

Ranjana K Mehta

List of Publications by Year in descending order

Source: <https://exaly.com/author-pdf/6345632/publications.pdf>

Version: 2024-02-01

111
papers

1,920
citations

236612

25
h-index

315357

38
g-index

114
all docs

114
docs citations

114
times ranked

1807
citing authors

#	ARTICLE	IF	CITATIONS
1	Neuroergonomics: a review of applications to physical and cognitive work. <i>Frontiers in Human Neuroscience</i> , 2013, 7, 889.	1.0	181
2	Influence of mental workload on muscle endurance, fatigue, and recovery during intermittent static work. <i>European Journal of Applied Physiology</i> , 2012, 112, 2891-2902.	1.2	146
3	Effects of Mental Fatigue on the Development of Physical Fatigue. <i>Human Factors</i> , 2014, 56, 645-656.	2.1	98
4	Impacts of obesity and stress on neuromuscular fatigue development and associated heart rate variability. <i>International Journal of Obesity</i> , 2015, 39, 208-213.	1.6	56
5	Standing Up for Learning: A Pilot Investigation on the Neurocognitive Benefits of Stand-Biased School Desks. <i>International Journal of Environmental Research and Public Health</i> , 2016, 13, 59.	1.2	56
6	Effects of concurrent physical and mental demands for a short duration static task. <i>International Journal of Industrial Ergonomics</i> , 2011, 41, 488-493.	1.5	51
7	Prefrontal Hemodynamics of Physical Activity and Environmental Complexity During Cognitive Work. <i>Human Factors</i> , 2017, 59, 147-162.	2.1	47
8	A neurophysiological approach to assess training outcome under stress: A virtual reality experiment of industrial shutdown maintenance using Functional Near-Infrared Spectroscopy (fNIRS). <i>Advanced Engineering Informatics</i> , 2020, 46, 101153.	4.0	46
9	Effect of Cognitive Fatigue, Operator Sex, and Robot Assistance on Task Performance Metrics, Workload, and Situation Awareness in Human-Robot Collaboration. <i>IEEE Robotics and Automation Letters</i> , 2021, 6, 3049-3056.	3.3	42
10	Classifying Major Depressive Disorder Using fNIRS During Motor Rehabilitation. <i>IEEE Transactions on Neural Systems and Rehabilitation Engineering</i> , 2020, 28, 961-969.	2.7	40
11	Muscle- and task-dependent responses to concurrent physical and mental workload during intermittent static work. <i>Ergonomics</i> , 2012, 55, 1166-1179.	1.1	38
12	Human Factors Considerations and Metrics in Shared Space Human-Robot Collaboration: A Systematic Review. <i>Frontiers in Robotics and AI</i> , 2022, 9, 799522.	2.0	37
13	Functional Connectivity During Handgrip Motor Fatigue in Older Adults Is Obesity and Sex-Specific. <i>Frontiers in Human Neuroscience</i> , 2018, 12, 455.	1.0	36
14	Obesity-related differences in neural correlates of force control. <i>European Journal of Applied Physiology</i> , 2014, 114, 197-204.	1.2	35
15	Disaster Ergonomics: Human Factors in COVID-19 Pandemic Emergency Management. <i>Human Factors</i> , 2020, 62, 1061-1068.	2.1	35
16	The effect of cognitive fatigue on prefrontal cortex correlates of neuromuscular fatigue in older women. <i>Journal of NeuroEngineering and Rehabilitation</i> , 2015, 12, 115.	2.4	34
17	Impact of cognitive fatigue on gait and sway among older adults: A literature review. <i>Preventive Medicine Reports</i> , 2017, 6, 88-93.	0.8	33
18	Assessing physical activity among young adults attending a university: the role of sex, race/ethnicity, technology use, and sleep. <i>BMC Public Health</i> , 2017, 17, 721.	1.2	33

#	ARTICLE	IF	CITATIONS
19	Methodological Approaches and Recommendations for Functional Near-Infrared Spectroscopy Applications in HF/E Research. <i>Human Factors</i> , 2020, 62, 613-642.	2.1	32
20	Comparison of objective and subjective operator fatigue assessment methods in offshore shiftwork. <i>Journal of Loss Prevention in the Process Industries</i> , 2017, 48, 376-381.	1.7	31
21	Neural and biomechanical tradeoffs associated with human-exoskeleton interactions. <i>Applied Ergonomics</i> , 2021, 96, 103494.	1.7	31
22	Call Center Productivity Over 6 Months Following a Standing Desk Intervention. <i>IIE Transactions on Occupational Ergonomics and Human Factors</i> , 2016, 4, 188-195.	0.5	30
23	The effects of obesity, age, and relative workload levels on handgrip endurance. <i>Applied Ergonomics</i> , 2015, 46, 91-95.	1.7	29
24	Obesity-specific neural cost of maintaining gait performance under complex conditions in community-dwelling older adults. <i>Clinical Biomechanics</i> , 2016, 35, 42-48.	0.5	29
25	Spatial knowledge and firefighters's wayfinding performance: A virtual reality search and rescue experiment. <i>Safety Science</i> , 2021, 139, 105231.	2.6	28
26	Technologies for Opioid Use Disorder Management: Mobile App Search and Scoping Review. <i>JMIR MHealth and UHealth</i> , 2020, 8, e15752.	1.8	28
27	Analysis of individual and occupational risk factors on task performance and biomechanical demands for a simulated drilling task. <i>International Journal of Industrial Ergonomics</i> , 2010, 40, 584-591.	1.5	27
28	Effects of physical and mental demands on shoulder muscle fatigue. <i>Work</i> , 2012, 41, 2897-2901.	0.6	25
29	Relationship Between BMI and Fatigability Is Task Dependent. <i>Human Factors</i> , 2017, 59, 722-733.	2.1	25
30	Ergonomic evaluation of hospital bed design features during patient handling tasks. <i>International Journal of Industrial Ergonomics</i> , 2011, 41, 647-652.	1.5	24
31	Cognitive challenges, aging, and neuromuscular fatigue. <i>Physiology and Behavior</i> , 2017, 170, 19-26.	1.0	24
32	Subjective Evaluation of Physical and Mental Workload Interactions Across Different Muscle Groups. <i>Journal of Occupational and Environmental Hygiene</i> , 2015, 12, 62-68.	0.4	23
33	Evaluating advanced driver-assistance system trainings using driver performance, attention allocation, and neural efficiency measures. <i>Applied Ergonomics</i> , 2020, 84, 103036.	1.7	22
34	Exertion-Dependent Effects of Physical and Mental Workload on Physiological Outcomes and Task Performance. <i>IIE Transactions on Occupational Ergonomics and Human Factors</i> , 2013, 1, 3-15.	0.5	21
35	Stunted PFC activity during neuromuscular control under stress with obesity. <i>European Journal of Applied Physiology</i> , 2016, 116, 319-326.	1.2	21
36	Neuromuscular Control and Performance Differences Associated With Gender and Obesity in Fatiguing Tasks Performed by Older Adults. <i>Frontiers in Physiology</i> , 2018, 9, 800.	1.3	20

#	ARTICLE	IF	CITATIONS
37	Grand Field Challenges for Cognitive Neuroergonomics in the Coming Decade. <i>Frontiers in Neuroergonomics</i> , 2021, 2, .	0.6	20
38	Integrating Physical and Cognitive Ergonomics. <i>IIE Transactions on Occupational Ergonomics and Human Factors</i> , 2016, 4, 83-87.	0.5	19
39	The past, present and future of opioid withdrawal assessment: a scoping review of scales and technologies. <i>BMC Medical Informatics and Decision Making</i> , 2019, 19, 113.	1.5	18
40	Associations between psychosocial risk factors and musculoskeletal disorders: application to the IT profession in India. <i>Work</i> , 2012, 41, 2438-2444.	0.6	16
41	Sit-Stand Desk Software Can Now Monitor and Prompt Office Workers to Change Health Behaviors. <i>Human Factors</i> , 2019, 61, 816-824.	2.1	16
42	Anodal tDCS augments and preserves working memory beyond time-on-task deficits. <i>Scientific Reports</i> , 2021, 11, 19134.	1.6	16
43	Operator situation awareness and physiological states during offshore well control scenarios. <i>Journal of Loss Prevention in the Process Industries</i> , 2018, 55, 332-337.	1.7	15
44	Task and sex differences in muscle oxygenation during handgrip fatigue development. <i>Ergonomics</i> , 2018, 61, 1646-1656.	1.1	13
45	Computer-based Prompt's impact on postural variability and sit-stand desk usage behavior; a cluster randomized control trial. <i>Applied Ergonomics</i> , 2019, 79, 17-24.	1.7	13
46	Static and Dynamic Work Activity Classification from a Single Accelerometer: Implications for Ergonomic Assessment of Manual Handling Tasks. <i>IIE Transactions on Occupational Ergonomics and Human Factors</i> , 2019, 7, 59-68.	0.5	13
47	Development of the Fatigue Risk Assessment and Management in High-Risk Environments (FRAME) Survey: A Participatory Approach. <i>International Journal of Environmental Research and Public Health</i> , 2019, 16, 522.	1.2	13
48	Neural Efficiency of Humanâ€“Robotic Feedback Modalities Under Stress Differs With Gender. <i>Frontiers in Human Neuroscience</i> , 2019, 13, 287.	1.0	12
49	The effect of obesity on central activation failure during ankle fatigue: a pilot investigation. <i>Fatigue: Biomedicine, Health and Behavior</i> , 2016, 4, 115-126.	1.2	10
50	Classification of Fatigue Phases in Healthy and Diabetic Adults Using Wearable Sensor. <i>Sensors</i> , 2020, 20, 6897.	2.1	10
51	Field Methods to Quantify Emergency Responder Fatigue: Lessons Learned from sUAS Deployment at the 2018 Kilauea Volcano Eruption. <i>IIE Transactions on Occupational Ergonomics and Human Factors</i> , 2020, 8, 166-174.	0.5	10
52	Wearable Sensors and Their Metrics for Measuring Comprehensive Occupational Fatigue: A Scoping Review. <i>Proceedings of the Human Factors and Ergonomics Society</i> , 2017, 61, 1041-1045.	0.2	9
53	Trust in Shared-Space Collaborative Robots: Shedding Light on the Human Brain. <i>Human Factors</i> , 2024, 66, 490-509.	2.1	9
54	Age-specific neural strategies to maintain motor performance after an acute social stress bout. <i>Experimental Brain Research</i> , 2017, 235, 2049-2057.	0.7	8

#	ARTICLE	IF	CITATIONS
55	Assessing ergonomic risks of software: Development of the SEAT. <i>Applied Ergonomics</i> , 2017, 59, 377-386.	1.7	8
56	Effect of advanced driver-assistance system trainings on driver workload, knowledge, and trust. <i>Transportation Research Part F: Traffic Psychology and Behaviour</i> , 2021, 76, 309-320.	1.8	8
57	Diabetes Management Experience and the State of Hypoglycemia: National Online Survey Study. <i>JMIR Diabetes</i> , 2020, 5, e17890.	0.9	8
58	Evaluation of Offshore Shiftwork using Heart Rate Variability. <i>Proceedings of the Human Factors and Ergonomics Society</i> , 2017, 61, 1036-1039.	0.2	7
59	Investigating the Efficacy of Using Hand Tremors for Early Detection of Hypoglycemic Events: A Scoping Literature Review. <i>Proceedings of the Human Factors and Ergonomics Society</i> , 2018, 62, 1211-1215.	0.2	7
60	Brain Activity-Based Metrics for Assessing Learning States in VR under Stress among Firefighters: An Explorative Machine Learning Approach in Neuroergonomics. <i>Brain Sciences</i> , 2021, 11, 885.	1.1	7
61	Investigating Fatigue in Offshore Drilling Workers: A Qualitative Data Analysis of Interviews. <i>IIEE Transactions on Occupational Ergonomics and Human Factors</i> , 2019, 7, 31-42.	0.5	6
62	Quantifying Accelerometer-Based Tremor Features of Neuromuscular Fatigue in Healthy and Diabetic Adults. <i>IEEE Sensors Journal</i> , 2020, 20, 11183-11190.	2.4	6
63	Neural Correlates of Physical and Mental Fatigue. <i>Proceedings of the Human Factors and Ergonomics Society</i> , 2012, 56, 2172-2176.	0.2	5
64	Reliability analyses and values of isometric shoulder flexion and trunk extension strengths stratified by body mass index. <i>PLoS ONE</i> , 2019, 14, e0219090.	1.1	5
65	Neural Signatures of Handgrip Fatigue in Type 1 Diabetic Men and Women. <i>Frontiers in Human Neuroscience</i> , 2020, 14, 564969.	1.0	5
66	Neural Correlates of Trust in Automation: Considerations and Generalizability Between Technology Domains. <i>Frontiers in Neuroergonomics</i> , 2021, 2, .	0.6	5
67	Mind over body: A neuroergonomic approach to assessing motor performance under stress in older adults. <i>Applied Ergonomics</i> , 2022, 101, 103691.	1.7	5
68	Obesity effect on isometric strength of the trunk extensors. <i>Proceedings of the Human Factors and Ergonomics Society</i> , 2016, 60, 943-947.	0.2	4
69	Fatigue Monitoring and Management across Different Industries. <i>Proceedings of the Human Factors and Ergonomics Society</i> , 2016, 60, 993-996.	0.2	4
70	Expert monitoring and verbal feedback as sources of performance pressure. <i>Acta Psychologica</i> , 2018, 186, 39-46.	0.7	4
71	Spectral Analysis of Hand Tremors Induced During a Fatigue Test. , 2019, , .		4
72	Human in Focus: Future Research and Applications of Ubiquitous User Monitoring. <i>Proceedings of the Human Factors and Ergonomics Society</i> , 2019, 63, 168-172.	0.2	4

#	ARTICLE	IF	CITATIONS
73	Health-related consequences of the type and utilization rates of electronic devices by college students. BMC Public Health, 2021, 21, 1970.	1.2	4
74	Modeling Brain Dynamics During Virtual Reality-Based Emergency Response Learning Under Stress. Human Factors, 2023, 65, 1804-1820.	2.1	4
75	Human-centered intelligent training for emergency responders. AI Magazine, 2022, 43, 83-92.	1.4	4
76	A Window Into the Tired Brain: Neurophysiological Dynamics of Visuospatial Working Memory Under Fatigue. Human Factors, 2024, 66, 528-543.	2.1	4
77	Bimanual coordination patterns are stabilized under monitoring-pressure. Experimental Brain Research, 2017, 235, 1909-1918.	0.7	3
78	Non-invasive Wearable System for Hypoglycemia Detection: A Proof of Concept User-Centered Design Process. Proceedings of the Human Factors and Ergonomics Society, 2018, 62, 1052-1056.	0.2	3
79	Features of Physiological Tremor in Diabetic Patients. , 2019, , .		3
80	Design for stress, fatigue, and workload management. , 2020, , 201-226.		3
81	Revealing Sex Differences During Upper and Lower Extremity Neuromuscular Fatigue in Older Adults Through a Neuroergonomics Approach. Frontiers in Neuroergonomics, 2021, 2, .	0.6	3
82	Towards a Closed-Loop Neurostimulation Platform for Augmenting Operator Vigilance. , 2020, , .		3
83	Stress Detection During Motor Activity: Comparing Neurophysiological Indices in Older Adults. IEEE Transactions on Affective Computing, 2023, 14, 2224-2237.	5.7	3
84	A Methodological Framework to Capture Neuromuscular Fatigue Mechanisms Under Stress. Frontiers in Neuroergonomics, 2021, 2, .	0.6	3
85	Hand tremor-based hypoglycemia detection and prediction in adolescents with type 1 diabetes. Biomedical Signal Processing and Control, 2022, 78, 103869.	3.5	3
86	The Effects of Obesity and Workload on Hand Grip Endurance. Proceedings of the Human Factors and Ergonomics Society, 2013, 57, 953-957.	0.2	2
87	Is Functional Near Infrared Spectroscopy (fNIRS) Appropriate for your Research?. Proceedings of the Human Factors and Ergonomics Society, 2016, 60, 188-190.	0.2	2
88	Testing the efficacy of existing force-endurance models to account for the prevalence of obesity in the workforce. Journal of Occupational and Environmental Hygiene, 2017, 14, 786-792.	0.4	2
89	A Quantitative Evaluation of Electric Sit-Stand Desk Usage: 3-Month In-Situ Workplace Study. IIEE Transactions on Occupational Ergonomics and Human Factors, 2018, 6, 76-83.	0.5	2
90	Fatigue indicators of 12-hour day and night shifts in simulated offshore well control scenarios. Proceedings of the Human Factors and Ergonomics Society, 2018, 62, 897-899.	0.2	2

#	ARTICLE	IF	CITATIONS
91	Smart Software Can Increase Sitâ€“Stand Desk Transitions During Active Computer Use. International Journal of Environmental Research and Public Health, 2019, 16, 2438.	1.2	2
92	First and Immediate Responders: Current Capability Needs and Research Challenges. Proceedings of the Human Factors and Ergonomics Society, 2019, 63, 640-641.	0.2	2
93	Relationship Between Acute Physical Fatigue and Cognitive Function During Orthostatic Challenge in Men and Women: A Neuroergonomics Investigation. Human Factors, 2020, 63, 001872082093679.	2.1	2
94	Effect of Social Stress on Motor Function in Older Adults: an fNIRS Investigation. Proceedings of the Human Factors and Ergonomics Society, 2017, 61, 31-31.	0.2	1
95	Addendum: Mehta et al. Standing Up for Learning: A Pilot Investigation on the Neurocognitive Benefits of Stand-Biased School Desks. Int. J. Environ. Res. Public Health 2016, 13(1), 59; doi:10.3390/ijerph13010059. International Journal of Environmental Research and Public Health, 2018, 15, 532.	1.2	1
96	Physiological and psychological aspects. , 2020, , 839-846.		1
97	Neural Basis Analysis of Firefightersâ€™ Wayfinding Performance via Functional Near-Infrared Spectroscopy. Journal of Computing in Civil Engineering, 2022, 36, .	2.5	1
98	A Comparison Of Four Sensory Condition Protocols on the mCTSIB Balance Tests In Aging Adults. Medicine and Science in Sports and Exercise, 2014, 46, 690-691.	0.2	0
99	The Impact of Cognitive Fatigue on Age-related Differences in Neuromuscular Function. Proceedings of the Human Factors and Ergonomics Society, 2014, 58, 1924-1928.	0.2	0
100	Muscle Oxygenation Correlates of Handgrip Fatigue with Obesity. Proceedings of the Human Factors and Ergonomics Society, 2016, 60, 1031-1035.	0.2	0
101	Functional Brain Activation During Lower Extremity Neuromuscular Fatigue In Older Women. Medicine and Science in Sports and Exercise, 2017, 49, 695.	0.2	0
102	Lingual and non-lingual safety training methodology effectiveness: Does language of origin impact effectiveness. International Journal of Industrial Ergonomics, 2021, 86, 103183.	1.5	0
103	Neuromuscular Fatigue mechanisms in Type 1 diabetic men and women. Proceedings of the Human Factors and Ergonomics Society, 2020, 64, 960-961.	0.2	0
104	Neural Efficiency of Human-Exoskeleton Interactions during Asymmetrical Manual Handling Tasks. Proceedings of the Human Factors and Ergonomics Society, 2020, 64, 884-884.	0.2	0
105	Neuroergonomic Applications in Information Visualization. Cognitive Science and Technology, 2020, , 435-449.	0.2	0
106	Current state of worker fatigue assessment and associated recommendations in oil and gas and petrochemical industries. Proceedings of the Human Factors and Ergonomics Society, 2021, 65, 1593-1597.	0.2	0
107	The role of the prefrontal cortex on motor performance under stress in older adults. Proceedings of the Human Factors and Ergonomics Society, 2021, 65, 26-26.	0.2	0
108	Visuospatial Working Memory under Fatigue: Observations with Cerebral Hemodynamics and Heart Rate Variability. Proceedings of the Human Factors and Ergonomics Society, 2021, 65, 349-351.	0.2	0

#	ARTICLE	IF	CITATIONS
109	Neuroergonomics Metrics to evaluate Exoskeleton based Gait Rehabilitation. , 2020, , .		0
110	Detection of Tremor Associated with Rest and Effort Activity Using Machine Learning. , 2020, , .		0
111	The Role of Spatial Information in Search and Rescue: A Virtual Reality Experiment. , 2022, , .		0