João Luís Garcia Rosa

Curriculum Vitae

CONTACT
INFORMATION

Department of Computer Science (SCC-ICMC)
University of São Paulo (USP) at São Carlos
São Carlos - São Paulo - Brazil

Voice: +55-16-3373-6640
Fax: +55-16-3373-9650
joaoluis@icmc.usp.br

http://www.icmc.usp.br/~joaoluis

RESEARCH
INTERESTS

Brain-Computer Interfaces (BCI), Artificial neural networks, biologically plausible connectionist models.

EDUCATION

University of Memphis - U of M, Memphis, TN, USA

Post-Dr., Computational Neuroscience, October 2013

- Project Title: "Brain Computational Models Based on Neurodynamical Populations at Mesoscopic Level"
- Supervisor: Robert Kozma
- Computational Neurodynamics Laboratory (CNL). Center for Large Scale Integrated Optimization & Networks (CLION). FedEx Institute of Technology

State University of Campinas - Unicamp, Campinas, São Paulo, Brazil

Dr., Computational Linguistics, June 1999

- Thesis Title: "A Symbolic-connectionist Hybrid System for Thematic Role Processing" (*in Portuguese*)
- Advisor: Edson Françozo (DL-IEL)
- Co-advisor: Márcio Luiz de Andrade Netto (DCA-FEEC)
- Examination Committee: Márcia Maria Cançado Lima (UFMG), Fernando Antonio Campos Gomide (FEEC-Unicamp), Plínio Almeida Barbosa (IEL-Unicamp), Eleonora Cavalcante Albano (IEL-Unicamp)

M.S., Electrical Engineering, Artificial Intelligence, September 1993

- Dissertation Title: "Neural Networks and Formal Logic in Natural Language Processing" (*in Portuguese*)
- Advisor: Márcio Luiz de Andrade Netto (DCA-FEEC)
- Examination Committee: Edson Françozo (IEL-Unicamp), Fernando Antonio Campos Gomide (FEEC-Unicamp)

Graduation, Electrical Engineering, Electronics and Automation, December 1983

ACADEMIC
EXPERIENCE

University of São Paulo (USP) at São Carlos - Department of Computer Science (ICMC), São Carlos, São Paulo, Brazil

Instructor and Researcher **August, 2008 - present**

Taught graduate level courses for Computer Sciences and Computer Engineering: **Theory of Computation and Formal Languages**, **Theory of Computation and Compilers**, **Artificial Intelligence**, and **Programming Languages and Data Structures**.

Research and advising.
Taught postgraduate level courses on Computer Sciences and Computational Mathematics: **Neural Networks**, **Theory of Computation**. Research and advising.

Pontifical Catholic University of Campinas - PUC-Campinas, Campinas, São Paulo, Brazil
Instructor and Researcher **September, 1987 - July, 2008**
Taught graduate level courses for Computer Engineering and System Analysis: **Algorithms and Computer Programming**, **Artificial Intelligence**, **Formal Languages and Automata**, and **Data Structures** disciplines. Research and advising.
Taught postgraduate level courses for Masters level on Computing Systems: **Intelligent Systems**, **Artificial Neural Networks**, and **Natural Language Processing** disciplines. Research and advising.

Catholic University of Santos - UniSantos, Santos, São Paulo, Brazil
Instructor and Researcher **March, 2000 - December, 2003**
Taught postgraduate level courses for Masters level on Informatics: **Information Technology - Artificial Intelligence**, **Intelligent Systems**, **Artificial Intelligence Applied to Education**, **Artificial Neural Networks** disciplines. Research and advising.

State University of Campinas - Unicamp, Campinas, São Paulo, Brazil
Graduate Student **August, 1981 - July, 1983**
Scientific Initiation Program in Biomedical Engineering projects.

RESEARCH PROJECTS

Current Research Project: "Brain-Computer Interfaces based on Neuron Populations Dynamic Properties."

Previous projects: "Biologically Plausible Artificial Neural Networks Models Based on Neurodynamics," "Use of Machine Learning Techniques and Computational Linguistics to Text Treatment," "Study of Lexical Semantic Representation and Ontologies to Textual Information Retrieval through Machine Learning Techniques," "Study and Implementation of New Algorithms of Symbolic Rule Insertion and Extraction in Biologically Plausible Connectionist Architectures," "Implementation of Biological Plausible Symbolic-Connectionist Hybrid Systems for Natural Language Processing," "Study and Implementation of Biologically Plausible Connectionist Algorithms and Architectures for Natural Language Processing," "Technological Support for Software Development Collaborative Learning."

PUBLICATIONS

Carneiro M. G., **Rosa, J. L. G.**, Lopes, A. A., and Zhao, L. (**2014**), "Network-Based Data Classification: Combining K-Associated Optimal Graphs and High Level Prediction." Accepted paper in *Journal of the Brazilian Computer Society*, Springer.

Rosa, J. L. G. (**2014**), Review on "Weighted graph comparison techniques for brain connectivity analysis," Alper B., Bach B., Henry Riche N., Isenberg T., Fekete J. Human Factors in Computing Systems, Paris, France, 483-492, 2013. Type: Article. Date Reviewed: Mar 18 2014. *Computing Reviews* (ACM).

Piazentin, D. R. M. and **Rosa, J. L. G.** (**2014**), "Motor imagery classification for Brain-

Computer Interfaces through a chaotic neural network," *Proceedings of the IJCNN 2014 International Joint Conference on Neural Networks*, IEEE World Congress on Computational Intelligence (IEEE WCCI), Beijing, China, July 6-11, 2014 (*accepted*).

Carlos Junior, L. F. M. and **Rosa, J. L. G.** (**2014**), "Face Recognition through a Chaotic Neural Network Model," *Proceedings of the IJCNN 2014 International Joint Conference on Neural Networks*, IEEE World Congress on Computational Intelligence (IEEE WCCI), Beijing, China, July 6-11, 2014 (*accepted*).

Schneider, M. O. and **Rosa, J. L. G.** (**2014**), "A Connectionist Approach to Airliner Safety," *Proceedings of the IJCNN 2014 International Joint Conference on Neural Networks*, IEEE World Congress on Computational Intelligence (IEEE WCCI), Beijing, China, July 6-11, 2014 (*accepted*).

Fonseca, E. R. and **Rosa, J. L. G.** (**2013**), "Mac-Morpho Revisited: Towards Robust Part-of-Speech Tagging," *Proceedings of STIL 2013 - The 9th Brazilian Symposium in Information and Human Language Technology*, Fortaleza/Ceará, Oct 21-23, 2013.

Kozma, R, **Rosa, J. L. G.** and Piazentin, D. R. M. (**2013**), "Cognitive Clustering Algorithm for Efficient Cybersecurity Applications," *Proceedings of the IJCNN 2013 International Joint Conference on Neural Networks*, Dallas, TX, Aug 4-9, 2013, pp. 471–478.

Fonseca, E. R. and **Rosa, J. L. G.** (**2013**), "A Two-Step Convolutional Neural Network Approach for Semantic Role Labeling," *Proceedings of the IJCNN 2013 International Joint Conference on Neural Networks*, Dallas, TX, Aug 4-9, 2013, pp. 2955–2961.

Carlos Jr, L. F. M. and **Rosa, J. L. G.** (**2013**), "Face Recognition Using a Connectionist Model Based on Neuron Population," abstract and presentation at *CyberSci Summit 2013*, Washington, DC, 25 and 26 Jun 2013. `https://www.icfi.com/events/conferences-and-trade-shows/2013/06/cybersci-summit-2013`.

Kozma, R, **Rosa, J. L. G.** and Piazentin, D. R. M. (**2013**), "Analyzing Social Networking Data Using a Cognitively Motivated Clustering Algorithm," abstract and presentation at *CyberSci Summit 2013*, Washington, DC, 25 and 26 Jun 2013. `https://www.icfi.com/events/conferences-and-trade-shows/2013/06/cybersci-summit-2013`.

Silva, A. B. and **Rosa, J. L. G.** (**2013**), "Biological Plausibility in an Artificial Neural Network Applied to Cognitive Task," *Artificial Intelligence and Soft Computing: 12th International Conference, ICAISC 2013*, Zakopane, Poland, Jun 9-13, 2013, Proceedings, Part I / Lecture Notes in Artificial Intelligence, Leszek Rutkowski (Editor), Marcin Korytkowski (Editor), Rafal Scherer (Editor), Ryszard Tadeusiewicz (Editor), Lotfi A. Zadeh (Editor), Jacek M. Zurada (Editor), LNAI 7893, pp. 183–192.

Rosa, J. L. G. (**2013**), "Biologically Plausible Artificial Neural Networks" (chapter 2) in Kenji Suzuki (ed.), *Artificial Neural Networks - Architectures and Applications*, ISBN 978-953-51-0935-8, Publisher: InTech.

Alva-Manchego, F. E. and **Rosa, J. L. G.** (**2012**), "Semantic Role Labeling for Brazilian

Portuguese: A Benchmark," in J. Pavón et al. (Eds.): *IBERAMIA 2012, LNAI 7637*, pp. 481–490, 2012. Springer-Verlag Berlin Heidelberg 2012. Cartagena de Indias, Colombia, 13-16 Nov 2012. DOI 10.1007/978-3-642-34654-5_49

Carneiro, M. G., **Rosa, J. L. G.**, Lopes, A. A., Zhao, L. (**2012**), "Classificação de Alto Nível Utilizando Grafo K-associados Ótimo," in: *4th International Workshop on Web and Text Intelligence*, 2012, Curitiba, Brazil. Proceedings of the 4th International Workshop on Web and Text Intelligence, 2012. v. 1. p. 1–10.

Rosa, J. L. G. (**2012**), Preface of book *Organização Básica de Computadores e Linguagem de Montagem*, authors: R. Pannain, F. H. Behrens e D. Piva Jr., Elsevier. ISBN-13 978-85-352-5021-3. 2012.

Rosa, J. L. G. (**2012**), Review on "Taxonomy induction based on a collaboratively built knowledge repository," Ponzetto S., Strube M. Artificial Intelligence 175 (9-10): 1737-1756, 2011. Type: Article. Date Reviewed: Aug 28 2012. *Computing Reviews* (ACM).

Fonseca, E. and **Rosa, J. L. G.** (**2012**), "An Architecture for Semantic Role Labeling on Portuguese," in H. Caseli et al. (Eds.): PROPOR 2012, LNAI 7243, pp. 204–209. Springer, Heidelberg (2012). *PROPOR 2012, Intl. Conf. on Computational Processing of Portuguese* in Coimbra, Portugal, Apr 17-20, 2012.

Alva-Manchego, F. E. and **Rosa, J. L. G.** (**2012**), "Towards Semi-supervised Brazilian Portuguese Semantic Role Labeling: Building a Benchmark," in H. Caseli et al. (Eds.): PROPOR 2012, LNAI 7243, pp. 210–217. Springer, Heidelberg (2012). *PROPOR 2012 - Intl. Conf. on Computational Processing of Portuguese* in Coimbra, Portugal, Apr 17-20, 2012.

Jordão, C. C. and **Rosa, J. L. G.** (**2012**), "Metaphone-pt_BR: the phonetic importance on search and correction of textual information," in Alexander Gelbukh (Ed.), *Computational Linguistics and Intelligent Text Processing* - 13th Intl. Conf., CICLing 2012, New Delhi, India, Mar 11-17, 2012. Proc., Part II. Lecture Notes in Computer Science 7182, pp. 297–305.

Rosa, J. L. G. (**2012**), Review on "An improved training algorithm for feedforward neural network learning based on terminal attractors," Yu X., Wang B., Batbayar B., Wang L., Man Z. Journal of Global Optimization 51(2): 271-284, 2011. Type: Article. Date Reviewed: May 10 2012. *Computing Reviews* (ACM).

Rosa, J. L. G. (**2011**), *Fundamentos da Inteligência Artificial*, ISBN 9788521605935. Editora LTC, Rio de jan, 228 páginas.

Schneider, M. O. and **Rosa, J. L. G.** (**2011**), "CARESS1 - Commercial Airliner Emergency Safety System," in *Proc. of ICINCO - 8th Intl. Conf. on Informatics in Control, Automation and Robotics* 2011, 28-31 Jul, Noordwijkerhout, The Netherlands, pp 223-226.

Silva, A. B. and **Rosa, J. L. G.** (**2011**), "Advances on Criteria for Biological Plausibility in Artificial Neural Networks: Think of Learning Processes," in *Proc. of IJCNN 2011 -*

Intl. Joint Conf. on Neural Networks, San Jose, CA, USA, Jul 31 - Aug 5, pp. 1394-1401.

Rosa, J. L. G. (**2011**), Review on "Extracting person names from diverse and noisy OCR text," Packer T., Lutes J., Stewart A., Embley D., Ringger E., Seppi K., Jensen L. AND 2010 (Proc. of the 4th Workshop on Analytics for Noisy Unstructured Text Data, Toronto, ON, Canada, Oct 26, 2010) 19-26. 2010. Type: Proc. `http://www.reviews.com/review/review\_review.cfm?review\_id=138942`. Date Reviewed: Mar 31 2011. *Computing Reviews* (ACM).

Rosa, J. L. G. and Adán-Coello, J. M. (**2010**), "Biologically Plausible Connectionist Prediction of Natural Language Thematic Relations," *Journal of Universal Computer Science*, J.UCS vol. 16, no. 21 (2010), pp. 3245-3277. ISSN 0948-6968.

Rosa, J. L. G. (**2010**), *Linguagens Formais e Autômatos* (Formal Languages and Automata), book in Portuguese, Editora LTC, GEN - Grupo Editorial Nacional, Rio de Janeiro, Brazil, ISBN 9788521617518, 166 pages.

Rosa, J. L. G. (**2010**), "Biologically Plausible Connectionist Prediction of Natural Language Thematic Relations," *Proceedings of the WCCI 2010 - 2010 IEEE World Congress on Computational Intelligence, IJCNN 2010 - International Joint Conference on Neural Networks*, July 18-23, 2010. Centre de Convencions Internacional de Barcelona, Barcelona, Spain. IEEE Conference Proceedings, pp. 1127–1134.

Silva, J. F. and **Rosa, J. L. G.** (**2010**), "CRT-ML - Coreference Resolution Tool through Machine Learning," Demonstration paper, *Proceedings of PROPOR 2010 - International Conference on Computational Processing of Portuguese Language*, 27 to 30 of April, Porto Alegre - RS, Brazil. ISSN: 2177-3580.

Rosa, J. L. G. (**2010**), Review on "Text-to-speech synthesis" Taylor P., Cambridge University Press, New York, NY, 2009. 626 pp. Type: Book. `http://www.reviews.com/review/review_review.cfm?review_id=137759`. Date Reviewed: Feb 26 2010.

Rosa, J. L. G. (**2009**), Review on "Why are wordnets important?" Vincze V., Szarvas G., Csirik J. European computing conference (Proc. of the 2nd European Computing Conference, Malta, Sep 11-13, 2008) 316-322. 2008. Type: Proceedings. `http://www.reviews.com/review/review_review.cfm?review_id=137273`. Date Reviewed: Sep 3 2009.

Rosa, J. L. G. (**2009**), Review on "A linguistically motivated model for speed and pausing in animations of American sign language," Huenerfauth M. ACM Transactions on Accessible Computing (TACCESS) 2: (2): 1-31, 2009. Type: Article. `http://www.reviews.com/index.cfm`. Date Reviewed: Sep 1 2009.

Rosa, J. L. G. (**2009**), A Hybrid Symbolic-Connectionist Processor of Natural Language Semantic Relations, *Proceedings of the 2009 IEEE Workshop on Hybrid Intelligent Models and Applications (HIMA2009), IEEE Symposium Series on Computational Intelligence, IEEE SSCI 2009*, March 30 - April 2, 2009. Sheraton Music City Hotel, Nashville, TN, USA, pp. 64–71. IEEE Conference Proceedings.

Schneider, M. O. and **Rosa, J. L. G.** (**2009**), Application and Development of Biologically Plausible Neural Networks in a Multiagent Artificial Life System. **Neural Computing & Applications**, vol. 18, number 1, pp. 65-75. DOI 10.1007/s00521-007-0156-0.

Orrú, T., **Rosa, J. L. G.**, and Andrade Netto, M. L. (**2008**), SABio: A Biologically Plausible Connectionist Approach to Automatic Text Summarization. **Applied Artificial Intelligence**, Vol 22, nro. 9, pp. 896–920. Taylor & Francis. ISSN 0883-9514.

Silva, A. B. and **Rosa, J. L. G.** (**2008**), Biological Plausibility in Artificial Neural Networks: An Improvement on Earlier Models, *Proceedings of The Seventh International Conference on Machine Learning and Applications* (ICMLA'08), 11-13 Dec. 2008, San Diego, California, USA. IEEE Computer Society Press, pp. 829–834.

Schneider, M. O. and **Rosa, J. L. G.** (**2007**), A Neurogenetic Framework for Problem Solution Applied to a Game Situation, in *Anais do VI Simpósio Brasileiro de Jogos para Computador e Entretenimento Digital (SBGAMES 2007)*. November, 7-9, 2007. São Leopoldo - RS, Brazil.

Marin, A., Adán-Coello, J. M., **Rosa, J. L. G.**, Tobar, C. M., and Freitas, R. L. (**2007**), Personalized Web page filtering using a Hopfield neural network. In J. Marques de Sá et al. (Eds.): ICANN, Part II, LNCS 4669, pp. 417–424, 2007. The 17th Intl. Conf. on Artificial Neural Networks, ICANN 2007, September 9-13, Porto, Portugal. *Lecture Notes in Computer Science*. DOI 10.1007/978-3-540-74695-9_43.

Rosa, J. L. G. (**2007**), A Connectionist Thematic Grid Predictor for Pre-parsed Natural Language Sentences, in D. Liu, S. Fei, Z. Hou, H. Zhang, and C. Sun (Eds.), Advances in Neural Networks - ISNN2007 - *Lecture Notes in Computer Science*, Volume 4492, Part II, pp. 825-834. Springer-Verlag Berlin Heidelberg, 2007. Fourth Intl. Symposium on Neural Networks, Nanjing, China, June 3-7, 2007, Proc. DOI 10.1007/978-3-540-72393-6_99.

Adán Coello, J. M.; Tobar Toledo, C. M.; **Rosa, J. L. G.**; and Freitas, R. L. (**2007**), Towards the Educational Semantic Web (Chapter VII), in F. M. Mendes Neto and F. V. Brasileiro (Eds.), *Advances in Computer-Supported Learning*, pp. 145-172. Information Science Publishing. Idea Group Inc.

Silva, A. B. and **Rosa, J. L. G.** (**2006**), A Connectionist Model based on Physiological Properties of the Neuron, in Proc. of the Intl. Joint Conf. IBERAMIA/SBIA/SBRN 2006 - 1st *Workshop on Computational Intelligence* (WCI'2006), Ribeirão Preto, Brazil, October 23-28, 2006. CD-ROM. ISBN 85-87837-11-7.

Orrú, T.; **Rosa, J. L. G.**; Andrade Netto, M. L. (**2006**), SABio: An Automatic Portuguese Text Summarizer through Artificial Neural Networks in a more Biologically Plausible Model, in R. Vieira et al. (Eds.), LNAI 3960 - Computational Processing of the Portuguese Language - 7th. International Workshop, PROPOR 2006, *Lecture Notes in Computer Science*, volume 3960, pp. 11-20, Itatiaia, Brazil, May 2006 Proc. Publisher: Springer-Verlag.

Joaquim, P. C. E. and **Rosa, J. L. G.** (**2005**), Artificial Neural Networks for Temporal Processing Applied to Prediction of Electric Energy Generation in Small Hydroelectric

Power Stations, in *Proc. of the IJCNN 2005 - Intl. Joint Conf. on Neural Networks*, Montréal, Canada, July, 31-August, 04, 2005. pp. 2625-2630.

Schneider, M. O. and **Rosa, J. L. G.** (**2005**), BioAnt - Biologically Plausible Computer Simulation of an Environment with Ants, in *Proc. of the IJCNN 2005 - Intl. Joint Conf. on Neural Networks*, Montréal, Canada, July, 31-August, 04, 2005. pp. 1505-1510.

Rosa, J. L. G. and Silva, A. B. (**2004**), Thematic Role Assignment through a Biologically Plausible Symbolic-connectionist Hybrid System, in *Proc. of the IJCNN 2004 - Intl. Joint Conf. on Neural Networks*, Vol. 2, pp. 1457-1462. Budapest, Hungary, July 25-29, 2004.

Rosa, J. L. G. (**2004**), A Biologically Motivated and Computationally Efficient Natural Language Processor, in *Lecture Notes in Computer Science*. Vol. 2972 / 2004. MICAI 2004: Advances in Artificial Intelligence: Third Mexican Intl. Conf. on Artificial Intelligence, Mexico City, Mexico, April 26-30, 2004. Proc., pp. 390-399. Springer-Verlag Heidelberg.

Rosa, J. L. G. (**2003**), A Biologically Plausible and Computationally Efficient Architecture and Algorithm for a Connectionist Natural Language Processor, in *Proc. of the 2003 IEEE Intl. Conf. on Systems, Man, and Cybernetics - IEEE-SMC'03*. 05-08 October, 2003. Washington, D.C., USA, pp. 2845-2850.

Schneider, M. O. and **Rosa, J. L. G.** (**2003**), Neural Labyrinth Robot - Finding the Best Way in a Connectionist Fashion, *IV Encontro Nacional de Inteligência Artificial (ENIA)*, Anais do XXIII Congresso da Sociedade Brasileira de Computação - Campinas, São Paulo, Brazil, August 2-8, 2003. pp. 1751-1760.

Schneider, M. O. and **Rosa, J. L. G.** (**2003**), BioAnt - A Biologically Plausible Approach to an Insect Simulation, *Intl. Conf. on Bioinformatics and Computational Biology (IcoBiCoBi'03)*, Ribeirão Preto, SP - Brazil, May 14-16.

Rosa, J. L. G. (**2002**), A Biologically Inspired Connectionist System for Natural Language Processing, in *Proc. of the 2002 VII Brazilian Symposium on Neural Networks (SBRN 2002)*. November 11-14, 2002. Recife, Brazil. IEEE Computer Society Press, pp. 243-248.

Schneider, M. O. and **Rosa, J. L. G.** (**2002**), Neural Connect 4 - A Connectionist Approach to the Game, in *Proc. of the 2002 VII Brazilian Symposium on Neural Networks (SBRN 2002)*. November 11-14, 2002. Recife, Brazil. IEEE Computer Society Press, pp. 236-241.

Rosa, J. L. G. (**2002**), Next Word Prediction in a Connectionist Distributed Representation System, in *Proc. of the 2002 IEEE Intl. Conf. on Systems, Man, and Cybernetics - IEEE-SMC'02 -* Vol. 3. October 06-09, 2002. Hammamet, Tunisia.

Rosa, J. L. G. (**2002**), A Biologically Motivated Connectionist System for Predicting the Next Word in Natural Language Sentences, in *Proc. of the 2002 IEEE Intl. Conf. on Systems, Man, and Cybernetics - IEEE-SMC'02 -* Vol. 4. October 06-09, 2002. Hammamet, Tunisia.

Rosa, J. L. G. (**2001**), HTRP II: Learning thematic relations from semantically sound

sentences, in *Proc. of the 2001 IEEE Intl. Conf. on Systems, Man, and Cybernetics - SMC2001*, October 7-10, 2001, Tucson, Arizona, USA, pp. 488-493.

Rosa, J. L. G. (**2001**), An Artificial Neural Network Model Based on Neuroscience: Looking Closely at the Brain, in V. Kürková, N. C. Steele, R. Neruda, and M. Kárný (Eds.), *Artificial Neural Nets and Genetic Algorithms* - Proc. of the Intl. Conf. in Prague, Czech Republic, 2001 - ICANNGA-2001. April 22-25, 2001. Springer-Verlag, pp. 138-141.

Tobar Toledo, C. M.; **Rosa, J. L. G.**; Adán Coello, J. M.; Pannain, R. (**2001**), A Colaborative Environment Architecture for Programming Learning (*in Portuguese*), in *Anais do XII SBIE-2001 - Simpósio Brasileiro de Informática na Educação*, November, 21-23, 2001, Vitória, ES, Brazil, 244-252.

Rosa, J. L. G. and Françozo, E. (**2000**), Linguistic Relations Encoding in a Symbolic-Connectionist Hybrid Natural Language Processor, in M. C. Monard and J. S. Sichman (Eds.), *Lecture Notes in Computer Science* - Vol. 1952 / 2000, Advances in Artificial Intelligence, Proc. of IBERAMIA-SBIA 2000, Atibaia, São Paulo, Brazil, November 19-22, 2000, pp. 259-268, Springer-Verlag Heidelberg.

Rosa, J. L. G. and Françozo, E. (**1999**), Hybrid Thematic Role Processor: Symbolic Linguistic Relations Revised by Connectionist Learning, in *Proc. of IJCAI'99 - 16th. Intl. Joint Conf. on Artificial Intelligence*, Stockholm, Sweden, July 31-August 6, 1999. Vol. 2, pp. 852-857.

Rosa, J. L. G. (**1998**), The Word Meaning in Natural Language Processing (*in Portuguese*), **Estudos Lingüísticos** XXVII, UNESP-IBILCE, São José do Rio Preto, SP, Brazil, June, 807-812.

Rosa, J. L. G. and Françozo, E. (**1998**), A Biologically Fine-grained Artificial Neural Network: Towards a Hybrid Model, *Proc. of the IASTED Intl. Conf. on Artificial Intelligence and Soft Computing*, May 27-30, Cancún, Mexico, 302-305.

Rosa, J. L. G. (**1997**), A Thematic Connectionist Approach to Portuguese Language Processing, *Proc. of the IASTED Intl. Conf. on Artificial Intelligence and Soft Computing*, July 27-August 1, Banff, Canada, 240-243.

Rosa, J. L. G. (**1997**), Parser: A Syntactic and Semantic Analyser for Portuguese Sentences (*in Portuguese*), **Estudos Lingüísticos** XXVI, Campinas, Brazil, 352-357.

ASSESSOR, COMMITTEE MEMBER, AND AD HOC REVIEWER

- *FAPESP assessor*, since Oct/2010.
- *CAPES assessor*, since Mar/2014.
- Reviewer of *Journal of the Brazilian Society of Mechanical Sciences and Engineering*. Springer, since Mar/2014.
- *Reviewer of IJCNN 2014* - International Joint Conference on Neural Networks 2014, Beijing, China, 6 to 11/07/2014.

- Member of *Program Committee for PROPOR 2014*, the International Conference on Computational Processing of Portuguese, São Carlos, SP, Brazil, Oct/2014.

- Member of *program committee of V International Workshop on Web and Text Intelligence* (WTI - 2013), Oct 20, 2013 - Fortaleza, Ceará, Brazil.

- Member of *program committee of CBIC* - 11th Brazilian Congress (CBIC) on Computational Intelligence - Recife, Brazil. 'Porto de Galinhas' Beach, Sep, 8th-11th, 2013.

- *Reviewer of IJCNN 2013* - International Joint Conference on Neural Networks 2013, Dallas, TX, USA, 4 to 9/08/2013.

- *Reviewer of BICS 2013* - International Conference on Brain Inspired Cognitive Systems, Beijing, China, 9 to 11/06/2013.

- *Reviewer of Neural Networks*. Published by Elsevier Science, since Feb/2008.

- *Reviewer of IEEE Symposium Series on Computational Intelligence 2013* (SSCI 2013), Grand Copthorne Waterfront Hotel, Singapore, Apr 15-19, 2013.

- *Reviewer Board Member da International Journal of Applied Intelligence*. Published by Springer, since Aug/2012.

- Member of *program committee of IV International Workshop on Web and Text Intelligence* (WTI - 2012), Curitiba - PR, Brazil, 21/10/2012.

- Member of *program committee of ELC 2012* - XI Encontro de Linguística de Corpus, São Carlos - SP, Brazil, 13 to 15/09/2012.

- Member of *Technical Program Committee for PROPOR 2012*, the International Conference on Computational Processing of Portuguese, Coimbra, Portugal, Apr/2012.

- *Reviewer of IEEE Transactions on Neural Networks*. Published by IEEE Computational Intelligence Society. ISSN 1045-9227, since Apr/2011.

- *Reviewer of Revista SBA: CONTROLE & AUTOMAÇÃO*. Scientific periodical of Sociedade Brasileira de Automática (SBA), ISSN 0103-1759, since Apr/2011.

- Program committee member of the 8th. *Brazilian Symposium in Information and Human Language Technology* (STIL 2011), October 24-26 2011, Federal University of Mato Grosso, Cuiaba, MT, Brazil.

- Reviewer of *RITA - Revista de Informática Teórica e Aplicada*, ISSN 2175-2745, since January 2011.

- Reviewer of *IJCNN 2011 - International Joint Conference on Neural Networks 2011*, San Jose, California, USA, July 31-August 5, 2011.

- Program committee member of *III International Workshop on Web and Text Intelligence* (WTI - 2010), São Bernardo do Campo - São Paulo, Brazil, October 23-29 2010.

- Member of *COGNITIVE 2010 Technical Program Committee - The Second International Conference on Advanced Cognitive Technologies and Applications* - COGNITIVE 2010. November 21-26, 2010 - Lisbon, Portugal.

- Reviewer of *IJCNN - Intl. Joint Conf. on Neural Networks 2010*, Barcelona, Spain, 18 a 23 de julho de 2010.

- Reviewer of *ACM Computing Reviews*, since June, 2009.

- Program committee member of the 7th. *Brazilian Symposium in Information and Human Language Technology* (STIL 2009), September 7-11, 2009. ICMC-USP/São Carlos, Brazil.

- Organization committee member of 1st. *Brazilian Olympiad of Computational Linguistics* (I OLinCom). The 7th. Brazilian Symposium in Information and Human Language Technology (STIL 2009), September 7-11, 2009. ICMC-USP/São Carlos, Brazil.

- Organization committee member of 1st. *Workshop in Scientific Initiation in Information and Human Language Technology* (I TILic). The 7th. Brazilian Symposium in Information and Human Language Technology (STIL 2009), September 7-11, 2009. ICMC-USP/São Carlos, Brazil.

- Program committee member of the *2nd International Workshop on Web and Text Intelligence*. Brazilian Symposium in Information and Human Language Technology (STIL 2009), September 7-11, 2009. ICMC-USP/São Carlos, Brazil.

- Academic committee member of *Interaction'09 - South America - 1st. Regional Conference of IxDA - Interaction Design Association*. November 27-28, 2009. São Paulo, SP, Brazil.

- Reviewer of the *IJCNN - Intl. Joint Conf. on Neural Networks 2009*, Atlanta, GA, USA, June 14-19, 2009.

- Reviewer of journal *Soft Computing*, Springer, November 2008.

- Reviewer of journal *Neural Networks*, Elsevier Science, February 2008.

- Program committee member and reviewer of the 17th. *Intl. Conf. on Artificial Neural Networks* - ICANN 2007, Porto, Portugal, September 9-13, 2007.

- Reviewer of the *IJCNN - Intl. Joint Conf. on Neural Networks 2007*, Orlando, FL, USA, August 12-17, 2007.

- Reviewer of *IEEE-Latin America Transactions*, since 2006.

- Reviewer of I Workshop on Computational Intelligence (WCI), Ribeirão Preto, SP, Brazil, 2006.

- Reviewer of *Brazilian Symposium on Neural Networks - SBRN2004*, São Luiz, MA, Brazil, 2004.

- Referee of *Artificial Intelligence* - An International Journal, Elsevier Science, November 1999.

TUTORIAL PRESENTED	A two-hour tutorial entitled "Biologically Plausible Artificial Neural Networks," presented at *IJCNN 2005 - Intl. Joint Conf. on Neural Networks*, Montréal, Canada, on July, 31st., 2005. Available at `http://ewh.ieee.org/cmte/cis/mtsc/ieeecis/contributors.htm`.
POST-DOCTORATE SUPERVISED	• Marvin Oliver Schneider (ICMC-USP), Mar/2012 to Feb/2013. Title: Development of a Connectionist Intelligent System for the Treatment of Emergency Situations in Commercial Aircrafts (in Portuguese).

DISSERTATIONS
ADVISED

- Erick Rocha Fonseca, "A Connectionist Approach to Semantic Role Labeling," April 2013. FAPESP scholarship.

- Fernando Emilio Alva Manchego, "Semisupervised Automatic Semantic Role Labeling for Brazilian Portuguese," January 2013. FAPESP scholarship.

- Jefferson Fontinele da Silva, " Coreference Resolution in Multiple Documents employing unsupervised learning," May 2011. CAPES scholarship.

- Alberione Braz da Silva, "Spiking Response Model and Control: Biological Plausibility through Neuron Signaling," October 2006.

- Télvio Orrú, "SABIO: Supervised Connectionist Approach to Text Automatic Summarization," August 2005 (co-advisor).

- Paulo César Endo Joaquim, "Neural Networks for Temporal Processing Applied to Prediction of Electric Energy Generation in Small Hydroelectric Power Stations," May 2005.

- Marvin Oliver Schneider, "BioAnt: A Biologically Plausible Connectionist Computational Simulation of an Environment with Ants," December 2003.

ONGOING
ADVISING

- Murillo Guimarães Carneiro, "Evolutionary Algorithms to Semantic Role Labeling," Doctorate Thesis, since January 2012. FAPESP scholarship (co-advisor).

- Guilherme Lamartine de Mello, "A Study of Brain-Computer Interfaces through Electroencephalogram Analysis," Master's degree, since February 2014, CNPq scholarship.

- Daniel Moreira Cestari, "Study of user profiling of online platform users considering concept-drift and concept-evolution," Master's degree, since February 2014, CNPq scholarship.

- Victor Henrique Gonçalves, "An analysis of Annual Economic Indicators using Neural Networks based on Neuron Populations," Master's degree, since February 2014.

- Paul Bustios Belizario, since March 2014.

- Miguel Koscianski Vidal, "Logistic Planning of Cargo Transportation by Train using Neural Networks based on Neuron Populations," Master's degree, since February 2012, CAPES scholarship.

- Luis Fernando Martins Carlos Junior, "Facial Recognition using a Connectionist Model based on Neuron Populations," Master's degree, since February 2012, CAPES scholarship.

- Denis Renato de Moraes Piazentin, "Neural Networks K-sets and its application to motor imaging classification," Master's degree, since February 2012, FAPESP scholarship.

LANGUAGES   English, Portuguese, French (reading), Spanish (reading), German (reading).

April, 2014.