

David Valentín

List of Publications by Year in descending order

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46
papers

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citations

471509

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docs citations

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times ranked

363
citing authors

#	ARTICLE	IF	CITATIONS
1	Power Swing Generated in Francis Turbines by Part Load and Overload Instabilities. <i>Energies</i> , 2017, 10, 2124.	3.1	62
2	Condition monitoring of pump-turbines. New challenges. <i>Measurement: Journal of the International Measurement Confederation</i> , 2015, 67, 151-163.	5.0	53
3	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.	3.4	52
4	Accurate Determination of the Frequency Response Function of Submerged and Confined Structures by Using PZT-Patches. <i>Sensors</i> , 2017, 17, 660.	3.8	40
5	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.	3.9	37
6	Advanced condition monitoring of Pelton turbines. <i>Measurement: Journal of the International Measurement Confederation</i> , 2018, 119, 46-55.	5.0	34
7	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.	3.8	32
8	A Review of PZT Patches Applications in Submerged Systems. <i>Sensors</i> , 2018, 18, 2251.	3.8	31
9	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.	8.0	30
10	Failure investigation of a Kaplan turbine blade. <i>Engineering Failure Analysis</i> , 2019, 97, 690-700.	4.0	29
11	Extension of Operating Range in Pump-Turbines. Influence of Head and Load. <i>Energies</i> , 2017, 10, 2178.	3.1	28
12	Numerical study on the influence of acoustic natural frequencies on the dynamic behaviour of submerged and confined disk-like structures. <i>Journal of Fluids and Structures</i> , 2017, 73, 53-69.	3.4	27
13	Dynamic response of a rotating disk submerged and confined. Influence of the axial gap. <i>Journal of Fluids and Structures</i> , 2016, 62, 332-349.	3.4	26
14	Failure investigation of a Pelton turbine runner. <i>Engineering Failure Analysis</i> , 2017, 81, 234-244.	4.0	26
15	Feasibility of Detecting Natural Frequencies of Hydraulic Turbines While in Operation, Using Strain Gauges. <i>Sensors</i> , 2018, 18, 174.	3.8	24
16	On the use of artificial neural networks for condition monitoring of pump-turbines with extended operation. <i>Measurement: Journal of the International Measurement Confederation</i> , 2020, 163, 107952.	5.0	24
17	Transmission of High Frequency Vibrations in Rotating Systems. Application to Cavitation Detection in Hydraulic Turbines. <i>Applied Sciences (Switzerland)</i> , 2018, 8, 451.	2.5	21
18	Detection of Hydraulic Phenomena in Francis Turbines with Different Sensors. <i>Sensors</i> , 2019, 19, 4053.	3.8	18

#	ARTICLE	IF	CITATIONS
19	Experimental and numerical investigation on the influence of a large crack on the modal behaviour of a Kaplan turbine blade. <i>Engineering Failure Analysis</i> , 2020, 109, 104389.	4.0	18
20	Experimental Study of a Vibrating Disk Submerged in a Fluid-Filled Tank and Confined With a Nonrigid Cover. <i>Journal of Vibration and Acoustics, Transactions of the ASME</i> , 2017, 139, .	1.6	15
21	Experimental Measurements of the Natural Frequencies and Mode Shapes of Rotating Disk-Blades-Disk Assemblies from the Stationary Frame. <i>Applied Sciences (Switzerland)</i> , 2019, 9, 3864.	2.5	15
22	On the Capability of Structural Acoustical Fluid-Structure Interaction Simulations to Predict Natural Frequencies of Rotating Disklike Structures Submerged in a Heavy Fluid. <i>Journal of Vibration and Acoustics, Transactions of the ASME</i> , 2016, 138, .	1.6	14
23	Transposition of the mechanical behavior from model to prototype of Francis turbines. <i>Renewable Energy</i> , 2020, 152, 1011-1023.	8.9	14
24	Detection and analysis of part load and full load instabilities in a real Francis turbine prototype. <i>Journal of Physics: Conference Series</i> , 2017, 813, 012038.	0.4	13
25	Sensor-Based Optimized Control of the Full Load Instability in Large Hydraulic Turbines. <i>Sensors</i> , 2018, 18, 1038.	3.8	13
26	Influence of the boundary conditions on the natural frequencies of a Francis turbine. <i>IOP Conference Series: Earth and Environmental Science</i> , 2016, 49, 072004.	0.3	12
27	Numerical Study on the Dynamic Behavior of a Francis Turbine Runner Model with a Crack. <i>Energies</i> , 2018, 11, 1630.	3.1	12
28	Increasing the operating range and energy production in Francis turbines by an early detection of the overload instability. <i>Measurement: Journal of the International Measurement Confederation</i> , 2021, 181, 109580.	5.0	10
29	On the use of neural networks for dynamic stress prediction in Francis turbines by means of stationary sensors. <i>Renewable Energy</i> , 2021, 170, 652-660.	8.9	9
30	Assessment of the Economic and Environmental Impact of Double Glazed Façade Ventilation Systems in Mediterranean Climates. <i>Energies</i> , 2013, 6, 5069-5087.	3.1	8
31	Dynamic response of Pelton runners: Numerical and experimental analysis in prototypes. <i>Renewable Energy</i> , 2020, 157, 116-129.	8.9	8
32	Influence of the hydrodynamic damping on the dynamic response of Francis turbine runners. <i>Journal of Fluids and Structures</i> , 2019, 90, 71-89.	3.4	7
33	Experimental-Numerical Design and Evaluation of a Vibration Bioreactor Using Piezoelectric Patches. <i>Sensors</i> , 2019, 19, 436.	3.8	6
34	Improved damage detection in Pelton turbines using optimized condition indicators and data-driven techniques. <i>Structural Health Monitoring</i> , 2021, 20, 3239-3251.	7.5	6
35	Behavior of Francis turbines at part load. Field assessment in prototype: Effects on power swing. <i>IOP Conference Series: Earth and Environmental Science</i> , 0, 240, 062012.	0.3	4
36	Detection of erosive cavitation on hydraulic turbines through demodulation analysis. <i>IOP Conference Series: Earth and Environmental Science</i> , 2019, 240, 062048.	0.3	4

#	ARTICLE	IF	CITATIONS
37	Natural frequencies of rotating disk-like structures submerged viewed from the stationary frame. IOP Conference Series: Earth and Environmental Science, 2016, 49, 082023.	0.3	3
38	Dynamic response of the MICA runner. Experiment and simulation. Journal of Physics: Conference Series, 2017, 813, 012036.	0.4	3
39	On the Use of PZT-Patches as Exciters in Modal Analysis: Application to Submerged Structures. Proceedings (mdpi), 2017, 1, 32.	0.2	3
40	Synchronous condenser operation in Francis turbines: Effects in the runner stress and machine vibration. Renewable Energy, 2020, 146, 890-900.	8.9	3
41	On the use of Vibrational Hill Charts for improved condition monitoring and diagnosis of hydraulic turbines. Structural Health Monitoring, 2022, 21, 2547-2568.	7.5	3
42	Implant resonance and the mechanostat theory: Applications of therapeutic ultrasound for porous metallic scaffolds. Materials Science and Engineering C, 2021, 125, 112070.	7.3	2
43	Strain prediction in Francis runners by means of stationary sensors. IOP Conference Series: Earth and Environmental Science, 2021, 774, 012084.	0.3	1
44	Experimental investigation on the dynamic response of Pelton runners. IOP Conference Series: Earth and Environmental Science, 2019, 240, 022062.	0.3	0
45	Behavior of Francis turbines at part load. Field assessment in prototype: Effects on the hydraulic system. IOP Conference Series: Earth and Environmental Science, 2019, 240, 052029.	0.3	0
46	Selection and Optimization of Sensors for Monitoring of Francis Turbines. IOP Conference Series: Earth and Environmental Science, 2021, 774, 012028.	0.3	0