

# Andreea Radulescu

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## Education

- 2011–2016 **PhD Robotics**, *University of Edinburgh*, School of Informatics.  
Institute of Perception, Action and Behaviour
- 2010–2011 **MSc Artificial Intelligence**, *University of Edinburgh*, School of Informatics,  
MSc Thesis: *Exploiting Variable Physical Damping*.  
Graduated with Distinction
- 2004–2009 **Bachelor of Engineering**, *"POLITEHNICA" University of Bucharest*, Faculty of Automatic  
Control and Computers, *Diploma grade: 9.75 (97.5%)*.  
Main field of study: System and Computer Engineering  
Specialisation: Automatic Control and Applied Informatics

## Experience

- 2016–present **PostDoctoral Researcher**, ISTITUTO ITALIANO DI TECNOLOGIA.  
Advanced Robotics Department - Dynamic Legged Systems
- 2012–2016 **Teaching Experience**, UNIVERSITY OF EDINBURGH.
- **2012 - 2013**
    - Teaching Assistant - Data Mining and Exploration
    - Tutor - Informatics Research Proposal
  - **2013 - 2014**
    - Lab Demonstrator - Robotics: Science and Systems
    - Tutor - System Design Process
  - **2014 - 2015**
    - Lab Demonstrator - Robotics: Science and Systems
    - Tutor - System Design Process
- 2009 **Intern (Process Engineering Department)**, DACIA, GROUP RENAULT.  
During this internship I have completed my Bachelor Dissertation ("Modifications and backup management procedure for the OSCAR system").

## Miscellaneous

- 2013 - present **Meeting coordinator**, UNIVERSITY OF EDINBURGH.  
Organise regular research group meetings. Manage bookings and set up rota.
- 2013 - 2015 **EIE Conference Staff member**, IVENTURES.  
Part of the support staff team.
- 2012 - present **Public engagement**, UNIVERSITY OF EDINBURGH.  
Science communication volunteer at various public outreach events. Open doors day volunteer.

## Invited Talks

- 25th May 2018 **Robust Locomotion Strategies on the HyQ Robot Series**, *Dynamic Legged Locomotion in Realistic Terrains Workshop*, The International Conference on Robotics and Automation (ICRA 2018), Brisbane, Australia.

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## Publications

- 2018 **Simultaneous Contact, Gait, and Motion Planning for Robust Multilegged Locomotion via Mixed-Integer Convex Optimization**, The International Conference on Robotics and Automation (ICRA 2018).  
Authors: Bernardo ACEITUNO-CABEZAS, Carlos MASTALLI, Hongkai DAI, Michele FOCCHI, Andreea RADULESCU, Darwing G. CALDWELL, José CAPPELLETTO, Juan C. GRIECO, Gerardo FERNÁNDEZ-LÓPEZ, Claudio SEMINI
- 2017 **Learning Optimal Gait Parameters and Impedance Profiles for Legged Locomotion**, The International Conference on Humanoid Robots (Humanoids 2017).  
Authors: Elco HELJINK, Andreea RADULESCU, Brahayam PONTON, Victor BARASUOL, Darwing G. CALDWELL, Claudio SEMINI
- 2017 **Whole-body Trajectory Optimization for Non-periodic Dynamic Motions on Quadrupedal Systems**, The International Conference on Robotics and Automation (ICRA 2017).  
Authors: Andreea RADULESCU, Ioannis HAVOUTIS, Darwing G. CALDWELL, Claudio SEMINI
- 2017 **Trajectory and Foothold Optimization Using Low-Dimensional Models for Rough Terrain Locomotion**, The International Conference on Robotics and Automation (ICRA 2017).  
Authors: Carlos MASTALLI, Michele FOCCHI, Ioannis HAVOUTIS, Andreea RADULESCU, Sylvain CALINON, Jonas BUCHLI, Darwing G. CALDWELL, Claudio SEMINI
- 2017 **Probabilistic Contact Estimation and Impact Detection for State Estimation of Quadruped Robots**, The International Conference on Robotics and Automation (ICRA 2017).  
Authors: Marco CAMURRI, Maurice FALLON, Stephane BAZEILLE, Andreea RADULESCU, Victor BARASUOL, Darwing G. CALDWELL, Claudio SEMINI
- 2017 **Optimal Control of Variable Stiffness Policies: Dealing with Switching Dynamics and Model Mismatch**, *Springer Tracts in Advanced Robotics*, Geometric and Numerical Foundations of Movements.  
Authors: Andreea RADULESCU, Jun NAKANISHI, David J. BRAUN, Sethu VIJAYAKUMAR
- 2016 **Optimization for non-periodic dynamic motions of legged systems**, The 9th International Workshop on Human-Friendly Robotics (HFR 2016).  
Authors: Andreea RADULESCU, Ioannis HAVOUTIS, Darwing G. CALDWELL, Claudio SEMINI
- 2015 **Optimal Control of Multi-Phase Movements with Learned Dynamics**, IEEE International Conference on Man-Machine Interactions (ICMMI).  
Authors: Andreea RADULESCU, Jun NAKANISHI, Sethu VIJAYAKUMAR
- 2014 **Spatio-Temporal Stiffness Optimisation in Movements with Switching Dynamics**, IEEE Transactions on Robotics (T-RO) Journal (*currently under review*).  
Authors: Jun NAKANISHI, Andreea RADULESCU, David BRAUN, Sethu VIJAYAKUMAR
- 2013 **Spatio-temporal Optimisation for Multi-phase Movements: Dealing with Contacts and Switching Dynamics**, IEEE/RSJ International Conference of Intelligent Robots and Systems, Tokyo, Japan.  
Authors: Jun NAKANISHI, Andreea RADULESCU, Sethu VIJAYAKUMAR
- 2012 **Exploiting Variable Physical Damping in Rapid Movement Tasks**, IEEE/ASME International Conference on Advanced Intelligent Mechatronics, Kaohsiung, Taiwan [**AIM 2012 Best Student Paper Award Finalist**].  
Authors: Andreea RADULESCU, Matthew HOWARD, David BRAUN, Sethu VIJAYAKUMAR

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## Awards

- 2011 Informatics UK/EU Master's Scholarship 2010-2011

## Computer skills

Basic	HTML, UML, SQL Server, Assembler, Verilog, LabView, Microsoft Robotics Studio, Corel Paintshop Pro, Autodesk 3ds Max
Intermediate	C++, JAVA, OpenOffice, Linux, Microsoft Windows, Microsoft Office Tools
Advanced	Matlab, Octave, $\LaTeX$

## Certificates and activities

- 2008 CISCO - CCNA1 (Cisco Certified Network Associate)
- 2008 CISCO - Fundamentals of Java Programming
- 2008 Student Scientific Conference - POLITEHNICA University of Bucharest  
*Automated methods of detection for the QRS complex in the ECG*
- 2007 Summer Course BEST - Vrije Universiteit Brussel  
*Introduction into aero-spatial engineering*
- 2006 Summer Course BEST - Budapest University of Technology and Economics  
*Introduction to networking*
- 2006 Student Scientific Conference CERC - Technical Military Academy, Bucharest  
*The use of fractals in image compression*

## Languages

English	Fluent	Cambridge Advanced English Certificate
Romanian	Native speaker	
German	Intermediate	
Italian	Intermediate	