Vesna Novak

List of Publications by Year
in descending order

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85 papers	1,966 citations	331538 21 h-index	289141 40 g-index
92 all docs	92 docs citations	92 times ranked	1930 citing authors

#	Article	IF	Citations
1	Biomechanical comparisons of back and front squats with a straight bar and four squats with a transformer bar. Sports Biomechanics, 2024, 23, 166-181.	0.8	4
2	User Experience With Dynamic Difficulty Adjustment Methods for an Affective Exergame: Comparative Laboratory-Based Study. JMIR Serious Games, 2021, 9, e25771.	1.7	10
3	Evaluation of the HeroWear Apex back-assist exosuit during multiple brief tasks. Journal of Biomechanics, 2021, 126, 110620.	0.9	30
4	Automated affect classification and task difficulty adaptation in a competitive scenario based on physiological linkage: An exploratory study. International Journal of Human Computer Studies, 2021, 153, 102673.	3.7	14
5	Automatic Estimation of Interpersonal Engagement During Naturalistic Conversation Using Dyadic Physiological Measurements. Frontiers in Neuroscience, 2021, 15, 757381.	1.4	2
6	Challenges and solutions for application and wider adoption of wearable robots. Wearable Technologies, 2021, 2, .	1.6	23
7	Design and Pilot Evaluation of a Prototype Sensorized Trunk Exoskeleton. , 2021, 2021, 4537-4541.		0
8	Toward Real-Time Detection of Object Lifting Using Wearable Inertial Measurement Units. , 2021, 2021, 6831-6834.		0
9	Simultaneously varying back stiffness and trunk compression in a passive trunk exoskeleton during different activities: A pilot study. , 2021, 2021, 4886-4890.		1
10	A Pilot Study of Varying Thoracic and Abdominal Compression in a Reconfigurable Trunk Exoskeleton During Different Activities. IEEE Transactions on Biomedical Engineering, 2020, 67, 1585-1594.	2.5	16
11	Effects of Different Opponent Types on Motivation and Exercise Intensity in a Competitive Arm Exercise Game. Games for Health Journal, 2020, 9, 31-36.	1.1	12
12	Load Position and Weight Classification during Carrying Gait Using Wearable Inertial and Electromyographic Sensors. Sensors, 2020, 20, 4963.	2.1	4
13	Haptic Coupling in Dyads Improves Motor Learning in a Simple Force Field. , 2020, 2020, 4795-4798.		9
14	Sensor Fusion in Assistive and Rehabilitation Robotics. Sensors, 2020, 20, 5235.	2.1	0
15	Wearable Robots: Taking a Leap From the Lab to the Real World [From the Guest Editors]. IEEE Robotics and Automation Magazine, 2020, 27, 20-21.	2.2	1
16	Characterizing Human Box-Lifting Behavior Using Wearable Inertial Motion Sensors. Sensors, 2020, 20, 2323.	2.1	15
17	Pilot Long-term Evaluation of Competitive and Cooperative Exercise Games in Inpatient Stroke Rehabilitation. , 2019, 2019, 648-653.		3
18	Using Physiological Linkage for Patient State Assessment In a Competitive Rehabilitation Game. , 2019, 2019, 1031-1036.		8

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19	Toward real-world evaluations of trunk exoskeletons using inertial measurement units. , 2019, 2019, 483-487.		2
20	Classification of Multiple Psychological Dimensions in Computer Game Players Using Physiology, Performance, and Personality Characteristics. Frontiers in Neuroscience, 2019, 13, 1278.	1.4	9
21	Biomechatronic Applications of Brain-Computer Interfaces. , 2019, , 129-175.		6
22	Classification of Different Cognitive and Affective States in Computer Game Players Using Physiology, Performance and Intrinsic Factors. Advances in Intelligent Systems and Computing, 2019, , 23-29.	0.5	2
23	A Brief Measure of Interpersonal Interaction for 2-Player Serious Games: Questionnaire Validation. JMIR Serious Games, 2019, 7, e12788.	1.7	9
24	A New Method for Classification of Hazardous Driver States Based on Vehicle Kinematics and Physiological Signals. Advances in Intelligent Systems and Computing, 2019, , 63-68.	0.5	0
25	Cooperative Cooking: A Novel Virtual Environment for Upper Limb Rehabilitation. , 2018, 2018, 3602-3605.		13
26	Design and Pilot Evaluation of a Reconfigurable Spinal Exoskeleton. , 2018, 2018, 1731-1734.		5
27	Promoting motivation during robot-assisted rehabilitation. , 2018, , 149-158.		4
28	Identifying the Causes of Driversâ€™ Hazardous States Using Driver Characteristics, Vehicle Kinematics, and Physiological Measurements. Frontiers in Neuroscience, 2018, 12, 568.	1.4	25
29	A Multisession Evaluation of a Collaborative Virtual Environment for Arm Rehabilitation. Presence: Teleoperators and Virtual Environments, 2018, 27, 274-286.	0.3	6
30	Competitive and cooperative arm rehabilitation games played by a patient and unimpaired person: effects on motivation and exercise intensity. Journal of NeuroEngineering and Rehabilitation, 2017, 14, 23.	2.4	112
31	Comparison of two difficulty adaptation strategies for competitive arm rehabilitation exercises. , 2017, 2017, 640-645.		24
32	Cybathlon 2016: Showcasing Advances in Assistive Technologies Through Competition [From the Guest Editors]. IEEE Robotics and Automation Magazine, 2017, 24, 24-122.	2.2	5
33	A multisession evaluation of an adaptive competitive arm rehabilitation game. Journal of NeuroEngineering and Rehabilitation, 2017, 14, 128.	2.4	57
34	Benchmarking Brain-Computer Interfaces Outside the Laboratory: The Cybathlon 2016. Frontiers in Neuroscience, 2017, 11, 756.	1.4	33
35	Guest Editorial: Toward Commercial Applications of Affective Computing. IEEE Transactions on Affective Computing, 2017, 8, 145-147.	5.7	2
36	Design and pilot evaluation of competitive and cooperative exercise games for arm rehabilitation at home. , 2016, 2016, 4690-4694.		31

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37	Measuring the Effect of Classification Accuracy on User Experience in a Physiological Game. , 2016, , .		0
38	Movement Onset Detection and Target Estimation for Robot-Aided Arm Training. Automatisierungstechnik, 2015, 63, 286-298.	0.4	4
39	Detecting motion intention in stroke survivors using autonomic nervous system responses. , 2015, , .		1
40	Control Strategies and Artificial Intelligence in Rehabilitation Robotics. AI Magazine, 2015, 36, 23-33.	1.4	22
41	Teleoperation of two six-degree-of-freedom arm rehabilitation exoskeletons. , 2015, , .		19
42	Workload Estimation in Physical Humanâ€“Robot Interaction Using Physiological Measurements. Interacting With Computers, 2015, 27, 616-629.	1.0	37
43	A survey of sensor fusion methods in wearable robotics. Robotics and Autonomous Systems, 2015, 73, 155-170.	3.0	190
44	Physiological noise cancellation in fNIRS using an adaptive filter based on mutual information. , 2014, , .		3
45	Toward Real-Time Automated Detection of Turns during Gait Using Wearable Inertial Measurement Units. Sensors, 2014, 14, 18800-18822.	2.1	105
46	Can two-player games increase motivation in rehabilitation robotics?. , 2014, , .		7
47	The effect of different difficulty adaptation strategies on enjoyment and performance in a serious game for memory training. , 2014, , .		14
48	Engineering Issues in Physiological Computing. Human-computer Interaction Series, 2014, , 17-38.	0.4	5
49	Increasing motivation in robot-aided arm rehabilitation with competitive and cooperative gameplay. Journal of NeuroEngineering and Rehabilitation, 2014, 11, 64.	2.4	165
50	Linking Recognition Accuracy and User Experience in an Affective Feedback Loop. IEEE Transactions on Affective Computing, 2014, 5, 168-172.	5.7	18
51	Introduction to Virtual Reality. Intelligent Systems, Control and Automation: Science and Engineering, 2014, , 1-16.	0.3	5
52	Haptic Modality in Virtual Reality. Intelligent Systems, Control and Automation: Science and Engineering, 2014, , 161-194.	0.3	3
53	Interaction with a Virtual Environment. Intelligent Systems, Control and Automation: Science and Engineering, 2014, , 205-211.	0.3	2
54	The Use of Player-centered Positive Reinforcement to Schedule In-game Rewards Increases Enjoyment and Performance in a Serious Game. International Journal of Serious Games, 2014, 1, .	0.8	29

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55	Acoustic Modality in Virtual Reality. Intelligent Systems, Control and Automation: Science and Engineering, 2014, , 131-159.	0.3	0
56	Tracking the User and Environment. Intelligent Systems, Control and Automation: Science and Engineering, 2014, , 53-95.	0.3	0
57	Passive Brain-Computer Interfaces for Robot-Assisted Rehabilitation. Springer Briefs in Electrical and Computer Engineering, 2014, , 73-95.	0.3	0
58	Metrological evaluation of skin conductance measurements. Measurement: Journal of the International Measurement Confederation, 2013, 46, 2993-3001.	2.5	35
59	Enhancing patient freedom in rehabilitation robotics using gaze-based intention detection. , 2013, 2013, 6650507.		24
60	Automated detection of gait initiation and termination using wearable sensors. Medical Engineering and Physics, 2013, 35, 1713-1720.	0.8	92
61	Predicting Targets of Human Reaching Motions Using Different Sensing Technologies. IEEE Transactions on Biomedical Engineering, 2013, 60, 2645-2654.	2.5	39
62	Effectiveness of different sensing modalities in predicting targets of reaching movements. , 2013, 2013, 4255-8.		0
63	Virtual Rehabilitation Environment Using Principles of Intrinsic Motivation and Game Design. Presence: Teleoperators and Virtual Environments, 2012, 21, 1-15.	0.3	79
64	A survey of methods for data fusion and system adaptation using autonomic nervous system responses in physiological computing. Interacting With Computers, 2012, 24, 154-172.	1.0	139
65	Early recognition of gait initiation and termination using wearable sensors. , 2012, , .		5
66	Dual-task performance in multimodal human-computer interaction: a psychophysiological perspective. Multimedia Tools and Applications, 2012, 56, 553-567.	2.6	14
67	Intention detection during gait initiation using supervised learning. , 2011, , .		11
68	Task difficulty adjustment in biocooperative rehabilitation using psychophysiological responses. , 2011, 2011, 5975380.		3
69	Challenges in biocooperative rehabilitation robotics. , 2011, , .		6
70	A review on bio-cooperative control in gait rehabilitation. , 2011, 2011, 5975454.		8
71	River multimodal scenario for rehabilitation robotics. , 2011, 2011, 5975416.		2
72	Development and validation of a wearable inertial measurement system for use with lower limb exoskeletons. , 2011, , .		25

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73	Psychophysiological Measurements in a Biocooperative Feedback Loop for Upper Extremity Rehabilitation. IEEE Transactions on Neural Systems and Rehabilitation Engineering, 2011, 19, 400-410.	2.7	78
74	Real-Time Closed-Loop Control of Cognitive Load in Neurological Patients During Robot-Assisted Gait Training. IEEE Transactions on Neural Systems and Rehabilitation Engineering, 2011, 19, 453-464.	2.7	84
75	Psychophysiological responses to robot training in different recovery phases after stroke. , 2011, 2011, 5975498.		10
76	GRASP COORDINATION IN VIRTUAL ENVIRONMENTS FOR ROBOT-AIDED UPPER EXTREMITY REHABILITATION. Biomedical Engineering - Applications, Basis and Communications, 2011, 23, 457-466.	0.3	1
77	Psychophysiological responses to different levels of cognitive and physical workload in haptic interaction. Robotica, 2011, 29, 367-374.	1.3	51
78	Psychophysiological Responses to Robotic Rehabilitation Tasks in Stroke. IEEE Transactions on Neural Systems and Rehabilitation Engineering, 2010, 18, 351-361.	2.7	62
79	Evaluation of upper extremity robot-assistances in subacute and chronic stroke subjects. Journal of NeuroEngineering and Rehabilitation, 2010, 7, 52.	2.4	29
80	Haptic Assistance in Virtual Environments for Motor Rehabilitation. Lecture Notes in Computer Science, 2010, , 117-122.	1.0	1
81	Measuring motor actions and psychophysiology for task difficulty estimation in human-robot interaction. , 2010, , .		6
82	Emotion-aware system for upper extremity rehabilitation. , 2009, , .		21
83	Using Psychophysiological Measurements in Physically Demanding Virtual Environments. Lecture Notes in Computer Science, 2009, , 490-493.	1.0	3
84	Absolute and Relative User Perception of Classification Accuracy in an Affective Video Game. Interacting With Computers, 0, , .	1.0	9
85	Brain-Computer Interface Racing at the Cybathlon 2016. Frontiers for Young Minds, 0, 7, .	0.8	1