

# David Valentín Ruiz

## List of Publications by Year in descending order

Source: <https://exaly.com/author-pdf/1017117/publications.pdf>

Version: 2024-02-01

56  
papers

1,451  
citations

304368

22  
h-index

329751

37  
g-index

58  
all docs

58  
docs citations

58  
times ranked

705  
citing authors

#	ARTICLE	IF	CITATIONS
1	Detection of cavitation in hydraulic turbines. <i>Mechanical Systems and Signal Processing</i> , 2006, 20, 983-1007.	4.4	294
2	Failure investigation of a large pump-turbine runner. <i>Engineering Failure Analysis</i> , 2012, 23, 27-34.	1.8	140
3	Power Swing Generated in Francis Turbines by Part Load and Overload Instabilities. <i>Energies</i> , 2017, 10, 2124.	1.6	62
4	Thermal Performance of Ventilated Double Skin Façades with Venetian Blinds. <i>Energies</i> , 2015, 8, 4882-4898.	1.6	54
5	Condition monitoring of pump-turbines. New challenges. <i>Measurement: Journal of the International Measurement Confederation</i> , 2015, 67, 151-163.	2.5	53
6	Experimental study on the added mass and damping of a disk submerged in a partially fluid-filled tank with small radial confinement. <i>Journal of Fluids and Structures</i> , 2014, 50, 1-17.	1.5	52
7	Analysis of the dynamic response of pump-turbine impellers. Influence of the rotor. <i>Mechanical Systems and Signal Processing</i> , 2016, 68-69, 330-341.	4.4	43
8	Accurate Determination of the Frequency Response Function of Submerged and Confined Structures by Using PZT-Patches. <i>Sensors</i> , 2017, 17, 660.	2.1	40
9	Dynamic Analysis of Francis Runners - Experiment and Numerical Simulation. <i>International Journal of Fluid Machinery and Systems</i> , 2009, 2, 303-314.	0.5	39
10	Influence of the rotation on the natural frequencies of a submerged-confined disk in water. <i>Journal of Sound and Vibration</i> , 2015, 337, 161-180.	2.1	37
11	Advanced condition monitoring of Pelton turbines. <i>Measurement: Journal of the International Measurement Confederation</i> , 2018, 119, 46-55.	2.5	34
12	Multi-objective optimization of a hydro-wind-photovoltaic power complementary plant with a vibration avoidance strategy. <i>Applied Energy</i> , 2021, 301, 117459.	5.1	34
13	Feasibility of Using PZT Actuators to Study the Dynamic Behavior of a Rotating Disk due to Rotor-Stator Interaction. <i>Sensors</i> , 2014, 14, 11919-11942.	2.1	32
14	Monitoring of Rotor-Stator Interaction in Pump-Turbine Using Vibrations Measured with On-Board Sensors Rotating with Shaft. <i>Shock and Vibration</i> , 2014, 2014, 1-8.	0.3	31
15	A Review of PZT Patches Applications in Submerged Systems. <i>Sensors</i> , 2018, 18, 2251.	2.1	31
16	On the detection of natural frequencies and mode shapes of submerged rotating disk-like structures from the casing. <i>Mechanical Systems and Signal Processing</i> , 2015, 60-61, 547-570.	4.4	30
17	Failure investigation of a Kaplan turbine blade. <i>Engineering Failure Analysis</i> , 2019, 97, 690-700.	1.8	29
18	Extension of Operating Range in Pump-Turbines. Influence of Head and Load. <i>Energies</i> , 2017, 10, 2178.	1.6	28

#	ARTICLE	IF	CITATIONS
19	Dynamic response of a rotating disk submerged and confined. Influence of the axial gap. Journal of Fluids and Structures, 2016, 62, 332-349.	1.5	26
20	Failure investigation of a Pelton turbine runner. Engineering Failure Analysis, 2017, 81, 234-244.	1.8	26
21	Failures due to ingested bodies in hydraulic turbines. Engineering Failure Analysis, 2011, 18, 464-473.	1.8	25
22	Feasibility of Detecting Natural Frequencies of Hydraulic Turbines While in Operation, Using Strain Gauges. Sensors, 2018, 18, 174.	2.1	24
23	Transmission of High Frequency Vibrations in Rotating Systems. Application to Cavitation Detection in Hydraulic Turbines. Applied Sciences (Switzerland), 2018, 8, 451.	1.3	21
24	Detection of Hydraulic Phenomena in Francis Turbines with Different Sensors. Sensors, 2019, 19, 4053.	2.1	18
25	Experimental and numerical investigation on the influence of a large crack on the modal behaviour of a Kaplan turbine blade. Engineering Failure Analysis, 2020, 109, 104389.	1.8	18
26	Numerical and experimental analysis of the dynamic response of large submerged trash-racks. Computers and Fluids, 2013, 71, 54-64.	1.3	15
27	Experimental Study of a Vibrating Disk Submerged in a Fluid-Filled Tank and Confined With a Nonrigid Cover. Journal of Vibration and Acoustics, Transactions of the ASME, 2017, 139, .	1.0	15
28	Experimental Measurements of the Natural Frequencies and Mode Shapes of Rotating Disk-Blades-Disk Assemblies from the Stationary Frame. Applied Sciences (Switzerland), 2019, 9, 3864.	1.3	15
29	On the Capability of Structural Acoustical Fluid-Structure Interaction Simulations to Predict Natural Frequencies of Rotating Disklike Structures Submerged in a Heavy Fluid. Journal of Vibration and Acoustics, Transactions of the ASME, 2016, 138, .	1.0	14
30	Transposition of the mechanical behavior from model to prototype of Francis turbines. Renewable Energy, 2020, 152, 1011-1023.	4.3	14
31	Dynamics and Intensity of Erosive Partial Cavitation. Journal of Fluids Engineering, Transactions of the ASME, 2007, 129, 886-893.	0.8	13
32	Detection and analysis of part load and full load instabilities in a real Francis turbine prototype. Journal of Physics: Conference Series, 2017, 813, 012038.	0.3	13
33	Sensor-Based Optimized Control of the Full Load Instability in Large Hydraulic Turbines. Sensors, 2018, 18, 1038.	2.1	13
34	Influence of the boundary conditions on the natural frequencies of a Francis turbine. IOP Conference Series: Earth and Environmental Science, 2016, 49, 072004.	0.2	12
35	Numerical Study on the Dynamic Behavior of a Francis Turbine Runner Model with a Crack. Energies, 2018, 11, 1630.	1.6	12
36	On the use of neural networks for dynamic stress prediction in Francis turbines by means of stationary sensors. Renewable Energy, 2021, 170, 652-660.	4.3	9

#	ARTICLE	IF	CITATIONS
37	Assessment of the Economic and Environmental Impact of Double Glazed Façade Ventilation Systems in Mediterranean Climates. <i>Energies</i> , 2013, 6, 5069-5087.	1.6	8
38	Exploring the Regulation Reliability of a Pumped Storage Power Plant in a Wind-Solar Hybrid Power Generation System. <i>Water (Switzerland)</i> , 2021, 13, 2548.	1.2	8
39	Dynamic response of Pelton runners: Numerical and experimental analysis in prototypes. <i>Renewable Energy</i> , 2020, 157, 116-129.	4.3	8
40	Influence of the hydrodynamic damping on the dynamic response of Francis turbine runners. <i>Journal of Fluids and Structures</i> , 2019, 90, 71-89.	1.5	7
41	Overview of the experimental tests in prototype. <i>Journal of Physics: Conference Series</i> , 2017, 813, 012037.	0.3	6
42	Experimental-Numerical Design and Evaluation of a Vibration Bioreactor Using Piezoelectric Patches. <i>Sensors</i> , 2019, 19, 436.	2.1	6
43	Improved damage detection in Pelton turbines using optimized condition indicators and data-driven techniques. <i>Structural Health Monitoring</i> , 2021, 20, 3239-3251.	4.3	6
44	Response of Saos-2 osteoblast-like cells to kilohertz-resonance excitation in porous metallic scaffolds. <i>Journal of the Mechanical Behavior of Biomedical Materials</i> , 2020, 106, 103726.	1.5	5
45	A Dataset to Evaluate IEEE 802.15.4g SUN for Dependable Low-Power Wireless Communications in Industrial Scenarios. <i>Data</i> , 2020, 5, 64.	1.2	4
46	Ultrasonic Vibration-Assisted Ball Burnishing Tool for a Lathe Characterized by Acoustic Emission and Vibratory Measurements. <i>Materials</i> , 2021, 14, 5746.	1.3	4
47	Natural frequencies of rotating disk-like structures submerged viewed from the stationary frame. <i>IOP Conference Series: Earth and Environmental Science</i> , 2016, 49, 082023.	0.2	3
48	Dynamic response of the MICA runner. Experiment and simulation. <i>Journal of Physics: Conference Series</i> , 2017, 813, 012036.	0.3	3
49	On the Use of PZT-Patches as Exciters in Modal Analysis: Application to Submerged Structures. <i>Proceedings (mdpi)</i> , 2017, 1, 32.	0.2	3
50	Synchronous condenser operation in Francis turbines: Effects in the runner stress and machine vibration. <i>Renewable Energy</i> , 2020, 146, 890-900.	4.3	3
51	On the quantification of local power densities in a new vibration bioreactor. <i>PLoS ONE</i> , 2021, 16, e0245768.	1.1	3
52	Optimized Use of Sensors to Detect Critical Full Load Instability in Large Hydraulic Turbines. <i>Proceedings (mdpi)</i> , 2017, 1, 822.	0.2	2
53	Feasibility to Detect Natural Frequencies of Hydraulic Turbines under Operation Using Strain Gauges. <i>Proceedings (mdpi)</i> , 2017, 1, 821.	0.2	2
54	Implant resonance and the mechanostat theory: Applications of therapeutic ultrasound for porous metallic scaffolds. <i>Materials Science and Engineering C</i> , 2021, 125, 112070.	3.8	2

#	ARTICLE	IF	CITATIONS
55	Analysis of the Mode Shapes of Kaplan Runners. Applied Sciences (Switzerland), 2022, 12, 6708.	1.3	1
56	Resonance vibration interventions in the femur: Experimental-numerical modelling approaches. Journal of the Mechanical Behavior of Biomedical Materials, 2021, 124, 104850.	1.5	0