Klaus Radermacher

List of Publications by Year
in descending order

261	2,884	279487	223531
papers	citations	23 h-index	46 g-index

300	300	300	2458
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Critical evaluation of known bone material properties to realize anisotropic FE-simulation of the proximal femur. Journal of Biomechanics, 2000, 33, 1325-1330.	0.9	400
2	Computer Assisted Orthopaedic Surgery With Image Based Individual Templates. Clinical Orthopaedics and Related Research, 1998, 354, 28-38.	0.7	223
3	CRIGOS: a compact robot for image-guided orthopedic surgery. IEEE Transactions on Information Technology in Biomedicine, 1999, 3, 252-260.	3.6	120
4	Assessment of optical localizer accuracy for computer aided surgery systems. Computer Aided Surgery, 2010, 15, 1-12.	1.8	103
5	Recent advances of ultrasound imaging in dentistry â€“ a review of the literature. Oral Surgery, Oral Medicine, Oral Pathology and Oral Radiology, 2013, 115, 819-832.	0.2	93
6	Computer-Assisted Orthopedic Surgery With Individual Templates and Comparison to Conventional Operation Method. Spine, 2001, 26, 365-370.	1.0	91
7	Optical and electrical properties of buried semiconducting ÃŸ-FeSL. Nuclear Instruments & Methods in Physics Research B, 1994, 84, 163-167.	0.6	90
8	A vibrational study of ethanol adsorption on Si(100). Journal of Chemical Physics, 1997, 106, 9889-9898.	1.2	79
9	Statistical validation metric for accuracy assessment in medical image segmentation. International Journal of Computer Assisted Radiology and Surgery, 2007, 2, 169-181.	1.7	74
10	Vibrational study of silicon oxidation: H2O on Si(100). Surface Science, 1997, 380, 444-454.	0.8	61
11	Electronic structure of buried Î±-FeSi2and Î²-FeSi2layers: Soft-x-ray-emission and -absorption studies compared to band-structure calculations. Physical Review B, 1994, 50, 18330-18340.	1.1	58
12	Concept and development of an orthotropic FE model of the proximal femur. Journal of Biomechanics, 2003, 36, 289-293.	0.9	54
13	Robot- and computer-assisted craniotomy: resection planning, implant modelling and robot safety. International Journal of Medical Robotics and Computer Assisted Surgery, 2006, 2, 168-178.	1.2	44
14	Gender differences in knee morphology and the prospects for implant design in total knee replacement. Knee, 2018, 25, 545-558.	0.8	32
15	Toward versatile cooperative surgical robotics: a review and future challenges. International Journal of Computer Assisted Radiology and Surgery, 2019, 14, 1673-1686.	1.7	30
16	Accuracy of single crowns fabricated from ultrasound digital impressions. Dental Materials, 2018, 34, e280-e288.	1.6	27
17	Robot- and computer-assisted craniotomy (CRANIO): From active systems to synergistic manâ€”machine interaction. Proceedings of the Institution of Mechanical Engineers, Part H: Journal of Engineering in Medicine, 2010, 224, 441-452.	1.0	25
18	Assessment and treatment of glenohumeral joint deformities in children suffering from upper obstetric brachial plexus palsy. Journal of Pediatric Orthopaedics Part B, 2007, 16, 243-251.	0.3	24

#	Article	IF	Citations
19	Development of a biomechanical model of the wrist joint for patient-specific model guided surgical therapy planning: Part 1. Proceedings of the Institution of Mechanical Engineers, Part H: Journal of Engineering in Medicine, 2016, 230, 310-325.	1.0	24
20	Patient-specific musculoskeletal modeling of the hip joint for preoperative planning of total hip arthroplasty: A validation study based on in vivo measurements. PLoS ONE, 2018, 13, e0195376.	1.1	24
21	An infrared study of H8Si8O12 cluster adsorption on Si(100) surfaces. Journal of Chemical Physics, 1998, 108, 8680-8688.	1.2	23
22	User-interactive registration of bone with A-mode ultrasound. IEEE Engineering in Medicine and Biology Magazine, 2005, 24, 85-95.	1.1	23
23	Fluoroscopic navigation system for hip surface replacement. Computer Aided Surgery, 2007, 12, 160-167.	1.8	23
24	Enhanced in vitro model of the CSF dynamics. Fluids and Barriers of the CNS, 2019, 16, 11.	2.4	23
25	Quantum transport of buried single-crystallineCoSi2layers in (111)Si and (100)Si substrates. Physical Review B, 1993, 48, 8002-8015.	1.1	22
26	Fluoroscopy-Based 3-D Reconstruction of Femoral Bone Cement: A New Approach for Revision Total Hip Replacement. IEEE Transactions on Biomedical Engineering, 2005, 52, 664-675.	2.5	22
27	Assessment of cortical bone thickness using ultrasound. Clinical Oral Implants Research, 2017, 28, 520-528.	1.9	22
28	A compact robot for image guided Orthopedic Surgery: Concept and preliminary results. Lecture Notes in Computer Science, 1997, , 767-776.	1.0	21
29	Simplified detection of myocardial ischemia by seismocardiography. Herz, 2013, 39, 586-92.	0.4	21
30	Myocardial effects of local shock wave therapy in a Langendorff model. Ultrasonics, 2014, 54, 131-136.	2.1	20
31	High-Frequency Ultrasound as an Option for Scanning ofÂPrepared Teeth: An inÂVitro Study. Ultrasound in Medicine and Biology, 2015, 41, 309-316.	0.7	17
32	In-vitro cell treatment with focused shockwavesâ€"influence of the experimental setup on the sound field and biological reaction. Journal of Therapeutic Ultrasound, 2016, 4, 10.	2.2	17
33	Stereoscopic Visualization in Endoscopic Surgery: Problems, Benefits, and Potentials. Presence: Teleoperators and Virtual Environments, 1997, 6, 198-217.	0.3	15
34	A biomechanical model of the wrist joint for patient-specific model guided surgical therapy: Part 2. Proceedings of the Institution of Mechanical Engineers, Part H: Journal of Engineering in Medicine, 2016, 230, 326-334.	1.0	15
35	Calculation of impingement-free combined cup and stem alignments based on the patient-specific pelvic tilt. Journal of Biomechanics, 2019, 82, 193-203.	0.9	15
36	Identification of Milling Parameters for Manual Cutting of Bicortical Bone Structures. Computer Aided Surgery, 2003, 8, 257-263.	1.8	14

#	Article	IF	Citations
37	The state off 3-D technology and evaluation. Minimally Invasive Therapy and Allied Technologies, 1996, 5, 419-426.	0.6	13
38	Evaluation of a fluoroscopy-based navigation system enabling a virtual radiation-free preview of X-ray images for placement of cannulated hip screws. A cadaver study. Computer Aided Surgery, 2011, 16, 22-31.	1.8	13
39	Single pulse analysis of intracranial pressure for a hydrocephalus implant. , 2012, 2012, 3939-42.		13
40	Analysis of wrist bone motion before and after SL-ligament resection. Biomedizinische Technik, 2016, 61, 345-357.	0.9	13
41	A robust method for automatic identification of landmarks on surface models of the pelvis. Scientific Reports, 2019, 9, 13322.	1.6	13
42	Allotaxial growth of epitaxial Si/FeSi2/Si heterostructures. Applied Surface Science, 1993, 73, 141-145.	3.1	12
43	Electron transport of inhomogeneous Î±-FeSi2/(111)Si Schottky barriers. Solid-State Electronics, 1994, 37, 443-449.	0.8	12
44	CRANIOâ€"computer-assisted planning for navigated and robot-assisted surgery on the skull. International Congress Series, 2003, 1256, 1269-1275.	0.2	12
45	Fast and accurate registration of cranial CT images with A-mode ultrasound. International Journal of Computer Assisted Radiology and Surgery, 2009, 4, 225-237.	1.7	12
46	Assessment of Buccal Bone Surrounding Dental Implants Using a High-Frequency Ultrasound Scanner. Ultrasound in Medicine and Biology, 2019, 45, 1427-1434.	0.7	12
47	An Automatic Camera-Holding System for Gynecologic Laparoscopy. Journal of Minimally Invasive Gynecology, 2001, 8, 303-306.	1.4	11
48	Anatomically Constrained Deformation for Design of Cranial Implant: Methodology and Validation. Lecture Notes in Computer Science, 2006, 9, 9-16.	1.0	11
49	A Novel Concept for Smart Trepanation. Journal of Craniofacial Surgery, 2012, 23, 309-314.	0.3	11
50	Control of an Electromechanical Hydrocephalus Shuntâ€"a New Approach. IEEE Transactions on Biomedical Engineering, 2014, 61, 2379-2388.	2.5	11
51	Non-invasive measurement of muscle compartment elasticity in lower limbs to determine acute compartment syndrome: Clinical results with pressure related ultrasound. Injury, 2020, 51, 301-306.	0.7	11
52	Augmentation of haptic feedback for teleoperated robotic surgery. International Journal of Computer Assisted Radiology and Surgery, 2020, 15, 515-529.	1.7	11
53	Analysing reliability of surgical planning and navigation systems. International Congress Series, 2004, 1268, 824-829.	0.2	10
54	Analysis of Surgical Management of Calvarial Tumours and First Results of a Newly Designed Robotic Trepanation System. Minimally Invasive Neurosurgery, 2006, 49, 98-103.	0.9	10

#	Article	IF	Citations
55	Computer-assisted single- or double-cut oblique osteotomies for the correction of lower limb deformities. Proceedings of the Institution of Mechanical Engineers, Part H: Journal of Engineering in Medicine, 2007, 221, 787-800.	1.0	10
56	Application and evaluation of biomechanical models and scores for the planning of total hip arthroplasty. Proceedings of the Institution of Mechanical Engineers, Part H: Journal of Engineering in Medicine, 2012, 226, 955-967.	1.0	10
57	Impact of scapholunate dissociation on human wrist kinematics. Journal of Hand Surgery: European Volume, 2018, 43, 179-186.	0.5	10
58	Postural workloads on paramedics during patient transport. Current Directions in Biomedical Engineering, 2018, 4, 161-164.	0.2	10
59	Impression of Subgingival Dental Preparation Can Be Taken with Ultrasound. Ultrasound in Medicine and Biology, 2019, 45, 558-567.	0.7	10
60	Magnetic resonance imaging of human knee joint functionality under variable compressive in-situ loading and axis alignment. Journal of the Mechanical Behavior of Biomedical Materials, 2020, 110, 103890.	1.5	10
61	Relationship between the form and function of implant design in total knee replacement. Journal of Biomechanics, 2021, 119, 110296.	0.9	10
62	The Patient-Specific Combined Target Zone for Morpho-Functional Planning of Total Hip Arthroplasty. Journal of Personalized Medicine, 2021, 11, 817.	1.1	10
63	Soft tissue-preserving computer-aided impression: a novel concept using ultrasonic 3D-scanning. International Journal of Computerized Dentistry, 2014, 17, 277-96.	0.2	10
64	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.	1.7	9
65	Patient safety related to the use of medical devices: a review and investigation of the current status in the medical device industry. Biomedizinische Technik, 2013, 58, 67-78.	0.9	9
66	Extended device profiles and testing procedures for the approval process of integrated medical devices using the IEEE 11073 communication standard. Biomedizinische Technik, 2018, 63, 95-103.	0.9	9
67	A robust method for automatic identification of femoral landmarks, axes, planes and bone coordinate systems using surface models. Scientific Reports, 2020, 10, 20859.	1.6	9
68	Reaction of iron and silicon during ion implantation. Journal of Applied Physics, 1993, 73, 4848-4851.	1.1	8
69	Image guided Orthopedic Surgery using individual templates. Lecture Notes in Computer Science, 1997, , 606-615.	1.0	8
70	Modular user interface design for integrated surgical workplaces. Biomedizinische Technik, 2016, 61, 183-97.	0.9	8
71	Growth and electrical properties of ion implanted FeSi2 on (111)Si. Nuclear Instruments & Methods in Physics Research B, 1993, 80-81, 831-834.	0.6	7
72	Manual vs. robotic milling parameters for development of a new robotic system in cranial surgery. International Congress Series, 2004, 1268, 533-538.	0.2	7

#	Article	IF	Citations
73	Concept and evaluation of a synergistic controlled robotic instrument for trepanation in neurosurgery. , 2011, , .		7
74	A new approach to implant alignment and ligament balancing in total knee arthroplasty focussing on joint loads. Biomedizinische Technik, 2012, 57, 283-91.	0.9	7
75	Combined magnetic resonance imaging approach for the assessment of in vivo knee joint kinematics under full weight-bearing conditions. Proceedings of the Institution of Mechanical Engineers, Part H: Journal of Engineering in Medicine, 2015, 229, 439-451.	1.0	7
76	Electrical Bioimpedance-Controlled Surgical Instrumentation. IEEE Transactions on Biomedical Circuits and Systems, 2015, 9, 743-750.	2.7	7
77	Human-centered risk management for medical devices â€“ new methods and tools. Biomedizinische Technik, 2016, 61, 165-81.	0.9	7
78	A Configurable Footswitch Unit for the Open Networked Neurosurgical OR â€“ Development, Evaluation and Future Perspectives. I-com, 2016, 15, 227-247.	0.9	7
79	Estimation of Penetrated Bone Layers During Craniotomy via Bioimpedance Measurement. IEEE Transactions on Biomedical Engineering, 2017, 64, 765-774.	2.5	7
80	Evaluation of Different Modes of Haptic Guidance for Robotic Surgery. IFAC-PapersOnLine, 2019, 51, 97-103.	0.5	7
81	Variation of the Three-Dimensional Femoral J-Curve in the Native Knee. Journal of Personalized Medicine, 2021, 11, 592.	1.1	7
82	Evaluation of deformable models for femoral neck surgery. Computer Aided Surgery, 2004, 9, 71-79.	1.8	6
83	Multimodal user interface for a semi-robotic visual assistance system for image guided neurosurgery. International Congress Series, 2005, 1281, 624-629.	0.2	6
84	Trackerless ultrasound-integrated bone cement detection using a modular minirobot in revision total hip replacement. Proceedings of the Institution of Mechanical Engineers, Part H: Journal of Engineering in Medicine, 2010, 224, 681-690.	1.0	6
85	Fusion of coronary angiography and stress echocardiography for myocardial viability evaluation. International Journal of Computer Assisted Radiology and Surgery, 2015, 10, 11-17.	1.7	6
86	Rapid prototyping of replica knee implants for in vitro testing. Current Directions in Biomedical Engineering, 2016, 2, 553-556.	0.2	6
87	Bottlenecks and needs in human-human and human-machine interaction â€“ a view from and into the neurosurgical OR. Biomedizinische Technik, 2016, 61, 135-46.	0.9	6
88	Accuracy of High-Frequency Ultrasound Scanner in Detecting Peri-implant Bone Defects. Ultrasound in Medicine and Biology, 2019, 45, 650-659.	0.7	6
89	Database design with user-definable modelling concepts. Data and Knowledge Engineering, 1993, 10, 229-257.	2.1	5
90	A software framework for the development of Web-based medical education using learning object classes. Informatics for Health and Social Care, 2006, 31, 9-22.	1.0	5

#	Article	IF	Citations
91	Surgical Robotics and Instrumentation. International Journal of Computer Assisted Radiology and Surgery, 2006, 1, 201-228.	1.7	5
92	A-mode ultrasound-based intra-femoral bone cement detection and 3D reconstruction in RTHR. Computer Aided Surgery, 2007, 12, 168-175.	1.8	5
93	High frequency (75MHz) ultrasound based tooth digitization using sparse spatial compounding. , 2011, , .		5
94	Modular design of a miniaturized surgical robot system. Biomedizinische Technik, 2012, 57, 261-8.	0.9	5
95	Development and experimental evaluation of an alarm concept for an integrated surgical workstation. Biomedizinische Technik, 2016, 61, 199-209.	0.9	5
96	Smart bioimpedance-controlled craniotomy: Concept and first experiments. Proceedings of the Institution of Mechanical Engineers, Part H: Journal of Engineering in Medicine, 2017, 231, 673-680.	1.0	5
97	The Role of a Dynamic Craniospinal Compliance in NPHâ€”A Review and Future Challenges. IEEE Reviews in Biomedical Engineering, 2017, 10, 310-322.	13.1	5
98	Preoperative factors improving the prediction of the postoperative sagittal orientation of the pelvis in standing position after total hip arthroplasty. Scientific Reports, 2020, 10, 15944.	1.6	5
99	Non-invasive and reliable assessment of compartment elasticity by pressure related ultrasound: An in-vitro study. Injury, 2021, 52, 724-730.	0.7	5
100	Combined Endo- and Exoscopic Semi-robotic Manipulator System for Image Guided Operations. Lecture Notes in Computer Science, 2006, 9, 511-518.	1.0	5
101	Cognitive Task Analysis for Prospective Usability Evaluation in Computer-Assisted Surgery. , 2007, , 349-356.		5
102	User-Interaction of a Semiautomatic Trepanation System. IFMBE Proceedings, 2009, , 173-176.	0.2	5
103	Fluoroscopic navigation system for hip surface replacement. Computer Aided Surgery, 2007, 12, 160-167.	1.8	5
104	Segmentation of the distal femur in ultrasound images. Current Directions in Biomedical Engineering, 2020, 6, .	0.2	5
105	Computer-assisted orthopedic surgery. Biomedizinische Technik, 2012, 57, 207.	0.9	4
106	A voice-coil actuated ultrasound micro-scanner for intraoral high resolution impression taking. , 2012, , .		4
107	Integrating medical devices in the operating room using service-oriented architectures. Biomedizinische Technik, 2012, 57, 221-8.	0.9	4
108	Device- and service profiles for integrated or systems based on open standards. Current Directions in Biomedical Engineering, 2015, 1, 538-542.	0.2	4

#	Article	IF	Citations
109	OR.NET RT: how service-oriented medical device architecture meets real-time communication. Biomedizinische Technik, 2018, 63, 81-93.	0.9	4
110	Development of a Stair Climbing Mechanism for a Novel Mechatronic Transport Aid: Preliminary Results. Current Directions in Biomedical Engineering, 2018, 4, 283-286.	0.2	4
111	SEBARES - Design and Evaluation of a Controller for a novel externally guided self-balancing patient rescue aid. , 2019, , .		4
112	Modelling patient dynamics and controller impact analysis for a novel self-stabilizing patient transport aid. IFAC-PapersOnLine, 2019, 51, 208-213.	0.5	4
113	High-Frequency Ultrasound for Assessment of Peri-Implant Bone Thickness. Journal of Clinical Medicine, 2019, 8, 1539.	1.0	4
114	Design and Evaluation of a Novel Instrument Gripper for Handling of Surgical Instruments. Current Directions in Biomedical Engineering, 2021, 7, 1-5.	0.2	4
115	Development of Device-and Service-Profiles for a Safe and Secure Interconnection of Medical Devices in the Integrated Open OR. Lecture Notes in Computer Science, 2015, , 65-74.	1.0	4
116	Brain Pressure Dynamics and Control with an External Ventricular Drainage. IFMBE Proceedings, 2011, , 315-318.	0.2	4
117	Integration of Robotic Applications in Open and Safe Medical Device IT Networks Using IEEE 11073 SDC. , 0, , .		4
118	COMPUTERUNTERSTÃœTZTE IMPLANTATION VON PEDIKELSCHRAUBEN MIT HILFE VON INDIVIDUALSCHABLONEN IN DER ORTHOPÃ„DISCHEN CHIRURGIE. Biomedizinische Technik, 2000, 45, 206-207.	0.9	3
119	Surface-based determination of the pelvic coordinate system. Proceedings of SPIE, 2009, , .	0.8	3
120	Real-time determination of skull thickness for a manually-navigated synergistic trepanation tool. , 2010, 2010, 2300-3.		3
121	Accuracy assessment of high frequency 3D ultrasound for digital impression-taking of prepared teeth. Proceedings of SPIE, 2013, , .	0.8	3
122	Model based assessment of vestibular jawbone thickness using high frequency 3D ultrasound micro-scanning. Proceedings of SPIE, 2013, , .	0.8	3
123	The Q-Angle and its Effect on Active Knee Joint Kinematics â€“ a Simulation Study. Biomedizinische Technik, 2013, 58 Suppl 1, .	0.9	3
124	Evaluation of Biomechanical Models for the Planning of Total Hip Arthroplasty. Biomedizinische Technik, 2013, 58 Suppl 1, .	0.9	3
125	Technical concept and evaluation of a novel shoulder simulator with adaptive muscle force generation and free motion. Current Directions in Biomedical Engineering, 2016, 2, 61-65.	0.2	3
126	Intra-procedural determination of viability by myocardial deformation imaging: a randomized prospective study in the cardiac catheter laboratory. Clinical Research in Cardiology, 2017, 106, 629-644.	1.5	3

#	Article	IF	Citations
127	Experimental setup for evaluation of cavitation effects in ESWL. Current Directions in Biomedical Engineering, 2018, 4, 191-194.	0.2	3
128	Effect of the underlying cadaver data and patient-specific adaptation of the femur and pelvis on the prediction of the hip joint force estimated using static models. Journal of Biomechanics, 2022, 139, 110526.	0.9	3
129	Scanning of a Dental Implant with a High-Frequency Ultrasound Scanner: A Pilot Study. Applied Sciences (Switzerland), 2021, 11, 5494.	1.3	3
130	Segmentation of the Scaphoid Bone in Ultrasound Images. Current Directions in Biomedical Engineering, 2021, 7, 76-80.	0.2	3
131	Modeling of Intensity Priors for Knowledge-Based Level Set Algorithm in Calvarial Tumors Segmentation. Lecture Notes in Computer Science, 2006, 9, 864-871.	1.0	3
132	Knowledge-Based Segmentation of Calvarial Tumors in Computed Tomography Images. , 2006, , 151-155.		3
133	Further Development and Evaluation of a Universal Foot Switch for Diverse Medical Disciplines within the Framework of an Open Integration Concept for the Operation Theatre of the Future. Advances in Intelligent Systems and Computing, 2018, , 438-449.	0.5	3
134	Knowledge-based OR table positioning assistant for orthopedic surgery. IFMBE Proceedings, 2009, , 1676-1678.	0.2	3
135	The Smart Operating Room: smartOR. , 2017, , 291-315.		3
136	Hybrid test bench for high repetition rate radial shock wave measurement. Current Directions in Biomedical Engineering, 2021, 7, 395-398.	0.2	3
137	Investigation of morphotypes of the knee using cluster analysis. Knee, 2022, 35, 157-163.	0.8	3
138	Der laparoskopische Arbeitsplatz in der Chirurgie und Urologie - Analysen und Optimierungskonzepte -. Biomedizinische Technik, 1994, 39, 368-369.	0.9	2
139	Development of a robot with optimized kinematics for the treatment of bone structures. , 0, , .		2
140	Rechnerbasierte EntscheidungsunterstÃ¼tzung zur Planung von KontaktflÃchen zur manuellen Referenzierung mit Individualschablonen. Biomedizinische Technik, 2000, 45, 227-228.	0.9	2
141	Computer- und Robotertechnik fÃ¼r die bildgefÃ¼hrte OrthopÃdische Chirurgie (Computer and Robot) Tj ETQq1 1 0.784314 rgBT /O	0.4	2
142	An interface for the data exchange between CAS and CAD/CAM systems. International Congress Series, 2003, 1256, 703-709.	0.2	2
143	ENTWICKLUNG EINER NEUARTIGEN, SEMIROBOTISCHEN HANDHABUNGSPLATTFORM FÃœR EIN ELEKTRONISCHES OP-MIKROSKOP. Biomedizinische Technik, 2003, 48, 520-521.	0.9	2
144	3D reconstruction and navigated removal of femoral bone cement in revision THR based on few fluoroscopic images. International Congress Series, 2004, 1268, 626-631.	0.2	2

#	Article	IF	Citations
145	Efficient non-invasive registration with A-mode ultrasound in skull surgery. International Congress Series, 2005, 1281, 821-826.	0.2	2
146	Automatic extraction of the mid-sagittal plane using an ICP variant. Proceedings of SPIE, 2008, , .	0.8	2
147	Integration of model-based weighting into an ICP variant to account for measurement errors in intra-operative A-Mode ultrasound-based registration. , 2010, 2010, 6264-7.		2
148	Registration method for displaying electromagnetically tracked devices in fluoroscopic images. , 2010, 2010, 3719-22.		2
149	An ICP variant with anisotropic weighting to accommodate measurement errors in A-Mode ultrasound-based registration. Biomedizinische Technik, 2012, 57, 249-60.	0.9	2
150	Femoral Test Bed for Impedance Controlled Surgical Instrumentation. Acta Polytechnica, 2012, 52, .	0.3	2
151	Functional modeling of the craniospinal system for in-vitro parameter studies on the pathogenesis of NPH. Current Directions in Biomedical Engineering, 2017, 3, 825-828.	0.2	2
152	Effects of the medial and lateral tibial slope on knee joint kinematics in total knee arthroplasty. Current Directions in Biomedical Engineering, 2018, 4, 207-211.	0.2	2
153	Modular design of versatile surgical mini-robots. Current Directions in Biomedical Engineering, 2018, 4, 411-414.	0.2	2
154	Impact of an uncooperative passenger on the control of an externally guided self-balancing patient-transport system. , 2019, 2019, 5278-5282.		2
155	MINARO HD: control and evaluation of a handheld, highly dynamic surgical robot. International Journal of Computer Assisted Radiology and Surgery, 2021, 16, 467-474.	1.7	2
156	Renaissance of Computer-Assisted Orthopedic Surgery with Individual Templates: Evolution or Revolution?. , 2013, , 11-21.		2
157	Computer-assisted optimization of correction osteotomies on lower extremities. Computer Aided Surgery, 2005, 10, 345-350.	1.8	2
158	Evaluation of a novel stair-climbing transportation aid for emergency medical services. Biomedizinische Technik, 2021, 66, 323-333.	0.9	2
159	Relationship between pelvic morphology and functional parameters in standing position for patient-specific cup planning in THA. , 0, , .		2
160	Determination of the Mechanical Leg Axis Using a Force-Torque Sensor. IFMBE Proceedings, 2009, , 1532-1535.	0.2	2
161	Usability of cooperative surgical telemanipulation for bone milling tasks. International Journal of Computer Assisted Radiology and Surgery, 2021, 16, 311-322.	1.7	2
162	Sensor Integrated Instruments for Surgical Quality Assurance and Process Monitoring. , 0, , .		2

#	Article	IF	Citations
163	Implications of the uncertainty of postoperative functional parameters for the preoperative planning of total hip arthroplasty. Journal of Orthopaedic Research, 2022, 40, 2656-2662.	1.2	2
164	Aspekte der Minimal Invasiven Chirurgie- Analyse und AnsÃtze im Bereich der Ergonomie -. Biomedizinische Technik, 1992, 37, 210-211.	0.9	1
165	Ergonomische Untersuchungen der Stereo-Video-Endoskopie. Biomedizinische Technik, 1993, 38, 151-152.	0.9	1
166	Analysen zur Optimierung stereoskoper Visualisierunsssysteme. Biomedizinische Technik, 1994, 39, 71-72.	0.9	1
167	ComputerunterstÃ¼tzte Kopplung von Planung und Umsetzung chirurgischer Eingriffe in der OrthopÃdie. Biomedizinische Technik, 1994, 39, 205-206.	0.9	1
168	Operationsplanung und -ausfÃ¼hrung in der computerunterstÃ¼tzten Chirurgie. Biomedizinische Technik, 1997, 42, 305-306.	0.9	1
169	Der CRIGOS Chirurgieroboter â€" Risikoanalyse und Sicherheitskonzept. Biomedizinische Technik, 2000, 45, 229-230.	0.9	1
170	COMPUTERUNTERSTÃœTZTE CT-BILDBASIERTE OPERATIONSPLANUNG BEI UMSTELLUNGSOSTEOTOMIEN. Biomedizinische Technik, 2000, 45, 202-203.	0.9	1
171	Klinische Erfahrungen mit der computergestÃ¼tzten Planung und intraoperativen FÃ¼hrung mit individuellen Bearbeitungsschablonen fÃ¼r die periacetabulÃre Umstellungsosteotomie. Biomedizinische Technik, 2000, 45, 204-205.	0.9	1
172	Design of a web-based medical database for computer-assisted orthopedic surgery. International Congress Series, 2001, 1230, 331-337.	0.2	1
173	COMPUTERUNTERSTÃœTZTE KNIE-TOTALENDOPROTHETIK MIT PLANUNGSSPEZIFISCHEN BEARBEITUNGSSCHABLONEN. Biomedizinische Technik, 2001, 46, 370-371.	0.9	1
174	TECHNISCHE PRINZIPIEN ZUR ENTFERNUNG FEMORALEN KNOCHENZEMENTS IN DER REVISIONSHÜFTENDOPROTHETIK. Biomedizinische Technik, 2002, 47, 47-48.	0.9	1
175	Bewertung sicherheitskritischer Systeme im OperationssaalEvaluation of Risk-Sensitive Systems in the OR. I-com, 2009, 8, 32-37.	0.9	1
176	Sensor integrated tibial inlay for soft-tissue balancing. Procedia Chemistry, 2009, 1, 1251-1254.	0.7	1
177	Optical sensors for a synergistically controlled osteotomy system. , 2010, , .		1
178	Evaluation of a synergistically controlled semiautomatic trepanation system for neurosurgery. , 2010, 2010, 2304-7.		1
179	Robot- and computer-assisted craniotomy (CRANIO): From active systems to synergistic manâ€"machine interaction. Proceedings of the Institution of Mechanical Engineers, Part H: Journal of Engineering in Medicine, 2010, 224, 651-651.	1.0	1
180	Evaluation of a new fluoroscopy-based navigation system in the placement of the femoral component in hip resurfacing. Proceedings of the Institution of Mechanical Engineers, Part H: Journal of Engineering in Medicine, 2010, 224, 565-576.	1.0	1

#	Article	IF	Citations
181	Robot integrated ultrasound geometry-scanning for trackerless bone cement detection in RTHR. , 2010, , .		1
182	Evaluation of a synergistic handheld instrument for resternotomy controlled by an integrated optical sensor. , 2011, 2011, 7368-71.		1
183	Ultrasound-based registration of the pelvic coordinate system in the lateral position using symmetry for total hip replacement. Biomedizinische Technik, 2012, 57, 239-48.	0.9	1
184	Sensitivity analysis of synthetic aperture focusing based on the virtual source point for high-frequency ultrasound imaging. , 2012, , .		1
185	Robust Control of Intracranial Pressure with an Electromechanical Extra-ventricular Drainage. , 2013, , .		1
186	TPS-RPM based segmentation of three-dimensional high frequency ultrasound SAFT images for CAD/CAM based tooth digitization. , 2014, , .		1
187	An ultrasonic micro-scanner for thickness assessment of the vestibular jawbone: In-vitro accuracy evaluation. , 2014, , .		1
188	Track G. Biomedizinische Technik, 2014, 59, s439-70.	0.9	1
189	Modelling and Understanding Normal Pressure Hydrocephalus. IFMBE Proceedings, 2015, , 333-337.	0.2	1
190	Ultrasound-based Navigation of Scaphoid Fracture Surgery. Informatik Aktuell, 2021, , 28-33.	0.4	1
191	Validation of Automated Ultrasound-based Registration for Navigated Scaphoid Fixation. Current Directions in Biomedical Engineering, 2021, 7, 116-120.	0.2	1
192	Using cognitive task analysis for UI design in surgical work systems. , 2008, , .		1
193	A New Model-Based Approach for the User Interface Design of Medical Systems and Devices. Advances in Human Factors and Ergonomics Series, 2010, , 499-508.	0.2	1
194	Analyzing the Benefits of Integrative Multi-Dimensional Assessments of Usability Features in Interaction-Centered User Studies. , 2014, , .		1
195	Entwicklung eines klinischen Demonstrators fÃ¼r die computerunterstÃ¼tzte OrthopÃdische Chirurgie mit CT-Bildbasierten Individualschablonen. Informatik Aktuell, 1998, , 149-153.	0.4	1
196	Usersâ€™ Awareness of Alarm Settings. Advances in Intelligent Systems and Computing, 2019, , 453-464.	0.5	1
197	Haptic Modes for Multiparameter Control in Robotic Surgery. Lecture Notes in Computer Science, 2019, , 173-181.	1.0	1
198	Catalogue of hazards: a fundamental part for the safe design of surgical robots. Current Directions in Biomedical Engineering, 2020, 6, .	0.2	1

#	Article	IF	Citations
199	A mechatronic test-bench to investigate the impact of ventricular pulsation in hydrocephalus. Biomedical Signal Processing and Control, 2022, 75, 103579.	3.5	1
200	Automatic standardized shape analysis of the sagittal profiles (J-Curves) of the femoral condyles based on three-dimensional (3D) surface data. , 0, , .		1
201	Variation of the femoral J-Curve in the native knee. , 0, , .		1
202	Beam induced phase transformations and self annealing in as-implanted iron silicides. Applied Surface Science, 1995, 91, 50-55.	3.1	0
203	3D-visualisation for image guided surgery. Lecture Notes in Computer Science, 1997, , 309-314.	1.0	0
204	COMPUTERUNTERSTÃœTZTE CT-BILDBASIERTE OPERATIONSPLANUNG BEI UMSTELLUNGSOSTEOTOMIEN. Biomedizinische Technik, 2000, 45, 165-166.	0.9	0
205	Benutzerschnittstelle und Eingabemedien fÃ¼r den CRIGOS Chirurgieroboter. Biomedizinische Technik, 2000, 45, 224-226.	0.9	0
206	EINSATZ EINES NEUEN AUTOMATISCHEN CHIRURGISCHEN KAMERAASSISTENZSYSTEM IN DER GYNÃ„KOLOGISCHEN LAPAROSKOPIE. Biomedizinische Technik, 2001, 46, 390-391.	0.9	0
207	EXPERIMENTELLE BESTIMMUNG DER FRÃ„SPARAMETER BEI DER MANUELLEN KNOCHENBEARBEITUNG IN DER NEUROCHIRURGIE. Biomedizinische Technik, 2003, 48, 120-121.	0.9	0
208	DEVELOPMENT OF THE PLANNING SYSTEM FOR COMPUTER ASSISTED CRANIOTOMY. Biomedizinische Technik, 2003, 48, 502-503.	0.9	0
209	BENUTZERSCHNITTSTELLE FÃœR DIE FREIHAND-NAVIGIERTE RÃ–NTGENBILDBASIERTE ZEMENTENTFERNUNG. Biomedizinische Technik, 2003, 48, 510-511.	0.9	0
210	ROBOTERGESTÃœTZTE 5D FRÃ„SBEARBEITUNG DES FEMORALEN KNOCHENZEMETES IN DER REVISIONSHÃœFTENDOPROTHETIK AUF BASIS INTRAOPERATIVER RÃ–NTGENPROJEKTIONSAUFNAHMEN. Biomedizinische Technik, 2003, 48, 512-513.	0.9	0
211	IDENTIFIKATION VON KNOCHENZEMENT IN RÃ–NTGENBILDERN FÃœR DIE COMPUTERUNTERSTÃœTZTE REVISIONSHÃœFTENDOPROTHETIK. Biomedizinische Technik, 2003, 48, 118-119.	0.9	0
212	DEVLOPMENT OF A DICOM INTERFACE FOR WEB PUBLISHING. Biomedizinische Technik, 2003, 48, 144-145.	0.9	0
213	The usability of CAS systems: an Internet-based survey. International Congress Series, 2004, 1268, 819-823.	0.2	0
214	Predictive sensor based x-ray calibration using a physical model. Medical Physics, 2007, 34, 1153-1162.	1.6	0
215	System architecture of ultrasound-based real-time bone thickness determination for synergistically operated cutting tools. , 2010, , .		0
216	Evaluation of a new computer-assisted surgical planning and navigation system based on two-dimensional fluoroscopy for insertion of a proximal femoral nail. Proceedings of the Institution of Mechanical Engineers, Part H: Journal of Engineering in Medicine, 2011, 225, 477-486.	1.0	0

#	Article	IF	Citations
217	Ultrasound and optically controlled robotic instrument for resternotomy in cardiothoracic surgery. , 2012, , .		0
218	Using analytical redundancy to increase safety of a synergistic manually guided instrument for craniotomy. , 2012, 2012, 912-5.		0
219	Automatisierungstechnische Methoden fÃ¼r die Medizin. Automatisierungstechnik, 2013, 61, 619-620.	0.4	0
220	Analyse der Regelungsstrategien eines Osteotomie-Instruments auf Basis multimodaler Informationen / Analysis of the Control Strategies of an Instrument for Osteotomy on the Basis of Multimodal Information. Automatisierungstechnik, 2013, 61, 656-664.	0.4	0
221	First Results of a New Electromechanical Controlled External Ventricular Drainage in a Porcine Model. Biomedizinische Technik, 2013, 58 Suppl 1, .	0.9	0
222	Smart Trepanation System: Preclinical Analysis of Safety, Efficiency, and User Satisfaction. Journal of Neurological Surgery, Part A: Central European Neurosurgery, 2014, 75, 398-402.	0.4	0
223	Distortion reduction for a dental HFUS microscanning device. , 2015, , .		0
224	Biomechanical model of cerebral vascular dynamics and their effect on CSF dynamics. Fluids and Barriers of the CNS, 2015, 12, P14.	2.4	0
225	Special Issue Risk management in medical human-machine systems. Biomedizinische Technik, 2016, 61, 133-4.	0.9	0
226	A new approach for safe planning transfer using semiâ€automatically adjustable instrument guides. International Journal of Medical Robotics and Computer Assisted Surgery, 2018, 14, e1907.	1.2	0
227	Motion Analysis of the Left Ventricle of a Human Heart for Realization in a Cardiovascular Mock-Loop. Mechanisms and Machine Science, 2018, , 17-29.	0.3	0
228	Usability Evaluation of a One-Handed Touchbased OR-Table Control. Current Directions in Biomedical Engineering, 2018, 4, 157-160.	0.2	0
229	Development and Evaluation of a Tablet-Control for a Surgical Workstation in the Open Integrated Operating Room. Lecture Notes in Computer Science, 2019, , 406-419.	1.0	0
230	Evaluation and validation of 2D biomechanical models of the knee for radiograph-based preoperative planning in total knee arthroplasty. PLoS ONE, 2020, 15, e0227272.	1.1	0
231	Semi-automated stair climbing of a wheel hub-based patient transportation aid for emergency medical services. Automatisierungstechnik, 2021, 69, 550-561.	0.4	0
232	Usability of Haptic Volumetric Assistance for Surgical Navigation Tasks. Current Directions in Biomedical Engineering, 2021, 7, 11-16.	0.2	0
233	Information integration and management for computer assisted orthopaedic surgery over Internet. , 2002, , 1058-1058.		0
234	MRI-based 3D-Modelling of Gleno-humeral Joint Deformities for Functional Surgical Planning. IFMBE Proceedings, 2009, , 600-603.	0.2	0

#	Article	IF	Citations
235	Synergistic CT based tele-manipulator for needle placement in spine procedures. IFMBE Proceedings, 2009, , 1683-1686.	0.2	0
236	A Symmetry-Based Approach for Non-invasive Determination of the Pelvic Coordinate System Using Ultrasound with the Patient in the Lateral Position. IFMBE Proceedings, 2009, , 311-313.	0.2	0
237	A new Intra-Articular Load Measuring Device for Ligament Balancing and Prothesis Alignment in Total Knee Arthroplasty. IFMBE Proceedings, 2009, , 331-332.	0.2	0
238	A new knowledge-based risk control method for risk sensitive devices. WIT Transactions on the Built Environment, 2013, , .	0.0	0
239	The Impact of 3-D Video Endoscopy on Binocular Perception and Visually Guided Manipulation. Perception, 1997, 26, 36-36.	0.5	0
240	Operationssaal und Klinik 4.0Ââ€“ Der OR.NET Ansatz. , 2020, , 1053-1075.		0
241	Conceptual design of force reflection control for teleoperated bone surgery. Current Directions in Biomedical Engineering, 2020, 6, .	0.2	0
242	Multimodal Touchless Human Machine Interface for an IEEE 11073 SDC Interconnected Surgical Workstation. , 2020, , .		0
243	Workflow and Human-Centered Risk Analysis for Novel Mechatronic Rescue Aids II.. Current Directions in Biomedical Engineering, 2020, 6, 616-619.	0.2	0
244	Workflow and Human-Centered Risk Analysis for Novel Mechatronic Rescue Aids I.. Current Directions in Biomedical Engineering, 2020, 6, 612-615.	0.2	0
245	A-mode ultrasound-based intra-femoral bone cement detection and 3D reconstruction in RTHR. Computer Aided Surgery, 2007, 12, 168-175.	1.8	0
246	Evaluation of 2D Biomechanical Models of the Knee of One-Leg Stand for Total Knee Arthroplasty Planning. , 0, , .		0
247	Morpho-Functional Analysis of Knee Implant Design for Total Knee Arthroplasty on the Example of the Trochlear Groove Orientation. , 0, , .		0
248	Why did Anterior Dislocation Occur During Dandling her Baby in front of her in Standing Position after THA?. , 0, , .		0
249	Patient-specific ROM and load-based Target Zone for Total Hip Arthroplasty and its Application in a retrospective Analysis. , 0, , .		0
250	Integrating a Tracking Camera in the OR Using the IEEE 11073-SDC Communication Standard. , 0, , .		0
251	Automatic analysis of morphological parameters of the patella based on three-dimensional (3D) surface data. , 0, , .		0
252	Proximal Femoral Asymmetry in Japanese Patients before Total Hip Arthroplasty. , 0, , .		0

#	Article	IF	Citations
253	Relationship of the tibial tuberosity (TT) position, tibial tuberositytrochlear groove (TT-TG) distance, and internal and external rotation of the knee under weight-bearing conditions. , 0, , .		0
254	Analyzing Bony Constraints as a Key Stone of an Integrated Approach Towards Functional THA Planning. , 0, , .		0
255	The interleaved partial active shape model (IPASM) search algorithm â€“ towards 3D ultrasound-based bone surface reconstruction. , 0, , .		0
256	Augmented Active Shape Model Search â€“ towards 3D Ultrasound-based Bone Surface Reconstruction. , 0, , .		0
257	Simulator Based Experimental Motion Analysis of 3D Printed Artificial Shoulder Joint Geometries. , 0, , .		0
258	Evaluation of Motion Compensation Dynamics of the Handheld Robot MINARO HD. , 0, , .		0
259	Multi-Dimensional Range-of-Motion-Based Safe Zone for Patient-Specific Total Hip Arthroplasty. , 0, , .		0
260	Intraoperative Workflow Optimization by Using a Universal Foot Switch for Open Integrated OR Systems in Orthopaedic Surgery. , 0, , .		0
261	Analysis of Gender-Specific Aspects of the Morphology of the Distal Femur. , 0, , .		0