Xuguang Wang

List of Publications by Year
in descending order

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73 papers	4,074 citations	567144 15 h-index	214721 47 g-index
75 all docs	75 docs citations	75 times ranked	3219 citing authors

#	Article	IF	Citations
1	A Preliminary Study on the Effects of Foam and Seat Pan Inclination on the Deformation of the Seated Buttocks Using MRI. Lecture Notes in Networks and Systems, 2022, , 434-438.	0.5	1
2	Objective and subjective evaluation of a new airplane seat with an optimally pre-shaped foam support. Work, 2021, 68, S257-S271.	0.6	2
3	Driver posture monitoring in highly automated vehicles using pressure measurement. Traffic Injury Prevention, 2021, 22, 278-283.	0.6	8
4	Exploration of Driver Posture Monitoring Using Pressure Sensors with Lower Resolution. Sensors, 2021, 21, 3346.	2.1	12
5	Effects of seat pan and pelvis angles on the occupant response in a reclined position during a frontal crash. PLoS ONE, 2021, 16, e0257292.	1.1	11
6	An Experimental Investigation of Preferred Seat Pressure Distribution. Advances in Intelligent Systems and Computing, 2021, , 330-335.	0.5	1
7	An Introduction to the Special Issue on .. IISE Transactions on Occupational Ergonomics and Human Factors, 2021, 9, 107-110.	0.5	0
8	An Introduction to the Special Issue on Digital Human Modeling (DHM) in Ergonomics 4.0. IISE Transactions on Occupational Ergonomics and Human Factors, 2021, 9, 107-110.	0.5	1
9	A Case Study on the Effects of Foam and Seat Pan Inclination on the Deformation of Seated Buttocks Using MRI. IISE Transactions on Occupational Ergonomics and Human Factors, 2021, 9, 23-32.	0.5	1
10	Biomechanical human models for seating discomfort assessment. , 2019, , 643-656.		6
11	Maximal isometric force exertion predicted by the force feasible set formalism: application to handbraking. Ergonomics, 2019, 62, 1551-1562.	1.1	0
12	A parametric investigation on seat/occupant contact forces and their relationship with initially perceived discomfort using a configurable seat. Ergonomics, 2019, 62, 891-902.	1.1	14
13	Evaluation of a modelling workflow to obtain subject specific spine geometry for sitting postures. International Journal of Human Factors Modelling and Simulation, 2019, 7, 87.	0.1	0
14	Pelvis and femur shape prediction using principal component analysis for body model on seat comfort assessment. Impact on the prediction of the used palpable anatomical landmarks as predictors. PLoS ONE, 2019, 14, e0221201.	1.1	7
15	Does Preferred Seat Pan Inclination Minimize Shear Force?. Advances in Intelligent Systems and Computing, 2019, , 290-295.	0.5	2
16	Can Computationally Predicted Internal Loads Be Used to Assess Sitting Discomfort? Preliminary Results. Advances in Intelligent Systems and Computing, 2019, , 447-456.	0.5	5
17	Finite element models of the thigh-buttock complex for assessing static sitting discomfort and pressure sore risk: a literature review. Computer Methods in Biomechanics and Biomedical Engineering, 2018, 21, 379-388.	0.9	23
18	Effects of Anthropometric Variables and Seat Height on Automobile Driversâ€™ Preferred Posture With the Presence of the Clutch. Human Factors, 2018, 60, 172-190.	2.1	14

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19	Effects of seat parameters and sittersâ€™ anthropometric dimensions on seat profile and optimal compressed seat pan surface. Applied Ergonomics, 2018, 73, 13-21.	1.7	16
20	Ranges of the least uncomfortable joint angles for assessing automotive driving posture. Applied Ergonomics, 2017, 61, 12-21.	1.7	13
21	A New Multi-Adjustable Experimental Seat for Investigating Biomechanical Factors of Sitting Discomfort. , 2017, , .		14
22	A principal component analysis of the relationship between the external body shape and internal skeleton for the upper body. Journal of Biomechanics, 2016, 49, 3415-3422.	0.9	13
23	Three-Dimensional Rotations of the Scapula During Arm Abduction: Evaluation of the Acromion Marker Cluster Method in Comparison With a Model-Based Approach Using Biplanar Radiograph Images. Journal of Applied Biomechanics, 2015, 31, 396-402.	0.3	17
24	A 3D reconstruction method of the body envelope from biplanar X-rays: Evaluation of its accuracy and reliability. Journal of Biomechanics, 2015, 48, 4322-4326.	0.9	29
25	Methods for determining hip and lumbosacral joint centers in a seated position from external anatomical landmarks. Journal of Biomechanics, 2015, 48, 396-400.	0.9	19
26	Estimation of hip joint center from the external body shape: a preliminary study. Computer Methods in Biomechanics and Biomedical Engineering, 2015, 18, 2018-2019.	0.9	3
27	An assessment of the realism of digital human manikins used for simulation in ergonomics. Ergonomics, 2015, 58, 1897-1909.	1.1	5
28	A preliminary study on the realism of digital human manikins used for ergonomics simulation. Computer Methods in Biomechanics and Biomedical Engineering, 2014, 17, 164-165.	0.9	0
29	An experimental investigation on push force and its perception during a flexible hose insertion task encountered in a truck assembly line. Ergonomics, 2014, 57, 1416-1426.	1.1	5
30	A comparison of clutching movements of freely adjusted and imposed pedal configurations for identifying discomfort assessment criteria. Applied Ergonomics, 2014, 45, 1010-1018.	1.7	10
31	A 3D analysis of the joint torques developed during driver's ingressâ€“egress motion. Ergonomics, 2014, 57, 1008-1020.	1.1	6
32	Hip joint centre location from anatomical landmarks for automotive seated posture reconstruction. Computer Methods in Biomechanics and Biomedical Engineering, 2013, 16, 195-197.	0.9	1
33	Constructing meaningful numerical response when evaluating (dis)comfort perception in a univariate case. Theoretical Issues in Ergonomics Science, 2013, 14, 138-158.	1.0	1
34	Effects of rotation amplitude on arm movement when rotating a spherical object. Ergonomics, 2012, 55, 1524-1534.	1.1	3
35	Comparing hip joint centre location methods in an automotive driving position. International Journal of Human Factors Modelling and Simulation, 2012, 3, 294.	0.1	2
36	An experimental investigation on the requirement of roof height and sill width for car ingress and egress. Ergonomics, 2012, 55, 1596-1611.	1.1	12

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37	Effects of target location, stature and hand grip type on in-vehicle reach discomfort. Ergonomics, 2011, 54, 466-476.	1.1	12
38	Dynamics of sit-to-stand motions: effect of seat height, handle use and asymmetrical motions. Computer Methods in Biomechanics and Biomedical Engineering, 2011, 14, 191-192.	0.9	4
39	A Biomechanical Approach for Evaluating Motion Related Discomfort : Illustration by an Application to Pedal Clutching Movement. Lecture Notes in Computer Science, 2011, , 210-219.	1.0	3
40	Car egress analysis of younger and older drivers for motion simulation. Applied Ergonomics, 2010, 42, 169-177.	1.7	25
41	Dynamic Analysis of Car Ingress/Egress Movement: an Experimental Protocol and Preliminary Results. SAE International Journal of Passenger Cars - Mechanical Systems, 2009, 2, 1633-1640.	0.4	14
42	Inverse Dynamic Reconstruction of Truck Cabin Ingress/Egress Motions. SAE International Journal of Passenger Cars - Mechanical Systems, 2009, 2, 1593-1599.	0.4	7
43	Comparison of global and joint-to-joint methods for estimating the hip joint load and the muscle forces during walking. Journal of Biomechanics, 2009, 42, 2357-2362.	0.9	41
44	Problems Encountered in Seated Arm Reach Posture Reconstruction: Need for a More Realistic Spine and Upper Limb Kinematic Model. Lecture Notes in Computer Science, 2009, , 160-169.	1.0	1
45	Effects of Age, Gender, and Target Location on Seated Reach Capacity and Posture. Human Factors, 2008, 50, 211-226.	2.1	22
46	Prediction of In-Vehicle Reach Surfaces and Discomfort by Digital Human Models. , 2008, , .		3
47	Age and gender effects on joint ranges of motion of the main joints involved in car accessibility movements. Computer Methods in Biomechanics and Biomedical Engineering, 2007, 10, 177-178.	0.9	4
48	Coordination of Spine Degrees of Freedom during a Motion Reconstruction Process. , 2007, , .		6
49	Estimation of the Muscle Efforts of the Lower Limb during a Clutch Pedal Operation. , 2007, , .		4
50	A Database of Ingress / Egress Motions of Elderly People. , 2007, , .		10
51	A Data-Based Modeling Approach of Reach Capacity and Discomfort for Digital Human Models. Lecture Notes in Computer Science, 2007, , 215-223.	1.0	7
52	Effects of age and gender on maximum voluntary range of motion of the upper body joints. Ergonomics, 2006, 49, 269-281.	1.1	96
53	A Motion Simulation Approach Integrated into a Design Engineering Process. , 2006, , .		18
54	An Approach to Record Human Hand Movement which Combines Two Complementary Measurement Systems: A Data Glove and a Motion Analysis System. , 2006, , .		0

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55	Robust Human Motion Reconstruction in the Presence of Missing Markers and the Absence of Markers for Some Body Segments. , 2006, , .		7
56	ISB recommendation on definitions of joint coordinate systems of various joints for the reporting of human joint motionâ€"Part II: shoulder, elbow, wrist and hand. Journal of Biomechanics, 2005, 38, 981-992.	0.9	3,077
57	Discomfort Assessment of Car Ingress/Egress Motions using the Concept of Neutral Movement. , 2005, , .		34
58	Experimental Investigation and Modeling of Driver's Frontal Pre-crash Postural Anticipation. , 2005, , .		3
59	Validation of a Model-based Motion Reconstruction Method Developed in the REALMAN Project. , 2005, , .		16
60	A 25 Degrees of Freedom Hand Geometrical Model for Better Hand Attitude Simulation. , 2004, , .		21
61	Motion Conversion between Digital Human Models A Case Study from Ramsis to Man3D. , 2004, , .		0
62	Biomechanical evaluation of the comfort of automobile clutch pedal operation. International Journal of Industrial Ergonomics, 2004, 34, 209-221.	1.5	38
63	Ergonomic Evaluation of a Crane Cabin Using a Computerized Human Model. , 2000, , .		0
64	Experimental investigation and biomechanical analysis of lower limb movements for clutch pedal operation. Ergonomics, 2000, 43, 1405-1429.	1.1	22
65	A behavior-based inverse kinematics algorithm to predict arm prehension postures for computer-aided ergonomic evaluation. Journal of Biomechanics, 1999, 32, 453-460.	0.9	90
66	Three-dimensional kinematic analysis of influence of hand orientation and joint limits on the control of arm postures and movements. Biological Cybernetics, 1999, 80, 449-463.	0.6	57
67	Three-dimensional modelling of the motion range of axial rotation of the upper arm. Journal of Biomechanics, 1998, 31, 899-908.	0.9	55
68	A geometric algorithm to predict the arm reach posture for computer-aided ergonomic evaluation. Computer Animation and Virtual Worlds, 1998, 9, 33-47.	0.9	55
69	Simulation of Complex and Specific Task-Orientated Movements - Application to the Automotive Seat Belt Reaching. , 0, , .		16
70	An Experimental Investigation of the Discomfort of Arm Reaching Movements in a Seated Position. , 0, , .		15
71	From Motion Capture to Motion Simulation: An In-vehicle Reach Motion Database for Car Design. , 0, , .		8
72	In-Vehicle Driving Posture Reconstruction from 3D Scanning Data Using a 3D Digital Human Modeling Tool. , 0, , .		1

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73	Determination of the Optimal Seat Profile Parameters for an Airplane Eco-class Passenger Seat. , 0, , .		4