Danica Kragic Jensfelt

Robotics, Perception and Learning Lab
Centre for Autonomous Systems
School of Computer Science and Communication
KTH

Address: KTH CSC - CAS/RPL, SE-100 44 Stockholm, Sweden

Phone: +46 (0) 8 790 67 29
Mobile: +46 (0) 70 467 45 36
Fax: +46 (0)8 723 03 02
E-mail: dani@kth.se
URL: www.csc.kth.se/~danik

Danica Kragic is a Professor at the School of Computer Science and Communication at the Royal Institute of Technology, KTH. She received MSc in Mechanical Engineering from the Technical University of Rijeka, Croatia in 1995 and PhD in Computer Science from KTH in 2001. She has been a visiting researcher at Columbia University, Johns Hopkins University, Brown University and INRIA Rennes. She is the Director of the Centre for Autonomous Systems. Danica received the 2007 IEEE Robotics and Automation Society Early Academic Career Award. She is a member of the Royal Swedish Academy of Sciences, Royal Swedish Academy of Engineering Sciences and founding member of the Young Academy of Sweden. She holds a Honorary Doctorate from the Lappeenranta University of Technology. She chaired IEEE RAS Technical Committee on Computer and Robot Vision and served as an IEEE RAS AdCom member on several occasions. Her research is in the area of robotics, computer vision and machine learning. In 2012, she received an ERC Starting Grant. Her research is supported by the EU, Knut and Alice Wallenberg Foundation, Swedish Foundation for Strategic Research and Swedish Research Council. She is an IEEE Fellow.

EDUCATION

1995, MSc Mechanical Engineering, Technical University of Rijeka, Croatia
2001, PhD Computer Science, The Royal Institute of Technology KTH

Postdoctoral training:
- 2001-2002, Centre for Autonomous Systems, Stockholm, Sweden
- 2003, Johns Hopkins University, Baltimore, USA
- 2004, INRIA, Rennes, France
- 2006, Brown University, Providence, USA
- 2006, Johns Hopkins University, Baltimore, USA

Docent (habilitation): Computer Science at The Royal Institute of Technology KTH, 2006

CURRENT POSITION

Professor, School of Computer Science and Communication, CSC, KTH, 2008-present
Director, Centre for Autonomous Systems, KTH, 2008-present
Vice-Dean, responsible for research, CSC, KTH, 2010-present

POSITIONS OF TRUST (current)
IEEE RAS Member Administrative Committee, 2015-
Max Planck Institute, Intelligent Systems: Scientific Advisory Board Member, 2013-
Evaluation Committee, Foundation Knut and Alice Wallenberg, 2011-
IEEE RAS Conference Editorial Board, 2006-
Expert evaluator EU FP7, FET, DFG, 2008-

BOARD MEMBERSHIP
SAAB, Board of Directors, 2017-
FAM AB, Board of Directors, Member, 2016-
Institute for Future Studies, Board of Directors, Member, 2014-

PAST ACADEMIC POSITIONS AND POSITIONS OF TRUST (selection)
IEEE Robotics and Automation Awards Committee, 2012-2016
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
2010-2015, Head, Computer Vision and Active Perception Lab, CSC, KTH
2010 - 2012 IEEE RAS Member Administrative Committee
2007 - Dec 2008 Centre for Autonomous Systems, Deputy Director
2006 - 2010 Chair, IEEE RAS TAB of Computer and Robot Vision
2005 - 2010 Coordinator, Autonomous Systems undergraduate specialization, KTH

GRADUATED Ph.D. STUDENTS
2017 Alejandro Marzinotto (PhD, main supervisor)
2017 Puren Guler (PhD, main supervisor)
2017 Emil Hyttinen (Lic, main supervisor)
2016 Kaiyu Hang (PhD, main supervisor)
2016 Johannes Stork (PhD, main supervisor)
2016 Francisco Vina (PhD, main supervisor)
2012 Yasemin Bekiroglu (PhD, main supervisor)
2012 Niklas Bergstrom (PhD, main supervisor)
2012 Babak Rasolzadeh (PhD, co-supervisor)
2011 Javier Romero (PhD, main supervisor)
2011 Jeannette Bohg (PhD, main supervisor)
2011 Thomas Feix (PhD, main supervisor)
2010 Maja Karasalo (PhD, co-supervisor)
2007 Staffan Ekvall (PhD, main supervisor)
2009 Mattias Bratt (Lic, main supervisor)
2009 Johan Tegin (PhD, co-supervisor)
2007 Daniel Aarno (Lic, main supervisor)

CURRENT Ph.D. STUDENTS
Sergio Caccamo (PhD student, main supervisor, 2014-2018)
Judith Butepage (PhD student, main supervisor, 2015-2019)
Mia Kokic (PhD student, main supervisor, 2016-2020)
Anastasiia Varava (PhD student, main supervisor, 2015-2019)
Joshua Haustein (PhD student, main supervisor, 2015-2019)

Elena Sibirtseva (PhD student, main supervisor, 2016-2020)
Rika Antonova (PhD student, main supervisor, 2016-2020)
Shahbaz Khader (PhD student, main supervisor, 2016-2020)
Johan Wessen (PhD student, main supervisor, 2016-2020)
Isac Arnekvist (PhD student, main supervisor, 2017-2021)

POSTDOCTORAL RESEARCHERS
Robert Krug (2017-)
Johannes Stork (2016-)
Francisco Vina (2016-2017)
Kaiyu Hang (2016-2017)
Florian Pokorny (2011-2014)
Lazaros Nalpantidis (2011-2012)
Christian Smith (2011-2014)
Yiannis Karayiannidis (2011-)
CarlHenrik Ek (2010-2014)
Gert Kootstra, (2010-2012)
Renaud Detry (2010-2012)
Matthew Johnson-Roberson (2010-11)
Dan Song (2008-12)
Maria Ralph (2008)
Mårten Björkman (2007-10)
Kai Hubner (2006-09)
Hedvig Kjellström, (2006-09)
Ville Kyrki (2003 and 2005)

GRANTS
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)
2012 PI, EU FP7 TOPOSYS (0.7 MEUR)
2011 PI, ERC Starting Grant FLEXBOT (1.5 MEUR)
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)

PROFESSIONAL AWARDS
2017, IEEE ICRA 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**
2004, IEEE ICRA 2004, finalist best vision paper award

TEACHING
Reinforcement learning, (PhD level, since 2017)
Examiner: MSc thesis in computer science (since 2014)
Reading circle 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, (Undergraduate level, since 2010)
Advanced individual course in Computer Science, (Undergraduate level, since 2010)
Image Processing and Computer Vision, Undergraduate level, 2004-2010
Artificial Intelligence, Undergraduate level, 2004-2010
Machine Learning, Undergraduate level, 2005-2010

EDITORIAL BOARDS
IEEE Transactions on Robotics Robotics and Autonomous Systems
Journal of Robotics
Foundations and Trends in Robotics
IEEE RAS Conference Board

ORGANIZATIONAL COMMITTEES (selection)
General Chair, IEEE International Conference on Robotics and Automation, 2016
Area Chair, Computer Vision and Pattern Recognition, 2014
Publication Chair, IEEE International Conference on Robotics and Automation, 2013
Awards Chair, IEEE International Conference on Robotics and Automation, 2012
Publication Chair, IEEE Multi-Conference on Systems and Control, 2012
Publicity Chair, Robotics: Science and Systems, 2011
Area Chair, Robotics; Science and Systems, 2009-10
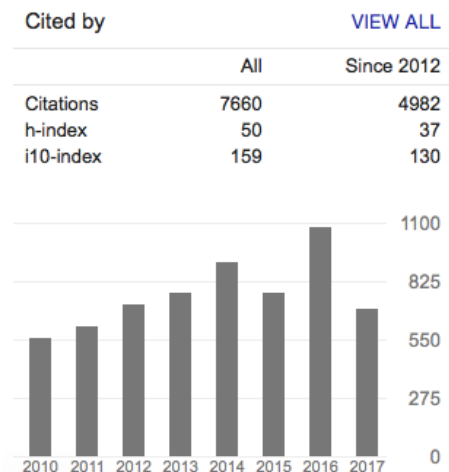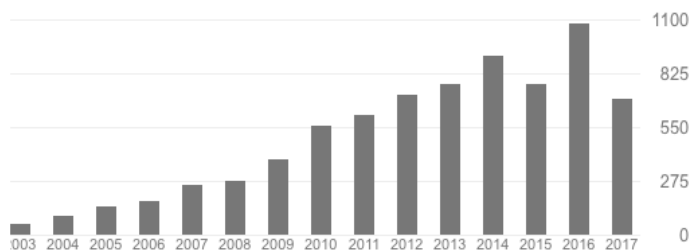
INVITED TALKS (selection since 2009)
2018 International Joint Conference on Artificial Intelligence, Plenary
2017 ACM International Conference on Multimodal Interfaces, Plenary
2017 Human Robot Interaction HRI, Plenary
2016 Int Conf on Human-Centred Software Engineering, Keynote
2015 IEEE International 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
2012 Int Workshop on Human Friendly Robotics, Keynote
2010 IEEE Int. Symposium in Robot and Human Interactive Communication, Plenary
2010 NATO Advanced Studies Institute, Keynote
2010 US-EU Workshop on Informatics for Bio-Inspired Design, Keynote
2010 Distinguished Lecture Day of Robotics, University of Southern California
2009 12th International Scientific Conference on Production Engineering, Plenary

PUBLICATIONS
for the full list and links to papers see:
 1) **www.csc.kth.se/~danik/publications.html**
 2) **https://scholar.google.se/citations?hl=en&user=ZlSVieAAAAAJ**

Statistics (from Google scholar)

Cited by		VIEW ALL
	All	Since 2012
Citations	7660	4982
h-index	50	37
i10-index	159	130

Most representative publications 2008-2017:

Integrating motion and hierarchical fingertip grasp planning
JA Haustein, K Hang, D Kragic, IEEE International Conference on Robotics and Automation
(ICRA), 3439-3446, 2017

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, 2017

Hierarchical fingertip space: A unified framework for grasp planning and in-hand grasp adaptation
K Hang, M Li, JA Stork, Y Bekiroglu, FT Pokorny, A Billard, D Kragic, IEEE Transactions on robotics 32 (4), 960-972, 2016

The grasp taxonomy of human grasp types
T Feix, J Romero, HB Schmiedmayer, AM Dollar, D Kragic, IEEE Transactions on Human-Machine Systems 46 (1), 66-77, 2016

Simtrack: A simulation-based framework for scalable real-time object pose detection and tracking
K Pauwels, D Kragic, IEEE/RSJ International Conference on Intelligent Robots and Systems (IROS), 2015

Data-driven grasp synthesis—a survey
J Bohg, A Morales, T Asfour, D Kragic, IEEE Transactions on Robotics 30 (2), 289-309, 2014

Design of a flexible tactile sensor for classification of rigid and deformable objects
A Drimus, G Kootstra, A Bilberg, D Kragic, Robotics and Autonomous Systems 62 (1), 3-15, 2014

Learning a dictionary of prototypical grasp-predicting parts from grasping experience
R Detry, CH Ek, M Madry, D Kragic, IEEE International Conference on Robotics and Automation (ICRA), 601-608, 2013

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

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

Primitive-Based Modeling and Grammar
V Krüger, DL Herzog, S Baby, A Ude, D Kragic, IEEE robotics & automation magazine, 31, 2010

Minimum volume bounding box decomposition for shape approximation in robot grasping
K Huebner, S Ruthotto, D Kragic, IEEE International Conference on Robotics and Automation, 2008

Simultaneous visual recognition of manipulation actions and manipulated objects
H Kjellström, J Romero, D Martínez, D Kragić, European Conference on Computer Vision–ECCV, 336-349, 2008