

Michele Nogueira Lima

Associate Professor

Federal University of Paraná (UFPR) • Department of Informatics

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EXPERIENCE

Federal University of Paraná, Curitiba, Brazil

- Associate Professor at the Department of Informatics Aug 2010 – Current
- Visiting Professor at the Department of Informatics Jan 2010 – Jul 2010

Carnegie Mellon University, Pittsburgh, USA

- Visiting Professor at the Electrical & Computer Engineering Department Mar 2016 – Mar 2017

Telecom ParisTech, Paris, France

- Researcher Oct 2009 – Dec 2009

Georgia Institute of Technology (GeorgiaTech), Atlanta, USA

- Visiting Student at Broadband Wireless Networks Lab Jan 2009 – Mar 2009

EDUCATION

Sorbonne Universités - UPMC/LIP6, Paris, France

- Doctor of Science (D.Sc.) in Computer Science Sep 2006 – Oct 2009
 - Thesis: An architecture for the survivability of self-organizing wireless networks
 - Adviser: Professor Guy Pujolle
 - Research areas: Wireless Networks, Security, Resilience, Performance Analysis.

Getúlio Vargas Foundation (FGV), Rio de Janeiro, Brazil

- Master of Business Administration (M.B.A.) in International Affairs Jul 2013 – Jan 2016

Federal University of Minas Gerais, Belo Horizonte, Minas Gerais, Brazil

- Master of Science (M.Sc.) in Computer Science Jun 2002 – Jul 2004
 - Research areas: Web servers, Security, Resilience, Performance Analysis.

Ceará State University, Fortaleza, Ceará, Brazil

- Bachelor of Science (B.S.) in Computer Science Mar 1998 – Dec 2001
 - Graduated with College Honors.

RESEARCH INTEREST

Broadly interested in network security, resilience, wireless networks, with an emphasis on **security analytics**, cognitive networks, bio-inspired approaches, modeling and performance analysis. Research work has also included cognitive radios, ad hoc networks, Internet of Things (IoT), sensor networks, vehicular networks, synchronization, bufferbloat effects, survivability.

AWARDS HONORS

- **CAPES Fellowship:** Strategic Research Program, Awarded for the Sabbatical Leave at CMU 2016
- **Brazilian CNPq Research Fellowship:** Computer Science Level PQ-2 2015
- **Best Paper Award:** Brazilian Symp. in Comp. Networks and Distributed Syst. (SBRC) 2016
- **Best Paper Award:** IEEE Latin American Net. Operations and Managt. Symp. (LANOMS) 2015
- **Best Student Paper Award:** IEEE Intern. Workshop on Emerging COgnitive Radio Applications and aLgorithms (CORAL). Student: Julio Soto. 2013
- **Best Paper Award:** Brazilian Workshop on Wireless Broadband Networks (WRA) 2013
- **Honorable Mention:** Brazilian Symp. on Computer and Networks Security (SBSeg)
- As advisor of undergraduation work at WTICG - Student: Alexandre Sombra. 2013
- **Best Paper Award:** Inter. Symp. on Wireless Personal Multimedia Comm. (WPMC) 2012
- **Best Master Dissertation Award:** Brazilian Symp. on Information and Systems Security.
- As co-advisor of Elisa Mannes. 2012
- **Honorable Mention:** Brazilian Workshop on Wireless Broadband Networks (WRA) 2011

AWARDS

HONORS

- **Honorable Mention:** Brazilian Symp. on Computer and Networks Security (SBSEg) 2013
- As advisor of undergraduation work at WTICG - Student: Larissa T. Barabasz. 2013
- **ACM Geodiversity Grant:** ACM SIGCOMM 2010 2010
- **Full-tution Scholarship:** Ph.D. studies at UPMC-Sorbonne Universités 2006

PROFESSIONAL AFFILIATIONS & ACTIVITIES

- Association of Computer Machinery (ACM)** 2007 – Present
 - Senior Member since 2016
- Institute of Electrical and Electronics Engineers (IEEE)** 2007 – Present
 - Senior Member since 2016
- American Association for the Advancement of Science (AAAS)** 2016 – Present
- Brazilian Computer Society (SBC)** 2007 – Present
- Internet Technical Committee (ITC), Communications Society (ComSoc)**
 - Secretary 2015 – Present

- Associate Editor for Magazines and Journals**
 - IEEE Communications Magazine 2012 – Present
 - Journal of Network and Systems Management 2014 – Present
 - Computer Communications 2016 – Present

Technical Program Committee

- **Member** for the main conferences:
IEEE INFOCOM (2017-2018), IEEE GLOBECOM (2012-2016), IEEE LCN (2013-2016), IEEE/IFIP NOMS (2010, 2012, 2014, 2016), DSN 2015, IEEE WCNC (2012-2016), IEEE ICC 2011, IFIP/IEEE IM (2011-2017), GIIS (2011-2015), LANOMS (2011-2015), IEEE CNSM (2010-2016), IFIP Wireless Days (2010-2016), UbiCoNet (Co-located with IEEE GLOBECOM 2010), IEEE WiMob (2008-2009), SECURITY 2008.
- Brazilian Conferences and Symposia:** Brazilian Symposium on Computer Networks and Distributed Systems (SBRC) (2011-2017), Brazilian Symposium on Information and Computer System Security (SBSEg) (2009-2017), Workshop on Network Operation and Services Management (SBRC WGRS) (2010-2016), Workshop on Broadband Access Networks (SBRC WRA) (2011-2014), Workshop on Fault Tolerance (SBRC WTF) (2012).

- **TPC Co-Chair** for the following conferences: SBRC 2017, ACM MobiArch 2016, NoF 2015, CNSM 2014, GIIS 2014, Wireless Days 2014, SBSEg 2012.

Reviewer

IEEE Transactions on Network and Service Management (IEEE TNSM), IEEE Communications Surveys and Tutorials, Computer Communications Journal, Information Fusion Journal, Journal of Network and System Management, Journal of the Brazilian Computer Society.

TEACHING

Courses at Federal University of Paraná

- Performance Analysis of Computer Systems 2010 – 2014
- Computer Networks and Distributed Systems - Basics 2014 – 2015
- Computer Networks 2011 – 2017
- Programming in C/C++ 2010 – 2011
- Microprocessor Design 2011 – 2014
- Basics on Computer Architecture 2015 – 2015

PUBLICATIONS

BOOK

Mobile Healthcare: Concepts, Initiatives and Applications. Michele N. Lima. Book, ISBN: 978-85-910689-0-6, published online, 2010 (In Portuguese).

BOOK CHAPTERS

Exploring the Potential of Big Data for Malware Detection and Mitigation Techniques in the Android Environment. Rasheed Hussain, Donghyun Kim, Michele Nogueira, Junggab Son, Heekuck Oh. Big Data. Auerbach Publications, 2016.

Toward Reliable and Secure Data Access for Big Data Service. Fouad Guenane, Donghyun Kim, Michele Nogueira, Ahmed Serhrouchni. Big Data. Auerbach Publications, 2016.

Time Synchronization on Cognitive Radio Ad Hoc Networks: a Bio-Inspired Approach. Michele Nogueira, Aravind Kailas, Nadine Lipa, Bhargavi Chandrakumar. Internet of Things and M2M Communications. River Publishers, 2013.

Hot Spots on Wireless Sensor Networks: Issues, Mitigation Approaches, Architecture and Future Directions. Fernando Gielow, Robson Melo, Aldri Santos, Michele Nogueira. Accepted to be published in the book *Wireless Sensor Networks and Energy Efficiency: Protocols, Routing and Management*, IGI Global, 2011.

Identity-Based Cryptography: Applications, Vulnerabilities and Future Directions. Jenny Torres, Michele Nogueira, Guy Pujolle. Information Assurance and Security Technologies for Risk Assessment and Threat Management: Advances, IGI Global, 2011.

Dependability and Security on Wireless Self-organized Networks: Properties, Requirements, Approaches and Future Directions. Michele Nogueira, Aldri Santos, Guy Pujolle. Performance and Dependability in Service Computing: Concepts, Techniques and Research Directions, IGI Global, 2010.

Analyzing the effectiveness of self-organized public key management on MANETs under lack of cooperation and impersonation attacks. Eduardo da Silva, Michele Nogueira, Aldri L. dos Santos, Luiz C. P. Albini. E-Business and Telecommunication Networks, 2009.

A Stochastic Adaptive Model to Explore Mobile Botnet Dynamics. Augusto A. Santos, Michele Nogueira, José M.F. Moura. *IEEE Communications Letters*, 2017.

SPARTA: A Survival Performance Degradation Framework for Identity Federations. Ricardo Macedo, Leonardo Melniski, Aldri Santos, Yacine Ghamri-Doudane, Michele Nogueira. *Computer Networks*, 2017.

Cognitive Radio Based Connectivity Management for Resilient End-to-End Communications in VANETs. Claudio Silva, Eduardo Cerqueira, Donghyun Kim, Aldri Santos, Michele Nogueira. *Computer Communications*, 2016.

A Framework for Resilient and Secure Spectrum Sensing on Cognitive Radio Networks. Julio Soto, Michele Nogueira. *Computer Networks*, 2015.

Firefly-Inspired and Robust Time Synchronization for Cognitive Radio Ad Hoc Networks. Nadine Lipa, Elisa Mannes, Aldri Santos, Michele Nogueira. *Computer Communications*, 2015

A Taxonomy for Resilience in Vehicular Ad hoc Networks. Wellington Albano, Michele Nogueira, José Souza. *IEEE Latin America Transactions*, 2015.

Programmable Networks – From Software Defined Radio to Software Defined Networking. Daniel Macedo, Marcos Vieira, Felipe Vieira, Dorgival Guedes, Michele Nogueira. *IEEE Comm. Survey and Tutorials*, 2015.

Aspirations, Challenges, and Open Issues for Software-based 5G Networks in Extremely Dense and Heterogeneous Scenarios. Vinicius Borges, Kleber Cardoso, Eduardo Cerqueira, Aldri Santos, Michele Nogueira. *EURASIP Journal on Wireless Comm. and Networking*, 2015.

A Bio-Inspired Technique for Energy-Aware FPGAs on Body Area Networks. Marco Bontorin, Michele Nogueira, Aldri Santos. *IEEE Latin America Transactions*, 2015.

Content Dissemination in Vehicular Social Networks: Taxonomy and User Satisfaction. Farouk Mezghani, Riadh Dhaou, Michele Nogueira, André-Luc Beylot. *IEEE Comm. Magazine*, 2014.

Disaster Resilience in Communication Networks (Guest Editorial). Michele Nogueira, Piotr Cholda, Deep Medhi, Robert Doverspike. *IEEE Comm. Magazine (Print)*, 2014.

Data Similarity Aware Dynamic Nodes Clustering on Wireless Sensor Networks. Fernando Gielow, Gentian Jakllari, Michele Nogueira, Aldri Santos. *Ad Hoc Networks*, 2014.

Interoperability Issues on Heterogeneous Wireless Communication for Smart Cities. Edson Avelar, Lorena Marques, Diego dos Passos, Ricardo Macedo, Kelvin Dias, Michele Nogueira. *Computer Communications*, 2014.

Routing Management for Efficient Performance and Security Tradeoff in Wireless Mesh Networks. Helber Silva, Aldri Santos, Michele Nogueira. *International Journal of Information Security*, 2014.

Mitigating Flooding Attacks on Mobility in Infrastructured-based Vehicular Networks. Flavio Arieta, Larissa T. Barabasz, Aldri Santos, Michele Nogueira. *IEEE Latin America Transactions*, 2014.

Taxonomy, Flexibility and Open Issues on PUE Attack Defenses in Cognitive Radio Networks. Julio Soto, Saulo Queiroz, Michele Nogueira. *IEEE Wireless Comm. Magazine*, 2013.

A Security Management Architecture for Supporting Routing Services on WANETs. Michele N. Lima, Helber W. Silva, Aldri L. Santos, Guy Pujolle. *IEEE Transactions on Network and Service Management (TNSM)*, 2012.

Survivable Public-Key Management for Self-Organized Wireless Ad Hoc Networks. Eduardo da Silva, Michele N. Lima, Aldri L. dos Santos, Luiz C. P. Albini. 2012

A Survey on Identity Management for the Future Network. Jenny Torres, Michele Nogueira, Guy Pujolle. *IEEE Communications Surveys and Tutorials*, 2012.

Surviving Key Management on WANETs. Eduardo da Silva, Michele N. Lima, Aldri L. dos Santos, Luiz C. P. Albini. *IEEE Wireless Comm. Magazine*, 2011.

A Survey of Survivability in Mobile Ad Hoc Networks. Michele N. Lima, Aldri L. Santos, Guy Pujolle. *IEEE Comm. Surveys and Tutorials*, March 2009.

Identity-Based Key Management in Mobile Ad Hoc Networks: Techniques and Applications. Eduardo da Silva, Michele N. Lima, Aldri L. dos Santos, Luiz C. P. Albini. Special issue on “Dependability Issues with Ubiquitous Wireless Access” - *IEEE Wireless Comm. Magazine*, 2008.

PUBLICATIONS

CONFERENCE PAPERS (1)

Avoiding Collisions by Time Slot Reduction Supporting Voice and Video in 802.11 Networks. Rafael Silva, Nadjib Achir, Khaled Boussetta, Aldri Santos, Michele Nogueira. In: IEEE GLOBECOM, Washington D.C., 2016.

Self-Organized SDN Controller Cluster Conformations Against DDoS Attacks Effects. Ricardo Macedo, Yacine Ghamri-Doudane, Aldri Santos, Michele Nogueira. In: IEEE GLOBECOM, Washington D.C., 2016.

AoT: Authentication and Access Control for the Entire IoT Device Life-Cycle. Antonio Maia, Artur Luis, Italo Cunha, Michele Nogueira, Ivan Nunes, Nicolas Gentile, Leonardo Cotta, Diego Aranha, Leonardo Barbosa. In: ACM Conference on Embedded Networked Sensor Systems (SenSys), Stanford, 2016.

A Scheme for DDoS Attacks Mitigation in IdM Systems Through Reorganizations. Ricardo Macedo, Aldri Santos, Yacine Ghamri-Doudane, Michele Nogueira. In: IEEE/IFIP Network Operations and Management Symposium (NOMS), Istanbul, Turkey, 2016.

Offloading Cellular Networks Through V2V Communications - How to Select the Seed-Vehicles? Farouk Mezghani, Riadh Dhaou, Michele Nogueira, André-Luc Beylot. In: ICC 2016.

Virtual and Unified Address Assignment for Continuous Communication in Mobile Networks. Robson Melo, Farouk Mezghani, Michele Nogueira, Aldri Santos. In: 2016 Wireless Days (WD), 2016.

Evaluation of Sybil attack detection approaches in the Internet of Things content dissemination. Danilo Evangelista, Farouk Mezghani, Michele Nogueira, Aldri Santos. In: 2016 Wireless Days (WD), 2016.

Reduzindo os Efeitos do Bufferbloat sobre Multi-Caminhos em Redes Sem Fio Heterogêneas. Benevid Silva, Michele Nogueira, Aldri Santos. In: Simpósio Brasileiro de Redes de Computadores e Sistemas Distribuídos, 2016. **(Best Paper Award)**

Reduzindo a Probabilidade de Colisões através do Encurtamento dos Slots em Redes 802.11. Rafael Silva, Michele Nogueira, Aldri Santos. In: Simpósio Brasileiro de Redes de Computadores e Sistemas Distribuídos, 2016.

Um Controle de Autenticação de Handover Vertical para Prevenir Ataque de Repetição em Redes Heterogêneas Sem Fio. Adi Marcondes, Michele Nogueira, Aldri Santos. In: Simpósio Brasileiro de Redes de Computadores e Sistemas Distribuídos, 2016.

Um Controle de Associações Resistente à Ataques Sybil para a Disseminação Segura de Conteúdo da IoT. Danilo Evangelista, Michele Nogueira, Aldri Santos. In: Simpósio Brasileiro de Segurança da Informação e de Sistemas Computacionais, 2016.

AdC: um Mecanismo de Controle de Acesso para o Ciclo de Vida das Coisas Inteligentes. Antonio Maia, Artur Luis, Michele Nogueira, Ivan Nunes, Leonardo Cotta, Diego Aranha, Leonardo Barbosa. In: Simpósio Brasileiro de Segurança da Informação e de Sistemas Computacionais, 2016.

A New Privacy-aware Mutual Authentication Mechanism for Charging-on-the-Move in Online Electric Vehicles. Rasheed Hussain, Donghyun Kim, Michele Nogueira, Junggab Son, Alade Tokuta, Heekuck Oh. In: 11th Intern. Conference on Mobile Ad-Hoc and Sensor Networks (MNS'15), Shenzhen, China, 2015.

Guard Mounting: Reorganizations to Mitigate DDoS Attacks over Identity Providers Clustering. Ricardo T. Macedo, Aldri Santos, Yacine Doudane, Michele Nogueira. In: ACM S3 - in Conjunction with ACM MobiCom 2015, Paris, France, 2015.

Mitigating DoS attacks in Identity Management Systems Through Reorganizations. Ricardo T. Macedo, Aldri Santos, Yacine Doudane, Michele Nogueira. In: Latin American Network Operations and Management Symposium (LANOMS), 2015, João Pessoa, Brazil. The 8th Latin American Network Operations and Management Symposium, 2015. **(Best Paper Award)**

DDOS Mitigation Cloud-Based Service Fouad Guenane, Michele Nogueira, Ahmed Serhrouchni. In: The 7th IEEE International Symp. on UbiSafe Computing - IEEE TrustCom. Helsinki, Finland, 2015.

Um Sistema de Decisão de Acesso para Conectividade Contínua em Redes Heterogêneas sem Fio (In Portuguese). Robson Melo, Renan Polisciuc, Michele Nogueira, Aldri Santos. In: Simpósio Brasileiro de Redes de Computadores e Sistemas Distribuídos, Brazil, 2015.

Redes Sem fio Definidas por Software sobre Mini-PC: Uma Avaliação de Desempenho (In Portuguese). Benevid Silva, Aldri Santos, Michele Nogueira. In: Workshop de Gerência de Redes e Operações de Serviços, Simpósio Brasileiro de Redes de Computadores (SBRC), Brazil, 2015.

Detection of Sinkhole Attacks for Supporting Secure Routing on 6LoWPAN for Internet of Things. Christian Vega, Diogo Poplade, Michele Nogueira, Aldri Santos. . Proceedings of the IFIP/IEEE International Symposium on Integrated Management (IM), 2015.

Mecanismo Distribuído para Seleção de Canais em Redes Veiculares Cognitivas. Claudio Silva, Eduardo Cerqueira, Michele Nogueira. In: Workshop de Redes de Acesso em Banda Larga, 2014, Florianópolis. Simpósio Brasileiro de Redes de Computadores (SBRC), 2014.

Caracterização de Tráfego Indesejado em Redes TCP/IP Usando um Honeypot de Baixa Interatividade. Alisson Puska, Aldri Santos, Michele Nogueira. In: Workshop de Redes de Acesso em Banda Larga, 2014, Florianópolis. Simpósio Brasileiro de Redes de Computadores (SBRC), 2014.

Um Modelo de Falhas em Cascata para Sistemas Globais de Gerenciamento de Identidades. Ricardo Macedo, André Guedes, Aldri Santos, Yacine Doudane, Michele Nogueira. In: Workshop de Gerência de Redes e Serviços (WGRS) - SBRC, Brazil, 2014.

Reducing DDoS Attacks impact using a Hybrid Cloud-Based Firewalling Architecture. Fouad Gueane, Michele Nogueira, Guy Pujolle. In: Global Information Infrastructure and Networking Symposium (GIIS), Montreal, 2014.

Experimental Performance Comparison of Single-path and Multipath Routing in VANETs. Ricardo Macedo, Robson Melo, Aldri Santos, Michele Nogueira In: Global Information Infrastructure and Networking Symposium (GIIS), Montreal, 2014.

Contact Lifespan and Interest-Based Content Dissemination in Vehicular Networks. Farouk Mezghani, Riadh Dhaou, Michele Nogueira, André-Luc Beylot. In: Wireless Days, Brazil, 2014.

Interest-based forwarding for satisfying user preferences in vehicular networks (invited paper). Farouk Mezghani, Riadh Dhaou, Michele Nogueira, André-Luc Beylot. In: International Conference on Ad Hoc Networks (ADHOCNETS), Rhodes, 2014.

Utility-Based Forwarder Selection for Content Dissemination in Vehicular Networks. Farouk Mezghani, Riadh Dhaou, Michele Nogueira, André-Luc Beylot. In: IEEE Intern. Conf. on Personal, Indoor and Mobile Radio Communications (PIMRC 2014), Washington D.C., 2014.

Data Similarity Aware Dynamic Nodes Clustering For Supporting Management Operations. Fernando Gielow, Michele Nogueira and Aldri Santos. In: IEEE/IFIP Network Operations and Management Symposium (NOMS). Poland, 2014.

A Hybrid Architecture to Manage Performance and Reliability on Cloud-Based Firewalling (Short Paper). Fouad Guename, Michele Nogueira, Guy Pujolle. In: IEEE/IFIP Network Operations and Management Symposium (NOMS). Poland, 2014.

Mecanismo Distribuído para Seleção de Canais em Redes Veiculares Cognitivas (In Portuguese). Claudio Silva, Eduardo Cerqueira and Michele Nogueira. In: Workshop Broadband Wireless Networks (WRA), Simp. Brasileiro de Redes de Comp. (SBRC). Brazil, 2014.

Caracterização de Tráfego Indesejado em Redes TCP/IP Usando um Honeypot de Baixa Interatividade (In Portuguese). Alisson Puska, Michele Nogueira, Aldri Santos. In: Workshop Broadband Wireless Networks (WRA), Simp. Brasileiro de Redes de Comp. (SBRC). Brazil, 2014.

Um Modelo de Falhas em Cascata para Sistemas Globais de Gerenciamento de Identidades (In Portuguese). Ricardo Macedo, Yacine Ghamiri-Doudane, Aldri Santos, Michele Nogueira. In: Workshop de Gerência de Redes e Operações de Serviços (WGRS), Simp. Brasileiro de Redes de Comp. (SBRC). Brazil, 2014.

Resilient and Multi-dimensional Cooperative Spectrum Sensing on Cognitive Radio Networks. Julio Soto, Kaushik Chowdhury, Michele Nogueira. In: IEEE International Symposium on Personal, Indoor and Mobile Radio Communications (IEEE PIMRC). London, 2013.

Secure and Reliable Identity Management for VANETs. Jenny Torres, Michele Nogueira, Guy Pujolle. In: IEEE International Conference on Computer Communications (IEEE INFOCOM), Student Session, Jenny's work. Italy, 2013.

Secure and Revocable Node Authentication in Vehicular Ad-Hoc Networks. Jenny Torres, Michele Nogueira, Guy Pujolle. In: IEEE Symp. on Computers and Communications (ISCC), Croatia, 2013.

A Flexible Multi-Criteria Scheme to Detect Primary User Emulation Attacks in CRAHNS. Julio Soto, Saulo Queiroz, Maria Gregori, Michele Nogueira. IEEE Workshop on Emerging COgnitive Radio Applications and ALgorithms (CORAL), Spain, 2013 (**Best Student Paper Award**).

Uma Avaliação Experimental de Desempenho do Roteamento Multicaminhos em Redes Veiculares (in Portuguese) Ricardo Macedo, Robson Melo, Leonardo Melniski, Michele Nogueira, Aldri Santos. Workshop on Network and Services Management and Operation (WGRS), Brazilian Symposium in Network and Distributed Systems , Brasilia, DF, Brazil, May 2013.

Investigando o Impacto de Ataques na Sincronização de Tempo em Redes Ad Hoc de Rádio Cognitivo (in Portuguese) Nadine Lipa, Michele Nogueira, Aldri Santos. Workshop on Broadband Access Networks (WRA), Brazilian Symposium in Network and Distributed Systems , Brasília, DF, Brazil, May 2013 (**Best Paper Award**).

A Simple, Bio-inspired Time Synchronization Protocol for Cognitive Radio Ad Hoc Networks. Nadine Pari, Aravind Kailas, Michele Nogueira. *The 15th International Symposium on Wireless Personal Multimedia Communications (WPMC)*, 2012 (**Best Paper Award**)

Uma Análise Experimental de Ataques Jamming no Acesso ao Meio em Redes de Sensores Sem Fio. *Brazilian Symposium on Pervasive Computing*, Curitiba, 2012.

Serviços Confiáveis em MANETs Baseado em Sistema de Quórum Tolerante a Má-conduta Elisa Mannes, Michele Nogueira, Aldri Santos. *Brazilian Symposium in Network and Distributed Systems* , Ouro Preto, MG, Brazil, April-May 2012.

Bio-Inspired Time Synchronization for Cognitive Radio Ad Hoc Networks Nadine Pari, Aravind Kailas, Michele Nogueira. *Workshop: Ad Hoc Networking with MIMO and Cognitive Radio - IEEE GLOBECOM*, Anaheim, CA, EUA, December 2012.

An Autonomic Knowledge Monitoring Scheme for Trust Management on Mobile Ad Hoc Networks Zeinab Movahedi, Michele Nogueira, Guy Pujolle. *IEEE Wireless Communications and Networking Conference (WCNC), Mobile and Wireless Networks - Track 3: Mobile and Wireless Networks* , Paris, France, April 2012.

A Bio-inspired Scheme on Quorum Systems for Reliable Services Data Management in MANETs Elisa Mannes, Michele Nogueira, Aldri Santos. *IEEE/IFIP NOMS* , Maui, Hawaii, April 2012.

Biologically Inspired Architecture for Security Management on Wireless Self-Organized Networks. Jenny Torres, Michele Nogueira, Aldri Santos, Guy Pujolle. *LANOMS 2011*, Quito, Ecuador, October 2011.

Resilient Approach for Energy Management on Hot Spots in WSNs. Fernando Gielow, Aldri Santos, Michele Nogueira. *IFIP/IEEE IM 2011*, Mini-conference, Dublin, Irland, May 2011.

Um Arcabouço para Adaptação Segura e Eficiente do Serviço de Roteamento em Redes Mesh. Helber Silva, Ramir Holanda, Aldri Santos, Michele Nogueira. *I Workshop on Broadband Access Networks (SBRC 2011 - WRA)*, Brazilian Simposium in Network and Distributed Systems, Campo Grande, Mato Grosso do Sul, Brazil, 2011 (**Received the Scientific Merit Award by the Brazilian Computer Society**).

Um Modelo Analítico para Avaliação de Desempenho em Redes de Rádio Cognitivo Sob Ataque EUP . Julio Soto, Robson Melo, Aldri Santos, Michele Nogueira. *I Workshop on Broadband Access Networks (SBRC 2 011 - WRA)*, Brazilian Simposium in Network and Distributed Systems, Campo Grande, Mato Grosso do Sul, Brazil, 2011.

Um Esquema Bio-inspirado para Tolerância à Má-conduta em Sistemas de Quórum para MANETs. Elisa Mannes, Aldri Santos, Michele Nogueira. *Brazilian Simposium on Security*, Brasilia, DF, Brazil, 2011.

Uma Avaliação de Segurança no Gerenciamento de Mobilidade nas Redes em Malha sem Fio . Larissa Barabasz, Michele Nogueira. *Brazilian Simposium on Security*, Brasilia, DF, Brazil, 2011.

A Cross-layer and Adaptive Scheme for Balancing Performance and Security on WMN Data Routing. Helber Silva, Raimir Holanda, Aldri Santos, Michele Nogueira. *IEEE Globecom 2010 - Ad-hoc and Sensor Networking Symposium - IEEE Globecom 2010 - Ad-hoc and Sensor Networking Symposium*, Miami, USA, December 2010.

A Framework for Self-Configuration on WMNs Aware of Performance and Security Issues. Helber Silva, Raimir Holanda, Aldri Santos, Michele Nogueira. *International Conference on Network and Service Management*, Mini-conference, Canada, October, 2010.

Trust Management for Survivable Communication on Self-Organized Wireless Networks. Michele Nogueira, Pedro Velloso, Eduardo Silva, Guy Pujolle. *International Telecommunications Symposium (ITS)*, Brazil, 2010.

PUBLICATIONS

CONFERENCE PAPERS (4)

Implications of Misbehaving Attacks on Probabilistic Quorum System for MANETs. Elisa Mannes, Eduardo Silva, Michele N. Lima, Aldri dos Santos. *International Conference on Security and Cryptography (SECRYPT)*, Athens, Greece, 2010.

The Impact of RoQ Attacks on IEEE 802.11 Networks with Transmission Power Control. Urlan Barros, Tiago C. Freire, Michele N. Lima, Luiz H. Correia, Aldri dos Santos. *IX Brazilian Symposium on Information and Computer System Security (SBSeg) 2009*, Campinas, Brazil, September, 2009.

Survivable Keying for Wireless Ad Hoc Networks. Michele N. Lima, Eduardo Silva, Luiz C. P. Albin, Aldri L. dos Santos, Guy Pujolle. *In 11th IFIP/IEEE International Symposium on Integrated Network Management (IM 2009) - Mini-Conference*, New York, USA, June, 2009.

An Architecture for Survivable Mesh Networking. Michele N. Lima, Helber W. da Silva, Aldri L. dos Santos, Guy Pujolle. *In IEEE Globecom 2008 Ad Hoc, Sensor and Mesh Networking Symposium (GC'08 AHSN)*, New Orleans, USA, December 2008.

Quantifying Misbehaviour Attacks Against the Self-Organized Public Key Management on MANETs. Eduardo da Silva, Michele N. Lima, Aldri L. dos Santos, Luiz C. P. Albin. *International Conference on Security and Cryptography (SECRYPT) 2008*, Porto, Portugal, pp. 128-135, July 2008. (Selected as best paper for publication of extension version)

Requirements for survivable routing in MANETs. Michele N. Lima, Helber W. da Silva, Aldri L. dos Santos, Guy Pujolle. *International Symposium on Wireless Pervasive Computing (ISWPC) 2008*, Santorini, Greece, pp. 441-445, May 2008.

Virtual Structure Effects in Two Hybrid Routing Protocols for Ad Hoc Networks. Luiz C. P. Albin, A. Brawer, Michele N. Lima, S. Chessa, P. Maestrini. *International Symposium on Wireless Pervasive Computing (ISWPC) 2008*, Santorini, Greece, pp. 425-432, May 2008.

Survival multipath routing for MANETs. Michele N. Lima, Guy Pujolle, Helber W. da Silva, Aldri L. dos Santos. *In IEEE/IFIP Network Operations and Management Symposium (NOMS) 2008*, pp. 425-432, Salvador, Brazil, April 2008.

The Impact of Byzantine Attacks on Survivability of MANET Routing Protocols. Michele N. Lima, Helber W. da Silva, Zeinab Movahedi, Aldri L. dos Santos. *Networking and Electronic Commerce Research Conference (NAEC) 2007*, Riva del Garda, Italy, October 2007.

The impact of replication policies in the availability of files in P2P networks under DoS attacks. Michele N. Lima, D. Guedes, *Brazilian Symposium on Computer Networks and Distributed Systems*, Gramado, RS, Brazil, 2004 (in Portuguese).

Gestion Dynamique de Largeur de Bande Passante dans les Réseaux ATM via l'Intégration des Agents Mobiles avec SNMP. Joaquim C. Rebouças Junior, Taumaturgo Cardoso, André R. Cardoso, Ana L. B. P. B. Diniz, Michele N. Lima. *GRES'03 Colloque Francophone sur la Gestion de Réseaux et des Services*, v. 1. p. 371-383, 2003, FORTALEZA, Brazil.

TECHNICAL REPORTS

A Survey of Survivability in Mobile Ad Hoc Networks. Michele N. Lima, Aldri L. Santos, G. Pujolle. Technical Report - LIP6 2007/001, UPMC, Paris, France.

THESES

Using P2P distributed systems for tolerating DoS attacks. M. Nogueira Lima. Master's thesis, Federal University of Minas Gerais, Belo Horizonte, MG, Brazil, July, 2004. (in Portuguese).

SAMNAR: A survivable architecture for wireless self-organizing networks. M. Nogueira Lima. PhD's thesis, University of Paris 6, LIP6, Paris Universitatis, Paris, France, October, 2009.

INVENTION DISCLOSURE

Brazilian Patent

Number: PI0504149-0

Title: "A system for monitoring physical training in real time using wireless communication"

INVITED TALKS AND TUTORIALS

A Framework for Resilient and Secure Spectrum Sensing on Cognitive Radio Networks. Keynote at Thales Communications & Security, France, February, 2016.

Are we ready to intimately rely on wireless and mobile health care?. Keynote at Body Area Networks Workshop, CCNC 2015, Las Vegas, NV, USA, January 9, 2015.

Biologically Inspired Networking Approaches as Building Blocks for Distributed Systems. Tutorial at CCNC 2015 Las Vegas, NV, USA, January 9, 2015.

Biologically Inspired Networking Approaches as Building Blocks for Distributed Systems. Tutorial at DSN 2014 Atlanta, GA, USA, June 23, 2014.

SAMNAR: a Security Management Architecture for Advanced Wireless Networking. Talk at Centre Tecnològic de Telecomunicacions de Catalunya (CTTC) Barcelona, Spain, April 22, 2013.

Identity management on Future Internet. Talk at The Brazilian Symposium on Computer Networks and Distributed Systems (SBRC), Campo Grande, MS, Brazil, June 3th, 2011.

Denial of service attacks on the Internet. Interview for The Paraná State Radio, Curitiba, Brazil, 2011.

Denial of service attacks and the new French agency of information security. Interview for “Radio France Internationale (RFI)”, Paris, France, July 10, 2009.

Security in Ad Hoc Networks. Angelo Bannack, Eduardo da Silva, Michele N. Lima, Aldri L. dos Santos, Luiz C. P. Albini. In XXVI Brazilian Symposium on Telecommunications (SBRT), Rio de Janeiro, Brazil, 2008 (in Portuguese).

Security in wireless ad hoc networks: concepts, initiatives and future directions. Michele N. Lima. Fortaleza, Brazil. October, 2008 (in Portuguese).

Sécurité dans l’informatique ubiquitaire. Michele N. Lima. Bodrum, Turkey, 2007 (in French).

Network security. Short course. Michele N. Lima. University of Fortaleza, Fortaleza, Brazil, August 2006 (in Portuguese).

Network security for beginners. Short course. Michele N. Lima. PUC-MG, Belo Horizonte, Brazil, July 2005 (in Portuguese).

KEY SKILLS

Proficient or familiar with a vast array of programming languages, concepts and technologies, including:

Programming Languages: C/C++, Python, Java, Perl, Shell Script, Matlab, R;

Operating Systems: Windows, UNIX, Linux, MAC OS;

Simulation Tools: Network Simulator (NS-2) and Gnuplot;

System Administration: IBM AIX UNIX and Debian LINUX;

Network Management Tools: IBM TIVOLI;

Security Management Tools: Firewalls – IP Tables Linux;

Server Administration: Mail Servers, Web Server (Apache) and Mailing List Servers;

INTERNATIONAL AFFAIRS

Member of the **International Relations Bureau** of the Federal University of Paraná, Brazil, since November 2011.

Brazilian coordinator of an International Cooperation project from the AmSud Program among **Brazil, France** and **Chili**, represented respectively by the following institutions: CAPES, Ministry of Education and CONICYT.

Local coordinator of an International Cooperation project from the **COFECUB** (*Coopération Universitaire et Scientifique avec le Brésil*) program between **Brazil** and **France**.

Co-founder of the BioNet (Biologically-inspired Networking), research cooperation group between Federal University of Paraná (Brazil) and North Carolina University of Charlotte (USA).

LANGUAGES

- Brazilian Portuguese: native.
- English: Fluent (speaking, reading, writing).
- French: Fluent (speaking, reading, writing).
- Spanish: Intermediate (reading); basic (speaking, writing).
- Irish: basic (speaking, reading, writing).

Current M.Sc.	Current Ph.D.	Former M.Sc.	Former Ph.D.
Paulo Lenz Mateus Pelloso Rafael Silva Danilo Possati Arthur Garcete Carlos Santiviago	Benevid Silva Euclides Peres	Elisa Mannes Julio Soto Danilo Farias Allison Puska Christian Cervantes Helber Silva Marco Bontorin Urlan Salgado Zeinab Movahedi Andressa Vergutz Bruno Cremonezi	Jenny Torres Fouad Guenane Farouk Mezghani Wellington Albano Robson Melo Ricardo Macedo

STUDENTS

INTERESTS

Running marathons, reading, classical music, gardening, swimming.

REFERENCES

Professor Dorgival Guedes Federal Univ. of Minas Gerais dorgival@dcc.ufmg.br	Professor Guy Pujolle UMPC-Sorbonne Universités guy.pujolle@lip6.fr	Professor José M. F. Moura Carnegie Mellon University moura@ece.cmu.edu
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[CV compiled on 2017-06-04]