

# Bhabani S Das

## List of Publications by Year in descending order

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Version: 2024-02-01

75  
papers

3,175  
citations

218592

26  
h-index

161767

54  
g-index

75  
all docs

75  
docs citations

75  
times ranked

4067  
citing authors

#	ARTICLE	IF	CITATIONS
1	Soil carbon 4 per mille. <i>Geoderma</i> , 2017, 292, 59-86.	2.3	1,279
2	Sorption and Degradation of Steroid Hormones in Soils during Transport: A Column Studies and Model Evaluation. <i>Environmental Science &amp; Technology</i> , 2004, 38, 1460-1470.	4.6	146
3	Error Analysis of Heat Pulse Method for Measuring Soil Heat Capacity, Diffusivity, and Conductivity. <i>Soil Science Society of America Journal</i> , 1995, 59, 719-726.	1.2	129
4	Effects of water deficit stress on agronomic and physiological responses of rice and greenhouse gas emission from rice soil under elevated atmospheric CO <sub>2</sub> . <i>Science of the Total Environment</i> , 2019, 650, 2032-2050.	3.9	75
5	Greenhouse gas emission from direct seeded paddy fields under different soil water potentials in Eastern India. <i>Agriculture, Ecosystems and Environment</i> , 2016, 228, 111-123.	2.5	73
6	Estimation of soil hydraulic properties using proximal spectral reflectance in visible, near-infrared, and shortwave-infrared (VIS-NIR-SWIR) region. <i>Geoderma</i> , 2009, 152, 338-349.	2.3	64
7	Dual-domain solute transfer and transport processes: evaluation in batch and transport experiments. <i>Journal of Contaminant Hydrology</i> , 2004, 75, 257-280.	1.6	59
8	Measurement and modeling of soil water regime in a lowland paddy field showing preferential transport. <i>Agricultural Water Management</i> , 2009, 96, 1705-1714.	2.4	54
9	Variable indicators for optimum wavelength selection in diffuse reflectance spectroscopy of soils. <i>Geoderma</i> , 2016, 267, 1-9.	2.3	49
10	Pedotransfer functions for soil hydraulic properties developed from a hilly watershed of Eastern India. <i>Geoderma</i> , 2008, 146, 439-448.	2.3	46
11	Physiological and morphological responses of four different rice cultivars to soil water potential based deficit irrigation management strategies. <i>Field Crops Research</i> , 2017, 205, 78-94.	2.3	46
12	Estimation of weathering indices using spectral reflectance over visible to mid-infrared region. <i>Geoderma</i> , 2016, 266, 111-119.	2.3	44
13	Legacy data-based national-scale digital mapping of key soil properties in India. <i>Geoderma</i> , 2021, 381, 114684.	2.3	41
14	Diffuse Reflectance Spectroscopic Approach for the Characterization of Soil Aggregate Size Distribution. <i>Soil Science Society of America Journal</i> , 2014, 78, 369-376.	1.2	37
15	Soil water potential and recoverable water stress in drought tolerant and susceptible rice varieties. <i>Agricultural Water Management</i> , 2015, 152, 110-118.	2.4	37
16	MODELING TRANSIENT WATER DISTRIBUTIONS AROUND LANDMINES IN BARE SOILS. <i>Soil Science</i> , 2001, 166, 163-173.	0.9	35
17	Performance of polymer-coated urea in transplanted rice: effect of mixing ratio and water input on nitrogen use efficiency. <i>Paddy and Water Environment</i> , 2010, 8, 189-198.	1.0	34
18	Rejoinder to Comments on Minasny et al., 2017 Soil carbon 4 per mille <i>Geoderma</i> 292, 59-86. <i>Geoderma</i> , 2018, 309, 124-129.	2.3	34

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19	Dependency Measures for Assessing the Covariation of Spectrally Active and Inactive Soil Properties in Diffuse Reflectance Spectroscopy. <i>Soil Science Society of America Journal</i> , 2014, 78, 1522-1530.	1.2	33
20	Rapid assessment of black tea quality using diffuse reflectance spectroscopy. <i>Journal of Food Engineering</i> , 2016, 190, 101-108.	2.7	33
21	Optimizing wavelength selection by using informative vectors for parsimonious infrared spectra modelling. <i>Computers and Electronics in Agriculture</i> , 2019, 158, 201-210.	3.7	33
22	Assessment of soil texture from spectral reflectance data of bulk soil samples and their dry-sieved aggregate size fractions. <i>Geoderma</i> , 2019, 337, 914-926.	2.3	32
23	Pore Water Velocity and Residence Time Effects on the Degradation of 2,4-D during Transport. <i>Environmental Science &amp; Technology</i> , 1998, 32, 1308-1315.	4.6	31
24	Predicting soil arsenic pools by visible near infrared diffuse reflectance spectroscopy. <i>Geoderma</i> , 2017, 296, 30-37.	2.3	29
25	Soil mapping via diffuse reflectance spectroscopy based on variable indicators: An ordered predictor selection approach. <i>Geoderma</i> , 2018, 314, 146-159.	2.3	29
26	Nitrate Concentrations in the Root Zone Estimated Using Time Domain Reflectometry. <i>Soil Science Society of America Journal</i> , 1999, 63, 1561-1570.	1.2	28
27	Effects of elevated CO <sub>2</sub> concentration on water productivity and antioxidant enzyme activities of rice ( <i>Oryza sativa</i> L.) under water deficit stress. <i>Field Crops Research</i> , 2017, 212, 61-72.	2.3	28
28	A simple bund plugging technique for improving water productivity in wetland rice. <i>Soil and Tillage Research</i> , 2011, 112, 66-75.	2.6	27
29	Moment Analysis to Estimate Degradation Rate Constants from Leaching Experiments. <i>Soil Science Society of America Journal</i> , 1996, 60, 1724-1731.	1.2	26
30	Rapid assessment of algal biomass and pigment contents using diffuse reflectance spectroscopy and chemometrics. <i>Algal Research</i> , 2017, 27, 274-285.	2.4	26
31	Local modeling approaches for estimating soil properties in selected Indian soils using diffuse reflectance data over visible to near-infrared region. <i>Geoderma</i> , 2018, 325, 59-71.	2.3	26
32	Hyperspectral image preprocessing with bilateral filter for improving the classification accuracy of support vector machines. <i>Journal of Applied Remote Sensing</i> , 2016, 10, 025004.	0.6	25
33	Modeling runoff from an agricultural watershed of western catchment of Chilika lake through ArcSWAT. <i>Journal of Hydro-Environment Research</i> , 2013, 7, 261-269.	1.0	24
34	Application of VIS-NIR spectroscopy for estimation of soil organic carbon using different spectral preprocessing techniques and multivariate methods in the middle Indo-Gangetic plains of India. <i>Geoderma Regional</i> , 2020, 23, e00349.	0.9	24
35	Rapid estimation of compost enzymatic activity by spectral analysis method combined with machine learning. <i>Waste Management</i> , 2014, 34, 623-631.	3.7	23
36	TEMPERATURE DEPENDENCE OF NITROGEN MINERALIZATION RATE CONSTANT. <i>Soil Science</i> , 1995, 159, 294-300.	0.9	22

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37	Assessing the effect of puddling on preferential flow processes through under bund area of lowland rice field. <i>Soil and Tillage Research</i> , 2013, 134, 61-71.	2.6	22
38	Semiquantitative Evaluation of Secondary Carbonates via Portable X-ray Fluorescence Spectrometry. <i>Soil Science Society of America Journal</i> , 2017, 81, 844-852.	1.2	22
39	Canopy Spectral Reflectance as a Predictor of Soil Water Potential in Rice. <i>Water Resources Research</i> , 2018, 54, 2544-2560.	1.7	20
40	Monitoring soil water and ionic solute distributions using time-domain reflectometry. <i>Soil and Tillage Research</i> , 1998, 47, 145-150.	2.6	18
41	Soil hydraulic properties as ecological indicators in forested watersheds impacted by mechanized military training. <i>Ecological Indicators</i> , 2007, 7, 589-597.	2.6	17
42	Defining Geometric Similarity in Soils. <i>Vadose Zone Journal</i> , 2005, 4, 264-270.	1.3	17
43	Evaluation of Mass Recovery Impacts on Transport Parameters Using Least-Squares Optimization and Moment Analysis. <i>Soil Science Society of America Journal</i> , 2005, 69, 1209-1216.	1.2	15
44	Reflectance spectroscopic approach for estimation of soil properties in hot arid western Rajasthan, India. <i>Environmental Earth Sciences</i> , 2015, 74, 4233-4245.	1.3	15
45	Near infrared diffuse reflectance spectroscopy for rapid and comprehensive soil condition assessment in smallholder cacao farming systems of Papua New Guinea. <i>Catena</i> , 2019, 183, 104185.	2.2	15
46	Hydrus-1D model for simulating water flow through paddy soils under alternate wetting and drying irrigation practice. <i>Paddy and Water Environment</i> , 2020, 18, 73-85.	1.0	15
47	Delineation of hydrologically similar units in a watershed based on fuzzy classification of soil hydraulic properties. <i>Hydrological Processes</i> , 2011, 25, 64-79.	1.1	14
48	Spatial prediction of soil properties in a watershed scale through maximum likelihood approach. <i>Environmental Earth Sciences</i> , 2012, 65, 2051-2061.	1.3	14
49	Discrete Wavelet Transform Approach for the Estimation of Crop Residue Mass From Spectral Reflectance. <i>IEEE Journal of Selected Topics in Applied Earth Observations and Remote Sensing</i> , 2014, 7, 2490-2495.	2.3	14
50	Rapid and Noninvasive Assessment of Atterberg Limits Using Diffuse Reflectance Spectroscopy. <i>Soil Science Society of America Journal</i> , 2016, 80, 1283-1295.	1.2	14
51	Climate-catchment-soil control on hydrological droughts in peninsular India. <i>Scientific Reports</i> , 2022, 12, 8014.	1.6	14
52	Assessment of cocoa input needs using soil types and soil spectral analysis. <i>Soil Use and Management</i> , 2019, 35, 492-502.	2.6	12
53	Evaluation of regression algorithms for estimating leaf area index and canopy water content from water stressed rice canopy reflectance. <i>Information Processing in Agriculture</i> , 2021, 8, 284-298.	2.9	12
54	Living with arsenic in the environment: An examination of current awareness of farmers in the Bengal basin using hybrid feature selection and machine learning. <i>Environment International</i> , 2021, 153, 106529.	4.8	12

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55	Estimation of Gross Calorific Value of Bituminous Coal using various Coal Properties and Reflectance Spectra. <i>International Journal of Coal Preparation and Utilization</i> , 2022, 42, 979-985.	1.2	10
56	Application of Phosphorus, Iron, and Silicon Reduces Yield Loss in Rice Exposed to Water Deficit Stress. <i>Agronomy Journal</i> , 2019, 111, 1488-1497.	0.9	9
57	Estimation of soil texture using Sentinel-2 multispectral imaging data: An ensemble modeling approach. <i>Soil and Tillage Research</i> , 2021, 213, 105134.	2.6	9
58	Comparison of Data Mining Approaches for Estimating Soil Nutrient Contents Using Diffuse Reflectance Spectroscopy. <i>Current Science</i> , 2016, 110, 1031.	0.4	9
59	Soil health and its relationship with food security and human health to meet the sustainable development goals in India. <i>Soil Security</i> , 2022, 8, 100071.	1.2	9
60	Reflectance spectroscopy based rapid determination of coal quality parameters. <i>Fuel</i> , 2020, 280, 118676.	3.4	7
61	Spatial structure, parameter nonlinearity, and intelligent algorithms in constructing pedotransfer functions from large-scale soil legacy data. <i>Scientific Reports</i> , 2020, 10, 15050.	1.6	7
62	Diffuse reflectance spectroscopy based rapid coal rank estimation: A machine learning enabled framework. <i>Spectrochimica Acta - Part A: Molecular and Biomolecular Spectroscopy</i> , 2021, 263, 120150.	2.0	7
63	Digital Soil Mapping and Best Management of Soil Resources: A Brief Discussion with Few Case Studies. , 2017, , 3-38.		6
64	Temperature Dependence of Soil Hydraulic Properties: Transient Measurements and Modeling. <i>Soil Science Society of America Journal</i> , 2019, 83, 1628-1636.	1.2	6
65	National-scale maps for soil aggregate size distribution parameters using pedotransfer functions and digital soil mapping data products. <i>Geoderma</i> , 2022, 424, 116006.	2.3	6
66	Hydrus-1D for Simulating Potassium Transport in Flooded Paddy Soils. <i>Communications in Soil Science and Plant Analysis</i> , 2021, 52, 2803-2820.	0.6	5
67	Assessment of Soil Properties using Spectral Signatures of Bulk Soils and Their Aggregate Size Fractions. <i>Geoderma</i> , 2022, 417, 115837.	2.3	5
68	Measurement and Modeling of Longitudinal Dispersivity in Undisturbed Saturated Soil: An Experimental Approach. <i>Soil Science Society of America Journal</i> , 2018, 82, 1117-1123.	1.2	4
69	Theory and Applications of Time Moment Analysis to Study the Fate of Reactive Solutes in Soil. , 2002, , 239-279.		3
70	Measurement and Modeling of Diffusive Tortuosity in Saturated Soils: A Pedotransfer Function Approach. <i>Soil Science Society of America Journal</i> , 2014, 78, 1869-1877.	1.2	3
71	An Ensemble Modeling Approach for Estimating Diffusive Tortuosity for Saturated Soils From Porosity. <i>Soil Science</i> , 2017, 182, 45-51.	0.9	3
72	Variance of Aggregate Size Distribution as a Criterion for Soil Similarity. <i>Vadose Zone Journal</i> , 2015, 14, vzt2015.05.0072.	1.3	2

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73	Cumulants-Based Analysis of Concentration Data from Soil-Column Studies for System Identification. Journal of Hydrologic Engineering - ASCE, 1996, 1, 41-48.	0.8	1
74	Assessment of Runoff and Sediment Yield from Selected Watersheds in the Western Catchment of the Chilika Lagoon. Wetlands: Ecology, Conservation and Management, 2020, , 133-164.	0.0	1
75	New geometry factors for hydraulic property-based soil solution electrical conductivity models. Water Resources Research, 2000, 36, 3383-3387.	1.7	0