

Margarida Silva

CONTROL ENGINEER

Portuguese citizen - 20.12.1984
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Kleßheim 4, 5071 Wals-Siezenheim, Austria



Education

Ph.D.

10. 2009 - 11. 2014

Electrical Engineering (specialization: Automatic Control)
- Uppsala University, Sweden

- Developed models and system identification algorithms for nonlinear dynamic systems;
- Designed and implemented adaptive closed-loop controllers in a module-based software (in Matlab);
- Validated the proposed methods with real data.

Graduate courses: Stochastic systems; System identification; Recursive identification; Nonlinear system identification; Linear systems; Matrix algebra; Adaptive control; Nonlinear control; Digital signal processing

Thesis: Nonlinear modeling and feedback control of drug delivery in anesthesia

Master of Science

9. 2005 - 11. 2007

Biomedical Engineering (grade: 17/20)
- IST, Technical University of Lisbon, Portugal

Bachelor of Science

9. 2002 - 7. 2005

Biomedical Engineering (grade: 14/20)
- IST, Technical University of Lisbon, Portugal

Language skills

Portuguese: mother tongue

English: advanced level

German: intermediate level (CEFR level A2.2)

Spanish: intermediate level

Swedish: beginners level (CEFR level A1.2)

Professional Experience & Training

- Teaching assistant** 10. 2011 - 3. 2014
on System identification and Introduction to Computer Controlled Systems
- Uppsala University, Sweden
- Exchange student** 2. 2013 - 7. 2013
Applied Image and Signal Processing Program
- Fachhochschule & University of Salzburg, Austria
- Participant** 29. 3. 2009 - 4. 4. 2009
1st Elgersburg School on Mathematical Systems Theory
- Elgersburg, Germany
- Researcher** 1. 2008 - 8. 2009
- Mathematics Dept., Sciences Faculty, University of Porto, Portugal
- Developed control algorithms for drug delivery in anesthesia
 - Implemented control algorithms (in Matlab/Simulink)
 - Performed clinical tests
- Student researcher** 3. 2007 - 11. 2007
- Instituto de Medicina Molecular, Portugal
- Developed live imaging microscopy techniques to monitor differentiation of stem cells in vitro
 - Processed time-lapse images from confocal/light microscopy (in Matlab)
- Erasmus student** 3. 2006 - 7. 2006
- Eindhoven University of Technology, The Netherlands
- Participant: ANSYS Simulation software workshop** 16. 5. 2005 - 17. 5. 2005
- IST, Technical University of Lisbon, Portugal

Publications

7 peer reviewed journal papers (4 as first author)
24 peer-reviewed conference papers

Travel grants

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| Liljewalchs, Uppsala University: 2500 eur | 2014 |
| American Control Conference student travel award: 570 eur | 2014 |
| Luso-American Foundation (FLAD): 1500 eur | 2014 |
| Calouste Gulbenkian Foundation: 1040 eur | 2010 |
| Luso-American Foundation (FLAD): 1500 eur | 2010 |

Research grants

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| Portuguese funding agency for science, technology and innovation (FCT): Ph.D. grant | 2009 |
| Bernt Järmark's Foundation for Scientific Research: Short research internship | 2009 |
| FCT Project at University of Porto, Portugal: Researcher | 2008 |

Prizes

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| Best presentation in session: American Control Conference, Portland, OR, USA | 2014 |
| Best presentation in session: American Control Conference, Baltimore, MA, USA | 2010 |
| Portuguese representation: 9th Expo-Science International, Moscow, Russia | 2003 |
| 2 nd Prize: National phase of 14th European Union Contest for Young Scientists (EUCYS) | 2002 |
| 1 st Prize: National phase of the UNESCO International contest - Space and Daily Life | 2002 |
| Portuguese representation: 7th Intern. Science and Techn. Expo, Novo Hamburgo, Brazil | 2002 |
| Honorable Mention: International Environment Project Olympiad, Istanbul, Turkey | 2002 |
| 1 st Prize: National phase of 12th Concurso Europeu Jovens Investig. Área do Ambiente | 2001 |
| Portuguese representation: 13th EUCYS, Bergen, Norway | 2001 |
| 1 st Prize: National phase of 13th EUCYS | 2001 |

Memberships

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| SIAM (Society for Industrial and Applied Mathematics) | 2013 - 2014 |
| IEEE CSS Technical Committee on Medical and Healthcare Systems | 2013 - 2014 |
| IEEE CSS Technical Committee on System Identification and Adaptive Control | 2010 - 2014 |
| IEEE, Control Systems Society (CSS) | 2008 - 2014 |
| Portuguese Youth Science Association (AJC) | 1999 - 2009 |

Hobbies

Hiking, Jogging, Cross-country skiing, Climbing

References

Alexander Medvedev, full Professor
- Uppsala University, Sweden
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Torbjörn Wigren, Systems engineer
- Ericsson AB, Sweden
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