data", SETA 2010, Paris, September 2010.

C40. **C. Stefanovic**, V. Crnojevic, D. Vukobratovic, L. Niccolai, F. Chiti, R. Fantacci, "Contaminated Area Monitoring via Distributed Rateless Coding with Constrained Data Gathering", ACM IWCMC 2010, Caen, France, June 2010.

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C42. **C. Stefanovic**, D. Vukobratovic, V. Stankovic, "On Distributed LDGM and LDPC Code design for Networked Systems", IEEE ITW 2009, Taormina, Italy, October 2009.

C43. **C. Stefanovic**, D. Vukobratovic, D. Bajic, L. Stankovic, V. Stankovic, "Blind Time Period Synchronization for LDPC Convolutionally Coded Transmission", EUSIPCO 2009, Glasgow, UK, August 2009.

C44. **C. Stefanovic**, B. Antic, V. Minic, D. Vukobratovic, V. Crnojevic, "Integrated System for Remote Environment Monitoring", XXXIII CIOSTA-CIGR V Conference 2009, Reggio Calabria, Italy, June 2009.

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**Book chapters:**

B1. M. Angjelichinoski, **C. Stefanovic**, P. Popovski, F. Blaabjerg, "Power Talk: Communicating over DC Microgrid Bus using Power Electronics" in *Microgrid: Advanced Control Methods and Renewable Energy System Integration*, Elsevier, 2016.

B2. G. C. Madueno, N. Pratas, **C. Stefanovic**, P. Popovski, "Cellular 5G access for massive internet of things", in *Emerging Wireless Technologies for 5G Wireless Systems*, Cambridge University Press, to appear

B3. M. Angjelichinoski, M. Cosovic, C. Kalalas, R. Lliuyacc, M. Zeinali, J. Alonso-Zarate, J. M. Mauricio, P. Popovski, **C. Stefanovic**, J. S. Thompson and D. Vukobratovic, "Overview of research in the ADVANTAGE project", in *Smarter Energy: from Smart Metering to the Smart Grid*, IET 2016

**Patent applications:**

P1. P. Popovski, G.C. Madueno, **C. Stefanovic**, N. Pratas, "2G cellular networks reengineering for massive number of devices with low-rate", 2012.

P2. D. Vukobratovic, **C. Stefanovic**, V. Crnojevic, V Senk: "Rateless Packet" Scheme for Distributed Rateless Coding in Networked Systems, Int'l Patent Application No. PCT/RS2009/000018, 2009.