Kumar Mithraratne

List of Publications by Year
in descending order

40 papers	620 citations	687363 13 h-index	610901 24 g-index
41 all docs	41 docs citations	41 times ranked	821 citing authors

#	Article	IF	Citations
1	OpenCMISS: A multi-physics & multi-scale computational infrastructure for the VPH/Physiome project. Progress in Biophysics and Molecular Biology, 2011, 107, 32-47.	2.9	123
2	Subject-specific modelling of lower limb muscles in children with cerebral palsy. Clinical Biomechanics, 2010, 25, 88-94.	1.2	69
3	The Validity and Reliability of a Kinect v2-Based Gait Analysis System for Children with Cerebral Palsy. Sensors, 2019, 19, 1660.	3.8	39
4	Adaptive bill morphology for enhanced tool manipulation in New Caledonian crows. Scientific Reports, 2016, 6, 22776.	3.3	37
5	Roadmap for cardiovascular circulation model. Journal of Physiology, 2016, 594, 6909-6928.	2.9	33
6	Modelling facial expressions: A framework for simulating nonlinear soft tissue deformations using embedded 3D muscles. Finite Elements in Analysis and Design, 2013, 76, 63-70.	3.2	30
7	The influence and biomechanical role of cartilage split line pattern on tibiofemoral cartilage stress distribution during the stance phase of gait. Biomechanics and Modeling in Mechanobiology, 2016, 15, 195-204.	2.8	28
8	Mechanics of the foot Part 1: A continuum framework for evaluating soft tissue stiffening in the pathologic foot. International Journal for Numerical Methods in Biomedical Engineering, 2012, 28, 1056-1070.	2.1	24
9	Generating Facial Expressions Using an Anatomically Accurate Biomechanical Model. IEEE Transactions on Visualization and Computer Graphics, 2014, 20, 1519-1529.	4.4	21
10	Mechanics of the foot Part 2: A coupled solid–fluid model to investigate blood transport in the pathologic foot. International Journal for Numerical Methods in Biomedical Engineering, 2012, 28, 1071-1081.	2.1	19
11	Numerical Simulation of Blood Flow in an Anatomically-Accurate Cerebral Venous Tree. IEEE Transactions on Medical Imaging, 2013, 32, 85-91.	8.9	19
12	Anatomically-based musculoskeletal modeling: prediction and validation of muscle deformation during walking. Visual Computer, 2009, 25, 843-851.	3.5	17
13	Trapeziometacarpal joint contact varies between men and women during three isometric functional tasks. Medical Engineering and Physics, 2017, 50, 43-49.	1.7	15
14	Emulating facial biomechanics using multivariate partial least squares surrogate models. International Journal for Numerical Methods in Biomedical Engineering, 2014, 30, 1103-1120.	2.1	14
15	Kinect V2-Based Gait Analysis for Children with Cerebral Palsy: Validity and Reliability of Spatial Margin of Stability and Spatiotemporal Variables. Sensors, 2021, 21, 2104.	3.8	13
16	Relationship between tissue stress during gait in healthy volunteers and patterns of urate deposition and bone erosion in gout: a biomechanical computational modelling study. RMD Open, 2015, 1, e000101.	3.8	11
17	Reduced thermal conductivity of Si/Ge random layer nanowires: A comparative study against superlattice counterparts. Journal of Applied Physics, 2018, 123, .	2.5	11
18	A framework for generating anatomically detailed subject-specific human facial models for biomechanical simulations. Visual Computer, 2015, 31, 527-539.	3.5	10

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19	A Hybrid 1D and 3D Approach to Hemodynamics Modelling for a Patient-Specific Cerebral Vasculature and Aneurysm. Lecture Notes in Computer Science, 2009, 12, 323-330.	1.3	9
20	Computer simulation of vertebral artery occlusion in endovascular procedures. International Journal of Computer Assisted Radiology and Surgery, 2010, 5, 29-37.	2.8	8
21	A finite element model to investigate the effect of ulnar variance on distal radioulnar joint mechanics. International Journal for Numerical Methods in Biomedical Engineering, 2017, 33, e02790.	2.1	8
22	Estimating muscle activation patterns using a surrogate model of facial biomechanics. , 2013, 2013, 7172-5.		7
23	Error propagation from kinematic data to modeled muscle-tendon lengths during walking. Journal of Biomechanics, 2009, 42, 77-81.	2.1	6
24	On modelling large deformations of heterogeneous biological tissues using a mixed finite element formulation. Computer Methods in Biomechanics and Biomedical Engineering, 2015, 18, 477-484.	1.6	6
25	A diffusion-weighted imaging informed continuum model of the rabbit triceps surae complex. Biomechanics and Modeling in Mechanobiology, 2017, 16, 1729-1741.	2.8	6
26	Towards rapid prediction of personalised muscle mechanics: integration with diffusion tensor imaging. Computer Methods in Biomechanics and Biomedical Engineering: Imaging and Visualization, 2020, 8, 492-500.	1.9	6
27	An Anatomically Based Finite Element Model of the Lower Limbs in the Seated Posture. Annual International Conference of the IEEE Engineering in Medicine and Biology Society, 2007, 2007, 6327-30.	0.5	5
28	Modal analysis of the thermal conductivity of nanowires: examining unique thermal transport features. Journal of Physics Condensed Matter, 2018, 30, 225301.	1.8	5
29	Reduced thermal conductivity of nanotwinned random layer structures: a promising nanostructuring towards efficient Si and Si/Ge thermoelectric materials. Journal Physics D: Applied Physics, 2018, 51, 204006.	2.8	5
30	Examining the influence of distal radius orientation on distal radioulnar joint contact using a finite element model. International Journal for Numerical Methods in Biomedical Engineering, 2016, 32, e02766.	2.1	4
31	Host Mesh Fitting of a Generic Musculoskeletal Model of the Lower Limbs to Subject-Specific Body Surface Data: A Validation Study. Applied Bionics and Biomechanics, 2019, 2019, 1-8.	1.1	3
32	The effect of musculoskeletal model scaling methods on ankle joint kinematics and muscle force prediction during gait for children with cerebral palsy and equinus gait. Computers in Biology and Medicine, 2021, 134, 104436.	7.0	3
33	Simulation of High Thermal Mass Passive Solar Buildings. Architectural Science Review, 2006, 49, 17-29.	2.2	1
34	Modelling of Thermal Characteristics of Insulated Mass in Zero-heating Passive Solar Houses: Part 1â€"Theoretical Analysis. Architectural Science Review, 2006, 49, 213-220.	2.2	1
35	Modelling of Thermal Characteristics of Insulated Mass in Zero-heating Passive Solar Houses: Part 2â€"Simulation Results. Architectural Science Review, 2006, 49, 221-228.	2.2	1
36	Simulating facial expressions using anatomically accurate biomechanical model. , 2011, , .		1

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37	Vector-based forearm rotation moment arms â€" A sensitivity analysis. Medical Engineering and Physics, 2016, 38, 1109-1114.	1.7	1
38	Biomechanics of Three-Dimensional Face. , 2018, , 33-65.		0
39	Effect of different musculoskeletal model scaling methods on muscle force prediction for patients with cerebral palsy and equinus gait. , 2019, , .		0
40	Toward Computer Modelling of Blood Flow in an Anatomically Accurate Arterial Tree in Endovascular Interventions. , 2012, , 107-118.		0