Oliver Burgert

List of Publications by Year
in descending order

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87	972	567281	501196
papers	citations	15 h-index	28 g-index

96	96	96	726
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Concept and basic framework prototype for a flexible and intervention-independent situation recognition system in the OR. Computer Methods in Biomechanics and Biomedical Engineering: Imaging and Visualization, 2022, 10, 283-288.	1.9	3
2	State-of-the-art of situation recognition systems for intraoperative procedures. Medical and Biological Engineering and Computing, 2022, 60, 921-939.	2.8	6
3	Explainability of deep neural networks for MRI analysis of brain tumors. International Journal of Computer Assisted Radiology and Surgery, 2022, 17, 1673-1683.	2.8	23
4	Service-oriented Device Connectivity interface for a situation recognition system in the OR. International Journal of Computer Assisted Radiology and Surgery, 2022, , .	2.8	1
5	A Hybrid Deep Registration of MR Scans to Interventional Ultrasound for Neurosurgical Guidance. Lecture Notes in Computer Science, 2021, , 586-595.	1.3	2
6	Detection of adverse events leading to inadvertent injury during laparoscopic cholecystectomy using convolutional neural networks. Biomedizinische Technik, 2021, 66, 413-421.	0.8	4
7	Slicer-DeepSeg: Open-Source Deep Learning Toolkit for Brain Tumour Segmentation. Current Directions in Biomedical Engineering, 2021, 7, 30-34.	0.4	3
8	Interaction concept and system architecture for the sterile information system OR-Pad in the perioperative area. Current Directions in Biomedical Engineering, 2021, 7, 101-105.	0.4	4
9	Towards Automated Surgical Documentation using automatically generated checklists from BPMN models. Current Directions in Biomedical Engineering, 2021, 7, 135-139.	0.4	4
10	iRegNet: Non-Rigid Registration of MRI to Interventional US for Brain-Shift Compensation Using Convolutional Neural Networks. IEEE Access, 2021, 9, 147579-147590.	4.2	4
11	Control of KNX devices over IEEE 11073 service-oriented device connectivity. , 2020, , .		1
12	DeepSeg: deep neural network framework for automatic brain tumor segmentation using magnetic resonance FLAIR images. International Journal of Computer Assisted Radiology and Surgery, 2020, 15, 909-920.	2.8	134
13	Towards automated correction of brain shift using deep deformable magnetic resonance imaging-intraoperative ultrasound (MRI-iUS) registration. Current Directions in Biomedical Engineering, 2020, 6, .	0.4	7
14	Automatic generation of checklists from business process model and notation (BPMN) models for surgical assist systems. Current Directions in Biomedical Engineering, 2020, 6, .	0.4	3
15	A workflow management system for the OR based on the OMG standards BPMN, CMMN, and DMN. , 2019, , .		2
16	Control of real-time MRI with a 3D controller during radiofrequency ablation. , 2018, , .		0
17	Application fields for the new Object Management Group (OMG) Standards Case Management Model and Notation (CMMN) and Decision Management Notation (DMN) in the perioperative field. International Journal of Computer Assisted Radiology and Surgery, 2017, 12, 1439-1449.	2.8	36
18	Design, Implementation and Operation of a Reading Center Platform for Clinical Studies. Studies in Health Technology and Informatics, 2017, 235, 33-37.	0.3	0

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19	A simple and accurate method for computer-aided transapical aortic valve replacement. Computerized Medical Imaging and Graphics, 2016, 50, 31-41.	5.8	23
20	A workflow management system for the perioperative area supporting all actors. , 2015, , .		1
21	Design and first implementation of business process visualization for a task manager supporting the workflow in an operating room. Proceedings of SPIE, 2015, , .	0.8	0
22	A model-guided peri-operative information systems approach. , 2014, , .		1
23	Stent graft visualization and planning tool for endovascular surgery using finite element analysis. International Journal of Computer Assisted Radiology and Surgery, 2014, 9, 617-633.	2.8	1
24	Laparoscopic versus robot-assisted Nissen fundoplication in an infant pig model. Pediatric Surgery International, 2012, 28, 357-362.	1.4	4
25	DICOM for Implantationsâ€"Overview and Application. Journal of Digital Imaging, 2012, 25, 352-358.	2.9	19
26	Surgical stent planning: simulation parameter study for models based on DICOM standards. International Journal of Computer Assisted Radiology and Surgery, 2011, 6, 319-327.	2.8	13
27	Image-Guided Transapical Aortic Valve Implantation Sensorless Tracking of Stenotic Valve Landmarks in Live Fluoroscopic Images. Innovations: Technology and Techniques in Cardiothoracic and Vascular Surgery, 2011, 6, 231-236.	0.9	15
28	IHE for surgery: scope and first proposals for a new domain within the Integrating the Healthcare Enterprise initiative. Proceedings of SPIE, 2011, , .	0.8	0
29	Analysis of surgical intervention populations using generic surgical process models. International Journal of Computer Assisted Radiology and Surgery, 2011, 6, 59-71.	2.8	65
30	Aortic valve prosthesis tracking for transapical aortic valve implantation. International Journal of Computer Assisted Radiology and Surgery, 2011, 6, 583-590.	2.8	11
31	Model-Updated Image-Guided Minimally Invasive Off-Pump Transcatheter Aortic Valve Implantation. Lecture Notes in Computer Science, 2011, 14, 275-282.	1.3	11
32	Extracting the Fine Structure of the Left Cardiac Ventricle in 4D CT Data. Informatik Aktuell, 2011, , 264-268.	0.6	0
33	Analyse und Beschreibung chirurgischer Workflows. , 2011, , 303-310.		0
34	Segmentierung der Prostata aus MRT-Bilddaten mittels eines statistischen Modells. Informatik Aktuell, 2011, , 114-118.	0.6	0
35	Image-Guided Transapical Aortic Valve Implantation Sensorless Tracking of Stenotic Valve Landmarks in Live Fluoroscopic Images. Innovations: Technology and Techniques in Cardiothoracic and Vascular Surgery, 2011, 6, 231-236.	0.9	2
36	Storing data generated by optical surface scanners using DICOM: a work item proposal. Proceedings of SPIE, 2010, , .	0.8	2

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37	Recording of Surgical Processes: A Study Comparing Senior and Junior Neurosurgeons During Lumbar Disc Herniation Surgery. Operative Neurosurgery, 2010, 67, ons325-ons332.	0.8	26
38	Support of surgical process modeling by using adaptable software user interfaces. , 2010, , .		0
39	An observation support system with an adaptive ontology-driven user interface for the modeling of complex behaviors during surgical interventions. Behavior Research Methods, 2010, 42, 1049-1058.	4.0	12
40	Applicability of DICOM structured reporting for the standardized exchange of implantation plans. International Journal of Computer Assisted Radiology and Surgery, 2010, 5, 1-9.	2.8	6
41	A modular video streaming method for surgical assistance in operating room networks. International Journal of Computer Assisted Radiology and Surgery, 2010, 5, 489-499.	2.8	7
42	Conceptual Data Warehouse Design Methodology for Business Process Intelligence. , 2010, , 129-173.		0
43	Workflow Analysis of Laparoscopic Nissen Fundoplication in Infant Pigsâ€"A Model for Surgical Feedback and Training. Journal of Laparoendoscopic and Advanced Surgical Techniques - Part A, 2009, 19, s117-s122.	1.0	17
44	A planning system for transapical aortic valve implantation. Proceedings of SPIE, 2009, , .	0.8	15
45	Localization and tracking of aortic valve prosthesis in 2D fluoroscopic image sequences. , 2009, , .		10
46	Assessment of technical needs for surgical equipment by surgical process models. Minimally Invasive Therapy and Allied Technologies, 2009, 18, 341-349.	1.2	14
47	Towards a new image guidance system for assisting transapical minimally invasive aortic valve implantation. , 2009, 2009, 3645-8.		11
48	Validation of Knowledge Acquisition for Surgical Process Models. Journal of the American Medical Informatics Association: JAMIA, 2009, 16, 72-80.	4.4	100
49	A DICOM-based streaming service for the Digital Operating Room. , 2009, , .		1
50	An integrated OR system based on open standards. , 2009, , .		2
51	A process and criteria for the evaluation of software frameworks in the domain of computer assisted surgery. Medical and Biological Engineering and Computing, 2008, 46, 1209-1217.	2.8	4
52	Workflow in interventional radiology: uterine fibroid embolization (UFE). , 2008, , .		1
53	Data Warehousing Technology for Surgical Workflow Analysis. , 2008, , .		15
54	A general framework for data streaming in the digital operating room. Proceedings of SPIE, 2008, , .	0.8	2

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55	Integration of implant planning workflows into the PACS infrastructure. Proceedings of SPIE, 2008, , .	0.8	0
56	Steps towards open standards for medical virtual reality systems. Studies in Health Technology and Informatics, 2008, 132, 62-7.	0.3	0
57	Kooperative Mensch-Maschine-Systeme in der Chirurgie und Rehabilitation (Cooperative) Tj ETQq1 1 0.784314 rgBT /Overlock 10 Tf 50	0.8	0
58	A topologically faithful, tissue-guided, spatially varying meshing strategy for computing patient-specific head models for endoscopic pituitary surgery simulation. Computer Aided Surgery, 2007, 12, 43-52.	1.8	12
59	Evaluation of perception performance in neck dissection planning using eye tracking and attention landscapes. , 2007, , .		4
60	The Impact of Haptic Learning in Telemanipulator-assisted Surgery. Surgical Laparoscopy, Endoscopy and Percutaneous Techniques, 2007, 17, 402-406.	0.8	16
61	Deriving DICOM surgical extensions from surgical workflows. , 2007, , .		6
62	Workspace definition for navigated control functional endoscopic sinus surgery. , 2007, , .		2
63	A topologically faithful, tissue-guided, spatially varying meshing strategy for computing patient-specific head models for endoscopic pituitary surgery simulation. Computer Aided Surgery, 2007, 12, 43-52.	1.8	2
64	Requirement specification for surgical simulation systems with surgical workflows. Studies in Health Technology and Informatics, 2007, 125, 58-63.	0.3	8
65	Structured recording of intraoperative surgical workflows. , 2006, 6145, 54.		39
66	Acquisition of Process Descriptions from Surgical Interventions. Lecture Notes in Computer Science, 2006, , 602-611.	1.3	45
67	Real Time Issues for usage of Vision and Image Data in the Future Operating Room. , 2006, , .		6
68	Workflow in interventional radiology: nerve blocks and facet blocks. , 2006, , .		3
69	Evaluation of a Navigation System for ENT with Surgical Efficiency Criteria. Laryngoscope, 2006, 116, 564-572.	2.0	53
70	Computer Assisted ENT Surgery. International Journal of Computer Assisted Radiology and Surgery, 2006, 1, 311-323.	2.8	1
71	5th CARS/SPIE Joint Workshop on Surgical PACS and the Digital Operating Room. International Journal of Computer Assisted Radiology and Surgery, 2006, 1, 437-454.	2.8	9
72	Effect of the needle tip shape on fall of force after puncture in epidural anesthesia. International Journal of Computer Assisted Radiology and Surgery, 2006, 1, 487-515.	2.8	0

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73	Surgical PACS for the digital operating room. Systems engineering and specification of user requirements. Studies in Health Technology and Informatics, 2006, 119, 267-72.	0.3	7
74	ENT-surgical workflow as an instrument to assess the efficiency of technological developments in medicine. International Congress Series, 2005, 1281, 851-855.	0.2	3
75	Deformable modelling of the cervical spine for neurosurgical navigation. International Congress Series, 2004, 1268, 455-460.	0.2	1
76	A VR-system supporting symmetry related cranio-maxillofacial surgery. Studies in Health Technology and Informatics, 2003, 94, 33-5.	0.3	2
77	Evaluation of INPRES--Intraoperative Presentation of surgical planning and simulation results. Studies in Health Technology and Informatics, 2003, 94, 309-11.	0.3	0
78	SYMMETRY CONSIDERATIONS FOR VOLUMETRIC IMPLANT-PLANNING. Biomedizinische Technik, 2002, 47, 265-266.	0.8	0
79	Volumetric implant-planning based on Symmetry Considerations. Studies in Health Technology and Informatics, 2002, 85, 86-8.	0.3	0
80	Interactive simulation of the teeth cleaning process using volumetric prototypes. Studies in Health Technology and Informatics, 2002, 85, 160-5.	0.3	1
81	Risk reduction in craniofacial surgery using computer-based modeling and intraoperative immersion. Studies in Health Technology and Informatics, 2002, 85, 441-7.	0.3	1
82	A system for facial reconstruction using distraction and symmetry considerations. International Congress Series, 2001, 1230, 62-67.	0.2	2
83	Interactive simulation of teeth cleaning. International Congress Series, 2001, 1230, 682-688.	0.2	1
84	Comparison of tracking techniques for intraoperative presentation of medical data using a see-through head-mounted display. Studies in Health Technology and Informatics, 2001, 81, 443-5.	0.3	1
85	Intraoperative presentation of surgical planning and simulation results using a stereoscopic see-through head-mounted display. , 2000, 3957, 68.		6
86	3D Norm Data: The First Step towards Semiautomatic Virtual Craniofacial Surgery. Computer Aided Surgery, 2000, 5, 353-358.	1.8	14
87	Workflow Analysis of Laparoscopic Nissen Fundoplication in Infant Pigsâ€"A Model for Surgical Feedback and Training. Journal of Laparoendoscopic and Advanced Surgical Techniques - Part A, 0, , 1-6.	1.0	0