Murali Krishna Gumma

List of Publications by Year
in descending order

61	3,738	159525 30	128225 60
papers	citations	h-index	g-index

61	61	61	3977
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Automated cropland mapping of continental Africa using Google Earth Engine cloud computing. ISPRS Journal of Photogrammetry and Remote Sensing, 2017, 126, 225-244.	4.9	342
2	Global irrigated area map (GIAM), derived from remote sensing, for the end of the last millennium. International Journal of Remote Sensing, 2009, 30, 3679-3733.	1.3	333
3	A 30-m landsat-derived cropland extent product of Australia and China using random forest machine learning algorithm on Google Earth Engine cloud computing platform. ISPRS Journal of Photogrammetry and Remote Sensing, 2018, 144, 325-340.	4.9	316
4	Nominal 30-m Cropland Extent Map of Continental Africa by Integrating Pixel-Based and Object-Based Algorithms Using Sentinel-2 and Landsat-8 Data on Google Earth Engine. Remote Sensing, 2017, 9, 1065.	1.8	255
5	Mapping rice areas of South Asia using MODIS multitemporal data. Journal of Applied Remote Sensing, 2011, 5, 053547.	0.6	169
6	Selection of Hyperspectral Narrowbands (HNBs) and Composition of Hyperspectral Twoband Vegetation Indices (HVIs) for Biophysical Characterization and Discrimination of Crop Types Using Field Reflectance and Hyperion/EO-1 Data. IEEE Journal of Selected Topics in Applied Earth Observations and Remote Sensing, 2013, 6, 427-439.	2.3	156
7	A global map of rainfed cropland areas (GMRCA) at the end of last millennium using remote sensing. International Journal of Applied Earth Observation and Geoinformation, 2009, 11, 114-129.	1.4	152
8	Mapping seasonal rice cropland extent and area in the high cropping intensity environment of Bangladesh using MODIS 500m data for the year 2010. ISPRS Journal of Photogrammetry and Remote Sensing, 2014, 91, 98-113.	4.9	149
9	Irrigated area mapping in heterogeneous landscapes with MODIS time series, ground truth and census data, Krishna Basin, India. International Journal of Remote Sensing, 2006, 27, 4245-4266.	1.3	137
10	Mapping of groundwater potential zones across Ghana using remote sensing, geographic information systems, and spatial modeling. Environmental Monitoring and Assessment, 2013, 185, 3561-3579.	1.3	124
11	Mapping cropland extent of Southeast and Northeast Asia using multi-year time-series Landsat 30-m data using a random forest classifier on the Google Earth Engine Cloud. International Journal of Applied Earth Observation and Geoinformation, 2019, 81, 110-124.	1.4	110
12	Mapping rice-fallow cropland areas for short-season grain legumes intensification in South Asia using MODIS 250â€…m time-series data. International Journal of Digital Earth, 2016, 9, 981-1003.	1.6	105
13	Mapping Irrigated Areas of Ghana Using Fusion of 30 m and 250 m Resolution Remote-Sensing Data. Remote Sensing, 2011, 3, 816-835.	1.8	90
14	Agricultural cropland extent and areas of South Asia derived using Landsat satellite 30-m time-series big-data using random forest machine learning algorithms on the Google Earth Engine cloud. GIScience and Remote Sensing, 2020, 57, 302-322.	2.4	86
15	Water Productivity Mapping (WPM) Using Landsat ETM+ Data for the Irrigated Croplands of the Syrdarya River Basin in Central Asia. Sensors, 2008, 8, 8156-8180.	2.1	83
16	A Holistic View of Global Croplands and Their Water Use for Ensuring Global Food Security in the 21st Century through Advanced Remote Sensing and Non-remote Sensing Approaches. Remote Sensing, 2010, 2, 211-261.	1.8	75
17	Irrigated areas of India derived using MODIS 500 m time series for the years 2001â€“2003. ISPRS Journal of Photogrammetry and Remote Sensing, 2010, 65, 42-59.	4.9	74
18	Temporal changes in rice-growing area and their impact on livelihood over a decade: A case study of Nepal. Agriculture, Ecosystems and Environment, 2011, 142, 382-392.	2.5	64

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19	Irrigated Area Maps and Statistics of India Using Remote Sensing and National Statistics. Remote Sensing, 2009, 1, 50-67.	1.8	62
20	Mapping Asian Cropping Intensity With MODIS. IEEE Journal of Selected Topics in Applied Earth Observations and Remote Sensing, 2014, 7, 3373-3379.	2.3	54
21	Water Scarcity Effects on Equitable Water Distribution and Land Use in a Major Irrigation Projectâ€"Case Study in India. Journal of Irrigation and Drainage Engineering - ASCE, 2008, 134, 26-35.	0.6	50
22	Remote sensing based change analysis of rice environments in Odisha, India. Journal of Environmental Management, 2015, 148, 31-41.	3.8	45
23	Spectral matching techniques (SMTs) and automated cropland classification algorithms (ACCAs) for mapping croplands of Australia using MODIS 250-m time-series (2000â€"2015) data. International Journal of Digital Earth, 2017, 10, 944-977.	1.6	44
24	Urban Sprawl and Adverse Impacts on Agricultural Land: A Case Study on Hyderabad, India. Remote Sensing, 2017, 9, 1136.	1.8	44
25	Dynamics and drivers of land use and land cover changes in Bangladesh. Regional Environmental Change, 2020, 20, 1.	1.4	40
26	Sub-pixel Area Calculation Methods for Estimating Irrigated Areas. Sensors, 2007, 7, 2519-2538.	2.1	38
27	Role of groundwater in buffering irrigation production against climate variability at the basin scale in South-West India. Agricultural Water Management, 2012, 103, 78-87.	2.4	38
28	Characterization of the main chickpea cropping systems in India using a yield gap analysis approach. Field Crops Research, 2018, 223, 93-104.	2.3	38
29	Changes in agricultural cropland areas between a water-surplus year and a water-deficit year impacting food security, determined using MODIS 250 m time-series data and spectral matching techniques, in the Krishna River basin (India). International Journal of Remote Sensing, 2011, 32, 3495-3520.	1.3	35
30	Mapping cropland fallow areas in myanmar to scale up sustainable intensification of pulse crops in the farming system. GIScience and Remote Sensing, 2018, 55, 926-949.	2.4	31
31	Mapping Irrigated Areas Using MODIS 250 Meter Time-Series Data: A Study on Krishna River Basin (India). Water (Switzerland), 2011, 3, 113-131.	1.2	29
32	Quantifying production losses due to drought and submergence of rainfed rice at the household level using remotely sensed MODIS data. Agricultural Systems, 2015, 137, 227-235.	3.2	29
33	Characterizing and mapping cropping patterns in a complex agro-ecosystem: An iterative participatory mapping procedure using machine learning algorithms and MODIS vegetation indices. Computers and Electronics in Agriculture, 2020, 175, 105595.	3.7	29
34	Surface Freshwater Limitation Explains Worst Rice Production Anomaly in India in 2002. Remote Sensing, 2018, 10, 244.	1.8	26
35	Crop type identification and spatial mapping using Sentinel-2 satellite data with focus on field-level information. Geocarto International, 2022, 37, 1833-1849.	1.7	24
36	Assimilation of Remote Sensing Data into Crop Growth Model for Yield Estimation: A Case Study from India. Journal of the Indian Society of Remote Sensing, 2022, 50, 257-270.	1.2	19

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37	Prioritization of Watersheds across Mali Using Remote Sensing Data and GIS Techniques for Agricultural Development Planning. Water (Switzerland), 2016, 8, 260.	1.2	18
38	A watershed approach to managing rainfed agriculture in the semiarid region of southern Mali: integrated research on water and land use. Environment, Development and Sustainability, 2019, 21, 2459-2485.	2.7	18
39	Multiple agricultural cropland products of South Asia developed using Landsat-8 30 m and MODIS 250 m data using machine learning on the Google Earth Engine (GEE) cloud and spectral matching techniques (SMTs) in support of food and water security. GIScience and Remote Sensing, 2022, 59, 1048-1077.	2.4	17
40	Water productivity mapping using remote sensing data of various resolutions to support "more crop per drop". Journal of Applied Remote Sensing, 2009, 3, 033557.	0.6	16
41	Spatial models for selecting the most suitable areas of rice cultivation in the Inland Valley Wetlands of Ghana using remote sensing and geographic information systems. Journal of Applied Remote Sensing, 2009, 3, 033537.	0.6	16
42	Monitoring Changes in the Cultivation of Pigeonpea and Groundnut in Malawi Using Time Series Satellite Imagery for Sustainable Food Systems. Remote Sensing, 2019, 11, 1475.	1.8	14
43	Temporal change in land use by irrigation source in Tamil Nadu and management implications. Environmental Monitoring and Assessment, 2015, 187, 4155.	1.3	13
44	Geographical distribution of traits and diversity in the world collection of pearl millet [Pennisetum glaucum (L.) R. Br., synonym: Cenchrus americanus (L.) Morrone] landraces conserved at the ICRISAT genebank. Genetic Resources and Crop Evolution, 2017, 64, 1365-1381.	0.8	13
45	Assessment of spatio-temporal vegetation dynamics in tropical arid ecosystem of India using MODIS time-series vegetation indices. Arabian Journal of Geosciences, 2020, 13, 1.	0.6	13
46	Farmersâ€™ Adaptation and Regional Land-Use Changes in Irrigation Systems under Fluctuating Water Supply, South India. Journal of Irrigation and Drainage Engineering - ASCE, 2010, 136, 595-609.	0.6	11
47	Crop Dominance Mapping with IRS-P6 and MODIS 250-m Time Series Data. Agriculture (Switzerland), 2014, 4, 113-131.	1.4	11
48	Impact of land use changes and management practices on groundwater resources in Kolar district, Southern India. Journal of Hydrology: Regional Studies, 2020, 31, 100732.	1.0	11
49	A Review of the Available Land Cover and Cropland Maps for South Asia. Agriculture (Switzerland), 2018, 8, 111.	1.4	10
50	Expansion of urban area and wastewater irrigated rice area in Hyderabad, India. Irrigation and Drainage Systems, 2011, 25, 135-149.	0.5	9
51	Assessing the impacts of watershed interventions using ground data and remote sensing: a case study in Ethiopia. International Journal of Environmental Science and Technology, 2022, 19, 1653-1670.	1.8	8
52	Priority regions for research on dryland cereals and legumes. F1000Research, 2016, 5, 885.	0.8	7
53	Satellite imagery and household survey for tracking chickpea adoption in Andhra Pradesh, India. International Journal of Remote Sensing, 2016, 37, 1955-1972.	1.3	6
54	Status, genetic diversity and gaps in sorghum germplasm from South Asia conserved at ICRISAT genebank. Plant Genetic Resources: Characterisation and Utilisation, 2017, 15, 527-538.	0.4	6

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55	Water spreading weirs altering flood, nutrient distribution and crop productivity in upstreamâ€“downstream settings in dry lowlands of Afar, Ethiopia. Renewable Agriculture and Food Systems, 2022, 37, S17-S27.	0.8	6
56	Assessing potential locations for flood-based farming using satellite imagery: a case study of Afar region, Ethiopia. Renewable Agriculture and Food Systems, 2022, 37, S28-S42.	0.8	5
57	Assessment of climate change and vulnerability in Indian state of Telangana for better agricultural planning. Theoretical and Applied Climatology, 2021, 143, 309-325.	1.3	5
58	Priority regions for research on dryland cereals and legumes. F1000Research, 2016, 5, 885.	0.8	4
59	Contribution of Climate-Smart Agriculture Technologies to Food Self-Sufficiency of Smallholder Households in Mali. Sustainability, 2021, 13, 7757.	1.6	4
60	Monitoring Changes in Croplands Due to Water Stress in the Krishna River Basin Using Temporal Satellite Imagery. Land, 2017, 6, 72.	1.2	2
61	Measuring and Influencing Behavior Change in Dietary Intake: Integrated Photovoice Approach in Nutrition Interventions in Eastern Kenya. Ecology of Food and Nutrition, 2021, , 1-20.	0.8	0