

# Zeynep Yücel

### Personal information

Address 3-1-1 Tsushima-naka Kita-ku

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Email zeynep@okayama-u.ac.jp

Nationality Turkish, Italian

Holder of Japanese permanent residence

Date of birth 1981-04-19 WoS ResearcherID V-9340-2019

## Education and training

Sep. 2005-Jan. 2010 PhD in Electrical and Electronics Engineering

Major Signal Processing and Computer Vision

Bilkent University, Ankara, Turkey

Sep. 2003- Aug. 2005 MS in Electrical and Electronics Engineering

Major Signal Processing

Bilkent University, Ankara, Turkey

Sep. 1999-June 2003 BS in Electrical and Electronics Engineering

Major Control Systems

Boğaziçi University, İstanbul, Turkey

#### Awards and honors

Mar 2024 Social Contribution award from Okayama University Faculty of Engineering

Mar 2023 Research Achievement award from Okayama University Faculty of Engineering

Jul 2022 Outstanding Paper Award at International Conference on Learning Technologies and

Learning Environments (LTLE 2022)

Jul 2022 Honorable Mention Award at International Conference on Smart Computing and

Artificial Intelligence (SCAI 2022)

Mar 2022 Social Contribution award from Okayama University Faculty of Engineering

Apr 2017	Seal of excellence from European Commission for project proposal 740510, MERLINS with the call Marie Sklodowska-Curie actions call H2020-MSCA-IF-2016.
Apr 2016 - Mar 2019	Research fellowship from Japan Society for the Promotion of Science (Host institute: ATR International, Japan)
Jan 2009 - Apr 2009	Research scholarship from National Scientific Council of Turkey (Host institute: Centrum Wiskunde & Informatica, The Netherlands)
Feb 2008 - May 2008	Research scholarship from National Scientific Council of Turkey (Host institute: University of Amsterdam, The Netherlands)
Sep 2008 - Dec 2008.	Research scholarship from National Scientific Council of Turkey (Host institute: University of Amsterdam, The Netherlands)
Aug 2005 - Dec 2009	Graduate research scholarship from National Scientific Council of Turkey (within the Information Technology Society (BTT) project)
Sep 2003 - Dec 2009	Academic accomplishment stipend from Bilkent University
Sep 2003 - Dec 2009	Tuition waiver scholarship from Bilkent University
Sep 1999 - Aug 2000	Achievement grant from Boğaziçi University
June 1999	Ranked $7^{th}$ countrywide in National University Entrance Examination among ca. 1.5 million examinees
June 1999	Ranked $1^{st}$ in graduation from high school
Sep 1996 - June 1999	Ranked $1^{st}$ among the class in each of 6 semesters based on GPA in high school.
June 1996	Ranked $8^{th}$ countrywide in National High School Entrance Examination among ca. $600.000$ examinees
	Work experience
	The below work experience involves also leave-of-absence denoted in italics.
Oct 2020 - present	Associate Professor Okayama University
	Faculty of Engineering Department of Computer Science

Faculty of Engineering, Department of Computer Science

Okayama, Japan

Oct 2017 - present Cooperative Researcher

Advanced Telecommunications Research (ATR) Institute International

Deep Interaction Laboratory Group, Interaction Science Labs

Kyoto, Japan

Apr 2020 - Sep 2020 Assistant Professor (tenured)

Okayama University

Faculty of Engineering, Department of Computer Science

Okayama, Japan

Apr 2017 - Mar 2020 Woman Tenure Track Assistant Professor

Okayama University

Faculty of Engineering, Department of Computer Science

Okayama, Japan

Sep 2016 - Mar 2017 Leave-of-absence (Maternity leave for the birth of second child)

Apr 2016 - Aug 2016 JSPS RPD Fellow

Advanced Telecommunications Research Institute (ATR) International

Intelligent Robotics and Communication Laboratories

Kyoto, Japan

Oct 2015 -Mar 2016 Leave-of-absence (Due to relocation to UK for spouse's job post)

Nov 2014 - Sep 2015 Post doctoral research scientist

Advanced Telecommunications Research Institute (ATR) International Intelligent Robotics and Communication Laboratories

Kyoto, Japan

Feb 2014 - Oct 2014 Leave-of-absence (Maternity leave for the birth of first child)

Jan 2010 - Jan 2014 Post doctoral research scientist

Advanced Telecommunications Research Institute (ATR) International

Intelligent Robotics and Communication Laboratories

Kyoto, Japan

Jan 2009 - Apr 2009 Visiting researcher

Centrum Wiskunde & Informatica

PNA4 Research group

Amsterdam, The Netherlands

Sep 2008 - Dec 2008 Visiting researcher

University of Amsterdam

Intelligent Systems Laboratory (ISLA)

Amsterdam, The Netherlands

Feb 2008 - May 2008 Visiting researcher

University of Amsterdam

Intelligent Systems Laboratory (ISLA)

Amsterdam, The Netherlands

Sep 2003 - Dec 2009 Graduate research and teaching assistant

Bilkent University

Department Electrical and Electronics Engineering

Ankara, Turkey

#### Grants

1 Kakenhi Grant-in-Aid for Scientific Research-C (Project code 23K11169)
Granted by Japan Society for the Promotion of Science, April 2023-Mar 2026
Budget: 2.7M Japanese Yen

2 Okayama University Overseas Dispatch Grant for Female Faculties

Granted by Okayama University, Apr 2020 - Mar 2021

Budget: 1.6M Japanese Yen

3 Kakenhi Grant-in-Aid for Scientific Research-A (Project code 18H04121)

Granted by Japan Society for the Promotion of Science, Apr 2020-Mar 2021

Budget: 2M Japanese Yen

4 WTT teacher support (Project code 2C71907043)

Granted by Okayama University, Apr 2019-Mar 2020

Budget: 150K Japanese Yen

- 5 Kakenhi Grant-in-Aid for Early-Career Scientists (Project code 18K18168)) Granted by Japan Society for the Promotion of Science, Apr 2018 - Mar 2021 Budget: 3.38M Japanese Yen
- 6 Life event support grant (Project code 2C71907043) Granted by Okayama University, May 2017- Mar 2018 Budget: 300K Japanese Yen

#### 7 SAKU Travel fund

Granted by Okayama University, May 2017-

Covers travel costs over 10 days for visiting 3 universities and giving research presentation

8 WTT Start-Up fund

Granted by Okayama University, April 2017-Mar 2019

Budget: 2M Japanese Yen

9 JSPS RPD Fellowship (Grant number 16J40223)

Granted by Japan Society for the Promotion of Science, Apr 2016-Mar 2019 13M Japanese yen

This fellowship is granted to only 2 researchers nationwide among all the applicants in the area of engineering sciences.

10 Kakenhi Grant-in-Aid for Scientific Research (Project code 8KAK1610)
 Granted by Japan Society for the Promotion of Science, Apr 2016-Mar 2019
 3.25M Japanese Yen

#### Publication record

#### Journal Articles

The articles below are given in reverse chronological order and are all peer-reviewed. The impact factors are collected from Web of Science and are for the corresponding year of publication.

1 Adrien Gregorj, Zeynep Yücel, Francesco Zanlungo, Claudio Feliciani, Takayuki Kanda

Social aspects of collision avoidance: A detailed analysis of groups and individual pedestrians

Scientific Reports, Sci Rep 13, 5756, 2023.

https://doi.org/10.1038/s41598-023-32883-z.

2021 Impact factor 4.996 (2023 Impact not yet available)

2 Parisa Supitayakul, Zeynep Yücel, Akito Monden

Artificial Neural Network based audio reinforcement for computer assisted rote learning

IEEE Access, vol. 11, pp. 39466-394, 2023

```
https://doi.org/10.1109/ACCESS.2023.3266731
2022 Impact factor 3.9 (2023 Impact not yet available)
```

3 Francesco Zanlungo, Claudio Feliciani, Zeynep Yücel, Xialou Jia, Katsuhiro Nishinari, Takayuki Kanda

A pure number to assess congestion in pedestrian crowds

Transportation Research Part C, Vol 148, 104041, 2023.

```
https://doi.org/10.1016/j.trc.2023.104041
```

2022 Impact factor 8.3 (Q1 Journal, 2023 Impact not yet available)

4 Maohua Gan, Zeynep Yücel, Akito Monden

Neg/pos-normalized accuracy measures for software defect prediction

IEEE Access, Dec 2022 (early access publication date).

```
https://doi.org/10.1109/ACCESS.2022.3232144
```

2022 impact factor 3.9

5 Francesco Zanlungo, Claudio Feliciani, Zeynep Yücel, Katsuhiro Nishinari, Takayuki Kanda

Macroscopic and microscopic dynamics of a pedestrian cross-flow: Part II, modelling Safety Science, Vol 158, 2023-105969, Oct 2022

```
https://doi.org/10.1016/j.ssci.2022.105969
```

2022 Impact factor 6.1 (Q1 Journal)

6 Francesco Zanlungo, Claudio Feliciani, Zeynep Yücel, Katsuhiro Nishinari, Takayuki Kanda

Macroscopic and microscopic dynamics of a pedestrian cross-flow: Part I, experimental analysis

Safety Science, Vol 158, 2023-105953, Oct 2022

https://doi.org/10.1016/j.ssci.2022.105953

2022 Impact factor 6.1 (Q1 Journal)

7 Maohua Gan, Zeynep Yücel, Akito Monden

Improvement and Evaluation of Data Consistency Metric CIL for Software Engineering Datasets

IEEE Access, vol. 10, pp. 70053-70067, 2022

https://doi.org/10.1109/ACCESS.2022.3188246

2022 impact factor 3.9

8 Florian Pellegrin, Zeynep Yücel, Akito Monden, Pattara Leelaprute

Task estimation for software company employees based on computer interaction logs Empirical Software Engineering, Vol. 26, No. 98, pp 1-48, July 2021.

```
https://doi.org/10.1007/s10664-021-10006-4
```

2021 impact factor 3.762 (Q1 journal)

9 Zeynep Yücel, Serina Koyama, Akito Monden, Mariko Sasakura

Estimating level of engagement from ocular landmarks

International Journal of Human-Computer Interaction, Vol. 36, No. 16, pp. 1527-1539, Oct 2020.

https://doi.org/10.1080/10447318.2020.1768666 2020 Impact factor 3.353

10 Maohua Gan, Zeynep Yücel, Akito Monden, Kentaro Sasaki

Empirical Evaluation of Mimic Software Project Data Sets for Software Effort Estimation

IEICE Transactions on Information and Systems, Vol. E103-D, No. 10, pp. 2094-2103, Oct 2020.

https://doi.org/10.1587/transinf.2019EDP7150 2020 Impact factor 0.559

11 Zeynep Yücel, Parisa Supitayakul, Akito Monden, Pattara Leelaprute

An algorithm for automatic collation of vocabulary decks based on word frequency IEICE Transactions on Information and Systems, Vol. E103-D, No. 08, pp. 1865-1874, Aug 2020.

https://doi.org/10.1587/transinf.2019EDP7279 2020 Impact factor 0.559

12 Parisa Supitayakul, Zeynep Yücel, Akito Monden, Pattara Leelaprute

Identification of behavioral variables for efficient representation of difficulty in vocabulary learning systems

International Journal of Learning Technologies and Learning Environments, Vol. 3, No. 1, pp 51-60, June 2020.

https://doi.org/10.52731/ijltle.v3.i1.521 Impact factor not available.

13 Francesco Zanlungo, Zeynep Yücel, Takayuki Kanda

Intrinsic group behaviour II: On the dependence of triad spatial dynamics on social and personal features; and on the effect of social interaction on small group dynamics

PLoS ONE 14(12): e0225704, Dec 2019

https://doi.org/10.1371/journal.pone.0225704 2019 Impact factor 2.740

14 Zeynep Yücel, Francesco Zanlungo, Claudio Feliciani, Adrien Gregorj, Takayuki Kanda

Identification of social relation within pedestrian dyads

PLoS ONE 14(10): e0223656, Oct 2019.

https://doi.org/10.1371/journal.pone.0223656

2019 Impact factor 2.740

15 Consortium for the Physics and Psychology of Human Crowd Dynamics (including Zeynep Yücel and 38 others)

A glossary for research on human crowd dynamics

Collective Dynamics, Vol. 4, pp. 1-13, Mar 2019.

https://doi.org/10.17815/CD.2019.19

Impact factor not available.

16 Takashi Watanabe, Akito Monden, Zeynep Yücel, Yasutaka Kamei, Shuji Morisaki Cross-validation-based association rule prioritization metric for software defect characterization

IEICE Transactions on Information and Systems, Vol. E101-D, No. 9, pp. 2269-2278, Sep 2018

https://doi.org/10.1587/transinf.2018EDP7020

2018 Impact factor 0.576

17 Zeynep Yücel, Francesco Zanlungo, Masahiro Shiomi

Modeling the impact of interaction on pedestrian group motion\*

Advanced Robotics, Vol. 32, No. 3, pp. 137-147, Jan 2018

https://doi.org/10.1080/01691864.2017.1421481

2018 Impact factor 1.104

- \* This paper is selected as the 'Cutting Edge of Robotics in Japan' by the Editorial Committee of Advanced Robotics.
- 18 Francesco Zanlungo, Zeynep Yücel, Drazen Brscic, Takayuki Kanda, Norihiro Hagita Intrinsic group behaviour: dependence of pedestrian dyad dynamics on principal social and personal features

PLoS ONE 12(11): e0187253, Nov 2017

https://doi.org/10.1371/journal.pone.0187253

2017 Impact factor 2.766 (Q1 journal)

19 Masato Sakata, Zeynep Yücel, Kazuhiko Shinozawa, Norihiro Hagita, Michita Imai, Michiko Furutani, Rumiko Matsuoka

An Inference Engine for Estimating Outside States of Clinical Test Items

ACM Transactions on Management Information Systems, Vol.4, No. 3, pp.13 (21 pages), Aug 2013.

https://doi.org/10.1145/2517084

(Acceptance rate 22%, impact factor not available in 2013.)

20 Zeynep Yücel, Albert Ali Salah, Çetin Meriçli, Tekin Meriçli, Roberto Valenti, Theo Gevers

Joint Attention by Gaze Interpolation and Saliency

IEEE Transactions on Cybernetics, Vol. 43, No. 3, pp.829-842, June 2013.

https://doi.org/10.1109/TSMCB.2012.2216979

2013 Impact factor 3.236

21 Zeynep Yücel, Francesco Zanlungo, Tetshushi Ikeda, Takahiro Miyashita, Norihiro Hagita

Deciphering the Crowd: Modeling and Identification of Pedestrian Group Motion Sensors, Vol. 13, No. 1, pp. 875-897, Jan 2013.

https://doi.org/10.3390/s130100875

2013 Impact factor 2.048

22 Zeynep Yücel, Arif Bülent Özgüler

Watermarking via Zero Assigned Filter Banks

Signal Processing, Volume 90, Issue 2, pp.467-479, Feb 2010.

https://doi.org/10.1016/j.sigpro.2009.07.012

2010 Impact factor 1.373

23 Zeynep Yücel, Pınar Duygulu, Yıldırım Sara, Rüştü Onur, Emre Esen, Arif Bülent Özgüler

Automated Discrimination of Psychotropic Drugs in Mice via Computer Vision Based Analysis

Journal of Neuroscience Methods, Volume 180, Issue 2, pp. 234-242, June 2009.

https://doi.org/10.1016/j.jneumeth.2009.03.014

2009 Impact factor 2.295

### Journal Articles in non-English languages

The articles below are given in reverse chronological order, are all written in Japanese and peer-reviewed.

24 田中 和也, 門田 暁人, Zeynep Yücel

ソフトウェア開発工数予測における auto-sklearn の適用

コンピュータソフトウェア, vol.38, no.4, pp.4\_46-4\_52, Nov 2021

https://doi.org/10.11309/jssst.38.4\_46

Impact factor not available.

25 伊永 健人, 門田 暁人, Zeynep Yücel

ソフトウェア開発工数予測におけるデータスムージングの定量的評価

コンピュータソフトウェア, vol.38, no.3, pp.3\_83-3\_89, Aug 2021

https://doi.org/10.11309/jssst.38.3\_83

Impact factor not available

26 田中 和也, 門田 暁人, Zeynep Yücel

ソフトウェアバグ予測における auto-sklearn の有効性評価

コンピュータソフトウェア, Vol. 36, No. 4, pp. 46-52, Nov 2019.

https://doi.org/10.11309/jssst.36.4\_46

Impact factor not available.

27 齊藤 英和, 門田 暁人, Zeynep Yücel, 森崎 修司

'相関関数を扱うアソシエーションルールの提案とソフトウェア開発データへの適 用

コンピュータソフトウェア, Vol. 36, No. 3, pp. 47-53, Aug 2019.

https://doi.org/10.11309/jssst.36.3\_47

Impact factor not available.

28 福谷 圭吾, 門田 暁人, ユジャイ ゼイネップ, 畑 秀明 移動窓によるソフトウェアバグの行レベル予測の試み コンピュータソフトウェア, Vol. 35, No. 4, pp. 122-128, Nov 2018.

https://doi.org/10.11309/jssst.35.122

Impact factor not available.

## International conference articles

The articles below are given in reverse chronological order, are all written in English and peer-reviewed.

- 29 Timothée Languille, Zeynep Yücel Title not disclosed for double-blind review IEEE Conf. Computer Vision and Pattern Recognition (CVPR, Under review)
- 30 Parisa Supitayakul, Rika Kuramitsu, Zeynep Yücel, Akito Monden, Koichi Takeuchi Dependence of perception of vocabulary difficulty on contexture Int. Conf. Learning Technologies and Learning Environments (LTLE), (in press) Dec 2023, Bali, Indonesia
- 31 Natchanon Manatphaiboon, Shogo Hamachi, Zeynep Yücel, Pattara Leelaprute, Akito Monden

Experiment design and verification for assessing the acquisition of strategic planning ability

Int. Conf. Learning Technologies and Learning Environments (LTLE), (in press) Dec 2023, Bali, Indonesia

32 Natsu Nishimura, Zeynep Yücel, Akito Monden

Using a personality-aware recommendation system for comparing inventory performances

Int. Conf. Smart Computing and Artificial Intelligence (SCAI), (in press) Dec 2023, Bali, Indonesia

- 33 Kengo Matsui, Timothée Languille, Zeynep Yücel Effect of tool specificity on the performance of DNN-based saliency prediction methods Int. Conf. Smart Computing and Artificial Intelligence (SCAI), (in press) Dec 2023, Bali, Indonesia
- 34 Adrien Gregorj, Zeynep Yücel, Francesco Zanlungo, Takayuki Kanda

Asymmetries in group-individual collision avoidance due to social factors

Pedestrian and Evacuation dynamics (PED 2023) (presented, proceeding article under review)

June 2023, Eindhoven, The Netherlands

35 Francesco Zanlungo, Zeynep Yücel, Claudio Feliciani, Katsuhiro Nishinari, Takayuki Kanda

Congestion Number analysis of cross-flow dynamics: experimental data and simulations

Pedestrian and Evacuation dynamics (PED 2023) (presented, proceeding article under review)

June 2023, Eindhoven, The Netherlands

36 Chigusa Ikeda, Parisa Supitayakul, Zeynep Yücel, Akito Monden Developing a web application for RBSC-based solution of the subset selection problem Proc. International Conference on E-Service and Knowledge Management (ESKM-Winter 2022), pp. 57-61.

Dec 2022, Phuket, Thailand

https://doi.org/10.1109/IIAI-AAI-Winter58034.2022.00021

37 Terumi Kasahara, Parisa Supitayakul, Zeynep Yücel, Akito Monden Examination of the relation between affective content of images and gaze behavior Proc. Smart Computing and Artificial Intelligence (SCAI-Winter 2022), pp. 101-107. Dec 2022, Phuket, Thailand

https://doi.org/10.1109/IIAI-AAI-Winter58034.2022.00030

38 Shogo Hamachi, Parisa Supitayakul, Zeynep Yücel, Akito Monden Investigation of the relation between task engagement and eye gaze Proc. Smart Computing and Artificial Intelligence (SCAI-Winter 2022), pp. 163-167. Dec 2022, Phuket, Thailand

https://doi.org/10.1109/IIAI-AAI-Winter58034.2022.00041

39 Francesco Zanlungo, Claudio Feliciani, Hisashi Murakami, Zeynep Yücel, Xiaolu Jia, Katsuhiro Nishinari, Takayuki Kanda

Density dependence of stripe formation in a cross-flow

Proc. International Conference on Traffic and Granular Flow (TGF 2022), (presentation only, without proceedings)

Oct 2022, New Delhi, India (Online/hybrid)

40 Adrien Gregorj, Zeynep Yücel, Francesco Zanlungo, Takayuki Kanda

On the influence of group social interaction on intrusive behaviors

Proc. International Conference on Traffic and Granular Flow (TGF 2022), (presented, proceeding article under review)

Oct 2022, New Delhi, India (Online/hybrid)

Click here for video presentation.

41 Parisa Supitayakul, Zeynep Yücel, Misato Nose, Akito Monden

Investigating the effect of various types of audio reinforcement on memory retention Proc. Learning Technologies and Learning Environments (LTLE 2022), pp. 250-255 Jul 2022, Kanazawa, Japan (Online/hybrid)

\* This article won the Outstanding Paper Award at LTLE 2022.

http://dx.doi.org/10.1109/IIAIAAI55812.2022.00057

Click here for video presentation.

42 Kohei Furuya, Zeynep Yücel, Parisa Supitayakul, Akito Monden

A computationally efficient approach for solving RBSC-based formulation of the subset selection problem

Proc. International Conference on Smart Computing and Artificial Intelligence (SCAI 2022), pp. 341-347

Jul 2022, Kanazawa, Japan (Online/hybrid)

https://doi.org/10.1109/IIAIAAI55812.2022.00076

\* This article won the Honorable Mention Award at SCAI 2022.

Click here for video presentation.

43 Kohei Furuya, Zeynep Yücel, Parisa Supitayakul, Akito Monden, Pattara Leelaprute Exploring the limits of an RBSC-based approach in solving the subset selection problem

Proc.International Conference on Smart Computing and Artificial Intelligence (SCAI 2021), vol 81, pp. 1-11

Dec 2021, Jakarta/Indonesia-Tokyo/Japan (Online/hybrid)

https://doi.org/10.29007/1131

Click here for video presentation.

44 Kazuma Ohta, Zeynep Yücel, Parisa Supitayakul, Akito Monden, Pattara Leelaprute On the interplay between vocal production effect and learning content types in e-learning settings

Proc. International Conference on Learning Technologies and Learning Environments (LTLE 2021), vol 81, pp. 303-312.

Dec 2021, Jakarta/Indonesia-Tokyo/Japan (Online/hybrid)

https://doi.org/10.29007/mph5

Click here for video presentation.

45 Adrien Gregorj, Zeynep Yücel, Francesco Zanlungo, Claudio Feliciani, Takayuki Kanda

On the influence of group social relation on the dynamics of pedestrians outside the group

Pedestrian and Evacuation Dynamics (PED 2021), presentation only

Dec 2021, Melbourne, Australia (Online)

Click here for video presentation.

46 Francesco Zanlungo, Claudio Feliciani, Zeynep Yücel, Katsuhiro Nishinari, Takayuki Kanda

Crowd congestion number

Pedestrian and Evacuation Dynamics (PED 2021), presentation only

Dec 2021, Melbourne, Australia (Online)

Click here for video presentation.

47 Hiroto Nakahara, Akito Monden, Zeynep Yücel

A Simulation Model of Software Quality Assurance in the Software Lifecycle

Proc. International Summer Virtual Conference on Software Engineering, Artificial Intelligence, Networking and Parallel/Distributed Computing (SNPD 2021), No. WP1-04, pp. 1-6.

Nov 2021, Taichung, Taiwan

http://dx.doi.org/10.1109/SNPD51163.2021.9704927

48 Takumi Kanehira, Akito Monden, Zeynep Yücel

Association Metrics Between Two Continuous Variables for Software Project Data Proc. International Summer Virtual Conference on Software Engineering, Artificial Intelligence, Networking and Parallel/Distributed Computing (SNPD 2021), No. WP1-05, pp. 1-6.

Nov 2021, Taichung, Taiwan

http://dx.doi.org/10.1109/SNPD51163.2021.9704983

49 Parisa Supitayakul, Zeynep Yücel, Akito Monden, Pattara Leelaprute Investigating effect of stimulus modality on recollection rate in e-learning systems Proc. International Conference on Learning Technologies and Learning Environments (LTLE 2020), pp. 138-141

Sep 2020, Tokyo, Japan (Online)

https://doi.org/10.1109/IIAI-AAI50415.2020.00036

50 Pimwalun Witchawanitchanun, Zeynep Yücel Akito Monden, Pattara Leelaprute Effect of grasping uniformity on estimation of grasping region from gaze data Proc. International Conference on Human-Agent Interaction, pp. 265-267 Oct 2019, Kyoto, Japan

https://doi.org/10.1145/3349537.3352787

51 Serina Koyama, Zeynep Yücel, Akito Monden

Quantitative evaluation of the relation between blink related features and engagement Proc. European Conference on Visual Perception (ECVP 2019), pp. 731-731 Aug 2019, Leuven, Belgium

https://doi.org/10.1177/0301006619863862

52 Adrien Gregorj, Zeynep Yücel, Sunao Hara, Akito Monden, Masahiro Shiomi A signal processing perspective on human gait: Decoupling walking oscillations and gestures. Proc. International Conference on Interactive Collaborative Robotics (ICR 2019), pp. 75-85

Aug 2019, Istanbul, Turkey

https://doi.org/10.1007/978-3-030-26118-4\_8

53 Zeynep Yücel, Francesco Zanlungo, Takayuki Kanda

Gender profiling of pedestrian dyads

Proc. Traffic and Granular Flow (TGF 2019), Springer Proceedings in Physics, Vol 252, pp. 229-305

July 2019, Pamplona, Spain

https://doi.org/10.1007/978-3-030-55973-1\_37

54 Francesco Zanlungo, Luca Crociani, Zeynep Yücel, Takayuki Kanda

The effect of social groups on the dynamics of bi-directional pedestrian flow: a numerical study

Proc. Traffic and Granular Flow (TGF 2019), Springer Proceedings in Physics, Vol 252, pp. 307-313

July 2019, Pamplona, Spain

https://doi.org/10.1007/978-3-030-55973-1\_38

55 Parisa Supitayakul, Zeynep Yücel, Akito Monden, Pattara Leelaprute

Assessing the effect of varying word classes on behavioral variables in technology mediated vocabulary learning

Proc. International Conference on Learning Technologies and Learning Environments, (LTLE 2019), pp. 226-229

July 2019, Toyama, Japan

https://doi.org/10.1109/IIAI-AAI.2019.00052

56 Toshiki Seto, Akito Monden, Zeynep Yücel, Yuichiro Kanzaki

On Preventing Symbolic Execution Attacks by Low Cost Obfuscation

Proc. International Conference on Software Engineering, Artificial Intelligence, Networking and Parallel/Distributed Computing (SNPD 2019), pp. 495-500

July 2019, Toyama, Japan

https://doi.org/10.1109/SNPD.2019.8935642

57 Kento Korenaga, Akito Monden, Zeynep Yücel

Data Smoothing for Software Effort Estimation

Proc. International Conference on Software Engineering, Artificial Intelligence, Networking and Parallel/Distributed Computing (SNPD 2019), pp. 501-506

July 2019, Toyama, Japan

https://doi.org/10.1109/SNPD.2019.8935841

58 Kazuya Tanaka, Akito Monden, Zeynep Yücel

Prediction of Software Defects Using Automated Machine Learning

Proc. International Conference on Software Engineering, Artificial Intelligence, Networking and Parallel/Distributed Computing, (SNPD 2019), pp. 490-494

July 2019, Toyama, Japan

https://doi.org/10.1109/SNPD.2019.8935839

59 Maohua Gan, Kentaro Sasaki, Akito Monden, Zeynep Yücel Generation of Mimic Software Project Data Sets for Software Engineering Research International Workshop on Quantitative Approaches to Software Quality (QuASoQ 2018, in conjunction with Asia-Pacific Software Engineering Conference APSEC 2018), CEUR Workshop Proceedings Vol 2273, pp. 38-43

Dec 2018, Nara, Japan

ISSN: 1613-0073

60 Seiji Fukui, Akito Monden, Zeynep Yücel

Kurtosis and Skewness Adjustment for Software Effort Estimation

Proc. 25th Asia-Pacific Software Engineering Conference, APSEC 2018, pp.pp. 504-511

Dec 2018, Nara, Japan

https://doi.org/10.1109/APSEC.2018.00065

61 Tanakan Pramot, Zeynep Yücel, Akito Monden, Pattara Leelaprute Effect of motivation on gaze behavior over time

Workshop on Active vision, Attention and Learning (EPIROB-ICDL 2018) ( $published\ online$ )

Sep 2018, Tokyo, Japan

62 Zeynep Yücel, Zanlungo, Claudio Feliciani, Adren Gregorj, Takayuki Kanda Estimating social relation from trajectories

Proc. Pedestrian and Evacuation Dynamics (PED 2018), pp. 222-229 Aug 2018, Lund, Sweden

https://doi.org/10.17815/CD.2020.54

63 Francesco Zanlungo, Luis Yoichi Morales, Florent Ferreri, Jani Even, Zeynep Yücel, Takayuki Kanda

Pedestrian Models for Robot Motion

Proc. Pedestrian and Evacuation Dynamics (PED 2018), pp. 525-527 Aug 2018, Lund, Sweden

https://doi.org/10.17815/CD.2020.90

64 Francesco Zanlungo, Zeynep Yücel, Takayuki Kanda Social group behavior in triads: dependence on purpose and gender Pedestrian and Evacuation Dynamics (PED 2018), pp. 118-125 Aug 2018, Lund, Sweden

https://doi.org/10.17815/CD.2020.41

65 Hidekazu Saito, Akito Monden, Zeynep Yücel

Extended Association Rule Mining with Correlation Functions

Proc. 3rd IEEE/ACIS International Conference on Big Data, Cloud Computing, and Data Science Engineering (BCD 2018), pp. 79-84

July 2018, Kanazawa, Japan

https://doi.org/10.1109/BCD2018.2018.00020

66 Naoki Kinoshita, Masateru Tsunoda, Akito Monden, Zeynep Yücel

Predictability classification for software effort estimation

Proc. 3rd IEEE/ACIS International Conference on Big Data, Cloud Computing, and Data Science Engineering (BCD 2018), pp. 43-48

July 2018, Kanazawa, Japan

https://doi.org/10.1109/BCD2018.2018.00015

67 Zeynep Yücel, Francesco Zanlungo, Masahiro Shiomi

Walk the talk: Gestures in mobile interaction

Proc. International Conference on Social Robotics (ICSR 2017), pp. 220-230

Nov 2017, Tsukuba, Japan

https://doi.org/10.1007/978-3-319-70022-9\_22

68 Francesco Zanlungo, Zeynep Yücel, Florent Ferreri, Jani Even, Luis Yoichi Morales, Takayuki Kanda

Social group motion in robots

Proc. International Conference on Social Robotics (ICSR 2017), pp. 474-484 Nov 2017, Tsukuba, Japan

https://doi.org/10.1007/978-3-319-70022-9\_47

69<sup>(†)</sup> Francesco Zanlungo, Zeynep Yücel, Florent Ferreri, Jani Even, Luis Yoichi Morales, Takayuki Kanda

Autonomous vehicles moving as a human group

Extended abstract in IEEE/RSJ International Conference on Intelligent Robots and Systems (IROS 2017), published online

Sep 2017, Vancouver, Canada

70 Francesco Zanlungo, Zeynep Yücel, Takayuki Kanda

The effect of social roles on group behaviour

Proc. Pedestrian and Evacuation Dynamics (PED 2016), pp. 243-249

Oct 2016, Hefei, China

https://doi.org/10.17815/CD.2016.11

71 Zeynep Yücel, Takahiro Miyashita, Norihiro Hagita

Modeling and Identification of Group Motion via Compound Evaluation of Positional and Directional Cues

Proc. International Conference on Pattern Recognition (ICPR 2012), pp. 1172-1176 Nov 2012, Tsukuba, Japan ISBN: 978-1-4673-2216-4

72 Zeynep Yücel, Francesco Zanlungo, Tetshushi Ikeda, Takahiro Miyashita, Norihiro Hagita

Modeling Indicators of Coherent Motion

Proc. IEEE/RSJ International Conf. on Intelligent Robots and Systems (IROS 2012), pp. 2134-2140

Oct 2012, Algarve, Portugal

https://doi.org/10.1109/IROS.2012.6385744

73 Zeynep Yücel, Tetshushi Ikeda, Takahiro Miyashita, Norihiro Hagita Identification of Mobile Entities Based on Trajectory and Shape Information

Proc. IEEE/RSJ International Conf. on Intelligent Robots and Systems (IROS 2011), pp. 3589-3594

Oct 2011, San Francisco, USA

https://doi.org/10.1109/IROS.2011.6094852

74 Zeynep Yücel, Albert Ali Salah, Çetin Meriçli, Tekin Meriçli

Joint Visual Attention Modeling for Naturally Interacting Robotic Agents

Proc. IEEE International Symposium on Computer and Information Sciences (ISCIS 2009), pp. 242-247

Sep 2009, Guzelyurt, Cyprus

https://doi.org/10.1109/ISCIS.2009.5291820

75 Zeynep Yücel, Albert Ali Salah

Resolution of Focus of Attention Using Gaze Direction Estimation and Saliency computation

Proc. International Conference on Affective Computing and Intelligent Interaction (ACII 2009), pp. 1-6

Sep 2009, Amsterdam, The Netherlands

https://doi.org/10.1109/ACII.2009.5349547

76 Zeynep Yücel, Albert Ali Salah

Head Pose and Neural Network Based Gaze Direction Estimation for Joint Attention Modeling in Embodied Agents

Proc. The Annual Meeting of Cognitive Science Society (CogSci 2009), pp. 3139-3144 July 2009, Amsterdam, The Netherlands

77 Roberto Valenti, Zeynep Yücel, Theo Gevers

Robustifying Eye Center Localization by Head Pose Cues

Proc. IEEE Computer Society Conference on Computer Vision and Pattern Recognition (CVPR 2009), pp. 612-618

June 2009, Miami, USA

https://doi.org/10.1109/CVPR.2009.5206640

78 Zeynep Yücel, Arif Bülent Özgüler Detection of Epileptic Indicators on Clinical Subbands of EEG Proc. The European Signal Processing Conference (EUSIPCO 2008), pp. 1-5 Aug 2008, Lausanne, Switzerland

79 Zeynep Yücel, Arif Bülent Özgüler

An Image Watermarking Algorithm via Zero Assigned Filter Banks

Proc. IEEE International Symposium on Signal Processing & Information Technology (ISSPIT 2005), pp. 363-368

Dec 2005, Athens, Greece

https://doi.org/10.1109/ISSPIT.2005.1577124

80 Zeynep Yücel, Arif Bülent Özgüler

An Audio Watermarking Algorithm via Zero Assigned Filter Banks Proc. European Signal Processing Conference (EUSIPCO 2005), pp. 1-4 Sep 2005, Antalya, Turkey

## National conference articles

The articles below are given in reverse chronological order. The articles written in a language other than English are indicated with (\*), and the articles without peer-review are indicated with  $(\dagger)$  next to the counter.

81<sup>(\*)</sup> 金平拓生, 門田暁人, Zeynep Yücel, 福谷圭吾, 行レベルバグ予測のための Web アプリケーション ソフトウェア工学の基礎ワークショップ (FOSE 2019) *in press* Nov 2019, Gifu, Japan

82<sup>(\*)</sup> 井下 瑚都, Zeynep Yücel, 門田 暁人 ソフトウェア開発における context switch の影響 ソフトウェア工学の基礎ワークショップ (FOSE 2019) *in press* Nov 2019, Gifu, Japan

83<sup>(\*)</sup> 笠木 健希, 門田 暁人, Zeynep Yücel

ソフトウェアバグ予測の費用対効果に基づくアソシエーションルールの優先順位付け

ソフトウェア工学の基礎ワークショップ (FOSE 2019) in press Nov 2019, Gifu, Japan

84<sup>(†)</sup> Hoang Nguyen, Serina Koyama, Zeynep Yücel, Akito Monden, Mariko Sasakura Estimation of affect scores accounting for user responsiveness Proc. Annual Conference of the Robotics Society of Japan (RSJ 2018), 1I2-01 Sep 2018, Aichi, Japan

85<sup>(\*)</sup> 清水良介, 門田暁人, Zeynep Yücel, 上野 秀剛 計算機上のソフトウェア開発作業の自動推定の検討 ウィンターワークショップ2018・イン・宮島, pp. 30-31 Jan 2018, Miyajima, Japan

86<sup>(\*)</sup> 福谷 圭吾, 門田 暁人, Zeynep Yücel, 畑 秀明 ソフトウェアバグの行レベル予測の試み ソフトウェア工学の基礎ワークショップ (FOSE 2017), pp.105-100 Nov 2017, Fukui, Japan

87 $^{(\dagger)}$  Parisa Supitayakul, Zeynep Yücel, Francesco Zanlungo, Akito Monden, Pattara Leelaprute

Calibration of distributed multimodal sensor networks using cross-correlation of arrival processes

Proc. Annual Conference of the Robotics Society of Japan (RSJ 2017), 1C3-05 Sep 2017, Saitama, Japan

88<sup>(\*†)</sup> Zeynep Yücel, Francesco Zanlungo, Masahiro Shiomi Modeling effect of interaction on motion patterns of pedestrian groups (*in Japanese*) Proc. Annual Conference of the Robotics Society of Japan (RSJ 2016), 3W2-04, July 2016

89<sup>(\*)</sup> Zeynep Yücel, Albert Ali Salah, Çetin Meriçli, Tekin Meriçli Derivation of Gaze Direction from Head Pose Estimates (*in Turkish*)

Proc. IEEE Signal Processing and Communication Applications Conference, pp. 224-227, SIU 2010.

https://doi.org/10.1109/SIU.2010.5652736

90<sup>(\*)</sup> Zeynep Yücel, Roberto Valenti, Nicu Sebe

Cylindrical Model Based Head Pose Estimation for Drivers (in Turkish)

Proc. IEEE Signal Processing and Communication Applications Conference, pp. 213-216, SIU 2009.

https://doi.org/10.1109/SIU.2009.5136370

91<sup>(\*)</sup> Zeynep Yücel, Arif Bülent Özgüler

Detection of Epilepsy Seizures and Epileptic Indicators in EEG Signals (in Turkish) Proc. IEEE Signal Processing and Communication Applications Conference, SIU 2008, pp. 1-4, 2008.

https://doi.org/10.1109/SIU.2008.4632759

92<sup>(\*)</sup> Zeynep Yücel, Emre Esen, Pınar Duygulu, Yıldırı Sara, Rüştü Onur, Arif Bülent Özgüler

Computer vision based classification of videos of mice under the influence of several psychotropic drugs (in Turkish)

National Congress of Pharmacology, 2007.

93<sup>(\*)</sup> Emre Esen, Zeynep Yücel, Yıldırım Sara, Pınar Duygulu, Rüştü Onur

Discrimination of pharmaceutical agents that cause locomotor activity changes in mice using computer software (in Turkish)

National Congress of Pharmacology, 2007.

94<sup>(\*)</sup> Zeynep Yücel, Arif Bülent Özgüler

Color and Grey Level Image Watermarking via Zero Assigned Filter Banks (in Turkish)

Proc. IEEE Signal Processing and Communication Applications Conference, SIU 2006.

https://doi.org/10.1109/SIU.2006.1659862

#### Theses

95 Zeynep Yücel

Computer Vision Based Behaviour Analysis

PhD Thesis - Bilkent University, Ankara, Turkey, 2009.

96 Zeynep Yücel

Watermarking via Zero Assigned Filter Banks

MS Thesis - Bilkent University, Ankara, Turkey, 2005.

#### Patents

97 Zeynep Yücel, Tetshushi Ikeda, Takahiro Miyashita, Norihiro Hagita, "Tracking and Identification of Mobile Entities Based on Trajectory and Shape Information Patent Application No. 2011-204031 (granted).

#### Teaching experience

#### Undergraduate

The courses below are taught in Okayama University and the teaching language is Japanese.

Graph Theory

Algorithms and Computational Complexity

Mathematical Logic

Safety and Security Management for Engineers

Information Technology Experiments B (Media Processing, as coordinator)

#### Graduate

The courses below are taught in Okayama University and the teaching language is specified in parenthesis.

Advanced Linear Algebra (in English)

Topics in Electronic and Information Systems Engineering (in Japanese, as teacher and coordinator)

#### As teaching assistant

The courses below are taught in Bilkent University and the teaching language is English.

Introduction to Electrical Engineering

Linear Algebra and Differential Equations

Feedback Control Systems

Digital Control

Nonlinear Systems

Electronics I

#### Invited talks

- Aug 2018 Istanbul Technical University, Department of Computer Science Interaction in Dynamic Scenarios of HRI
- Aug 2018 Linnaeus University, Department of computer science and media technology Considerations in the design of social interaction robots
- Dec 2017 Nishinari Lab, Tokyo University
  Human behavior understanding for social robotics
- Sep 2017 MHUG, Trento University, Trento, Italy Interaction in Static and Dynamic Scenarios of HRI
- Aug 2017 Milano Bicocca University, Milan, Italy Pedestrian Group Interaction for Social Robotics Applications
- Aug 2017 BYOYO 2017, Hacettepe University, Ankara, Turkey Social interaction robots

#### Other activities

#### Journal Reviewing

Physica A: Statistical Mechanics and its Applications

Signal, Image and Video Processing

IEEE Tran Signal Processing

IEEE Tran Multimedia

IEEE Tran Affective Computing

IEEE Tran Information Forensics and Security

IEEE Access

Elsevier Digital Signal Processing

Elsevier Signal Processing

Eurasip Journal on Advances in Signal Processing

PeerJ Computer Science

Int J Geo-information

Springer Multimedia Tools and Applications

Safety Science

Sage Open

Fire Safety

Heliyon

## Conference

## Reviewing

Int Conf Social Robotics (ICSR)

Int Conf Intelligent Robots and Systems (IROS)

Int Conf Robotics and Automation (ICRA)

Int Conf Multimodal Interaction (ICMI)

Int Conf Pattern Recognition (ICPR)

Int Conf Affective Computing and Intelligent Interaction (ACII)

Int Symp Computer and Information Sciences (ISCIS)

Signal Processing and Communication Application (SIU)

European Signal Processing Conference (EUSIPCO)

IEEE Symposium on Signal Processing and Information Technology (ISSPIT)

Humanoids

Pedestrian and Evacuation Dynamics (PED)

#### Organization

PC member of International Conference on Smart Computing and Artificial Intelligence, SCAI 2024

2023年度(第74回)電気·情報関連学会中国支部連合大会 (2023 Chugoku Section Joint Conference of Electrical and Information Society)

Int Conf on Pedestrian and Evacuation Dynamics, PED 2023

PC member of Int Conf on Speech and Computer, Specom 2023

PC member of Int Workshop on Computational Intelligence for Multimedia Understanding, IWCIM 2023 (at IEEE ICASSP 2023)

PC member of Int Conf on Speech and Computer, Specom 2022

PC member of Int Conf on Speech and Computer, Specom 2021

PC member of Int Conf on Speech and Computer, Specom 2020

PC member of Int Conf on Social Robotics, ICSR 2019

PC member of Int Conf on Speech and Computer, ICR 2019

PC member of Int Workshop on Human Behavior Understanding, HBU 2018

PC member of Int Workshop on Human Behavior Understanding, HBU 2012

## Administrative

#### duties

Apr 2021 - Library steering committee of Okayama University

Apr 2020 - Diversity & Inclusion committee of Okayama University

Apr 2022 - Public relations committee of Faculty of Engineering of Okayama University

Apr 2021 - Electronic Journal Subscription Working Group of Faculty of Engineering of Okayama University

Apr 2023 - Academic adviser to 2022 enrollment students of Department of Information Science of Okayama University

## Computer skills

C++, OpenCV, Java

 ${\bf Python,\ MATLAB,\ Scilab} \\ {\bf Latex}$ 

## Languages

Self-assessment European level  ${\it CEFR}$  (C2 maximum evaluation)

(\*) Holder of N3 (third highest) level of Japanese proficiency approved in 2014 by JLPT

		Comprehension		Speaking		Writing
		Listening Read		Interaction Production		
Turkish	Mother Tongue					
English	Advanced	C2	C2	C2	C2	C2
Japanese(*)	Intermediate	C1	B1	C1	B2	B2
Italian	Intermediate	<i>B1</i>	B1	B2	B2	<i>B1</i>
German	Intermediate	B1	B2	A2	A2	A2