Puneet Mishra

List of Publications by Year
in descending order

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74	2,142	236833	265120
papers	citations	25 h-index	42 g-index

74	74	74	1279
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Close range hyperspectral imaging of plants: A review. Biosystems Engineering, 2017, 164, 49-67.	1.9	197
2	New data preprocessing trends based on ensemble of multiple preprocessing techniques. TrAC - Trends in Analytical Chemistry, 2020, 132, 116045.	5.8	173
3	Close-range hyperspectral image analysis for the early detection of stress responses in individual plants in a high-throughput phenotyping platform. ISPRS Journal of Photogrammetry and Remote Sensing, 2018, 138, 121-138.	4.9	111
4	Recent trends in multi-block data analysis in chemometrics for multi-source data integration. TrAC - Trends in Analytical Chemistry, 2021, 137, 116206.	5.8	86
5	Improving moisture and soluble solids content prediction in pear fruit using near-infrared spectroscopy with variable selection and model updating approach. Postharvest Biology and Technology, 2021, 171, 111348.	2.9	69
6	Close-range hyperspectral imaging of whole plants for digital phenotyping: Recent applications and illumination correction approaches. Computers and Electronics in Agriculture, 2020, 178, 105780.	3.7	67
7	Near-infrared hyperspectral imaging for non-destructive classification of commercial tea products. Journal of Food Engineering, 2018, 238, 70-77.	2.7	65
8	A synergistic use of chemometrics and deep learning improved the predictive performance of near-infrared spectroscopy models for dry matter prediction in mango fruit. Chemometrics and Intelligent Laboratory Systems, 2021, 212, 104287.	1.8	62
9	Application of independent components analysis with the JADE algorithm and NIR hyperspectral imaging for revealing food adulteration. Journal of Food Engineering, 2016, 168, 7-15.	2.7	61
10	Sequential fusion of information from two portable spectrometers for improved prediction of moisture and soluble solids content in pear fruit. Talanta, 2021, 223, 121733.	2.9	61
11	Chemometric pre-processing can negatively affect the performance of near-infrared spectroscopy models for fruit quality prediction. Talanta, 2021, 229, 122303.	2.9	53
12	Detection and Quantification of Peanut Traces in Wheat Flour by near Infrared Hyperspectral Imaging Spectroscopy Using Principal-Component Analysis. Journal of Near Infrared Spectroscopy, 2015, 23, 15-22.	0.8	52
13	A tutorial on automatic hyperparameter tuning of deep spectral modelling for regression and classification tasks. Chemometrics and Intelligent Laboratory Systems, 2022, 223, 104520.	1.8	52
14	SPORT pre-processing can improve near-infrared quality prediction models for fresh fruits and agro-materials. Postharvest Biology and Technology, 2020, 168, 111271.	2.9	48
15	Close Range Spectral Imaging for Disease Detection in Plants Using Autonomous Platforms: a Review on Recent Studies. Current Robotics Reports, 2020, 1, 43-48.	5.1	47
16	High-throughput plant phenotyping: a role for metabolomics?. Trends in Plant Science, 2022, 27, 549-563.	4.3	44
17	Fusing spectral and textural information in near-infrared hyperspectral imaging to improve green tea classification modelling. Journal of Food Engineering, 2019, 249, 40-47.	2.7	43
18	Partial least square regression versus domain invariant partial least square regression with application to near-infrared spectroscopy of fresh fruit. Infrared Physics and Technology, 2020, 111, 103547.	1.3	39

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19	Are standard sample measurements still needed to transfer multivariate calibration models between near-infrared spectrometers? The answer is not always. TrAC - Trends in Analytical Chemistry, 2021, 143, 116331.	5.8	39
20	Non-destructive measurement of internal browning in mangoes using visible and near-infrared spectroscopy supported by artificial neural network analysis. Postharvest Biology and Technology, 2020, 166, 111206.	2.9	37
21	Realizing transfer learning for updating deep learning models of spectral data to be used in new scenarios. Chemometrics and Intelligent Laboratory Systems, 2021, 212, 104283.	1.8	37
22	MBA-GUI: A chemometric graphical user interface for multi-block data visualisation, regression, classification, variable selection and automated pre-processing. Chemometrics and Intelligent Laboratory Systems, 2020, 205, 104139.	1.8	36
23	Two standard-free approaches to correct for external influences on near-infrared spectra to make models widely applicable. Postharvest Biology and Technology, 2020, 170, 111326.	2.9	36
24	Improved prediction of â€˜Kentâ€™ mango firmness during ripening by near-infrared spectroscopy supported by interval partial least square regression. Infrared Physics and Technology, 2020, 110, 103459.	1.3	33
25	Multi-output 1-dimensional convolutional neural networks for simultaneous prediction of different traits of fruit based on near-infrared spectroscopy. Postharvest Biology and Technology, 2022, 183, 111741.	2.9	31
26	Automatic de-noising of close-range hyperspectral images with a wavelength-specific shearlet-based image noise reduction method. Sensors and Actuators B: Chemical, 2019, 281, 1034-1044.	4.0	27
27	Deep calibration transfer: Transferring deep learning models between infrared spectroscopy instruments. Infrared Physics and Technology, 2021, 117, 103863.	1.3	27
28	Monitoring oxidation changes in commercial extra virgin olive oils with fluorescence spectroscopy-based prototype. European Food Research and Technology, 2018, 244, 565-575.	1.6	26
29	Improved prediction of protein content in wheat kernels with a fusion of scatter correction methods in NIR data modelling. Biosystems Engineering, 2021, 203, 93-97.	1.9	23
30	Improved prediction of tablet properties with near-infrared spectroscopy by a fusion of scatter correction techniques. Journal of Pharmaceutical and Biomedical Analysis, 2021, 192, 113684.	1.4	22
31	Parallel pre-processing through orthogonalization (PORTO) and its application to near-infrared spectroscopy. Chemometrics and Intelligent Laboratory Systems, 2021, 212, 104190.	1.8	21
32	Deep chemometrics: Validation and transfer of a global deep nearâ€infrared fruit model to use it on a new portable instrument. Journal of Chemometrics, 2021, 35, e3367.	0.7	21
33	An automated deep learning pipeline based on advanced optimisations for leveraging spectral classification modelling. Chemometrics and Intelligent Laboratory Systems, 2021, 215, 104354.	1.8	21
34	Discrimination of peanuts from bulk cereals and nuts by near infrared reflectance spectroscopy. Biosystems Engineering, 2016, 151, 178-186.	1.9	19
35	Improved prediction of potassium and nitrogen in dried bell pepper leaves with visible and near-infrared spectroscopy utilising wavelength selection techniques. Talanta, 2021, 225, 121971.	2.9	19
36	Potential of two dielectric spectroscopy techniques and chemometric analyses for detection of adulteration in grape syrup. Measurement: Journal of the International Measurement Confederation, 2018, 127, 518-524.	2.5	18

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37	Identifying key wavenumbers that improve prediction of amylose in rice samples utilizing advanced wavenumber selection techniques. Talanta, 2021, 224, 121908.	2.9	18
38	Utilising variable sorting for normalisation to correct illumination effects in close-range spectral images of potato plants. Biosystems Engineering, 2020, 197, 318-323.	1.9	17
39	Temperature modulation of electronic nose combined with multi-class support vector machine classification for identifying export caraway cultivars. Postharvest Biology and Technology, 2018, 138, 134-139.	2.9	16
40	Complementary chemometrics and deep learning for semantic segmentation of tall and wide visible and near-infrared spectral images of plants. Computers and Electronics in Agriculture, 2021, 186, 106226.	3.7	15
41	Handling batch-to-batch variability in portable spectroscopy of fresh fruit with minimal parameter adjustment. Analytica Chimica Acta, 2021, 1177, 338771.	2.6	15
42	Improved prediction of fuel properties with near-infrared spectroscopy using a complementary sequential fusion of scatter correction techniques. Talanta, 2021, 223, 121693.	2.9	14
43	Improved prediction of minced pork meat chemical properties with near-infrared spectroscopy by a fusion of scatter-correction techniques. Infrared Physics and Technology, 2021, 113, 103643.	1.3	14
44	Deep multiblock predictive modelling using parallel input convolutional neural networks. Analytica Chimica Acta, 2021, 1163, 338520.	2.6	14
45	A brief note on application of domain-invariant PLS for adapting near-infrared spectroscopy calibrations between different physical forms of samples. Talanta, 2021, 232, 122461.	2.9	14
46	Assessing firmness in mango comparing broadband and miniature spectrophotometers. Infrared Physics and Technology, 2021, 115, 103733.	1.3	13
47	All-in-one: A spectral imaging laboratory system for standardised automated image acquisition and real-time spectral model deployment. Analytica Chimica Acta, 2022, 1190, 339235.	2.6	11
48	Pre-processing ensembles with response oriented sequential alternation calibration (PROSAC): A step towards ending the pre-processing search and optimization quest for near-infrared spectral modelling. Chemometrics and Intelligent Laboratory Systems, 2022, 222, 104497.	1.8	11
49	Combining deep learning with chemometrics when it is really needed: A case of real time object detection and spectral model application for spectral image processing. Analytica Chimica Acta, 2022, 1202, 339668.	2.6	11
50	Identifying the best rice physical form for non-destructive prediction of protein content utilising near-infrared spectroscopy to support digital phenotyping. Infrared Physics and Technology, 2021, 116, 103757.	1.3	10
51	GAN meets chemometrics: Segmenting spectral images with pixel2pixel image translation with conditional generative adversarial networks. Chemometrics and Intelligent Laboratory Systems, 2021, 215, 104362.	1.8	10
52	Rapid detection of grape syrup adulteration with an array of metal oxide sensors and chemometrics. Engineering in Agriculture, Environment and Food, 2019, 12, 351-359.	0.2	9
53	A generic workflow combining deep learning and chemometrics for processing close-range spectral images to detect drought stress in Arabidopsis thaliana to support digital phenotyping. Chemometrics and Intelligent Laboratory Systems, 2021, 216, 104373.	1.8	9
54	Translating near-infrared spectroscopy from laboratory to commercial slaughterhouse: Existing challenges and solutions. Infrared Physics and Technology, 2021, 119, 103918.	1.3	9

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55	Early Detection Of Drought Stress in Arabidopsis Thaliana Utilsing a Portable Hyperspectral Imaging Setup. , 2019, , .		8
56	FRUITNIR-GUI: A graphical user interface for correcting external influences in multi-batch near infrared experiments related to fruit quality prediction. Postharvest Biology and Technology, 2021, 175, 111414.	2.9	8
57	A short note on achieving similar performance to deep learning with practical chemometrics. Chemometrics and Intelligent Laboratory Systems, 2021, 214, 104336.	1.8	7
58	Avocado dehydration negatively affects the performance of visible and near-infrared spectroscopy models for dry matter prediction. Postharvest Biology and Technology, 2022, 183, 111739.	2.9	7
59	Chemometric approaches for calibrating high-throughput spectral imaging setups to support digital plant phenotyping by calibrating and transferring spectral models from a point spectrometer. Analytica Chimica Acta, 2021, 1187, 339154.	2.6	7
60	Swiss knife partial least squares (SKPLS): One tool for modelling single block, multiblock, multiway, multiway multiblock including multi-responses and meta information under the ROSA framework. Analytica Chimica Acta, 2022, 1206, 339786.	2.6	6
61	The canonical partial least squares approach to analysing multiway datasetsâ€"Nâ€CPLS. Journal of Chemometrics, 2022, 36, .	0.7	6
62	Modeling effects of illumination and plant geometry on leaf reflectance spectra in close-range hyperspectral imaging. , 2016, , .		5
63	CT-GUI: A graphical user interface to perform calibration transfer for multivariate calibrations. Chemometrics and Intelligent Laboratory Systems, 2021, 214, 104338.	1.8	5
64	Assessing avocado firmness at different dehydration levels in a multi-sensor framework. Infrared Physics and Technology, 2021, 118, 103901.	1.3	5
65	Domain invariant covariate selection (Di-CovSel) for selecting generalized features across domains. Chemometrics and Intelligent Laboratory Systems, 2022, 222, 104499.	1.8	5
66	Improved understanding and prediction of pear fruit firmness with variation partitioning and sequential multi-block modelling. Chemometrics and Intelligent Laboratory Systems, 2022, 222, 104517.	1.8	4
67	Response oriented covariates selection (ROCS) for fast block order- and scale-independent variable selection in multi-block scenarios. Chemometrics and Intelligent Laboratory Systems, 2022, , 104551.	1.8	3
68	META-PLS modelling: An integrated approach to automatic model optimization for near-infrared spectra. Analytica Chimica Acta, 2022, 1221, 340142.	2.6	3
69	Homogenising and Segmenting Hyperspectral Images of Plants and Testing Chemicals in a High-Throughput Plant Phenotyping Setup. , 2019, , .		2
70	Classifying green teas with near infrared hyperspectral imaging. NIR News, 2020, 31, 20-23.	1.6	2
71	A brief note on a new faster covariate's selection (fCovSel) algorithm. Journal of Chemometrics, 2022, 36, .	0.7	2
72	Complementary deep learning and chemometrics: A case of pear fruit centroid detection and spectral model application for fruit spectral image processing. Postharvest Biology and Technology, 2022, 192, 112013.	2.9	2

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73	Hyperspectral to multispectral imaging for detection of tree nuts and peanut traces in wheat flour. Journal of Spectral Imaging, 0, , .	0.0	1
74	Deep generative neural networks for spectral image processing. Analytica Chimica Acta, 2022, 1191, 339308.	2.6	1