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List of Publications by Year
in descending order

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90 papers	2,625 citations	185998 28 h-index	197535 49 g-index
90 all docs	90 docs citations	90 times ranked	1288 citing authors

#	Article	IF	Citations
1	On the use of Vibrational Hill Charts for improved condition monitoring and diagnosis of hydraulic turbines. Structural Health Monitoring, 2022, 21, 2547-2568.	4.3	3
2	Improved damage detection in Pelton turbines using optimized condition indicators and data-driven techniques. Structural Health Monitoring, 2021, 20, 3239-3251.	4.3	6
3	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
4	Selection and Optimization of Sensors for Monitoring of Francis Turbines. IOP Conference Series: Earth and Environmental Science, 2021, 774, 012028.	0.2	0
5	Strain prediction in Francis runners by means of stationary sensors. IOP Conference Series: Earth and Environmental Science, 2021, 774, 012084.	0.2	1
6	Increasing the operating range and energy production in Francis turbines by an early detection of the overload instability. Measurement: Journal of the International Measurement Confederation, 2021, 181, 109580.	2.5	10
7	Multi-objective optimization of a hydro-wind-photovoltaic power complementary plant with a vibration avoidance strategy. Applied Energy, 2021, 301, 117459.	5.1	34
8	Characterization of the Effects of Ingested Bodies on the Rotorâ€“Stator Interaction of Hydraulic Turbines. Energies, 2021, 14, 6669.	1.6	1
9	Synchronous condenser operation in Francis turbines: Effects in the runner stress and machine vibration. Renewable Energy, 2020, 146, 890-900.	4.3	3
10	A Dataset to Evaluate IEEE 802.15.4g SUN for Dependable Low-Power Wireless Communications in Industrial Scenarios. Data, 2020, 5, 64.	1.2	4
11	Dynamic Model for Axial Motion of Horizontal Pelton Turbine and Validation in Actual Failure Case. Shock and Vibration, 2020, 2020, 1-16.	0.3	0
12	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
13	Transposition of the mechanical behavior from model to prototype of Francis turbines. Renewable Energy, 2020, 152, 1011-1023.	4.3	14
14	On the use of artificial neural networks for condition monitoring of pump-turbines with extended operation. Measurement: Journal of the International Measurement Confederation, 2020, 163, 107952.	2.5	24
15	Dynamic response of Pelton runners: Numerical and experimental analysis in prototypes. Renewable Energy, 2020, 157, 116-129.	4.3	8
16	Experimental investigation on the dynamic response of Pelton runners. IOP Conference Series: Earth and Environmental Science, 2019, 240, 022062.	0.2	0
17	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.	0.2	0
18	Detection of erosive cavitation on hydraulic turbines through demodulation analysis. IOP Conference Series: Earth and Environmental Science, 2019, 240, 062048.	0.2	4

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19	Detection of Hydraulic Phenomena in Francis Turbines with Different Sensors. Sensors, 2019, 19, 4053.	2.1	18
20	Influence of the hydrodynamic damping on the dynamic response of Francis turbine runners. Journal of Fluids and Structures, 2019, 90, 71-89.	1.5	7
21	Experimental-Numerical Design and Evaluation of a Vibration Bioreactor Using Piezoelectric Patches. Sensors, 2019, 19, 436.	2.1	6
22	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
23	Failure investigation of a Kaplan turbine blade. Engineering Failure Analysis, 2019, 97, 690-700.	1.8	29
24	Advanced condition monitoring of Pelton turbines. Measurement: Journal of the International Measurement Confederation, 2018, 119, 46-55.	2.5	34
25	Sensor-Based Optimized Control of the Full Load Instability in Large Hydraulic Turbines. Sensors, 2018, 18, 1038.	2.1	13
26	Transmission of High Frequency Vibrations in Rotating Systems. Application to Cavitation Detection in Hydraulic Turbines. Applied Sciences (Switzerland), 2018, 8, 451.	1.3	21
27	Feasibility of Detecting Natural Frequencies of Hydraulic Turbines While in Operation, Using Strain Gauges. Sensors, 2018, 18, 174.	2.1	24
28	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
29	Overview of the experimental tests in prototype. Journal of Physics: Conference Series, 2017, 813, 012037.	0.3	6
30	Failure investigation of a Pelton turbine runner. Engineering Failure Analysis, 2017, 81, 234-244.	1.8	26
31	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
32	Numerical study on the influence of acoustic natural frequencies on the dynamic behaviour of submerged and confined disk-like structures. Journal of Fluids and Structures, 2017, 73, 53-69.	1.5	27
33	Dynamic response of the MICA runner. Experiment and simulation. Journal of Physics: Conference Series, 2017, 813, 012036.	0.3	3
34	Optimized Use of Sensors to Detect Critical Full Load Instability in Large Hydraulic Turbines. Proceedings (mdpi), 2017, 1, 822.	0.2	2
35	Accurate Determination of the Frequency Response Function of Submerged and Confined Structures by Using PZT-Patchesâ€. Sensors, 2017, 17, 660.	2.1	40
36	On the Use of PZT-Patches as Exciters in Modal Analysis: Application to Submerged Structures. Proceedings (mdpi), 2017, 1, 32.	0.2	3

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37	Power Swing Generated in Francis Turbines by Part Load and Overload Instabilities. Energies, 2017, 10, 2124.	1.6	62
38	Extension of Operating Range in Pump-Turbines. Influence of Head and Load. Energies, 2017, 10, 2178.	1.6	28
39	Feasibility to Detect Natural Frequencies of Hydraulic Turbines under Operation Using Strain Gauges. Proceedings (mdpi), 2017, 1, 821.	0.2	2
40	Condition monitoring of a prototype turbine. Description of the system and main results. Journal of Physics: Conference Series, 2017, 813, 012041.	0.3	11
41	Testing of selfâ€similarity and helical symmetry in vortex generator flow simulations. Wind Energy, 2016, 19, 1043-1052.	1.9	37
42	On the Capability of Structuralâ€“Acoustical Fluidâ€“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
43	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
44	Natural frequencies of rotating disk-like structures submerged viewed from the stationary frame. IOP Conference Series: Earth and Environmental Science, 2016, 49, 082023.	0.2	3
45	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
46	Experimental mode shape determination of a cantilevered hydrofoil under different flow conditions. Proceedings of the Institution of Mechanical Engineers, Part C: Journal of Mechanical Engineering Science, 2016, 230, 3408-3419.	1.1	11
47	Analysis of the dynamic response of pump-turbine impellers. Influence of the rotor. Mechanical Systems and Signal Processing, 2016, 68-69, 330-341.	4.4	43
48	Thermal Performance of Ventilated Double Skin FaÃ§ades with Venetian Blinds. Energies, 2015, 8, 4882-4898.	1.6	54
49	On the detection of natural frequencies and mode shapes of submerged rotating disk-like structures from the casing. Mechanical Systems and Signal Processing, 2015, 60-61, 547-570.	4.4	30
50	Analysis of damage caused by siloxanes in stationary reciprocating internal combustion engines operating with landfill gas. Engineering Failure Analysis, 2015, 50, 29-38.	1.8	33
51	Condition monitoring of pump-turbines. New challenges. Measurement: Journal of the International Measurement Confederation, 2015, 67, 151-163.	2.5	53
52	Influence of the rotation on the natural frequencies of a submerged-confined disk in water. Journal of Sound and Vibration, 2015, 337, 161-180.	2.1	37
53	Monitoring of Rotor-Stator Interaction in Pump-Turbine Using Vibrations Measured with On-Board Sensors Rotating with Shaft. Shock and Vibration, 2014, 2014, 1-8.	0.3	31
54	Feasibility of Using PZT Actuators to Study the Dynamic Behavior of a Rotating Disk due to Rotor-Stator Interaction. Sensors, 2014, 14, 11919-11942.	2.1	32

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55	Influence of the added mass effect and boundary conditions on the dynamic response of submerged and confined structures. IOP Conference Series: Earth and Environmental Science, 2014, 22, 032042.	0.2	4
56	Experimental analysis of the dynamic behavior of a rotating disk submerged in water. IOP Conference Series: Earth and Environmental Science, 2014, 22, 032043.	0.2	3
57	Numerical and experimental study of a nearby solid boundary and partial submergence effects on hydrofoil added mass. Computers and Fluids, 2014, 91, 1-9.	1.3	23
58	Experimental study on the added mass and damping of a disk submerged in a partially fluid-filled tank with small radial confinement. Journal of Fluids and Structures, 2014, 50, 1-17.	1.5	52
59	Boundary layer effects on the vortex shedding in a Donaldson- type hydrofoil. IOP Conference Series: Earth and Environmental Science, 2014, 22, 032045.	0.2	1
60	Experimental investigation of added mass effects on a hydrofoil under cavitation conditions. Journal of Fluids and Structures, 2013, 39, 173-187.	1.5	86
61	Numerical and experimental analysis of the dynamic response of large submerged trash-racks. Computers and Fluids, 2013, 71, 54-64.	1.3	15
62	Use of CoandÄƒ nozzles for double glazed faÃ§ades forced ventilation. Energy and Buildings, 2013, 62, 605-614.	3.1	14
63	Assessment of the Economic and Environmental Impact of Double Glazed FaÃ§ade Ventilation Systems in Mediterranean Climates. Energies, 2013, 6, 5069-5087.	1.6	8
64	Dynamic behaviour of pump-turbine runner: From disk to prototype runner. IOP Conference Series: Materials Science and Engineering, 2013, 52, 022036.	0.3	11
65	Detached eddy simulation of the rotor-stator interaction phenomenon in a moving cascade of airfoils. IOP Conference Series: Earth and Environmental Science, 2012, 15, 062039.	0.2	1
66	Analysis of the dynamic response of pump-turbine runners-Part I: Experiment. IOP Conference Series: Earth and Environmental Science, 2012, 15, 052015.	0.2	11
67	Capability of structuralâ€“acoustical FSI numerical model to predict natural frequencies of submerged structures with nearby rigid surfaces. Computers and Fluids, 2012, 64, 117-126.	1.3	43
68	Failure investigation of a large pump-turbine runner. Engineering Failure Analysis, 2012, 23, 27-34.	1.8	140
69	Analysis of chatter marks damage on the Yankee dryer surface of a tissue machine. Engineering Failure Analysis, 2012, 23, 44-54.	1.8	3
70	CFD assessment of the performance of lateral ventilation in Double Glazed FaÃ§ades in Mediterranean climates. Energy and Buildings, 2011, 43, 2539-2547.	3.1	24
71	Failures due to ingested bodies in hydraulic turbines. Engineering Failure Analysis, 2011, 18, 464-473.	1.8	25
72	Fluid Added Mass Effect in the Modal Response of a Pump-Turbine Impeller. , 2009, , .		10

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73	A CFD approach to evaluate the influence of construction and operation parameters on the performance of Active Transparent FaÃ§ades in Mediterranean climates. Energy and Buildings, 2009, 41, 534-542.	3.1	51
74	Dynamic Analysis of Francis Runners - Experiment and Numerical Simulation. International Journal of Fluid Machinery and Systems, 2009, 2, 303-314.	0.5	39
75	Performance and influence of numerical sub-models on the CFD simulation of free and forced convection in double-glazed ventilated faÃ§ades. Energy and Buildings, 2008, 40, 1781-1789.	3.1	76
76	Frequencies in the Vibration Induced by the Rotor Stator Interaction in a Centrifugal Pump Turbine. Journal of Fluids Engineering, Transactions of the ASME, 2007, 129, 1428-1435.	0.8	150
77	Dynamics and Intensity of Erosive Partial Cavitation. Journal of Fluids Engineering, Transactions of the ASME, 2007, 129, 886-893.	0.8	13
78	Cavitation Influence on von KÃ¡rmÃ¡n Vortex Shedding and Induced Hydrofoil Vibrations. Journal of Fluids Engineering, Transactions of the ASME, 2007, 129, 966-973.	0.8	101
79	Numerical simulation of fluid added mass effect on a francis turbine runner. Computers and Fluids, 2007, 36, 1106-1118.	1.3	96
80	Performance of stress-transport models in the prediction of particle-to-fluid heat transfer in packed beds. Chemical Engineering Science, 2007, 62, 6897-6907.	1.9	26
81	Detection of cavitation in hydraulic turbines. Mechanical Systems and Signal Processing, 2006, 20, 983-1007.	4.4	294
82	Experimental investigation of added mass effects on a Francis turbine runner in still water. Journal of Fluids and Structures, 2006, 22, 699-712.	1.5	99
83	Influence of the turbulence model in CFD modeling of wall-to-fluid heat transfer in packed beds. Chemical Engineering Science, 2005, 60, 1733-1742.	1.9	114
84	Computational Fluid Dynamics Modeling of Impinging Gas-Jet Systems: II. Application to an Industrial Cooling System Device. Journal of Fluids Engineering, Transactions of the ASME, 2005, 127, 704-713.	0.8	10
85	Cavitation Effects on Fluid Structure Interaction in the Case of a 2D Hydrofoil. , 2005, , .		0
86	CFD Flow and Heat Transfer in Nonregular Packings for Fixed Bed Equipment Design. Industrial & Engineering Chemistry Research, 2004, 43, 7049-7056.	1.8	66
87	Cavitation erosion tests on a 2D hydrofoil using surface-mounted obstacles. Wear, 2003, 254, 441-449.	1.5	30
88	Analysis of the fluid-dynamic and thermal behaviour of a tin bath in float glass manufacturing. International Journal of Thermal Sciences, 2002, 41, 348-359.	2.6	22
89	Extension of the Lever & Weaver's unsteady analytical model to the fluidelastic instability of arrays of flexible cylinders. Journal of Wind Engineering and Industrial Aerodynamics, 1993, 49, 177-186.	1.7	0
90	Behavior of Francis turbines at part load. Field assessment in prototype: Effects on power swing. IOP Conference Series: Earth and Environmental Science, 0, 240, 062012.	0.2	4