Curriculum Vitae Danica Kragic

PERSONAL INFORMATION

Researcher unique identifier ORCID: 0000-0003-2965-2953
Date of birth: 10-08-1971;
Nationality: Swedish/Croatian
URL for web site: www.csc.kth.se/~danik
Number of children: 2

EDUCATION

2006: Docent/Habilitation, Computer Science, KTH, Sweden
2001: PhD in Computer Science, KTH, Sweden
1995: MSc in Mechanical Engineering, TU Rijeka, Croatia

ACADEMIC POSITIONS

2008 Professor, EECS, KTH
2007 - 2008 Associate Professor, Royal Institute of Technology, KTH, Stockholm
2004 - 2006 Assistant Professor, Royal Institute of Technology, KTH, Stockholm
2004 Researcher, INRIA, Rennes, France
2003 Researcher, Johns Hopkins University, USA
2001 - 2002 Postdoctoral researcher, Centre for Autonomous Systems, KTH

MAJOR APPOINTMENTS (selection)

2018 – WASP Sweden, Scientific Coordinator of the AI/MLX track, co-Director
2012 - 2017 Vice Dean, School of Computer Science and Communication, KTH
2008 – 2018 Director, Centre for Autonomous Systems, KTH
2010 - 2014 Department Head, Computer Vision and Active Perception Lab, CSC, KTH

INDUSTRIAL APPOINTMENTS

Board of Directors: FAM AB (2016), SAAB AB (2017), H&M (Group2019)

AWARDS, HONORS, FELLOWSHIPS

2018, Knut and Alice Wallenberg Foundation, Scholar
2017, Best Manipulation Paper Finalist
2016, IEEE Fellow
2015, The Royal Swedish Academy of Engineering Sciences, Member
2014, IEEE Humanoids Best Conference Paper finalist
2013, IEEE ICRA Best Manipulation Paper Award
2012, Honorary Doctorate, Lappeenranta University of Technology
2012, IEEE IROS Best Cognitive Robotics Paper finalist
2012, IEEE IROS Best Automation Paper finalist
2012, IEEE Senior member
2011, The Royal Swedish Academy of Sciences, Member
2011, The Young Academy of Sweden, Member
2011, IEEE IROS Best Cognitive Robotics Paper Award
2008, SSF Research Leader of the Future Award
2007, IEEE Robotics and Automation Society, Early Academic Career Award

SUPERVISION OF GRADUATE STUDENTS AND POSTDOCTORAL FELLOWS
Postdocs: 20 (10 hold faculty positions (3 full professors); 7 are group leaders in the industry), 5 in progress
PhD Theses: 24 completed, 10 in progress
MSc Theses: more than 50 supervised, examiner for ca 20 per year

EDITORIAL BOARDS*:*

- *Associate Editor,* Science Robotics from 2018
- *Associate Editor*, IEEE Transactions of Robotics, 2014-2016;
- *Associate Editor* of the International Journal of Social Robotics, 2013-present;
- *Member of the Editorial Board*, Robotics and Autonomous Systems, 2014-present

TEACHING ACTIVITIES (selection)

Reinforcement learning, (PhD level, since 2017), Readings in Machine learning (PhD level, since 2016), Topics in Robotics (PhD level, since 2010), Topics in computer vision (PhD level, since 2014), Artificial Intelligence and Multiagent Systems, (Undergr, since 2010), Image Processing and Computer Vision (Undergr 2004-2010), Artificial Intelligence (Underg 2004-2010), Machine Learning (Undergr 2005-2010)

CONFERENCE ORGANIZATION (selection)*:*

- *Program co-Chair,* Conference on Robot learning (2019)
- *General chair,* IEEE International Conference on Robotics and Automation (ICRA 2016)
- *Industry forum chair,* IEEE-RAS International Conference on Robotics and Automation (ICRA 2015)
- *Chair of the steering committee*, IEEE Int. Conf. on Humanoid Robots, 2015-2017
- *Area Chair*, Computer Vision and Pattern Recognition, 2014
- *Organizational/program committee*: for IEEE ICRA, IEEE/RSJ IROS, Humanoids, RSS: 2008-present

COMMISSIONS OF TRUST (academic)

- 2013 - Max Planck Institute, Intelligent Systems: Scientific Advisory Board Member
- 2011 - Scientific Committee, Foundation Knut and Alice Wallenberg
- 2015-2018 IEEE RAS Member Administrative Committee
- 2012-2016 IEEE Robotics and Automation Awards Committee
- 2013-2016, Postdoc program, Chair, KK Foundation, Sweden
- 2012-2016 Research Policy Committee at the Royal Swedish Academy of Sciences
- 2012-2016 STINT, Chair for Natural Sciences and Technology Expert Group
- 2014 IEEE RAS Member Administrative Committee
- 2010 - 2012 IEEE RAS Member Administrative Committee
- 2006 - 2010 Chair, IEEE RAS TAB of Computer and Robot Vision
- 2005 - 2010 Coordinator, Autonomous Systems undergraduate specialization, KTH
- 2006 - IEEE RAS Conference Editorial Board
- 2008 - Expert evaluator EU FP7, FET, DFG

FUNDING RECORD (only Coordination and PI grants listed)

- 2020 Swedisgh research council, Rådprofessor (10 year grant, 5MEUR)
- 2019 ERC Advanced Grant (2.5MEUR)
- 2018 Knut och Alice Wallenberg Foundation SMART (1.5 MEUR);
- 2017 co-PI, Horizon2020, ACROSS, (150k EUR);
- 2016 co-PI, SSF, COIN, (800k EUR);
- 2015 Coordinator SSF, Factories of the Future (2.5MEUR);

- 2015 PI, EU FP7 RobDream (700k EUR);
- 2015 PI, EU socSMCs (0.8 MEUR);
- 2014 PI, Knut och Alice Wallenberg Stiftelse IPSYS (2MEUR);
- 2013 PI, EU FP7 TRADR (0.8 MEUR);
- 2013 co-PI EU FP7 RECONFIG (1 MEUR);
- 2013 PI, Swedish Research Council, CARMA (1.3 MEUR);
- 2012 PI ,EU FP7 RoboHow.Cog (0.7 MEUR);
- **EU FP7 TOPOSYS (0.7 MEUR**);
- **2011 PI, ERC Starting/Consolidator Grant FLEXBOT (1.5 MEUR);**
  (2010 and before) 2010 PI, EU FP7 eSMCs (0.7 MEUR); 2010 Coordinator, EU FP7 TOMSY (budget 3 MEUR, 0.7MEUR to KTH) 2009 PI, Swedish Research Council, Rambidrag, DAM (1.2MEUR); 2009 Coordinator, SSF RoSy (3 MEUR) ; 2009 PI, Croatian Ministry of Sciences (70KEUR); 2008 Coordinator, EU FP7 IP GRASP (budget 6.8MEUR, 1.2MEUR to KTH) ; 2008 PI SSF FFL Croma (0.9 MEUR); 2008 Co-PI EU FP7 IP CogX (1MEUR) ; 2006 Co-PI EU FP6 IP PACO-PLUS (1.4MEUR); 2006 PI, Swedish Research Council, (2.1MSEK) ; 2003 PI, Swedish Research Council, (1.9MSEK) ; 2002 co-PI, Swedish Research Council, (1.9MSEK)

Most representative publications:

[1] "*VPE: Variational policy embedding for transfer reinforcement learning* ", I. Arnekvist, **D. Kragic** and J. Stork, In IEEE International Conference on Robotics and Automation, 2019

[2] "*Global search with Bernoulli alternation kernel for task-oriented grasping informed by simulation*", R. Antonova, M. Kokic, J. Stork and **D. Kragic,** In *Conference on Robot Learning*, CoRL, 641–650, 2018.

[3] "*Free Space of Rigid Objects: Caging, Path Non-Existence, and Narrow Passage Detection*", A. Varava, J. Carvalho, F. Pokorny and D. Kragic, Workshop on Algorithmic Foundations of Robotics, WAFR, 2018

[4] *"Deep representation learning for human motion prediction and classification",* J. Bütepage, M. Black, **D. Kragic** and H. Kjellström, IEEE Conf. on Computer Vision and Pattern Recognition (CVPR), 2017

[5] "*Herding by caging: a topological approach towards guiding moving agents via mobile robots*", A.Varava, K. Hang, **D Kragic**, FT Pokorny, Robotics: Science and Systems, RSS, 2017.

[6] "*Hierarchical fingertip space: A unified framework for grasp planning and in-hand grasp adaptation*", K. Hang, M. Li, J. Stork, Y. Bekiroglu, F. Pokorny, A. Billard and **D Kragi**c, IEEE Transactions on robotics, 32 (4), 960-972, 2016.

[7] "*SimTrack: A simulation-based framework for scalable real-time object pose detection and tracking*". K. Pauwels and **D Kragic**, IEEE/RSJ International Conference on Intelligent Robots and Systems, 2015.

[8] "*Grasp Moduli Spaces*", F. Pokorny, K. Hang and **D. Kragic**, Robotics: Science and Systems, RSS 2013.

[9] "*Assessing grasp stability based on learning and haptic data",* Y. Bekiroglu, J. Laaksonen, J. Jorgensen, V. Kyrki and **D Kragic**, IEEE Transactions on Robotics 27 (3), 616-629, 2011.

[10]*"Visual object-action recognition: Inferring object affordances from human demonstration"*, H. Kjellström, J. Romero and **D Kragic**, Computer Vision and Image Understanding 115 (1), 81-90, 2011.

[11] "*Hands in action: real-time 3D reconstruction of hands in interaction with objects*", J. Romero, H., Kjellström and **D. Kragic**, IEEE International Conference on Robotics and Automation (ICRA), 2010.

Plenaries and Keynotes (selection since **2012** at leading conferences in robotics, control and AI). In addition to the below, I am invited to more than 10 workshops, conferences outside my field, etc).

- 2021 ICMERR, Plenary

- 2021 ICCAR Plenary
- 2021 RCAE Plenary
- 2021 ACM womEncourage, Plenary
- 2021 ECC Plenary
- 2020 ICME Plenary
- 2018 Conference on Robot Learning, CoRL, Plenary
- 2018 International Joint Conference on Artificial Intelligence, IJCAI, Plenary
- 2017 ACM International Conference on Multimodal Interfaces, Plenary
- 2017 Human Robot Interaction, HRI, Plenary
- 2016 International Conference on Human-Centered Software Engineering, Keynote
- 2015 IEEE International Conference on Automation Science, Plenary
- 2015 IEEE International Conference on Robotics and Automation, Keynote
- 2015 International Conference on Vision Systems, Plenary
- 2015 IEEE International Conference on Advanced Robotics, Plenary
- 2014 The Royal Swedish Academy of Sciences, Annual keynote
- 2013 Scandinavian Conference on Artificial Intelligence, Plenary
- 2012 IFAC Symposium on Robot Control, Plenary

For most recent publications, please see

https://scholar.google.se/citations?user=ZlSVieAAAAAJ&hl=en&oi=ao