

Asst. Prof. DUYGU SARIKAYA

Personal Information

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Education Information

Doctorate, State University of New York at Buffalo, Faculty of Engineering, Computer Science and Engineering, United States Of America 2012 - 2017

Postgraduate, State University of New York at Buffalo, Faculty of Engineering, Computer Science and Engineering, United States Of America 2010 - 2012

Undergraduate, Tobb University Of Economics And Technology, Faculty Of Engineering, Department Of Computer Engineering, Turkey 2005 - 2009

Dissertations

Doctorate, Exploring Fusion Models in Computer Vision for Medical Image Computing, State University of New York at Buffalo, Faculty of Engineering, Computer Science and Engineering, 2017

Research Areas

Computer Vision, Artificial Intelligence, Computer Learning and Pattern Recognition

Published journal articles indexed by SCI, SSCI, and AHCI

- I. **Surgical data science-from concepts toward clinical translation**
Maier-Hein L., Eisenmann M., SARIKAYA D., Maerz K., Collins T., Malpani A., Fallert J., Feussner H., Giannarou S., Mascagni P., et al.
MEDICAL IMAGE ANALYSIS, vol.76, 2022 (SCI-Expanded)
- II. **Micro-surgical anastomose workflow recognition challenge report**
Huaultmé A., SARIKAYA D., Le Mut K., Despinoy F., Long Y., Dou Q., Chng C., Lin W., Kondo S., Bravo-Sánchez L., et al.
Computer Methods and Programs in Biomedicine, vol.212, 2021 (SCI-Expanded)
- III. **SAGES consensus recommendations on an annotation framework for surgical video**
Meireles O. R., Rosman G., Carin L., Hager G., Madani A., Padoy N., Pugh C. M., Sylla P., Ward T. M., Hashimoto D. A., et al.
Surgical Endoscopy And Other Interventional Techniques, vol.35, pp.4918-4929, 2021 (SCI-Expanded)
- IV. **Detection and Localization of Robotic Tools in Robot-Assisted Surgery Videos Using Deep Neural Networks for Region Proposal and Detection**
Sarıkaya D., Corso J. J., Guru K. A.
IEEE TRANSACTIONS ON MEDICAL IMAGING, vol.36, no.7, pp.1542-1549, 2017 (SCI-Expanded)
- V. **The Multimodal Brain Tumor Image Segmentation Benchmark (BRATS)**
Menze B. H., Jakab A., Bauer S., Kalpathy-Cramer J., Farahani K., Kirby J., Burren Y., Porz N., Slotboom J., Wiest R., et al.

IEEE TRANSACTIONS ON MEDICAL IMAGING, vol.34, no.10, pp.1993-2024, 2015 (SCI-Expanded)

- VI. **MRBrainS Challenge: Online Evaluation Framework for Brain Image Segmentation in 3T MRI Scans**
Mendrik A. M., Vincken K. L., Kuijf H. J., Breeuwer M., Bouvy W. H., de Bresser J., Alansary A., de Bruijne M., Carass A., El-Baz A., et al.
COMPUTATIONAL INTELLIGENCE AND NEUROSCIENCE, vol.2015, 2015 (SCI-Expanded)

Articles Published in Other Journals

- I. **Special issue on 2021 augmented environments for computer-assisted interventions (AE-CAI): guest editors' foreword**
Linte C. A., Chen E., Dou Q., Drouin S., Kersten-Oertel M., McLeod J., Sarikaya D., Yaniv Z.
COMPUTER METHODS IN BIOMECHANICS AND BIOMEDICAL ENGINEERING-IMAGING AND VISUALIZATION, vol.10, no.3, pp.241-242, 2022 (ESCI)
- II. **Special issue on 2020 augmented environments for computer-assisted interventions (AE-CAI): guest editors' foreword**
Linte C. A., Chen E., Drouin S., Kersten-Oertel M., Yaniv Z., Hashimoto D., Dou Q., Luo X., McLeod J., SARIKAYA D.
COMPUTER METHODS IN BIOMECHANICS AND BIOMEDICAL ENGINEERING-IMAGING AND VISUALIZATION, vol.9, pp.217-218, 2021 (ESCI)

Refereed Congress / Symposium Publications in Proceedings

- I. **An Efficient Polyp Segmentation Network**
Sarikaya D., Erol T.
IEEE Signal Processing and Communications Applications (SIU), Karabük, Turkey, 15 - 18 May 2022, pp.1-4
- II. **Using Human Gaze For Surgical Activity Recognition**
Sarikaya D., Abdillahi Awale A.
IEEE Signal Processing and Communications Applications (SIU), Karabük, Turkey, 15 - 18 May 2022, pp.1-4
- III. **Surgical activity recognition with transformer networks Transformer ağı ile cerrahi hareket tanima**
Kabatas S. N., SARIKAYA D.
29th IEEE Conference on Signal Processing and Communications Applications, SIU 2021, Virtual, Istanbul, Turkey, 9 - 11 June 2021
- IV. **Surgical gesture recognition with optical flow only**
Sarikaya D., Jannin P.
Computer Assisted Radiology and Surgery , Munich, Germany, 23 - 27 June 2020, pp.48-49
- V. **CARS 2020 Computer Assisted Radiology and Surgery Proceedings of the 34th International Congress and Exhibition, Munich, Germany, June 23, 2020**
Sarikaya D., Guru K. A., Corso J. J.
Computer Assisted Radiology and Surgery - the 34th International Congress and Exhibition, Munich, Germany, 23 June 2020, pp.47-48

Scientific Refereeing

IEEE TRANSACTIONS ON MEDICAL IMAGING, Journal Indexed in SCI-E, December 2021

IEEE TRANSACTIONS ON MEDICAL IMAGING, Journal Indexed in SCI-E, May 2021

International Journal of Computer Assisted Radiology and Surgery, Journal Indexed in SCI-E, April 2021

Sinyal İşleme ve İletişim Uygulamaları Kurultayı, Conference Paper (Full Text), April 2021

Medical Image Computing and Computer Assisted Interventions 2021, Conference Paper (Full Text), April 2021

Medical Image Computing and Computer Assisted Interventions 2021, Conference Paper (Full Text), April 2021

Medical Image Computing and Computer Assisted Interventions 2021, Conference Paper (Full Text), April 2021
Sinyal İşleme ve İletişim Uygulamaları Kurultayı (SIU 2021), Conference Paper (Full Text), April 2021
International Conference on Information Processing in Computer- Assisted Interventions, Conference Paper (Full Text),
January 2021
IEEE TRANSACTIONS ON MEDICAL IMAGING, Journal Indexed in SCI-E, January 2021
IEEE TRANSACTIONS ON MEDICAL IMAGING, Journal Indexed in SCI-E, October 2020
IEEE TRANSACTIONS ON MEDICAL IMAGING, Journal Indexed in SCI-E, September 2020
COMPUTER METHODS AND PROGRAMS IN BIOMEDICINE, Journal Indexed in SCI-E, August 2020
Computer Assisted Surgery, Journal Indexed in ESCI, July 2020
Computer Assisted Surgery , Journal Indexed in ESCI, June 2020
COMPUTER ASSISTED SURGERY, Journal Indexed in ESCI, May 2020
International Conference on Medical Image Computing and Computer Assisted Intervention, Conference Paper (Full
Text), April 2020
International Conference on Medical Image Computing and Computer Assisted Intervention, Conference Paper (Full
Text), April 2020
International Conference on Medical Image Computing and Computer Assisted Intervention, Conference Paper (Full
Text), April 2020
INTERNATIONAL JOURNAL OF COMPUTER ASSISTED RADIOLOGY AND SURGERY, Journal Indexed in SCI-E, March 2020

Tasks In Event Organizations

Sarıkaya D., The joint 15th AE-CAI, 8th CARE and 4th OR 2.0 workshop, MICCAI 2021, Scientific Congress, Strasbourg,
France, Eylül 2021
Sarıkaya D., Computer Vision and Augmented Reality in Surgery, Scientific Congress, London, United Kingdom, Temmuz
2021
Sarıkaya D., The joint 14th AE-CAI, 7th CARE and 3rd OR 2.0 workshop, MICCAI 2020, Scientific Congress, Lima, Peru,
Ekim 2020
Sarıkaya D., Micro-Surgical Anastomose Workflow recognition on training sessions (MISAW) Challenge, part of the
Endovis Grand Challenge, MICCAI 2020, Scientific Congress, Lima, Peru, Ekim 2020
Sarıkaya D., The second International Workshop on OR 2.0 Context-Aware Operating 'Theaters, MICCAI 2019, Scientific
Congress, Shenzhen, China, Ekim 2019
Sarıkaya D., The second International Surgical Data Science Workshop, CARS 2019, Scientific Congress, Rennes, France,
Haziran 2019
Sarıkaya D., The First International Workshop on OR 2.0 Context-Aware Operating Theaters, MICCAI 2018, Scientific
Congress, Granada, Spain, Eylül 2018

Metrics

Publication: 13
Citation (WoS): 1763
Citation (Scopus): 2864
H-Index (WoS): 4
H-Index (Scopus): 4

Congress and Symposium Activities

BMVC 2021 — British Machine Vision Conference, Audience, Cardiff, United Kingdom, 2021
MICCAI 2021, the 24 . International Conference on Medical Image Computing and Computer Assisted Intervention,

Audience, Strasbourg, France, 2021

ToRK Türkiye Robotbilim Konferansı, Audience, İzmir, Turkey, 2021

SIU 2021 - 29. Sinyal İşleme ve İletişim Uygulamaları Kurultayı, Session Moderator, İstanbul, Turkey, 2021

Association for Surgical Education (ASE) 2021 Annual Meeting, Panelists, Illinois, United States Of America, 2021

The Hamlyn Symposium on Medical Robotics 2021, Attendee, London, United Kingdom, 2021

MICCAI 2021, the 23 . International Conference on Medical Image Computing and Computer Assisted Intervention,
Audience, Lima, Peru, 2020

Scholarships

Fulbright Grant, Fulbright Program, 2010 - 2012