CV Simon Dobrišek

Simon Dobrišek received his B.Sc., M.Sc., and Ph.D. degree in electrical engineering from the Faculty of Electrical Engineering at the University of Ljubljana in 1990, 1994, and 2001, respectively. He is an Assistant Professor of Electrical Engineering, currently working as a research fellow and teaching assistant at the Laboratory of Artificial Perception, Systems and Cybernetics of the Faculty of Electrical Engineering, University of Ljubljana. In 1996, he was a visiting researcher at the Pattern Recognition Laboratory of the Department of Computer Science, University of Erlangen, and in 1997, he was a visiting researcher at the Natural Language Systems Division of the Department of Informatics, University of Hamburg in Germany.

His research interests center on artificial intelligence, pattern recognition, biometrics, smart surveillance systems, and spoken language technologies. He pays special attention to the development of voice-enabled intelligent user interfaces and biometric surveillance systems used as building blocks of ambient intelligent systems. He is also focused on interdisciplinary research that cuts across the field of cognitive science, linguistics and phonetics, as well as the protection of privacy in the use of smart surveillance and modern information and communication technologies. He has given invited lectures on biometrics and ambient intelligence technology.

In the last ten years he has been involved as a key team member in eight national and international ICT projects, and as a project manager and principal researcher in two EU FP7 projects in the field of biometrics, speech technologies, pattern recognition, machine learning, and personal detection technology ethics. He has published popular journal articles and peer-reviewed scientific and conference papers on biometrics, ambient intelligence technology, spoken language technologies, and privacy protection. In 2002, he was awarded by the Slovenian Fund for rewarding innovation in the field of training, living and work of the people with disabilities for developing the "Automatic reader of newspapers for the visually impaired".

He has acted as a reviewer for several international journals:

- IEEE Transactions on Pattern Analysis and Machine Intelligence,
- IEEE Transactions on Circuits and Systems,
- Computer Speech and Language,
- International Journal of Mobile Computing and Multimedia Communications,
- International Journal of Advanced Robotic Systems, …

He has served (or still serves) as:

- Organizing chair of the HIDE Project Policy Workshop on Restrictions in the Implementation of EU Data Protection Directive for Public Interest, Security and Defence, 2009,
- Project manager and principal researcher of the EU FP7 project SMART, (2011-2014),
- Project manager and principal researcher of the EU FP7 project RESPECT, (2012-2015),
- Co-chair of the Opensur-2013 Workshop (Privacy Enabled Surveillance?), 2013,
- President of the Slovenian Pattern Recognition Society, (2013 - present), …

He is a member of:

- IEEE,
- the IEEE Computer Society,
- the IEEE Signal Processing Society,
- International Association of Pattern Recognition - IAPR,
- International Speech Communication Association – ISCA, …

He teaches or co-teaches the following undergraduate and master level courses at the Faculty of Electrical Engineering, University of Ljubljana: Artificial Intelligent Systems, Signal Processing, Information Theory and Coding, Speech and Image Technologies, Intelligent Systems in Automation, Speech Technologies, and Seminar on Biometric Systems. He has been (or still is) a mentor of three Ph.D. students.

Publication List

A complete publication list is available from the Slovenian bibliographic database COBISS:
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Peer-reviewed journal articles

1. GAJŠEK, Rok, MIHELIČ, France, DOBRIŠEK, Simon. Speaker state recognition using an HMM-based feature extraction method. *Computure speech and language*, Jan. 2013, vol. 27, no. 1, pp. 135-150

2. DOBRIŠEK, Simon, GAJŠEK, Rok, MIHELIČ, France, PAVEŠIĆ, Nikola, ŠTRUC, Vitomir. Towards efficient multi-modal emotion recognition. *International Journal of Advanced Robotic Systems*, 2013, vol. 10, no. 53, pp. 1-10.

3. KRIŽAJ, Janez, ŠTRUC, Vitomir, DOBRIŠEK, Simon. Robust 3D face recognition. *Electrotechnical Review*, 2012, vol. 79, no. 1/2, pp. 1-6

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5. GOLOB, Žiga, ŽGANEC GROS, Jerneja, ŽGANEC, Mario, VESNICER, Boštjan, DOBRIŠEK, Simon. FST-based pronunciation lexicon compression for speech engines. *International Journal of Advanced Robotic Systems*, 2012, vol. 9, no. 211, pp. 1-9.

6. DOBRIŠEK, Simon, ŽIBERT, Janez, PAVEŠIĆ, Nikola, MIHELIČ, France. An edit-distance model for the approximate matching of timed strings. *IEEE transactions on pattern analysis and machine inteligence,* Apr. 2009, vol. 31, no. 4, pp. 736-741.

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7. KRIŽAJ, Janez, ŠTRUC, Vitomir, DOBRIŠEK, Simon. Combining 3D face representations using region covariance descriptors and statistical models. In: 10th IEEE International Conference on Automatic Face and Gesture Recognition, Shanghai, China, April 22-36, 2013. *FG 2013*, 2013, pp. 1-7.

8. GAJŠEK, Rok, DOBRIŠEK, Simon, MIHELIČ, France. Analysis and assessment of state relevance in HMM-based feature extraction method. *Lecture notes in computer science*, 2012, pp. 559-565.

9. DOBRIŠEK, Simon, ŽIBERT, Janez, MIHELIČ, France. Towards the optimal minimization of a pronunciation dictionary model. *Lecture notes in computer science*, 2012, str. 267-274.

10. GOLOB, Žiga, ŽGANEC GROS, Jerneja, MIHELIČ, Aleš, DOROFEEVA, Uliana, GROS, Milena, DOBRIŠEK, Simon. Many-to-many alignment for FST-based pronunciation lexicon compression. In: Deveta Konferencija Digitalna obrada govora i slike DOGS2012, Kovačica, Novi Sad: Fakultet tehničkih nauka, 2012, pp. 36-39.

11. TONCHEV, Krasimir, DOBRIŠEK, Simon, PAVEŠIĆ, Nikola, BOUMBAROV, Ognian. Range image representation with application to 3D face recognition. In: *International Conference Automatics and Informatics'12, Bulgaria, Sofia, October, 3-5,* 2012, pp. 274-277.

12. GOMBOC, Uroš, KRIŽAJ, Janez, DOBRIŠEK, Simon. Samodejno razpoznavanje ljudi iz 3D slik obrazov z uporabo prikritih Markovovih modelov in metodo podpornih vektorjev. In: ZAJC, Baldomir (Ed.), TROST, Andrej (Ed.). *Proceedings of ERK 2012, 17.-19. september 2012, Portorož, Slovenija*, str. 169-172.

13. JUSTIN, Tadej, GAJŠEK, Rok, DOBRIŠEK, Simon, MIHELIČ, France, ŽIBERT, Janez. Luščenje značilk za razpoznavanje normalnega in vzbujenega emocionalnega stanja govorca z adaptacijo splošnega govornega modela. In: ZAJC, Baldomir (Ed.), TROST, Andrej (Ed.). *Proceddings of ERK 2012, 17.-19. september 2012, Portorož, Slovenija*, str. 181-184.

14. DOBRIŠEK, Simon, VESNICER, Boštjan, MIHELIČ, France. Tehnologije govorjenega jezika v pametnih nadzornih sistemih. In: ERJAVEC, Tomaž (Ed.), ŽGANEC GROS, Jerneja (Ed.). *Proceedings of IS 2012,* Institut Jožef Stefan, 2012, pp. 38-41.

15. GOLOB, Žiga, DOROFEEVA, Uliana, ŽGANEC GROS, Jerneja, GROS, Milena, DOBRIŠEK, Simon. Redundant information reduction in FST-based pronunciation lexicon compression. In: ERJAVEC, Tomaž (Ed.), ŽGANEC GROS, Jerneja (Ed.). *Proceedings of IS 2012,* Institut Jožef Stefan, 2012, pp. 85-88.

16. DOBRIŠEK, Simon, MIHELIČ, France. Time- and acoustic-mediated alignment algorithms for speech recognition evaluation. In: COSI, Piero (Ed.). 12th Annual Conference of the International Speech Communication Association, August 27-31, 2011, Florence, Italy. (Interspeech). 2011, pp. 1517-1520.

17. GAJŠEK, Rok, DOBRIŠEK, Simon, MIHELIČ, France. University of Ljubljana System for Interspeech 2011 Speaker State Challenge. In: COSI, Piero (Ed.). 12th Annual Conference of the International Speech Communication Association, August 27-31, 2011, Florence, Italy. (Interspeech), 2011, pp. 3297-3300.

18. BRATANIČ, Blaž, DOBRIŠEK, Simon. Vizualno razpoznavanje ločeno izgovorjenih besed s transformacijo v prostor parametrov prikritih Markovovih modelov. In: ZAJC, Baldomir (Ed.), TROST, Andrej (Ed.). *Proceedings of ERK 2011, 19.-21. september 2011, Portorož, Slovenija,* pp. 309-312.

19. KRAVANJA, Jaka, DOBRIŠEK, Simon. Sistem za samodejno razpoznavanje glasbene zvrsti iz zvočnih signalov. In: ZAJC, Baldomir (Ed.), TROST, Andrej (Ed.). *Proceedings of ERK 2011, 19.-21. september 2011, Portorož, Slovenija*, pp. 325-328.

20. ŠTRUC, Vitomir, DOBRIŠEK, Simon, PAVEŠIĆ, Nikola. Confidence weighted subspace projection techniques for robust face recognition in the presence of partial occlusions. In: 20th International Conference on Pattern Recognition, Istanbul, Turkey, 23-26 August 2010. *ICPR 2010,* 2010, pp. 1334-1338.

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22. DOBRIŠEK, Simon, MIHELIČ, France. Zmanjševanje odvečnosti končnih pretvornikov za učinkovito gradnjo razpoznavalnikov slovenskega govora z velikim besednjakom. In: BOHANEC, Marko (Ed.), BRODNIK, Andrej (Ed.). *Proceedings of IS 2010, 11.-15. october 2010*, Institut Jožef Stefan, 2010, pp. 24-27.

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25. DOBRIŠEK, Simon, MIHELIČ, France. A method for minimization of pronunciation-lexicon finite-state model for automatic speech recognition. In: TROCH, Inge (Ed.), BREITENECKER, Felix (Ed.). 6th Vienna Conference on Mathematical Modelling, February 11-13, 2009, Vienna University of Technology, Austria. *MATHMOD,* 2009, pp. 2462-2465.

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Citations

A complete citation list can be obtained from Simon's Google Scholar page:
http://scholar.google.si/citations?hl=en&user=8e_NWvAAAAAJ