

# Silas Franco dos Reis Alves

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## Educational Background

- 2020 – Pres. **Post-doctoral Fellowship**, *Ontario Tech University*, Oshawa, ON, Canada.  
Empowering a Collaborative Service Robot Prototype for Long-term Care Facilities
- 2017 – 2020 **Post-doctoral Fellowship**, *University of Toronto*, Toronto, ON, Canada.  
Socially Assistive Mobile Robots to Assist Older-Adults.
- 2012 – 2016 **Doctor in Electrical Engineering**, *University of São Paulo*, São Carlos, SP, Brazil.  
Intelligent control architecture for human-robot interaction.
- 2010 – 2011 **Master in Mechanical Engineering**, *University of Campinas*, Campinas, SP, Brazil.  
Software platform for navigation and collaboration techniques
- 2006 – 2009 **Bachelor in Information Systems**, *Universidade Estadual Paulista, UNESP*, Bauru, SP, Brazil.
- 2002 – 2004 **Electronics Technician**, *Industrial Technical School “Prof. Isaac Portal Roldán”*, Bauru, SP, Brazil.

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## Working Experience

- 2020 – Pres. **Post-doctoral Fellowship**, *Ontario Tech University*, Oshawa, ON, Canada.  
Empowering a Collaborative Service Robot Prototype for Long-term Care Facilities
- 2019 – Pres. **Research Lead**, *JDQ Systems Inc.*, Vancouver, BC, Canada.  
Socially Assistive Mobile Robots to Assist Older-Adults and People with Developmental Disabilities in Long-Term-Care facilities.
- 2017 – 2020 **Post-doctoral Fellow**, *University of Toronto*, Toronto, ON, Canada.  
Socially Assistive Humanoid Robots to Assist Older-Adults in activities of daily living
- 2016 – 2016 **Research assistant**, *Universidade Estadual Paulista*, Bauru, SP, Brazil, Development of an indoor surveillance mobile robots; teaching assistant for the course of Digital Circuits.  
Supported by Laboratory of Applied Information Technology – LTIA
- 2015 – 2015 **Sessional Lecturer**, *Anhanguera University*, Bauru, SP, Brazil, Course: Introduction to Microcontrollers with Arduino.
- 2012 – 2012 **Sessional Lecturer**, *Universidade Estadual Paulista*, Bauru, SP, Brazil, Courses: Operating Systems / Operating Systems I.

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## Teaching Experience

- Winter 2022 **Upskilling simulation technologists and educators with digital design and three dimensional (3D) printing skills**, *Ontario Tech University*, Oshawa, ON, Canada.
- Winter 2020 **MIE443 - Mechatronics Systems: Design & Integration**, *University of Toronto*, Toronto, ON, Canada.
- Winter 2019 **MIE443 - Mechatronics Systems: Design & Integration**, *University of Toronto*, Toronto, ON, Canada.
- Fall 2012 **Operating Systems I**, *Universidade Estadual Paulista*, Bauru, SP, Brazil.
- Fall 2012 **Operating Systems**, *Universidade Estadual Paulista*, Bauru, SP, Brazil.
- Fall 2012 **Introduction to Microcontrollers with Arduino**, *Anhanguera University*, Bauru, SP, Brazil.

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## Invited Lecturer

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- 2022 **Virtual Reality, Simulation, and an overview on the Metaverse**, *Aletheia Lecture Cycle*, AletheiaFact.org, Brazil, April 30<sup>th</sup>, 2022.
- 2019 **Affective Robots Haptics**, *Special Topics in IT*, Ontario Tech University, Oshawa, Canada, July 18<sup>th</sup>, 2019.
- 2018 **Socially Assistive Robots: Robotic Helpers for Activities of Daily Living**, *2018 Rehabilitation Engineering and Assistive Technology Society of North America Annual Conference*, Washington, DC, United States of America, July 14<sup>th</sup>, 2018.
- 2018 **Socially Assistive Robots for Children with Disabilities**, *Course: Game Development and Entrepreneurship*, University of Ontario Institute of Technology, March 27<sup>th</sup>, 2018.
- 2018 **Socially Assistive Robots for Children with Disabilities**, *ESC301 - Engineering Science Option Seminar*, University of Toronto, Toronto, Canada, February 7<sup>th</sup>, 2018.
- 2017 **Socially Assistive Robots for Activities of Daily Living and Cognitive Interventions**, *PsychEng Seminar Series*, University of Toronto, Toronto, Canada, November 30<sup>th</sup>, 2017.
- 2015 **The Usage of Robotics for Interacting with Children with Autism Spectrum Syndrome**, *4<sup>th</sup> Pedagogy Week of the Open University of Brazil*, Open University of Brazil, Vila Velha, Brazil, May 21<sup>st</sup>, 2015.
- 2015 **Experiences with Mobile Robots for Assistive Applications in Brazil**, *1<sup>st</sup> Workshop on Engineering in Medical Applications*, Nueva Granada Military University, Bogotá, Colombia, June 5<sup>st</sup>, 2015.
- 2010 **Introduction to Robotino**, *Robocontrol 2010 – 4<sup>th</sup> Workshop on Applied Robotics and Automation*, Universidade Estadual Paulista, Bauru, SP, Brazil, May 7<sup>st</sup>, 2010.
- 2010 **Programming Robotino**, *FESTO Brasil*, São Paulo, SP, Brazil.
- 2010 **Robotino – C++ and Java Programming Interfaces**, *13<sup>th</sup> Mechanical Engineering Week*, University of Campinas, Campinas, SP, Brazil.
- 2009 **Introduction to Mobile Robots**, *DINCON 2009 – 8<sup>th</sup> Brazilian Conference on Dynamics, Control and Applications*, Universidade Estadual Paulista, Bauru, SP, Brazil, May 20<sup>st</sup>, 2009.
- 2007 **Microcomputer Assembly and Maintenance**, *6<sup>th</sup> Regional Computing School*, Universidade Estadual Paulista, Bauru, SP, Brazil.

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## Research Projects

- 2022 **Upskilling simulation technologists and educators with digital design and three dimensional (3D) printing skills to create low cost, customizable simulation solutions**, *Manager and content creator*, Ontario Tech University, Ontario, Canada.  
Ontario Micro-credentials Challenge Fund
- 2022 **Building A VR Model of The CANDU Calandria For the Purpose Of Teaching and Training**, *Manager and 3D content advisor*, Ontario Tech University, Ontario, Canada; Ryerson University, Ontario, Canada; and Durham College, Ontario, Canada.  
Capstone project
- 2022 **Improving Aether's Virtual Reality Simulation for Fall Detection and Human Robot Interactions with Elderly Avatars**, *Co-supervisor, Manager*, JDQ Systems Inc., Vancouver, BC, and Ontario Tech University, Oshawa, ON, Canada.  
Capstone project
- 2020 – 2022 **Empowering a Collaborative Service Robot Prototype for Long-term Care Facilities**, *Post-doctoral Fellow*, JDQ Systems Inc., Vancouver, BC, and Ontario Tech University, Oshawa, ON, Canada.  
Supported by Mitacs Accelerate and AGE-WELL, Canada
- 2019 – 2020 **Collaborative Service Robot in a Group Home Environment of People with Developmental Disabilities**, *Post-doctoral Fellow*, JDQ Systems Inc., Vancouver, BC, and University of Toronto, Toronto, ON, Canada.  
Supported by Mitacs Accelerate, Canada

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- 2017 – 2020 **Mobile Robotics for Activities of Daily Living Assistance (WP 3.1 VIGIL)**, *Post-doctoral Fellow*, University of Toronto, Toronto, ON, Canada.  
Supported by AGE-WELL, Canada
- 2018 – 2019 **A Smart Clothing and Assistive Robotic System for Older Adults (WP 3.16-CAT)**, *Post-doctoral Fellow*, University of Toronto, Toronto, ON, Canada.  
Supported by AGE-WELL, Canada
- 2018 **Anxiety Detection and Classification of Adults with Developmental Disabilities using a Collaborative Service Robot**, *Post-doctoral Fellow*, University of Toronto, Toronto, ON, Canada.  
Supported by Natural Sciences and Engineering Research Council of Canada (NSERC) - Engage Grant, Canada
- 2017 – 2018 **Promoting Social Connectedness through New and Innovative Communication Platforms (WP 4.1 CONNECT-TECH)**, *Post-doctoral Fellow*, University of Toronto, Toronto, ON, Canada.  
Supported by AGE-WELL, Canada
- 2016 – 2016 **Security Robot for Intruder Detection**, *Adviser*, Universidade Estadual Paulista, Bauru, SP, Brazil.
- 2012 – 2016 **Intelligent Control Architecture for Human-Robot Interaction**, *Doctoral research, scholarship*, University of São Paulo, São Carlos, SP, Brazil.  
Supported by São Paulo Research Foundation – FAPESP, Brazil
- 2012 – 2012 **Dynamic Workspace for the Experiment and Teaching Environment with Mobile Robots**, *Collaborator*, Universidade Estadual Paulista, Bauru, SP, Brazil.  
Supported by UNESP Development Foundation – FUNDUNESP, Brazil
- 2010 – 2011 **Implementation of Infrastructure for Experimenting Navigation and Collaboration Techniques of Autonomous Mobile Robots**, *Master's research, scholarship*, University of Campinas, Campinas, SP, Brazil.  
Supported by São Paulo Research Foundation – FAPESP, Brazil
- 2010 – 2011 **Use of Robotics for the Environmental Exploration and Discovery by Children with Severe Disabilities**, *Collaborator*, Federal University of Espírito Santo, Vitória, ES, Brazil.  
Supported by National Council for the Scientific and Technological Development – CNPq, Brazil

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## Community Outreach Projects

- 2021 – 2022 **Image Labeling Pilot Project for Promoting the Inclusion of People Living with Developmental Disabilities on the Job Market**, *Research Lead*, Jobs West, British Columbia, Canada; and JDQ Systems Inc., British Columbia, Canada.  
Supported by the Developmental Disabilities Association, British Columbia, Canada
- 2011 **Sciences and Arts During Vacation**, *scholarship*, University of Campinas, Campinas, SP, Brazil.  
Supported by UNICAMP Dean of Research – PRP, Brazil
- 2010 **Technology in the Field III**, *Collaborator*, Universidade Estadual Paulista, Bauru, SP, Brazil.  
Supported by UNESP Dean of University Extension – PROEX, Brazil
- 2009 **Development Techniques for Learning Objects**, *scholarship*, Universidade Estadual Paulista, Bauru, SP, Brazil.  
Supported by UNESP Dean of University Extension – PROEX, Brazil
- 2009 **Technology in the Field II**, *scholarship*, Universidade Estadual Paulista, Bauru, SP, Brazil.  
Supported by UNESP Dean of University Extension – PROEX, Brazil
- 2007 – 2008 **Workshop on Robotics and Education**, *scholarship*, Universidade Estadual Paulista, Bauru, SP, Brazil.  
Supported by UNESP Dean of University Extension – PROEX, Brazil

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## Academic Supervision

- 2022 Craig Holder, Maija Kinnunen, Hao Tian Guan and Dylan Brush (co-supervision), Bachelor of Information Technology, Capstone Project: *Improving Aether's Virtual Reality Simulation for Fall Detection and Human Robot Interactions with Elderly Avatars*. Ontario Tech University, Ontario, Canada
- 2022 Pious Joseph, and Ihtesham Khan (co-supervision), Bachelor of Information Technology, Capstone Project: *Conceptual Model of a CANDU Fuel Channel with Improved Axial Temperature Distribution*. Ontario Tech University, Ontario, Canada
- 2020 – 2021 Delun Chen (co-supervision), Masters in Mechanical Engineering: *Empowering a Collaborative Service Robot Prototype for Long-term Care Facilities*. University of British Columbia, Vancouver, Canada
- 2018 – 2020 Mingyang Shao (co-supervision), Masters in Mechanical Engineering: *Socially Assistive Robot for Assisting Exercising Activities*. University of Toronto, Toronto, Canada
- 2019 Masatoki Sugimoto (co-supervision), International Exchange Master Student. University of Toronto, Toronto, Canada
- 2018-2019 Yu-Chen (Gary) Sun (co-supervision), Ph.D. in Mechanical Engineering: *Embedded IoT device for smart clothes*. University of Toronto, Toronto, Canada
- 2018-2019 Marco Chu (co-supervision), Masters in Mechanical Engineering: *Embedded IoT device for smart clothes*. University of Toronto, Toronto, Canada
- 2018-2019 Asad Ashraf (co-supervision), Undergraduate in Mechanical Engineering: *Computer vision system for detecting clothes*. University of Toronto, Toronto, Canada
- 2019 Omar Ismail (co-supervision), Masters in Mechanical Engineering: *Multimodal Emotional Display for a Socially Assistive Robot*. University of Toronto, Toronto, Canada
- 2018 – 2019 Ryo Watanabe (co-supervision), International Exchange Master Student. University of Toronto, Toronto, Canada
- 2017 – 2018 Xinyi Zhang (co-supervision), Masters of Science in Mechanical Engineering: *A Robot Emotion Model with History*. University of Toronto, Toronto, Canada
- 2016 Celso de Oliveira Lisboa (co-supervision), Bachelor in Computer Science: *LOGIKID: Software for Teaching Logics and Programming with AEDROMO*. Universidade Estadual Paulista, Bauru, Brazil.

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## Journal Publications

### Peer reviewed

- Hong A.; Lunscher, N.; Hu T.; Tsuboi, Y.; Zhang, X.; Alves, S. F. R.; Nejat, G.; Benhabib, B. “A Multimodal Emotional Human-Robot Interaction Architecture for Social Robots Engaged in Bidirectional Communication”. IEEE Transactions on Cybernetics (Early Access)
- Alves, S. F. R.; Silva, I. N.; Ferasoli Filho, H. “Intelligent Control Architecture for Assistive Mobile Robots”. Journal of Control, Automation and Electrical Systems, 27(5), 2016, p. 515–526.
- Melo, L. F.; Alves, S. F. R.; Rosário, J. M. “Mobile Robot Navigation Modelling, Control and Applications”. International Review on Modelling and simulations. , v.5, p.1059 - 1068, 2012.

### Non-peer reviewed

- Sousa, A. M.; Pegoraro, R.; Alves, S. F. R.; Ferasoli-Filho, H. “Representação contextual das atividades no ambiente experimental e didático com robôs móveis/Contextual representation of the activities in the experimental and didactic environment with mobile robots”. Brazilian Journal of Development, v.7, No.5 p.51395 - 51408, 2021.
- Uribe-Quevedo, A. J.; Alves, S. F. R. “Rastreamento de rosto como ferramenta interativa e de monitoramento do estado emocional do usuário”. Revista Científica General José María Córdova. , v.13, p.245 - 255, 2015.

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## Organized books

- da Silva, I.N.; Hernane Spatti, D.; Andrade Flauzino, R.; Liboni, L.H.B.; dos Reis Alves, S. F. “Artificial Neural Networks: A Practical Course”. Springer International Publishing, 2016, p. 307.
- Bastos Filho, T. F.; Alves, Silas. “Proceedings of the International Workshop on Assistive Technology”. Vitória, Espírito Santo : UFES, 2015 p.388.

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## Book Chapters

### Non-peer reviewed

- Valadão C.T., Alves S.F.R., Goulart C.M., Bastos-Filho T.F. “Robot Toys for Children with Disabilities”. In: Tang J., Hung P. (eds) Computing in Smart Toys. International Series on Computer Entertainment and Media Technology. 2017, Springer, Cham
- Alves, S. F. R.; Rosário, J. M.; Ferasoli Filho, H.; Ardila, L. K. R.; Yamasaki, R. A. T. “Conceptual Bases of Robot Navigation Modeling, Control and Applications”. In: Alejandra Barrera. (Org.). Advances in Robot Navigation. 1ed. Rijeka: InTech - Open Access Publisher, 2011, v. , p. 3-28.

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## Conference Publications

### Full-paper, peer-reviewed

- S. F. R. Alves, A. J. Uribe-Quevedo, D. Chen, J. Morris, S. Radmard. “Developing a VR Simulator for Robotics Navigation and Human Robot Interactions employing Digital Twins”, 1st IEEE VR 2022 Workshop on 3D Reconstruction, Digital Twinning, and Simulation for Virtual Experiences. Virtual Event, New Zealand, 2022
- S. F. R. Alves, A. J. Uribe-Quevedo, D. Chen, J. Morris, S. Radmard. “Leveraging Simulation and Virtual Reality for a Long Term Care Facility Service Robot During COVID-19”, 23rd Symposium on Virtual and Augmented Reality, Virtual event, Brazil, 2021.
- M. Chu, Y. C. Sun, A. Ashraf, S. F. R. Alves, G. Nejat, H. E. Naguib, “Making Dressing Easier: Smart Clothes to Help With Putting Clothes on Correctly”, 2019 IEEE International Conference on Systems, Man, and Cybernetics, Bari, Italy, 2019.
- M. Shao, S. F. R. Alves, O. Ismail, X. Zhang, G. Nejat, B. Benhabib, “You Are Doing Great! Only One Rep Left: An Affect-Aware Social Robot for Exercising”, 2019 IEEE International Conference on Systems, Man, and Cybernetics, Bari, Italy, 2019.
- S. F. R. Alves, M. Shao, G. Nejat, “A Socially Assistive Robot to Facilitate and Assess Exercise Goals”, Workshop on Mobile Robot Assistants for the Elderly, IEEE International Conference on Robotics and Automation (ICRA) 2019 pp. 1-5, 2019.
- X. Zhang, S. F. R. Alves, G. Nejat, B. Benhabib, “A Robot Emotion Model with History”, IEEE 5th International Symposium on Robotics and Intelligent Sensors (IRIS 2017), pp. 230-235 Oct. 2017.
- Alves, Silas; Appel, V. C. R.; Bastos Filho, T. F.; Caurin, G. A. P.; Silva, I. N.; Ferasoli Filho, H. Multimodal Method for Detecting Emotion of Autistic Children In: 1st International Workshop on Assistive Technology, 2015, Vitória, Espírito Santo. Proceedings of the 1st International Workshop on Assistive Technology, 2015. , 2015. p.192 - 194
- Alves, Silas; Sime, M. M.; Bastos Filho, T. F. Proposta de Sistema de Informação para Controle de Ambientes Inteligentes por Sinais Biomédicos In: 1st International Workshop on Assistive Technology, 2015, Vitória, Espírito Santo. Proceedings of the 1st International Workshop on Assistive Technology, 2015. , 2015. p.199 - 202
- Cotrina-Atencio, A.; Benevides, A. B.; Alves, Silas; Garcia, J. F. C.; Ferreira, A.; Bastos Filho, T. F. Towards a BCI-Speller Based on Binary Selection In: 1st International Workshop on Assistive Technology, 2015, Vitória, Espírito Santo. Proceedings of the 1st International Workshop on Assistive Technology, 2015. , 2015. p.221 - 224

- Alves, Silas; Ranieri, C. M.; Silva, I. N.; Ferasoli Filho, H. Assisted Robot Navigation based on Speech Recognition and Synthesis In: 5th IEEE Biosignals and Biorobotics conference (ISSNIP), 2014, Salvador, Bahia. Proceedings of the 5th IEEE Biosignals and Biorobotics conference (ISSNIP). , 2014.
- Alves, Silas F.R.; Silva, I. N.; Ferasoli Filho, H. Intelligent Control Architecture for Human-Robot Interaction In: 2014 Joint Conference on Robotics: SBRLARS Robotics Symposium and Robocontrol (SBR LARS Robocontrol), Sao Carlos. 2014 Joint Conference on Robotics: SBR-LARS Robotics Symposium and Robocontrol. IEEE, 2014.
- Ranieri, C. M.; Alves, Silas; Silva, I. N.; Ferasoli Filho, H. Navegação Assistida de Robôs Baseada em Reconhecimento e Síntese de Fala In: 20º Congresso Brasileiro de Automática (CBA), 2014, Belo Horizonte, MG. Anais do 20º Congresso Brasileiro de Automática (CBA). , 2014.
- Dos Reis Alves, Silas F.; Uribe-Quevedo, A. J.; Silva, I. N.; Ferasoli Filho, H. Pomodoro, a mobile robot platform for hand motion exercising In: 2014 5th IEEE RAS; EMBS International Conference on Biomedical Robotics and Biomechatronics (BioRob), Sao Paulo. 5th IEEE RAS/EMBS International Conference on Biomedical Robotics and Biomechatronics. IEEE, 2014. p.970 – 974
- Alves, Silas; Silva, I. N.; Ranieri, C. M.; Ferasoli Filho, H.; Caldeira, M. A. C.; Pegoraro, R. A friendly mobile entertainment robot for disabled children In: 2013 ISSNIP Biosignals and Biorobotics Conference: Biosignals and Robotics for Better and Safer Living (BRC), 2013, Rio de Janeiro. 2013 ISSNIP Biosignals and Biorobotics Conference: Biosignals and Robotics for Better and Safer Living (BRC). , 2013.
- Ranieri, C. M.; Alves, Silas; Ferasoli Filho, H.; Silva, I. N. Inclusive Robotic Environment for Teaching In: IV Workshop of Robotics in Education (WRE), 2013, Arequipa. Proceedings of the IV Workshop of Robotics in Education (WRE). , 2013.
- Ranieri, C. M.; Alves, Silas; Ferasoli Filho, H. Interface Humano-Robô e Arquitetura de Controle para Robôs Móveis controlados por Smartphones In: Workshop of Graduate and Undergraduate Works on Robotics (WUWR) 2013, 2013, Arequipa. Proceedings of the Workshop of Graduate and Undergraduate Works on Robotics (WUWR) 2013. , 2013.
- Uribe-Quevedo, A. J.; Pérez-Gutiérrez, B.; Alves, S. F. R. Video Game Interfaces for Interactive Lower and Upper Member Therapy In: Medicine Meets Virtual Reality 20, 2013, San Diego, California, USA. Medicine Meets Virtual Reality 20. IOS Press 2013, 2013. p.465 - 467
- Ranieri, C. M.; Alves, S. F. R.; Ferasoli Filho, H.; Caldeira, M. A. C.; Pegoraro, R. An Environment Endowed with a Behavior-Based Control Architecture to Allow Physically Disabled Children to Control Mobile Robots In: Robocontrol 2012 - 5th Workshop on Applied Robotics and Automation, 2012, Bauru. Proceedings of Robocontrol 2012 - 5th Workshop on Applied Robotics and Automation. , 2012.
- Alves, S. F. R.; Melo, L. F.; Rosário, J. M.; Ferasoli Filho, H. Embedded Control Modeling for Differential and Omnidirectional Mobile Robot Navigation Systems In: Robocontrol 2012 - 5th Workshop in Applied Robotics and Automation, 2012, Bauru. Proceedings of Robocontrol 2012 - 5th Workshop in Applied Robotics and Automation. , 2012.
- Nakamura, R. Y. M.; Pereira, L. A. M.; Silva, D.; Cardozo, P.; Pereira, C. R.; Ferasoli Filho, H.; Alves, S. F. R.; Pires, R. G.; Spadotto, A. A.; Papa, J. P. Fast robot voice interface through Optimum-Path Forest In: IEEE 16th International Conference on Intelligent Engineering Systems, 2012, Lisboa, Portugal. Proceedings of IEEE 16th International Conference on Intelligent Engineering Systems. , 2012.
- Alves, S. F. R.; Uribe-Quevedo, A. J.; Pérez-Gutiérrez, B.; Ferasoli Filho, H. Gesture-Based Interactions with a Mobile Wheeled Robot In: Robocontrol 2012 - 5th Workshop on Applied Robotics and Automation, 2012, Bauru. Proceedings of Robocontrol 2012 - 5th Workshop on Applied Robotics and Automation. , 2012.
- Uribe-Quevedo, A. J.; Pérez-Gutiérrez, B.; Alves, S. F. R. Gesture-based Teleoperation using a Holonomic Robot In: 12th International Conference on Control, Automation and Systems, 2012, Jeju. Proceedings of the 12th International Conference on Control, Automation and Systems. , 2012. p.208 - 213

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- Alves, S. F. R.; Rosário, J. M.; Ferasoli Filho, H.; Silva, I. N. TAO - A Software Platform for Autonomous Mobile Robots In: 12th International Conference on Control, Automation and Systems, 2012, Jeju. Proceedings of the 12th International Conference on Control, Automation and Systems. , 2012. p.964 - 969
- Alves, S. F. R.; Rosário, J. M.; Ferasoli Filho, H.; Silva, I. N. TAO - Uma Plataforma de Software para Robôs Móveis Autônomos In: XIX Congresso Brasileiro de Automática, 2012, Campina Grande. Anais do XIX Congresso Brasileiro de Automática. 2012.
- Ranieri, C. M.; Alves, S. F. R.; Ferasoli Filho, H.; Caldeira, M. A. C.; Pegoraro, R. Um Ambiente para Interação entre Robôs Móveis e Crianças com Deficiências Motoras Severas In: V Jornadas AITADIS de Tecnologías de Apoyo a la Discapacidad, 2012, Vitória. Experiencias y Avances en Tecnologías de Accesibilidad para Personas con Discapacidad. , 2012. p.25 - 30
- Ferasoli Filho, H.; Caldeira, M. A. C.; Pegoraro, R.; Alves, S. F. R.; Bastos Filho, T. F.; Valadao, C. T. Use of Myoelectric Signals to Command Mobile Entertainment Robot by Disabled Children: Design and Control Architecture In: 3rd IEEE Biosignals and Biorobotics conference (ISSNIP), 2012, Manaus. Manaus. Proceedings of the 3rd IEEE Biosignals and Biorobotics conference (ISSNIP). , 2012.
- Alves, S. F. R.; Ferasoli Filho, H.; Pegoraro, R.; Caldeira, M. A. C.; Yonezawa, W. M.; Rosário, J. M. Ambiente Educacional de Robótica Direcionado a Aplicações em Engenharia In: X Simpósio Brasileiro de Automação Inteligente, 2011, São João del-Rei. Anais do X Simpósio Brasileiro de Automação Inteligente. , 2011.
- Caldeira, M. A. C.; Ono, J. H. P.; Pegoraro, R.; Ferasoli Filho, H.; Alves, S. F. R. Ambiente Gráfico de Simulação Robótica para Fins Educacionais In: IX International Conference on Graphics Engineering for Arts and Design, 2011, Rio de Janeiro. Anais do IX International Conference on Graphics Engineering for Arts and Design. 2011.
- Alves, S. F. R.; Ferasoli Filho, H.; Pegoraro, R.; Caldeira, M. A. C.; Rosário, J. M.; Yonezawa, W. M. Educational Environment for Robotic Applications in Engineering In: Eurobot Conference 2011 - 4th International Conference on Research and Education in Robotics, 2011, Praga - República Tcheca. Research and Education in Robotics - EUROBOT 2011. Berlin - Alemanha: Springer, 2011. v.161. p.17 - 28
- Pegoraro, R.; Ferasoli Filho, H.; Caldeira, M. A. C.; Alves, S. F. R. iPIC: Uma Ferramenta para Auxiliar o Aprendizado de Dispositivos Periféricos em Microprocessadores In: XXIV Congresso Brasileiro de Educação em Engenharia - COBENGE, 2011, Blumenau. Anais do XXXIV Congresso Brasileiro de Educação em Engenharia. 2011.
- Uribe-Quevedo, A. J.; Alves, S. F. R.; Rosário, J. M.; Ferasoli Filho, H.; Pérez-Gutiérrez, B. Mobile Robotic Teleoperation using Gesture-Based Human Interfaces In: Robotics Symposium, 2011 IEEE IX Latin American and IEEE Colombian Conference on Automatic Control and Industry Applications (LARC), 2011, Bogota. Proceedings of Robotics Symposium, 2011 IEEE IX Latin American and IEEE Colombian Conference on Automatic Control and Industry Applications (LARC). , 2011. p.1 - 6
- Alves, S. F. R.; Rosário, J. M.; Ferasoli Filho, H. Plataforma de Software para Robôs Móveis Autônomos In: I CTDR – Concurso de Teses e Dissertações de Robótica / Latin American Robotics Symposium / Brazilian Robotics Symposium, 2012, Fortaleza, CE. Anais do I Concurso de Teses e Dissertações de Robótica. , 2011.
- Alves, S. F. R.; Ferasoli Filho, H.; Pegoraro, R.; Caldeira, M. A. C.; Rosário, J. M.; Yonezawa, W. M. Proposal of Educational Environments with Mobile Robots In: 5th IEEE International Conference on Robotics, Automation and Mechatronics, 2011, Qingdao, China. Proceedings of the 5th IEEE International Conference on Robotics, Automation and Mechatronics. , 2011. p.264 - 269
- Alves, S. F. R.; Ferasoli Filho, H.; Pegoraro, R.; Rosário, J. M. Ambiente de Ensino e Desenvolvimento de Sistemas Robóticos Móveis In: XVIII Congresso Brasileiro de Automática, 2010, Bonito. Anais do XVIII Congresso Brasileiro de Automática. , 2010. p.675 - 681

- Alves, S. F. R.; Rosário, J. M.; Ferasoli Filho, H.; Pegoraro, R. Environment for Teaching and Development of Mobile Robot Systems In: Electronics, Robotics and Automotive Mechanics Conference (CERMA), 2010, 2010, Cuernavaca. Electronics, Robotics and Automotive Mechanics Conference (CERMA), 2010. , 2010. p.302 - 307
- Alves, S. F. R.; Ferasoli Filho, H.; Yonezawa, W. M.; Rosário, J. M. Nova Abordagem para o Ensino de Computação: A Bancada Experimental Robótica In: ROBOCONTROL 2010 - 4º Workshop de Robótica Aplicada e Automação, 2010, Bauru. Workshop Robocontrol (UNESP. Bauru). , 2010.
- Alves, S. F. R.; Ferasoli Filho, H.; Yonezawa, W. M. Bancada Experimental Robótica para o Ensino de Computação In: DINCON, 2009, Bauru, São Paulo. Proceedings of the 8th Brazilian Conference on Dynamics, Control and Applications. , 2009. v.8.
- Ferasoli Filho, H.; Caldeira, M. A. C.; Pegoraro, R.; Yonezawa, W. M.; Alves, Silas. As Perspectivas do uso da Robótica Móvel na Educação de Professores e Alunos do Ensino Fundamental até o Ensino Superior In: Robocontrol'08 - 3rd Applied Robotics and Collaborative Systems Engineering, 2008, Bauru, São Paulo. Anais do Workshop ROBOCONTROL'08 3rd Applied Robotics and Collaborative Systems Engineering. , 2008.

#### Short-papers, non-peer reviewed

- S. F. R. Alves, A. J. Uribe-Quevedo, D. Chen, J. Morris, S. Radmard. “VR Simulator for Human-Robot Interaction and Robot Navigation”, DiSIMinate2build 2022, October 21, 2021 to April 30, 2022. Cureus Annals of Simulation. Oshawa, Canada, 2022
- Alves, Silas; Uribe-Quevedo, A.; Chen , D.; Morris, J.; Radmard, S. Virtual Reality Environment to Increase Caregivers' Participation in Robotics Development. In: RehabWeek 2021, International Society for Virtual Rehabilitation (ISVR), 2021, Virtual Event.
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#### Event Co-Organizer

- 2017 IEEE 5<sup>th</sup> International Symposium on Robotics and Intelligent Sensors (IEEE IRIS2017). Ottawa, Canada. October 5–7, 2017
- 2015 1<sup>st</sup> International Workshop on Assistive Technology. Federal University of Espírito Santo, Vitória, ES, Brazil. February 2-6, 2015
- 2012 Robocontrol 2012 – 5<sup>th</sup> Workshop in Applied Robotics and Automation. Universidade Estadual Paulista, Bauru, SP, Brazil. June 14-15, 2012
- 2010 Robocontrol 2010 – 4<sup>th</sup> Workshop in Applied Robotics and Automation. Universidade Estadual Paulista, Bauru, SP, Brazil. May 6-7, 2010
- 2009 II Workshop in Services Science: Management and Engineering. Universidade Estadual Paulista, Bauru, SP, Brazil. May 6, 2009
- 2008 Robocontrol'08 – 3<sup>rd</sup> Applied Robotics and Collaborative Systems Engineering with Emphasis in Industrial Applications and Educational Environments. Universidade Estadual Paulista, Bauru, SP, Brazil. December 4-5, 2008
- 2007 Robocontrol'07 – 2<sup>nd</sup> Workshop in Robotics Applications and Automatic Control. Universidade Estadual Paulista, Bauru, SP, Brazil. May 28-29, 2007

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- Software de Ensino de Pluviometria (SEP), 2011 Brazil. Registration Institution: INPI - National Institute of Industrial Property. Registration number: 11566-5 RS, date: 03/02/2011, date of award: 26/04/2011. Support: UNESP Dean of University Extension - PROEX.

## Technical Production

- Translation Matarić, Maja. Introdução à Robótica. Translators: Ferasoli Filho, H.; Silva, J. R.; Alves, S. F. R. São Paulo: Editora UNESP / Blucher Editora, 2013.
- Hardware Ferasoli Filho, H.; Alves, Silas. Modular architecture of a Simple Computer, 2013.
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- Software Alves, Silas; Rosário, J. M. TAO, 2012.
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- Booklet Ferasoli Filho, H.; Alves, Silas. Experiments with Linear Circuits, 2012.
- Hardware Ferasoli Filho, H.; Alves, Silas. Microcomputer with Microprocessor 8085, 2012.
- Hardware Alves, Silas; Ferasoli Filho, H. Mobile Robot Controller, 2009.
- Software Alves, Silas; Ferasoli Filho, H. Yonezawa, W. M; Souza, A. G. Learning Object for Introduction to Robotics, 2008.
- Software Alves, Silas; Ferasoli Filho, H. Robotic Experimental Testbed, 2008.
- Hardware Alves, Silas; Ferasoli Filho, H. Elevator, 2007.

## Languages

- English Proficient speaking, reading and writing.
- Portuguese Native language.

## Computer Skills

- Basic C#, Android development, Unity 3D.
- Intermediate UML, Java, PHP, Matlab, JavaScript, HTML, CSS, ActionScript 3.0.
- Advanced C, C++, Python, Robot Operating System (ROS).
- Miscellaneous Microsoft Windows, GNU/Linux, Office, L<sup>A</sup>T<sub>E</sub>X, Adobe Flash, Eagle EDA.

## Professional References

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