Michel J Cervantes

List of Publications by Citations

75 papers	1,172 citations	20 h-index	31 g-index
86 ext. papers	1,417 ext. citations	3.2 avg, IF	5.13 L-index

#	Paper	IF	Citations
75	Experimental and Numerical Studies for a High Head Francis Turbine at Several Operating Points. *Journal of Fluids Engineering, Transactions of the ASME*, **2013**, 135,	2.1	101
74	Transient Pressure Measurements on a High Head Model Francis Turbine During Emergency Shutdown, Total Load Rejection, and Runaway. *Journal of Fluids Engineering, Transactions of the ASME*, **2014**, 136,	2.1	73
73	Fluid-structure interactions in Francis turbines: A perspective review. *Renewable and Sustainable Energy Reviews*, **2017**, 68, 87-101	16.2	64
72	Numerical Techniques Applied to Hydraulic Turbines: A Perspective Review. *Applied Mechanics Reviews*, **2016**, 68,	8.6	52
71	Experimental investigations of transient pressure variations in a high head model Francis turbine during start-up and shutdown. *Journal of Hydrodynamics*, **2014**, 26, 277-290	3.3	52
70	Experimental investigations of a model Francis turbine during shutdown at synchronous speed. *Renewable Energy*, **2015**, 83, 828-836	8.1	51
69	Pressure measurements on a high-head Francis turbine during load acceptance and rejection. *Journal of Hydraulic Research/De Recherches Hydrauliques*, **2014**, 52, 283-297	1.9	51
68	Pressure Buildup Mechanism in a Textured Inlet of a Hydrodynamic Contact. *Journal of Tribology*, **2008**, 130,	1.8	51
67	Vortex Rope Formation in a High Head Model Francis Turbine. *Journal of Fluids Engineering, Transactions of the ASME*, **2017**, 139,	2.1	48
66	Experimental and Numerical Studies of a High-Head Francis Turbine: A Review of the Francis-99 Test Case. *Energies*, **2016**, 9, 74	3.1	42
65	Investigation of a High Head Francis Turbine at Runaway Operating Conditions. *Energies*, **2016**, 9, 149	3.1	36
64	Unsteady pressure measurements on the runner of a Kaplan turbine during load acceptance and load rejection. *Journal of Hydraulic Research/De Recherches Hydrauliques*, **2016**, 54, 56-73	1.9	34
63	Experimental Investigation of a High Head Francis Turbine During Spin-No-Load Operation. *Journal of Fluids Engineering, Transactions of the ASME*, **2015**, 137,	2.1	30
62	Experimental study of mitigation of a spiral vortex breakdown at high Reynolds number under an adverse pressure gradient. *Physics of Fluids*, **2017**, 29, 104104	4.4	29
61	An efficient multifidelity ℓ1-minimization method for sparse polynomial chaos. *Computer Methods in Applied Mechanics and Engineering*, **2018**, 334, 183-207	5.7	26
60	3D thermohydrodynamic analysis of a textured slider. *Tribology International*, **2009**, 42, 1487-1495	4.9	23
59	Efficient uncertainty quantification of stochastic CFD problems using sparse polynomial chaos and compressed sensing. *Computers and Fluids*, **2017**, 154, 296-321	2.8	22

58	PIV measurements in Francis turbine □A review and application to transient operations. *Renewable and Sustainable Energy Reviews*, **2018**, 81, 2976-2991	16.2	21
57	Experimental investigation of the hydraulic loads on the runner of a Kaplan turbine model and the corresponding prototype. *Journal of Hydraulic Research/De Recherches Hydrauliques*, **2015**, 53, 452-465	1.9	20
56	Investigation of Rotating Vortex Rope formation during load variation in a Francis turbine draft tube. *Renewable Energy*, **2020**, 151, 238-254	8.1	20
55	Simulation-based investigation of unsteady flow in near-hub region of a Kaplan Turbine with experimental comparison. *Engineering Applications of Computational Fluid Mechanics*, **2015**, 9, 139-156	4.5	18
54	Fully coupled FSI analysis of Francis turbines exposed to sediment erosion. *International Journal of Fluid Machinery and Systems*, **2014**, 7, 101-109	1.1	16
53	Development of the Gibson method□Unsteady friction. *Flow Measurement and Instrumentation*, **2012**, 23, 19-25	2.2	14
52	Rotating vortex rope formation and mitigation in draft tube of hydro turbines □A review from experimental perspective. *Renewable and Sustainable Energy Reviews*, **2021**, 136, 110354	16.2	14
51	Francis-99 Workshop 1: steady operation of Francis turbines. *Journal of Physics: Conference Series*, **2015**, 579, 011001	0.3	13
50	Computation of two- and three-dimensional water hammer flows. *Journal of Hydraulic Research/De Recherches Hydrauliques*, **2019**, 57, 386-404	1.9	12
49	Factorial Design Applied to CFD. *Journal of Fluids Engineering, Transactions of the ASME*, **2004**, 126, 791-798	2.1	12
48	Numerical Investigation of the Aeroelastic Behavior of a Wind Turbine with Iced Blades. *Energies*, **2019**, 12, 2422	3.1	11
47	Numerical investigation of the pressure-time method. *Flow Measurement and Instrumentation*, **2017**, 55, 44-58	2.2	10
46	Transient pressure measurements at part load operating condition of a high head model Francis turbine. *Sadhana - Academy Proceedings in Engineering Sciences*, **2016**, 41, 1311-1320	1	10
45	Characteristics of Synchronous and Asynchronous modes of fluctuations in Francis turbine draft tube during load variation. *International Journal of Fluid Machinery and Systems*, **2017**, 10, 164-175	1.1	10
44	On the flow field and performance of a centrifugal pump under operational and geometrical uncertainties. *Applied Mathematical Modelling*, **2018**, 61, 540-560	4.5	10
43	On the Use of the Squire-Long Equation to Estimate Radial Velocities in Swirling Flows. *Journal of Fluids Engineering, Transactions of the ASME*, **2007**, 129, 209-217	2.1	9
42	On the Similarity of Pulsating and Accelerating Turbulent Pipe Flows. *Flow, Turbulence and Combustion*, **2018**, 100, 417-436	2.5	8
41	A Review of Available Methods for the Assessment of Fluid Added Mass, Damping, and Stiffness With an Emphasis on Hydraulic Turbines. *Applied Mechanics Reviews*, **2018**, 70,	8.6	8

40	Optimization of axial water injection to mitigate the Rotating Vortex Rope in a Francis turbine. *Renewable Energy*, **2021**, 175, 214-231	8.1	8
39	Transient wall shear stress measurements and estimates at high Reynolds numbers. *Flow Measurement and Instrumentation*, **2017**, 58, 112-119	2.2	7
38	Effects of load variation on a Kaplan turbine runner. *International Journal of Fluid Machinery and Systems*, **2016**, 9, 182-193	1.1	7
37	Synchronized PIV and pressure measurements on a model Francis turbine during start-up. *Journal of Hydraulic Research/De Recherches Hydrauliques*, **2020**, 58, 70-86	1.9	7
36	The Effects of Inflow Uncertainties on the Characteristics of Developing Turbulent Flow in Rectangular Pipe and Asymmetric Diffuser. *Journal of Fluids Engineering, Transactions of the ASME*, **2017**, 139,	2.1	6
35	Numerical Simulation and Validation of a High Head Model Francis Turbine at Part Load Operating Condition. *Journal of the Institution of Engineers (India): Series C*, **2018**, 99, 557-570	0.9	6
34	Pulsating turbulent flow in a straight asymmetric diffuser. *Journal of Hydraulic Research/De Recherches Hydrauliques*, **2008**, 46, 112-128	1.9	6
33	Unsteadiness and viscous losses in hydraulic turbines. *Journal of Hydraulic Research/De Recherches Hydrauliques*, **2006**, 44, 249-258	1.9	6
32	Characteristics of the wall shear stress in pulsating wall-bounded turbulent flows. *Experimental Thermal and Fluid Science*, **2018**, 96, 257-265	3	5
31	Viscoelastic behaviour effect of hyaluronic acid on reciprocating flow inside mini-channel. *Lubrication Science*, **2016**, 28, 521-544	1.3	5
30	State of the art in numerical simulation of high head Francis turbines. *Renewable Energy and Environmental Sustainability*, **2016**, 1, 20	2.5	5
29	Experimental Investigation of the Interblade Flow in a Kaplan Runner at Several Operating Points Using Laser Doppler Anemometry. *Journal of Fluids Engineering, Transactions of the ASME*, **2016**, 138,	2.1	5
28	Numerical Investigation of the Pressure-Time Method Considering Pipe With Variable Cross Section. *Journal of Fluids Engineering, Transactions of the ASME*, **2018**, 140,	2.1	5
27	Numerical analysis of fluid-added parameters for the torsional vibration of a Kaplan turbine model runner. *Advances in Mechanical Engineering*, **2017**, 9, 168781401773289	1.2	5
26	Maximum Pressure Evaluation during Expulsion of Entrapped Air from Pressurized Pipelines. *Journal of Applied Fluid Mechanics*, **2017**, 10, 11-20	1.5	5
25	Numerical Study of the Winter-Kennedy Method: Sensitivity Analysis. *Journal of Fluids Engineering, Transactions of the ASME*, **2018**, 140,	2.1	5
24	Preliminary Measurements of the Radial Velocity in the Francis-99 Draft Tube Cone. *Journal of Physics: Conference Series*, **2015**, 579, 012014	0.3	4
23	Experimental Investigation of a 10 MW Prototype Axial Turbine Runner: Vortex Rope Formation and Mitigation. *Journal of Fluids Engineering, Transactions of the ASME*, **2020**, 142,	2.1	4

22	Experimental Investigation of a High Head Model Francis Turbine During Steady-State Operation at Off-Design Conditions. *IOP Conference Series: Earth and Environmental Science*, **2016**, 49, 062018	0.3	4
21	Wall friction and velocity measurements in a double-frequency pulsating turbulent flow. *Journal of Fluid Mechanics*, **2016**, 788, 521-548	3.7	4
20	Experimental Investigation of a 10 MW Prototype Kaplan Turbine during Start-Up Operation. *Energies*, **2019**, 12, 4582	3.1	4
19	The self-similarity of wall-bounded temporally accelerating turbulent flows. *Journal of Turbulence*, **2018**, 19, 49-60	2.1	4
18	Discharge evaluation from pressure measurements by a genetic algorithm based method. *Flow Measurement and Instrumentation*, **2015**, 45, 49-55	2.2	3
17	Laminar similarities between accelerating and decelerating turbulent flows. *International Journal of Heat and Fluid Flow*, **2018**, 71, 13-26	2.4	3
16	Maximum power point tracking for micro hydro power plants using extremum seeking control **2015** ,		3
15	Steady state and dynamic characteristics for guide bearings of a hydro-electric unit. *Proceedings of the Institution of Mechanical Engineers, Part J: Journal of Engineering Tribology*, **2014**, 228, 836-848	1.4	3
14	EXPERIMENTAL STUDY ON FLOW ASYMMETRY AFTER THE DRAFT TUBE BEND OF A KAPLAN TURBINE. *Advances and Applications in Fluid Mechanics*, **2016**, 19, 441-472	0	3
13	Bio-lubricant flow behaviour in mini-channels. *Lubrication Science*, **2016**, 28, 221-242	1.3	3
12	Numerical investigation of entrapped air pockets on pressure surges and flow structure in a pipe. *Journal of Hydraulic Research/De Recherches Hydrauliques*, **2020**, 58, 218-230	1.9	3
11	Influence of runner cone profile and axial water jet injection in a low head Francis turbine at part load. *Sustainable Energy Technologies and Assessments*, **2022**, 50, 101810	4.7	2
10	Sensitivity analysis on flow rate estimation using design of experiments: Application to the pressure-time method **2017**,		1
9	An Indirect Measurement Methodology to Identify Load Fluctuations on Axial Turbine Runner Blades. *Sensors*, **2020**, 20,	3.8	1
8	Numerical Simulation of the Flow in a Kaplan Turbine Model during Transient Operation from the Best Efficiency Point to Part Load. *Energies*, **2020**, 13, 3129	3.1	1
7	Effects of runner change on the Winter-Kennedy flow measurement method – A numerical study. *Renewable Energy*, **2020**, 153, 975-984	8.1	1
6	Numerical Study of the Winter–Kennedy Flow Measurement Method in Transient Flows. *Energies*, **2020**, 13, 1310	3.1	1
5	Improved frictional modeling for the pressure-time method. *Flow Measurement and Instrumentation*, **2019**, 69, 101604	2.2	1

4	Evaluation of transient effects in the pressure-time method. *Flow Measurement and Instrumentation*, **2019**, 68, 101581	2.2	1
3	Mitigation of Draft Tube Pressure Pulsations by Radial Protrusion of Solid Bodies into the Flow Field: An Experimental Investigation. *IOP Conference Series: Earth and Environmental Science*, **2021**, 774, 012004	0.3	0
2	Numerical Simulation and Experimental Validation of a Kaplan Prototype Turbine Operating on a Cam Curve. *Energies*, **2022**, 15, 4121	3.1	0
1	Viscoelasticity and shear-thinning effects on bio-polymer solution and suspended particle behaviours under oscillatory curve Couette flow conditions. *Biosurface and Biotribology*, **2018**, 4, 1-17	1	