CURRICULUM VITAE

CTU
CZECH TECHNICAL
UNIVERSITY
IN PRAGUE

PERSONAL INFORMATION

Jiří Matas, Prof. ↗

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Director of the Research Center for Informatics project at CTU in Prague. ↗
Member of the Learned Society of the Czech Republic ↗

	WoS	SCOPUS	G. Scholar
Publications	46	304	∼ 400
H-index	68	70	92
Citations	27770	31721	60918

EDUCATION

1991 - 1995	PhD
	University of Surrey, United Kingdom
1982 - 1987	MSc (Ing.) in Technical cybernetics, with honours
	Czech Technical University in Prague, Faculty of Electrical Engineering

HONOURS AND AWARDS

2022
- **Best paper prize** at the British Machine Vision Conf. 2022, ↗
  A. Lukezic, Z. Trojer, J. Matas, M. Kristan:
  Trans2k: Unlocking the Power of Deep Models for Transparent Object Tracking

2020
- **Werner von Siemens prize** for supervising the best submitted
  master thesis (D. Rozumnyi)

2019
- **Best paper prize** (Honorable Mention), German Conf. on Pattern Recognition.
  R. Rozumnyi, J. Kotera, F. Sroubek J. Matas: Non-Causal Tracking by Deblatting

2018
- **Best paper prize**, 3rd International Workshop on Robust Reading at ACCV,
  M. Busta, Y. Patel, J. Matas:
  E2E – an Unconstrained End-to-End Method for Multi-Language Scene Text.

2017
- **Attila Kuba prize**: D. Barath, J. Matas, and L. Hajder:
  Multi-H: Efficient Recovery of Tangent Planes in Stereo Images, ↗

2015
- **Best paper award** at the Int. Conf. on Document Analysis and Recognition 2015:
  L. Neumann, J. Matas: Efficient Scene Text Localization and Recognition with
  Local Character Refinement

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2013	• **Best paper prize** at Image and Vision Computing New Zealand 2013: J. Pritts, O. Chum, J. Matas, Approximate Models for Fast and Accurate Epipolar Geometry Estimation • **Best paper prize** at Scandinavian Conference on Image Analysis 2013: T. Vojíř, J. Nosková, J. Matas, Robust Scale-Adaptive Mean-Shift for Tracking • with L. Neumann – **best student paper award** at the Int. Conf. on Document Analysis and Recognition: On Combining Multiple Segmentations in Scene Text Recogr
2011	• PhD. thesis of Zdenek Kalal whom I co-supervised was awarded the **UK ICT Pioneers Prize** vin the "Technology Everywhere" category
2010	• MSc. thesis of L. Neumann whom I supervised got both the **Czech Master Thesis 2010 in Computer Science** and the **Porsche Engineering Awards.** • **Outstanding Reviewer**, CVPR 2010
2007	• **Best paper prize** at the Asian Conference on Computer Vision 2007: J. Sochman, J. Matas: Learning A Fast Emulator of Binary Decision Process
2005	• **Best paper prize** at the British Machine Vision Conference 2005: S. Obdržálek, J. Matas: Sub-linear Indexing for Large Scale Object Recognition
2002	• **Best paper prize** at the British Machine Vision Conference 2002: J. Matas et al. Robust Wide Baseline Stereo from Maximally Stable Extremal Regions

SCIENTIFIC EXPERIENCE	
2010 -	**Professor**
	Dept. of Cybernetics, Faculty of Electrical Engineering, CTU in Prague
	Head of the Visual Recognition Group
2016 – 2019 (summers)	**Finland Distinguished Professor**
	Oulu and Tampere Universities, Finland
	Research Leader, PhD student co-supervision
2006 - 2010	**Associate professor (Docent)**
	Faculty of Electrical Engineering, Department of Cybernetics, CTU in Prague
	Research and Teaching
2007	**Visiting professor**
	EPFL Lausanne, Switzerland
	Research, PhD student supervision
2006 - 2010	**Visiting researcher**
	Centre for Vision, Speech and Signal Processing, University of Surrey, United Kingdom
	Research, PhD student supervision

1997 - 2005	**Research fellow**
	Dept. of Cybernetics, Faculty of Electrical Engineering, CTU in Prague
	Research, Teaching, PhD student supervision
1990 - 2001	**Research fellow**
	Centre for Vision, Speech and Signal Processing, University of Surrey, United Kingdom
	Research
1987 - 1990	**Assistant**
	Dept. of Control, Faculty of Electrical Engineering, CTU in Prague
	Research and Teaching

INTERNATIONAL AND NATIONAL COLLABORATIONS IN R&D OR IN APPLICATION SECTOR	
2004 *– ongoing*	Industrial R&D collaboration with Toyota Motor Europe in the area of autonomous driving, income since 2016 approx. 4 million EUR Project leader.
2011 *– ongoing*	Software Competence Center Hagenberg, Austria, ongoing, applied research collaboration supporting PhD students Project leader.
2015 *– 2017*	Industrial R&D collaboration, Electrolux, Italy, computer vision for home appliances. Project Leader

RESEARCH AND APPLICATION OUTCOMES	
Publications	1. Baráth, D.; Nosková, J.; Matas, J**.** Marginalizing Sample Consensus, IEEE Transactions on Pattern Analysis and Machine Intelligence. 2022, 44(11), 8420-8432. ISSN 0162-8828. (IF 16,39: D1; IS 6,10: D1) 2. Rozumnyi, D.; Kotera, J.; Šroubek, F.; Matas, J. Tracking by Deblatting International Journal of Computer Vision. 2021, 2021(129), 2583-2604. ISSN 0920-5691. (IF 7,41: Q1; AIS 4,71: D1) 3. A. Lukezic , T. Vojír, L. Cehovin Zajc, J. Matas, M. Kristan: Discriminative Correlation Filter Tracker with Channel and Spatial Reliability. International Journal of Computer Vision 126(7): 671-688 (2018) (IF 6,07: D1; AIS 4,79: D1). (citations: 141 in WOS, CVPR conf. version 1197 in Google Scholar) 4. Baráth, D.; Matas, J.: Graph-Cut RANSAC In: CVPR 2018: Proceedings of the 2018 IEEE Conference on Computer Vision and Pattern Recognition. 2018. p. 6733-6741. ISSN 2575-7075. (CORE A* rank) (citations: 70 in WOS, 185 in Google scholar)

First Name, Surname

	5. L. Neumann, J. Matas: Real-Time Lexicon-Free Scene Text Localization and Recognition. IEEE Trans. Pattern Anal. Mach. Intell. 38(9): 1872-1885, 2016, (IF 8,33: D1; AIS 4,55: D1) (citations: 97 in WOS, 165 in Google Scholar)
Patents and commercial impact	• Inventor of patents: WO2017089865A1 ☑, WO/2007/026948 WO/2007/026951, US 20120308114 A1 • Founder of CTU spin-off Eyedea Recognition (CTU owns 10% of the company)
Academic and other memberships	• IEEE Computer Science Society • IAPR – International Association for Pattern Recognition
Invited presentations/talks	Keynotes (since 2019): • DAGM GPRC 2021 - German Pattern Recognition Conference ☑ • MMM 2021 - 27th International Conference on Multimedia Modeling ☑ • VISAPP 2019 - 14th International Conf. on Computer Vision Theory and Applications ☑ • OAGM 2019 - The Austrian Robotics Workshop and OAGM Workshop ☑
Other relevant R&D and application outcomes	• Industrial R&D collaboration with MERZ, Czech Republic, research in the area of detection and tracking. Outcome: improved motion detector. • The T-LESS dataset ☑ for 6D pose estimation, focussing on industrial objects and applications. The accompanying paper has been cited more than 300 times ☑

GRANTS	
International grant	• partner lead, FP7 EU Project Maseltov (2012-2015)
	• partner lead, FP7 EU Project Darwin (2011-2015, "Dextrous Assembler Robot Working with embodied Intelligence")
	• partner lead, FP7 EU project MASH (2010-2012, "Massive sets of heuristics")
National grant	• director, Research Centre for Informatics, 2018-2022, OP VVV project, ☑
	• principal co-investigator , TACR - Technology Agency of the Czech Republic grant "Detection, identification and monitoring of animals by advanced computer vision methods", 2022-2024, ☑
	• principal co-investigator , TACR – Ministry of Interior of the Czech Republic grant „A set of forensic analytic tools for image and video processing for the criminal police and investigation service", 2022-2025, ☑
	• partner lead, TACR - Technology Agency of the Czech Republic grant „Development of a cybernetic assistant for small arms for the increased probability and safety of hitting a target", 2018-2021. ☑
	• principal co-investigator, GACR - Czech Science Foundation grant "Solving inverse problems for the analysis of fast moving objects, 2018-2021,☑ *Awarded the GACR President's Award (only one project in Technical Sciences selected)*
	• principal investigator, GACR - Czech Science Foundation grant „Centre of excellence in multimodal data processing", 2012- 2019, ☑

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GRANTS AND TEAM LEADERSHIP EXPERIENCES	
International grant leadership experiences	- For leadership roles in international projects, see the **GRANTS** - For leadership in industrial R&D projects, see **R&D AND APPLICATION OUTCOMES** - VOT - **Visual Object Tracking Initiative, member of the VOT organizing committee** ⬈ **(**2013-ongoing) - The VOT challenges provide the visual tracking community with a precisely defined and repeatable way of comparing short-term trackers as well as a common platform for discussing the evaluation and advancements made in the field of visual tracking. The organizing committee also steers the Technical and Program committee.

OTHER ACTIVITES AND EXPERIENCE	
Supervision of graduate students and postdoctoral fellows	- Two of my PhD students received the top "Czech Mind" (Česká Hlava) prize for the PhD in Czech Republic (S. Obdžálek 2005 and L. Neumann 2018 D. Mishkin's PhD received the Dean's prize, 2022 - Hlávka prizes – top student at FEE CTU, awarded to five students I supervised: K. Janoušková 2022, D. Rozumnyi 2017, M. Šulc 2014, K. Lenc 2013, L. Neumann 2011 - My PhD students L. Neumann ⬈ and L. Zích received the prestigious Google Fellowship, the first in central and eastern Europe. - My PhD student Andrej Mikulík was awarded the highly selective Microsoft Research Scholarship in 2010.
Other academic and education activities	- European Research Council (ERC), panel vice-chair PE6 Computer Science and Informatics, panel member ERC Synergy grants (2011-2017) - Member of the Learned Society of the Czech Republic. - Editor-in-Chief, International Journal of Computer Vision, 2019, (IF 13.4) - Editorial board member, International Journal of Computer Vision, 2010-2019 - Associate Editor-in-Chief of IEEE Transactions on Pattern Analysis and Machine Intelligence (2009-2013) - Program Committee Chair: ECCV 2004 ⬈ , 2016 ⬈ (Core A), CVPR 2007⬈ (Core A*) - General Chair: SCIA 2023 ⬈, CVPR 2022 ⬈ (CORE A*), ECCV 2022 ⬈ (Core A) - Czech Technical University, Scientific Council member (2010-) - Charles University, Faculty of Maths. and Physics, Scientific Council member (2012-) - CTU in Prague, Faculty of Electrical Engineering, Scientific Council member (2008-) - Czech Science Foundation, panel member (2008-2014) - Evaluator, EU H2020, FP7, FP6 (collaborative research, Marie-Curie, Future and Emerging Technologies) - Evaluator for grant agencies in Sweden, Switzerland, Hong Kong and Poland