

Anıl Özdemir

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Academic Profile

- 2019 – present 📌 **Research Associate in Next Generation Artificial Intelligence**, Department of Computer Science, The University of Sheffield
PIs: Dr Michael Mangan, Dr Eleni Vasilaki
- 2015 – 2019 📌 **PhD in Robotics and Computational Intelligence**, Department of Automatic Control and Systems Engineering (ACSE), The University of Sheffield
Thesis title: *Synthesis and Analysis of Minimalist Control Strategies for Swarm Robotic Systems*
Supervisors: Dr Roderich Groß, Dr Andreas Kolling
- 2011 – 2015 📌 **BSc in Mechanical Engineering**, Faculty of Engineering, Yeditepe University, Turkey. Awarded with first class honours (*GPA 3.66/4.00*)
- 2010 – 2014 📌 **BSc in Mathematics**, Faculty of Arts and Sciences, Yeditepe University, Turkey. Awarded with first class honours (*GPA 3.99/4.00*)

Research Publications

Journal Articles

- 1 A. Özdemir, M. Gauci, S. Bonnet and R. Groß, 'Finding consensus without computation', *IEEE Robotics and Automation Letters*, vol. 3, no. 3, pp. 1346–1353, 2018, ISSN: 2377-3766. DOI: 10.1109/LRA.2018.2795640.

Conference Proceedings

- 1 A. Özdemir, M. Gauci and R. Groß, 'Shepherding with robots that do not compute', in *Artificial Life Conference Proceedings 14*, MIT Press, 2017, pp. 332–339. DOI: 10.7551/eCAL_a_056.
- 2 A. Özdemir, M. Gauci, A. Kolling, M. D. Hall and R. Groß, 'Spatial coverage without computation', in *2019 IEEE International Conference on Robotics and Automation (ICRA)*, IEEE, 2019, pp. 9674–9680.
- 3 J. A. Marques, A. Özdemir, M. J. Doyle, D. Rus and R. Groß, 'Decentralized pose control of modular reconfigurable robots operating in liquid environments', in *2019 IEEE/RSJ International Conference on Intelligent Robots and Systems (IROS)*, IEEE, 2019, pp. 4855–4861.
- 4 A. Özdemir, J. W. Romanishin, R. Groß and D. Rus, 'Decentralized gathering of stochastic, oblivious agents on a grid: A case study with 3d m-blocks', in *2019 International Symposium on Multi-Robot and Multi-Agent Systems (MRS)*, IEEE, 2019, pp. 245–251.
- 5 M. D. Hall, A. Özdemir and R. Groß, 'Self-reconfiguration via active subtraction with modular robots', in *Proceedings of Robotics: Science and Systems*, in press.

Oral Presentations

- 2018 📌 International Conference on Robotics and Automation (Brisbane, Australia)

Oral Presentations (continued)

- 2017
 - Departmental Postgraduate Research Symposium (Sheffield, UK)
 - European Conference on Artificial Life (Lyon, France)
 - Engineering Faculty Researcher Symposium (Sheffield, UK)
- 2016
 - UK-Japan Workshop on Bio-Inspired Soft Robotics (Cambridge, UK)

Awards

- 2015
 - **Departmental Prize Scholarship**, Automatic Control and Systems Engineering, The University of Sheffield. For PhD course fees and maintenance stipend for over three years.
- 2011
 - **University Scholarship**, Mechanical Engineering, Yeditepe University. For undergraduate course fee over four years.
- 2010
 - **University Scholarship**, Mathematics, Yeditepe University. For undergraduate course fee over four years.

Professional Experience

- Peer Reviewing
 - **Journals** Swarm Intelligence, Autonomous Robots, MDPI Sensors, ACM Transactions on Autonomous and Adaptive Systems, IOP Bioinspiration & Biomimetics
 - **Conferences** Int. Conf. Autonomous Agents and Multiagent Systems (AAMAS), Int. Conf. Swarm Intelligence (ANTS), Int. Symp. Distributed Autonomous Robotic Systems (DARS), Genetic and Evolutionary Computation Conf. (GECCO), Int. Conf. Robotics and Automation (ICRA), Int. Joint Conf. Artificial Intelligence (IJCAI), Int. Conf. Intelligent Robots and Systems (IROS), Robotics: Science and Systems (RSS), Towards Autonomous Robotic Systems (TAROS)
- Organisation
 - **DARS 2016** Member of the local organisation committee and editor of the conference brochure
 - **Sheffield Robotics** Seminar organisation (2017–2018)

Teaching and Work Experience

- Training
 - Completed the Sheffield Teaching Assistant programme at the University of Sheffield, with modules Assessment & Feedback, Laboratory Demonstrating, Lecturing, Problem Solving
- Teaching
 - ACS6121 Robotics and Autonomous Systems (2016–2019)
- Assistanship
 - COM3505 The Internet of Things (2017–2019)
 - COM1005 Machines and Intelligence (2016–2017)
 - PSY6317 Methods in Computational Intelligence (2015–2016)
- Work Experience
 - Software developer for aquaponics project led by Hamish Cunningham, The University of Sheffield (2019)

Skills

- Programming
 - Proficient in C/C++, Python, R, Bash, MATLAB/Simulink.

Skills (continued)

- Libraries/packages including OpenCV, GSL, Qt, NumPy/SciPy, Keras, Matplotlib, Networkx.
- Working knowledge of Perl, HTML, CSS, JavaScript.
- Misc ■ \LaTeX , TikZ, Git and SVN version control, High Performance Computing techniques, Enki and V-REP robotics simulators.