Chris Baber

List of Publications by Year
in descending order

165	3,566	147566	174990
papers	citations	31 h-index	52 g-index

186	186	186	2303
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Distributed situation awareness in dynamic systems: theoretical development and application of an ergonomics methodology. Ergonomics, 2006, 49, 1288-1311.	1.1	370
2	What really is going on? Review of situation awareness models for individuals and teams. Theoretical Issues in Ergonomics Science, 2008, 9, 297-323.	1.0	271
3	Command and control in emergency services operations: a social network analysis. Ergonomics, 2006, 49, 1204-1225.	1.1	130
4	A Tool to Assess the Comfort of Wearable Computers. Human Factors, 2005, 47, 77-91.	2.1	111
5	Event analysis of systemic teamwork (EAST): a novel integration of ergonomics methods to analyse C4i activity. Ergonomics, 2006, 49, 1345-1369.	1.1	101
6	Human error identification techniques applied to public technology: predictions compared with observed use. Applied Ergonomics, 1996, 27, 119-131.	1.7	98
7	Representing situation awareness in collaborative systems: A case study in the energy distribution domain. Ergonomics, 2008, 51, 367-384.	1.1	82
8	Multi-agency operations: Cooperation during flooding. Applied Ergonomics, 2012, 43, 38-47.	1.7	78
9	Task analysis for error identification: a methodology for designing error-tolerant consumer products. Ergonomics, 1994, 37, 1923-1941.	1.1	72
10	From ethnography to the EAST method: A tractable approach for representing distributed cognition in Air Traffic Control. Ergonomics, 2010, 53, 184-197.	1.1	67
11	Using social network analysis and agent-based modelling to explore information flow using common operational pictures for maritime search and rescue operations. Ergonomics, 2013, 56, 889-905.	1.1	61
12	Error by design: methods for predicting device usability. Design Studies, 2002, 23, 363-384.	1.9	60
13	Towards a definition and working model of stress and its effects on speech. Speech Communication, 1996, 20, 3-12.	1.6	54
14	The comfort assessment of wearable computers. , 0, , .		54
15	Ergonomics of wearable computers. Mobile Networks and Applications, 1999, 4, 15-21.	2.2	52
16	Uses of accelerometer data collected from a wearable system. Personal and Ubiquitous Computing, 2007, 11, 117-132.	1.9	48
17	Distributed situation awareness in an Airborne Warning and Control System: application of novel ergonomics methodology. Cognition, Technology and Work, 2008, 10, 221-229.	1.7	48
18	Effect of Head-Mounted Displays on Posture. Human Factors, 2007, 49, 797-807.	2.1	45

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19	Workload and the use of automatic speech recognition: The effects of time and resource demands. Speech Communication, 1996, 20, 37-53.	1.6	43
20	An evaluation of multimodal interactions with technology while learning science concepts. British Journal of Educational Technology, 2011, 42, 266-290.	3.9	43
21	Validating task analysis for error identification: reliability and validity of a human error prediction technique. Ergonomics, 2005, 48, 1097-1113.	1.1	41
22	The design of the SensVest. Personal and Ubiquitous Computing, 2005, 9, 6-19.	1.9	40
23	Using critical path analysis to model multimodal humanâ€“computer interaction. International Journal of Human Computer Studies, 2001, 54, 613-636.	3.7	39
24	Contrasting paradigms for the development of wearable computers. IBM Systems Journal, 1999, 38, 551-565.	3.1	38
25	A systems approach to human error identification. Safety Science, 1996, 22, 215-228.	2.6	37
26	Assessing the Wearability of Wearable Computers. Proceedings International Symposium on Wearable Computers, 2006, , .	0.0	37
27	Crime scene investigation as distributed cognition. Pragmatics and Cognition, 2006, 14, 357-385.	0.2	37
28	Virtual Reality: A Tool for Assembly?. Presence: Teleoperators and Virtual Environments, 2000, 9, 486-496.	0.3	35
29	Wearable Computers: A Human Factors Review. International Journal of Human-Computer Interaction, 2001, 13, 123-145.	3.3	35
30	Cognitive aspects of tool use. Applied Ergonomics, 2006, 37, 3-15.	1.7	35
31	Modelling error recovery and repair in automatic speech recognition. International Journal of Man-Machine Studies, 1993, 39, 495-515.	0.7	34
32	Speech technology for automatic teller machines: an investigation of user attitude and performance. Ergonomics, 1998, 41, 962-981.	1.1	34
33	Modelling of human alarm handling response times: a case study of the Ladbroke Grove rail accident in the UK. Ergonomics, 2008, 51, 423-440.	1.1	34
34	The risks associated with Artificial General Intelligence: A systematic review. Journal of Experimental and Theoretical Artificial Intelligence, 2023, 35, 649-663.	1.8	34
35	Automatic Speech Recognition in Adverse Environments. Human Factors, 1996, 38, 142-155.	2.1	33
36	The application of SHERPA (Systematic Human Error Reduction and Prediction Approach) in the development of compensatory cognitive rehabilitation strategies for stroke patients with left and right brain damage. Ergonomics, 2015, 58, 75-95.	1.1	30

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37	Task analysis for error identification: Theory, method and validation. Theoretical Issues in Ergonomics Science, 2002, 3, 212-227.	1.0	29
38	Using an integrated methods approach to analyse the emergent properties of military command and control. Applied Ergonomics, 2009, 40, 636-647.	1.7	27
39	Expertise in Crime Scene Examination. Human Factors, 2012, 54, 413-424.	2.1	27
40	Tool use as distributed cognition: how tools help, hinder and define manual skill. Frontiers in Psychology, 2014, 5, 116.	1.1	27
41	Designing habitable dialogues for speech-based interaction with computers. International Journal of Human Computer Studies, 2001, 54, 637-662.	3.7	25
42	Integrated digital communities: combining web-based interaction with text messaging to develop a system for encouraging group communication and competition. Interacting With Computers, 2004, 16, 93-113.	1.0	25
43	Scalable Proactive Event-Driven Decision Making. IEEE Technology and Society Magazine, 2014, 33, 35-41.	0.6	25
44	A Cognitive Model of How People Make Decisions Through Interaction with Visual Displays. , 2017, , .		25
45	What the Jewellerâ€™s Hand Tells the Jewellerâ€™s Brain: Tool Use, Creativity and Embodied Cognition. Philosophy and Technology, 2019, 32, 283-302.	2.6	24
46	An experimental comparison of test and symbols for in-car reconfigurable displays. Applied Ergonomics, 1992, 23, 255-262.	1.7	23
47	User evaluation of augmented reality systems. , 0, , .		23
48	Alarm-initiated activities: an analysis of alarm handlingby operators using text-based alarm systems in supervisory control systems. Ergonomics, 1995, 38, 2414-2431.	1.1	22
49	The ergonomics of command and control. Ergonomics, 2006, 49, 1131-1138.	1.1	21
50	WESTT (workload, error, situational awareness, time and teamwork): an analytical prototyping system for command and control. Cognition, Technology and Work, 2008, 10, 199-207.	1.7	20
51	Combining network analysis with Cognitive Work Analysis: insights into social organisational and cooperation analysis. Ergonomics, 2015, 58, 434-449.	1.1	20
52	Defining and evaluating context for wearable computing. International Journal of Human Computer Studies, 2004, 60, 798-819.	3.7	19
53	Measuring team skills in crime scene investigation: exploring ad hoc teams. Ergonomics, 2008, 51, 1463-1488.	1.1	19
54	Assessing the physical loading of wearable computers. Applied Ergonomics, 2007, 38, 237-247.	1.7	18

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55	A Human Factors Study of Technology Acceptance of a Prototype Mobile Augmented Reality System for Science Education. Advanced Science Letters, 2011, 4, 3342-3352.	0.2	18
56	Mobile technology for crime scene examination. International Journal of Human Computer Studies, 2009, 67, 464-474.	3.7	17
57	A Prototype for Credit Card Fraud Management. , 2017, , .		17
58	The Impact of Cervical Musculoskeletal Disorders on UK Consultant Plastic Surgeons. Annals of Plastic Surgery, 2017, 78, 602-610.	0.5	17
59	Objective Metrics for the Evaluation of Simple Surgical Skills in Real and Virtual Domains. Presence: Teleoperators and Virtual Environments, 2003, 12, 207-221.	0.3	16
60	The effect of four user interface concepts on visual scan pattern similarity and information foraging in a complex decision making task. Applied Ergonomics, 2018, 70, 6-17.	1.7	16
61	Neck muscle activity and perceived pain and discomfort due to variations of head load and posture. Aviation, Space, and Environmental Medicine, 2004, 75, 123-31.	0.6	16
62	Subjective evaluation of usability. Ergonomics, 2002, 45, 1021-1025.	1.1	15
63	Distributed cognition at the crime scene. AI and Society, 2010, 25, 423-432.	3.1	15
64	Factors affecting users' choice of words in speech-based interaction with public technology. International Journal of Speech Technology, 1997, 2, 45-59.	1.4	14
65	On the cost-effectiveness of ergonomics. Applied Ergonomics, 2003, 34, 407-411.	1.7	14
66	End-User Perception Towards Pervasive Cardiac Healthcare Services: Benefits, Acceptance, Adoption, Risks, Security, Privacy and Trust. , 2011, , .		14
67	Evaluating contextual information for wearable computing. , 0, , .		13
68	Creating and using interactive narratives. , 2012, , .		13
69	A Systematic Approach for Developing Decision Aids: From Cognitive Work Analysis to Prototype Design and Development. Systems Engineering, 2016, 19, 79-100.	1.6	13
70	Embedded human computer interaction. Applied Ergonomics, 2002, 33, 273-287.	1.7	12
71	Multimodal control of sensors on multiple simulated unmanned vehicles. Ergonomics, 2011, 54, 792-805.	1.1	12
72	Intelligent Assistive System Using Real-Time Action Recognition for Stroke Survivors. , 2014, , .		12

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73	Visualizing interactive narratives. , 2014, , .		12
74	Ecological Interface Design, the Proximity Compatibility Principle, and Automation Reliability in Road Traffic Management. IEEE Transactions on Human-Machine Systems, 2019, 49, 241-249.	2.5	12
75	Feedback requirements for automatic speech recognition in the process control room. International Journal of Man-Machine Studies, 1992, 37, 703-719.	0.7	11
76	Modelling the effects of constraint upon speech-based humanâ€“computer interaction. International Journal of Human Computer Studies, 1999, 50, 85-107.	3.7	11
77	Modelling elderly cardiac patients decision making using Cognitive Work Analysis: Identifying requirements for patient decision aids. International Journal of Medical Informatics, 2015, 84, 430-443.	1.6	11
78	Evaluating the Effect of Uncertainty Visualisation in Open Learner Models on Studentsâ€™ Metacognitive Skills. Lecture Notes in Computer Science, 2017, , 15-27.	1.0	11
79	Identification, classification and management of errors in automated component assembly tasks. International Journal of Production Research, 1993, 31, 1853-1863.	4.9	10
80	Comparing speech versus text displays for alarm handling. Ergonomics, 1997, 40, 1240-1254.	1.1	10
81	Collaborative sense-making during simulated Intelligence Analysis Exercises. International Journal of Human Computer Studies, 2016, 86, 94-108.	3.7	10
82	Social Networks and Mobile Games: The Use of Bluetooth for a Multiplayer Card Game. Lecture Notes in Computer Science, 2004, , 98-107.	1.0	10
83	Can speech be used for alarm displays in â€˜process controlâ€™ type tasks?. Behaviour and Information Technology, 1992, 11, 216-226.	2.5	9
84	Usability and EC Directive. Displays, 1992, 13, 151-160.	2.0	9
85	Designing for consumers: editorial. Applied Ergonomics, 1998, 29, 1-3.	1.7	9
86	From public technology to ubiquitous computing: implications for ergonomics Editorial. Ergonomics, 1998, 41, 921-926.	1.1	9
87	Development of a generic activities model of command and control. Cognition, Technology and Work, 2008, 10, 209-220.	1.7	9
88	A comparison of shared and distributed situation awareness in teams through the use of agent-based modelling. Theoretical Issues in Ergonomics Science, 2016, 17, 8-41.	1.0	9
89	Application of Human Error Identification (HEI) Techniques to Cognitive Rehabilitation in Stroke Patients with Limb Apraxia. Lecture Notes in Computer Science, 2013, , 463-471.	1.0	9
90	Making ergonomics accountable: Reliability, validity and utility in ergonomics methods. Applied Ergonomics, 2022, 98, 103583.	1.7	9

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91	Elderly Cardiac Patients' Medication Management: Patient Day-to-Day Needs and Review of Medication Management System. , 2013, , .		8
92	Workflows and individual differences during visually guided routine tasks in a road traffic management control room. Applied Ergonomics, 2017, 61, 79-89.	1.7	8
93	Preliminary Investigations into the Use of Wearable Computers. , 1998, , 313-325.		8
94	Evaluation in humanâ€šÃ„Ã¬computer interaction. , 2005, , 357-387.		8
95	A mobile health device to help people with severe allergies. , 2008, , .		7
96	Objective classification of performance in the use of a piercing saw in jewellery making. Applied Ergonomics, 2015, 51, 211-221.	1.7	7
97	Creating Affording Situations: Coaching through Animate Objects. Sensors, 2017, 17, 2308.	2.1	7
98	Automation Reliability and Decision Strategy: A Sequential Decision Making Model for Automation Interaction. Proceedings of the Human Factors and Ergonomics Society, 2018, 62, 144-148.	0.2	7
99	Instructions and demonstration as media for training new users of Automatic Speech Recognition Devices. Behaviour and Information Technology, 1990, 9, 371-379.	2.5	6
100	Automatic Speech Recognition, Noise and Workload. Proceedings of the Human Factors and Ergonomics Society, 2000, 44, 762-765.	0.2	6
101	Wearable Technology for Crime Scene Investigation. , 0, , .		6
102	Supporting Naturalistic Decision Making Through Location-Based Photography: A Study of Simulated Military Reconnaissance. International Journal of Human-Computer Interaction, 2010, 26, 147-172.	3.3	6
103	Intelligent Adaptive Systems: an interaction-centred design perspective. Ergonomics, 2017, 60, 1458-1459.	1.1	6
104	Designing Smart Objects to Support Affording Situations: Exploiting Affordance Through an Understanding of Forms of Engagement. Frontiers in Psychology, 2018, 9, 292.	1.1	6
105	Editorial: The cybernetic return in Human Factors and Ergonomics. Applied Ergonomics, 2019, 79, 86-90.	1.7	6
106	The effect of known decision support reliability on outcome quality and visual information foraging in joint decision making. Applied Ergonomics, 2020, 86, 103102.	1.7	6
107	A resources model for distributed sensemaking. Cognition, Technology and Work, 2018, 20, 651-664.	1.7	5
108	Patientâ€centred cardio vascular disease management â€“ endâ€user perceptions. Journal of Assistive Technologies, 2012, 6, 105-122.	0.9	4

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109	Thinking Through Tools: What Can Tool-Use Tell Us About Distributed Cognition?. Studies in Logic, Grammar and Rhetoric, 2015, 41, 25-40.	0.2	4
110	Rule and theme discovery in human interactions with an 'internet of things'. , 2015, , .		4
111	Predicting upper limb discomfort for plastic surgeons wearing loupes based on multi-objective optimization. Cogent Engineering, 2017, 4, 1398702.	1.1	4
112	The Dynamics of Distributed Situation Awareness. Proceedings of the Human Factors and Ergonomics Society, 2017, 61, 277-281.	0.2	4
113	Drilling Into Dashboards: Responding to Computer Recommendation in Fraud Analysis. IEEE Transactions on Human-Machine Systems, 2019, 49, 633-641.	2.5	4
114	Formalizing Distributed Situation Awareness in Multi-Agent Networks. IEEE Transactions on Human-Machine Systems, 2022, 52, 1166-1175.	2.5	4
115	Design of a Minimal Interface for two-way strategic information flow for urban operations. , 0, , .		3
116	MsSAM: Methods to Support Shared Analysis for Mobile Investigators. A Task Analysis to Support the Integration of Wearable Computer Technology into Crime Scene Investigation. Measurement and Control, 2005, 38, 83-87.	0.9	3
117	Analyzing the Role of Communications Technology in C4i Scenarios: A Distributed Cognition Approach. Journal of Intelligent Systems, 2006, 15, .	1.2	3
118	Using 1/f Scaling to Study Variability and Dexterity in Simple Tool using Tasks. Proceedings of the Human Factors and Ergonomics Society, 2015, 59, 431-435.	0.2	3
119	Spontaneous bimanual independence during parallel tapping and sawing. PLoS ONE, 2017, 12, e0178188.	1.1	3
120	Designing visual analytics for collaborative activity. , 2014, , 327-334.		3
121	Movement consistency during repetitive tool use action. PLoS ONE, 2017, 12, e0173281.	1.1	3
122	Tool Use as Gesture: new challenges for maintenanceand rehabilitation. , 0, , .		3
123	Towards the definition of a modelling framework for meaningful Human-IoT Interactions. , 0, , .		3
124	Comparison of GUIs and CUIs: appropriate ranges of actions and ease of use. Displays, 1993, 14, 207-215.	2.0	2
125	Multi-Platform Crime Scene Investigation Field Tool. , 2007, , .		2
126	Joint Human-Automation Decision Making in Road Traffic Management. Proceedings of the Human Factors and Ergonomics Society, 2017, 61, 385-389.	0.2	2

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127	Thinking with Hands, Acting with Minds: Embodied Cognition and Creative Practice. Advances in Intelligent Systems and Computing, 2019, , 225-234.	0.5	2
128	Purposeful tool use in early lithic technologies. Adaptive Behavior, 2021, 29, 169-180.	1.1	2
129	Distributed Cognition at the Crime Scene. , 2013, , 131-146.		2
130	An approach to designing interactive decision aid for cardiac patients. , 2011, , .		2
131	Supporting Crime Scene Investigation. , 2007, , 103-116.		2
132	Virtual risks: Rich domain risk and technology transfer failure as design criteria in the Sheffield Knee Arthroscopy Trainer (SKATS). Virtual Reality, 1999, 4, 192-202.	4.1	1
133	Can support systems adversely affect cell performance?. International Journal of Production Economics, 2000, 65, 43-54.	5.1	1
134	Ubiquitous digital imaging systems. , 2001, 4306, 425.		1
135	Using gestures to learn about graphs: the contribution of multimodal technology. , 0, , .		1
136	Macrocognition in Day-To-Day Police Incident Response. Frontiers in Psychology, 2016, 7, 293.	1.1	1
137	Towards the Quantification of Human-Robot Imitation Using Wearable Inertial Sensors. , 2017, , .		1
138	Coaching through smart objects. , 2017, , .		1
139	The Cybernetic Return in Human Factors/Ergonomics (HFE). Proceedings of the Human Factors and Ergonomics Society, 2019, 63, 894-898.	0.2	1
140	Visualising alignment to support studentsâ€™ judgment of confidence in open learner models. User Modeling and User-Adapted Interaction, 2020, 30, 159-194.	2.9	1
141	The look of writing in reading. Graphetic empathy in making and perceiving graphic traces. Language Sciences, 2021, 84, 101363.	0.5	1
142	Wearable Information Appliances for the Emergency Services: HotHelmet. Lecture Notes in Computer Science, 1999, , 314-316.	1.0	1
143	Distributed Cognition at the Crime Scene. , 2017, , 43-59.		1
144	Human Factors of Multi-modal Ubiquitous Computing. Lecture Notes in Computer Science, 1999, , 346-348.	1.0	1

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145	Student Preferences for Visualising Uncertainty in Open Learner Models. Lecture Notes in Computer Science, 2017, , 445-449.	1.0	1
146	Human-agents Interactions in Multi-Agent Systems: A Case Study of Human-UAVs Team for Forest Fire Lookouts. , 2020, , .		1
147	Conflicts Resolution and Situation Awareness in Heterogeneous Multi-agent Missions using Publish-subscribe Technique and Inferential Reasoning. , 2020, , .		1
148	Methods and tools in user centred design for information technology. Applied Ergonomics, 1992, 23, 359-360.	1.7	0
149	A Novel Integration of Human Factors Methods to Analyse C4i Activity; A Chemical Incident Case Study Carried Out with the UK Fire Service. Proceedings of the Human Factors and Ergonomics Society, 2004, 48, 518-522.	0.2	0
150	Missing Key Information. Proceedings of the Human Factors and Ergonomics Society, 2015, 59, 200-204.	0.2	0
151	After phrenology: neural reuse and the interactive brain. Ergonomics, 2017, 60, 1173-1174.	1.1	0
152	Demonstration of a Prototype for Credit Card Fraud Management. , 2017, , .		0
153	Towards the Analysis of Movement Variability in Human-Humanoid Imitation Activities. , 2017, , .		0
154	The Use of Narrative in the Prototyping of Serious Games for Criminal Investigation. , 2009, , .		0
155	Human Error, Engineering Psychology and System Safety. IFAC Postprint Volumes IPPV / International Federation of Automatic Control, 1997, 30, 1255-1260.	0.4	0
156	Understanding movement variability of simplistic gestures using an inertial sensor. , 2016, , .		0
157	Tackling the Zombie Apocalypse: sensemaking in simulated disaster management. , 0, , .		0
158	Predicting transaction time for dual-tasks using critical path. , 2017, , 223-230.		0
159	Human Factors Methods Integration: A Case Study in the Railway Industry. , 2017, , 521-542.		0
160	EAST in Energy Distribution Operations. , 2018, , 65-81.		0
161	EAST in Railway Maintenance. , 2018, , 109-133.		0
162	EAST in Air Traffic Control. , 2018, , 19-38.		0

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163	EAST in Military Command and Control. , 2018, , 39-63.		0
164	Using the Toulmin Model of Argumentation to Explore the Differences in Human and Automated Hiring Decisions. , 2020, , .		0
165	Handling Uncertainties in Distributed Constraint Optimization Problems using Bayesian Inferential Reasoning. , 2020, , .		0