Arzu Coltekin

List of Publications by Year
in descending order

54 papers	2,282 citations	331538 21 h-index	233338 45 g-index
56 all docs	56 docs citations	56 times ranked	1953 citing authors

#	Article	IF	Citations
1	Applications of 3D City Models: State of the Art Review. ISPRS International Journal of Geo-Information, 2015, 4, 2842-2889.	1.4	492
2	Geospatial big data handling theory and methods: A review and research challenges. ISPRS Journal of Photogrammetry and Remote Sensing, 2016, 115, 119-133.	4.9	333
3	Evaluating the Effectiveness of Interactive Map Interface Designs: A Case Study Integrating Usability Metrics with Eye-Movement Analysis. Cartography and Geographic Information Science, 2009, 36, 5-17.	1.4	159
4	Exploring the efficiency of users' visual analytics strategies based on sequence analysis of eye movement recordings. International Journal of Geographical Information Science, 2010, 24, 1559-1575.	2.2	136
5	Extended Reality in Spatial Sciences: A Review of Research Challenges and Future Directions. ISPRS International Journal of Geo-Information, 2020, 9, 439.	1.4	128
6	User studies in cartography: opportunities for empirical research on interactive maps and visualizations. International Journal of Cartography, 2017, 3, 61-89.	0.2	96
7	Foveated gaze-contingent displays for peripheral LOD management, 3D visualization, and stereo imaging. ACM Transactions on Multimedia Computing, Communications and Applications, 2007, 3, 1-18.	3.0	67
8	An Empirical User Study for Measuring the Influence of Colour Distance and Font Size in Map Reading Using Eye Tracking. Cartographic Journal, 2016, 53, 202-212.	0.8	46
9	Toward optimizing the design of virtual environments for route learning: empirically assessing the effects of changing levels of realism on memory. International Journal of Digital Earth, 2019, 12, 137-155.	1.6	46
10	Persistent challenges in geovisualization â€" a community perspective. International Journal of Cartography, 2017, 3, 115-139.	0.2	42
11	Visual Exploration of Eye Movement Data Using the Space-Time-Cube. Lecture Notes in Computer Science, 2010, , 295-309.	1.0	42
12	Virtual environments as memory training devices in navigational tasks for older adults. Scientific Reports, 2018, 8, 10809.	1.6	41
13	The effect of spatial distance on the discriminability of colors in maps. Cartography and Geographic Information Science, 2017, 44, 229-245.	1.4	40
14	Towards (Re)Constructing Narratives from Georeferenced Photographs through Visual Analytics. Cartographic Journal, 2014, 51, 152-165.	0.8	39
15	Not all anxious individuals get lost: Trait anxiety and mental rotation ability interact to explain performance in map-based route learning in men. Neurobiology of Learning and Memory, 2016, 132, 1-8.	1.0	34
16	Measured and perceived visual complexity: a comparative study among three online map providers. Cartography and Geographic Information Science, 2018, 45, 238-254.	1.4	34
17	Perceptual complexity of soil-landscape maps: a user evaluation of color organization in legend designs using eye tracking. International Journal of Digital Earth, 2017, 10, 560-581.	1.6	31
18	Combining user logging with eyeÂtracking for interactive and dynamic applications. Behavior Research Methods, 2015, 47, 977-993.	2.3	30

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19	Discriminating classes of sequential and qualitative colour schemes. International Journal of Cartography, 2015, 1, 62-78.	0.2	29
20	An empirical assessment of the impact of the light direction on the relief inversion effect in shaded relief maps: NNW is better than NW. Cartography and Geographic Information Science, 2017, 44, 358-372.	1.4	28
21	Virtual geographic environments in socio-environmental modeling: a fancy distraction or a key to communication?. International Journal of Digital Earth, 2018, 11, 408-419.	1.6	25
22	Perspective switch and spatial knowledge acquisition: effects of age, mental rotation ability and visuospatial memory capacity on route learning in virtual environments with different levels of realism. Cartography and Geographic Information Science, 2020, 47, 14-27.	1.4	23
23	Using a Digital Neuro Signature to measure longitudinal individual-level change in Alzheimerâ€™s disease: the Altoida large cohort study. Npj Digital Medicine, 2021, 4, 101.	5.7	23
24	Where are we now? Re-visiting the Digital Earth through human-centered virtual and augmented reality geovisualization environments. International Journal of Digital Earth, 2019, 12, 119-122.	1.6	22
25	High Quality Geographic Services and Bandwidth Limitations. Future Internet, 2011, 3, 379-396.	2.4	20
26	Geospatial Information Visualization and Extended Reality Displays. , 2020, , 229-277.		19
27	The effects of visual realism, spatial abilities, and competition on performance in map-based route learning in men. Cartography and Geographic Information Science, 2018, 45, 339-353.	1.4	18
28	Prevalence of the terrain reversal effect in satellite imagery. International Journal of Digital Earth, 2015, 8, 640-655.	1.6	17
29	Rainbow Dash: Intuitiveness, Interpretability and Memorability of the Rainbow Color Scheme in Visualization. IEEE Transactions on Visualization and Computer Graphics, 2022, 28, 2722-2733.	2.9	16
30	The Next Generation of Atlas User Interfaces: A User Study with â€œDigital Nativesâ€. Lecture Notes in Geoinformation and Cartography, 2015, , 23-36.	0.5	16
31	Quantifying gaze and mouse interactions on spatial visual interfaces with a new movement analytics methodology. PLoS ONE, 2017, 12, e0181818.	1.1	15
32	Using coefficient K to distinguish ambient/focal visual attention during map viewing. Journal of Eye Movement Research, 2017, 10, .	0.5	15
33	SATSal: A Multi-Level Self-Attention Based Architecture for Visual Saliency Prediction. IEEE Access, 2022, 10, 20701-20713.	2.6	14
34	Development and evaluation of a specialized task taxonomy for spatial planning â€“ A map literacy experiment with topographic maps. ISPRS Journal of Photogrammetry and Remote Sensing, 2017, 127, 16-26.	4.9	13
35	Geovisualization. Geographic Information Science & Technology Body of Knowledge, 2018, 2018, .	0.1	13
36	The Immersive Mental Rotations Test: Evaluating Spatial Ability in Virtual Reality. Frontiers in Virtual Reality, 2022, 3, .	2.5	13

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37	An empirical evaluation of three elevation change symbolization methods along routes in bicycle maps. Cartography and Geographic Information Science, 2017, 44, 436-451.	1.4	12
38	GPGPU computation and visualization of three-dimensional cellular automata. Visual Computer, 2011, 27, 67-81.	2.5	11
39	An Approach to Modeling Spatial Perception for Geovisualization. Procedia, Social and Behavioral Sciences, 2011, 21, 53-62.	0.5	10
40	From products to processes: Academic events to foster interdisciplinary and iterative dialogue in a changing climate. Earth's Future, 2015, 3, 289-297.	2.4	10
41	Techniques for Highlighting Relief on Orthoimaginery. Procedia, Social and Behavioral Sciences, 2011, 21, 346-352.	0.5	9
42	Comparing the terrain reversal effect in satellite images and in shaded relief maps: an examination of the effects of color and texture on 3D shape perception from shading. International Journal of Digital Earth, 2019, 12, 442-459.	1.6	9
43	Space-variant image coding for stereoscopic media. , 2009, , .		7
44	An empirical evaluation of three-dimensional pie charts with individually extruded sectors in a geovisualization context. Information Visualization, 2020, 19, 183-206.	1.2	7
45	Geovisual analytics: human factors. International Journal of Digital Earth, 2015, 8, 595-598.	1.6	6
46	Gesture Interaction in Virtual Reality. Lecture Notes in Computer Science, 2021, , 151-160.	1.0	6
47	Designing Geovisual Analytics Environments and Displays with Humans in Mind. ISPRS International Journal of Geo-Information, 2019, 8, 572.	1.4	4
48	GeoGCD. , 2019, , .		3
49	Fixing an illusion â€" an empirical assessment of correction methods for the terrain reversal effect in satellite images. International Journal of Digital Earth, 2020, 13, 1135-1150.	1.6	3
50	Stereo-foveation for anaglyph imaging. , 2005, 5664, 48.		2
51	Geovisual analytics: design and implementation. International Journal of Digital Earth, 2015, 8, 517-521.	1.6	2
52	Survey of True 3D and Raster Level of Detail Support in GIS Software. Lecture Notes in Geoinformation and Cartography, 2011, , 43-65.	0.5	2
53	Expert Insights forÂDesigning Conversational User Interfaces asÂVirtual Assistants andÂCompanions forÂOlder Adults withÂCognitive Impairments. Lecture Notes in Computer Science, 2022, , 23-38.	1.0	2
54	Multi-methodological reconstruction of the lake level at Morgarten in the context of the history of the Swiss Confederation. Holocene, 2015, 25, 1727-1741.	0.9	1