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Faculdade de Engenharia da Universidade do Porto (FEUP)
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Education

Ph.D. Electrical Engineering, Pontifícia Universidade Católica do Rio de Janeiro (PUC-Rio), 2007
Full Scholarship: CNPq.
GPA: 9.7/10

M.Sc. Electrical Engineering, PUC-Rio, 2003
Full Scholarship: CAPES.
GPA: 9.4/10

Diploma in Electrical Engineering, PUC-Rio, 1999
GPA: 8.2/10

Research Experience

Ph.D. Researcher	2008–
Instituto de Telecomunicações	IT-Porto
Topics: Information Theoretic Security, Wireless Communications, Communications Theory	

Ph.D. Student	2003–2007
Advisor: Prof. Raimundo Sampaio Neto	PUC-Rio
Topics: Structures and adaptive algorithms for blind detection of DS-CDMA signals Multiuser Detection, Interference Suppression, Blind Adaptive Algorithms	

M.Sc. Student	2001–2003
Advisor: Prof. J. Roberto B. de Marca	PUC-Rio
Topics: Radio Resources Management Hierarchical Cell Structures	

Research Interests

Communications Theory, Information Theory
Wireless Communications, Signal Processing for Communications

Teaching Experience

Information Theory: Principles and Applications, MAP-Tele Doctoral Program, 2010
Teaching Assistant, Statistical Theory of Communications, PUC-Rio, 2004.1, 2006.1, 2007.1, 2008.1
Teaching Assistant, Probabilistic Models in Engineering, PUC-Rio, 2002.1, 2003.2, 2004.2
Teaching Assistant, Random Processes, PUC-Rio, 2003.1, 2005.1, 2007.2
Teaching Assistant, Principles of Communications, PUC-Rio, 2005.2, 2007.2
Teaching Assistant, Digital Transmission, PUC-Rio, 2006.2

Teaching Assistant, Error Correcting Codes, presented by Prof. Weiler Finamore at Star One, 2006
(prepared MATLAB demos)

Publications

Journal Papers:

1. M. Boban, T. T. V. Vinhoza, M. Ferreira, J. Barros, O. K. Tonguz, "Impact of Vehicles as Obstacles in Vehicular Ad Hoc Networks", IEEE Journal on Selected Areas in Communications, 2010.
2. T. T. V. Vinhoza, R. C. de Lamare, R. Sampaio-Neto "Blind Adaptive and Iterative Interference Cancellation Receiver Structures based on the Constant Modulus Criterion in Multipath Channels", IET Communications, Vol. 2, No. 9, pp.1131–1140, October 2008.

International Conferences:

1. C. A. Medina, T. T. V. Vinhoza, R. Sampaio-Neto "Adaptive Minimum Bit Error Rate Receiver for CDMA-based Block Transmission Systems", IEEE International Symposium on Wireless Communications Systems (ISWCS), *invited paper*, York, United Kingdom, 2010.
2. J. Rodrigues, F. Vieira, T. T. V. Vinhoza, J. Barros, J. P. Cunha "A Non-Intrusive Multi-Sensor System for Characterizing Driver Behavior", IEEE Intelligent Transportation Systems Conference, Funchal, Portugal, 2010.
3. P. F. Oliveira, L. Lima, T. T. V. Vinhoza, M. Medard, J. Barros "Trusted Storage over Untrusted Networks", IEEE Global Communications Conference (GLOBECOM), Miami FL, USA, 2010.
4. M. Nistor, R. A. Costa, T. T. V. Vinhoza, J. Barros "Non-Asymptotic Delay Analysis of Network Coding", IEEE International Symposium on Network Coding (NetCod) , Toronto, ON, Canada, 2010.
5. M. Nistor, J. Barros, F. Vieira, T. T. V. Vinhoza, J. Widmer, "Network Coding Delay: A Brute-Force Analysis", Information Theory and Applications Workshop (ITA 2010), *invited paper*, San Diego, CA, USA, 2010.
6. C. A. Medina, R. Sampaio-Neto, T. T. V. Vinhoza, "A Blind Channel Estimation Algorithm for Space-Time Coded MC-CDMA Receivers", IEEE International Conference on Communications, Dresden, Germany 2009.
7. C. A. Medina, T. T. V. Vinhoza, R. Sampaio-Neto, "Reduced Complexity Blind Channel Estimation for MC CDMA Systems", SPAWC 2008, Recife, PE, Brazil, 2008.
8. F. D. Backx, T. T. V. Vinhoza, R. Sampaio-Neto, "Blind Channel Estimation for Zero-Padded OFDM Systems Based on Correlation Matching", 66th IEEE Vehicular Technology Conference (VTC-Fall 2007), Baltimore, MD, USA 2007.
9. F. D. Backx, T. T. V. Vinhoza, R. Sampaio-Neto, "Power Techniques for Blind Channel Estimation in Zero-Padded OFDM Systems", 18th IEEE International Symposium on Personal, Indoor and Mobile Radio Communications, Athens, Greece 2007.
10. C. A. Medina, T. T. V. Vinhoza, R. Sampaio-Neto "Performance Comparison of Minimum Variance Single Carrier and Multicarrier CDMA Receivers", SPAWC 2007, Helsinki, Finland, 2007.
11. T. T. V. Vinhoza, R. C. de Lamare, R. Sampaio-Neto, "New Constrained Blind Adaptive Receivers for DS-CDMA Systems Based on Group Constraints", International Telecommunications Symposium, (ITS), Fortaleza, CE,, Brazil, 2006
12. M. F. Marçal, T. T. V. Vinhoza, F. D. Backx, R. Sampaio-Neto, "A Grouping Strategy for Parallel Group Detection in Synchronous Gaussian CDMA Channels", International Telecommunications (ITS), Fortaleza, CE, Brazil, 2006.

13. R. C. de Lamare, T. T. V. Vinhoza, R. Sampaio-Neto, "Blind Adaptive and Iterative Interference Cancellation Receiver Structures based on the Constant Modulus Criterion in Multipath Channels", International Telecommunications (ITS), Fortaleza, CE, Brazil, 2006.
14. T. T. V. Vinhoza, R. C. de Lamare, R. Sampaio-Neto, "Blind Adaptive Linear Parallel Interference Canceller for DS-CDMA in Frequency Selective Fading Channels", International Symposium on Spread Spectrum Techniques and Applications (ISSSTA), Manaus, AM, Brazil, 2006.
15. T. T. V. Vinhoza, R. C. de Lamare, R. Sampaio-Neto, "Low Complexity Blind Constrained Data-Reusing Algorithms based on Minimum Variance and Constant Modulus Criteria", IEEE International Conference on Acoustics, Speech and Signal Processing (ICASSP 2006), Toulouse, France, 2006.
16. T. T. V. Vinhoza, R. C. de Lamare, R. Sampaio-Neto, "Enhanced Blind Minimum Variance CDMA Receivers with Joint Channel Estimation for Frequency Selective Channels", IEEE Vehicular Technology Conference (VTC-Fall 2004), Los Angeles, CA USA, 2004.
17. J. R. B. de Marca and T. T. V. Vinhoza, "Comparative Performance of Hierarchical Cell Architectures", IEEE Radio and Wireless Conference (RAWCON 2004), Atlanta, GA USA, 2004.

Domestic Conferences (in Portuguese unless stated):

1. C. A. Medina, R. Sampaio-Neto, T. T. V. Vinhoza, "Space-Time Coding for Single Carrier Block CDMA Systems", XXVI Simpósio Brasileiro de Telecomunicações (SBrT 2008) in English, Rio de Janeiro, RJ, Brazil, 2008.
2. C. A. Medina, T. T. V. Vinhoza, R. Sampaio-Neto, "Performance Comparison of Space-Time Block Coding for Single and Multicarrier CDMA Systems", XXV Simpósio Brasileiro de Telecomunicações (SBrT 2007), in English, Recife, PE, Brazil, 2007.
3. D. F. Cardoso, T. T. V. Vinhoza, R. Sampaio-Neto, "Análise de Estimadores de Canal Assistidos para Sistemas CDMA com Múltiplas Portadoras", XXV Simpósio Brasileiro de Telecomunicações (SBrT 2007), Recife, PE, Brazil, 2007.
4. B. R. da Costa, T. T. V. Vinhoza, R. C. de Lamare, R. Sampaio-Neto, "Equalização Adaptativa no Domínio da Frequência para Sistemas com Transmissão em Blocos", XXV Simpósio Brasileiro de Telecomunicações (SBrT 2007), Recife, PE, Brazil, 2007.
5. R. C. de Lamare, T. T. V. Vinhoza, R. Sampaio-Neto "Receptores Espaço-Temporais Lineares Adaptativos de Posto Reduzido para DS-CDMA utilizando filtros FIR Interpolados", XXII Simpósio Brasileiro de Telecomunicações (SBrT 2005), Campinas, SP, Brazil, 2005.
6. T. T. V. Vinhoza, R. C. de Lamare, R. Sampaio-Neto "Receptores Cegos Melhorados de Mínima Variância com Estimção Conjunta de Canal para Canais Seletivos em Frequência", XXI Simpósio Brasileiro de Telecomunicações (SBrT 2004), Belém, PA, Brazil, 2004.
7. T. T. V. Vinhoza and J. R. B. de Marca, "Análise Comparativa do Desempenho de Sistemas Celulares Hierarquizados", XXI Simpósio Brasileiro de Telecomunicações (SBrT 2004), Belém, PA, Brazil, 2004.

Submitted Manuscripts:

1. M. Nistor, D. E. Lucani, T. T. V. Vinhoza, R. A. Costa, J. Barros "On the Delay Distribution of Random Linear Network Coding", IEEE Journal on Selected Areas in Communications.

Manuscripts under preparation:

1. R. A. Costa, M. Boban, T. T. V. Vinhoza, J. Barros “Distributed Information Dissemination in VANETs”, VANET Workshop at MobiCom2010, Chicago IL, USA, 2010.

Invited Talks

1. “Impact of Vehicles as Obstacles in Vehicular Ad Hoc Networks”, Ciência 2010 Meeting , Lisboa, Portugal, 2010.
2. “Vehicular Communications: How important is to see who are you talking to?”, MAP-Tele Student Workshop (MAPSHOP 2010), Porto, Portugal, 2010.

Paper Reviews

IEEE Trans. on Vehicular Technology, IEEE Trans. on Wireless Communications
IET Communications, IET Signal Processing, Electronics Letters
IEEE JSAC Special Issue on Vehicular Communications
VTC-Spring (2008,2009,2010), VTC-Fall (2007,2008), ChinaCom 2008, WiOpt (2009,2010)
NetCod 2010, WCNC 2009, SPAWC 2008, ISWCS 2007, ISSSTA 2006, PIMRC 2006,
Brazilian Telecommunications Symposium (2004,2005,2007,2008,2009)

Skills

Languages: Portuguese (native), English (Cambridge CAE - grade A).
Software: MATLAB, Latex, Microsoft Office.
Operating Systems: Windows, Linux

Honors and Awards

Academic Excellence Certificate, 1999
Post-Doctoral Scholarship from the Portuguese Foundation for Science and Technology, 2009
“Ciência 2008” contract from the Portuguese Foundation for Science and Technology, 2009

References

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Prof. Weiler Alves Finamore, CETUC, PUC-Rio
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Prof. Rodrigo Caiado de Lamare, Communications Group, University of York
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