

Ratna Kishore Velamati

List of Publications by Year in descending order

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Version: 2024-02-01

68
papers

2,126
citations

257101

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243296

44
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69
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69
docs citations

69
times ranked

1521
citing authors

#	ARTICLE	IF	CITATIONS
1	Numerical Investigation on the Lewis Number Effects on the Turbulent Premixed Swirl Stabilized Propane-Air Flames. , 2022, , .		0
2	Computational analysis of the aerodynamic characteristics and stability derivatives of an aerostat under unsteady wind conditions. Journal of the Brazilian Society of Mechanical Sciences and Engineering, 2022, 44, 1.	0.8	2
3	Flame dynamics of premixed CH ₄ /H ₂ /air flames in a microchannel with a wall temperature gradient. Combustion Theory and Modelling, 2022, 26, 989-1013.	1.0	4
4	Stability Derivatives of Various Lighter-than-Air Vehicles: A CFD-Based Comparative Study. Drones, 2022, 6, 168.	2.7	1
5	Effect of hydrocarbon addition on tip opening of hydrogen-air bunsen flames. International Journal of Hydrogen Energy, 2021, 46, 5763-5775.	3.8	3
6	Combustion of methylcyclohexane at elevated temperatures to investigate burning velocity for surrogate fuel development. Journal of Hazardous Materials, 2021, 406, 124627.	6.5	10
7	Laminar Flow over a Square Cylinder Undergoing Combined Rotational and Transverse Oscillations. Journal of Applied Fluid Mechanics, 2021, 14, .	0.4	2
8	A Study on Plume Dispersion Characteristics of Two Discrete Plume Stacks for Negative Temperature Gradient Conditions. Environmental Modeling and Assessment, 2021, 26, 405-422.	1.2	4
9	Aerodynamic characteristics of an aerostat under unsteady wind gust conditions. Aerospace Science and Technology, 2021, 113, 106684.	2.5	8
10	A proposal for a correlation to calculate pressure drop in reticulated porous media with the help of numerical investigation of pressure drop in ideal & randomized reticulated structures. Chemical Engineering Science, 2021, 237, 116518.	1.9	6
11	A review on fundamental combustion characteristics of syngas mixtures and feasibility in combustion devices. Renewable and Sustainable Energy Reviews, 2021, 146, 111178.	8.2	26
12	Effect of interactions on impingement heat transfer in odd and even element linear arrays of co-axial flames. International Communications in Heat and Mass Transfer, 2021, 127, 105576.	2.9	1
13	Effect of Helix Angle on the Performance of Helical Vertical Axis Wind Turbine. Energies, 2021, 14, 393.	1.6	20
14	Numerical Investigation on Combustion Characteristics of Premixed H ₂ /Air in Stepped Micro-Combustors. Lecture Notes in Mechanical Engineering, 2021, , 863-872.	0.3	0
15	Effect of Burner Wall Material on Microjet Hydrogen Diffusion Flames near Extinction: A Numerical Study. Energies, 2021, 14, 8266.	1.6	2
16	Effect of Solidity on Performance of Vertical Axis Wind Turbine Using Constant Chord Reynolds Number. , 2021, , .		0
17	Experimental and computational analysis of a row of three co-swirling impinging flames. Heat and Mass Transfer, 2020, 56, 365-384.	1.2	4
18	Effect of Hydrogen Addition on Laminar Burning Velocity of Liquefied Petroleum Gas Blends. Energy & Fuels, 2020, 34, 798-805.	2.5	13

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19	Development of a numerical model for performance prediction of an integrated microcombustor-thermoelectric power generator. <i>Energy</i> , 2020, 192, 116624.	4.5	32
20	Combustion characteristics of syngas laminar microjet diffusion flames. <i>Journal of the Taiwan Institute of Chemical Engineers</i> , 2020, 115, 47-59.	2.7	4
21	Experimental and numerical investigation on the effect of hydrogen addition and N ₂ /CO ₂ dilution on laminar burning velocity of methane/oxygen mixtures. <i>International Journal of Hydrogen Energy</i> , 2020, 45, 16838-16850.	3.8	34
22	Computational Fluid Dynamics Analysis of Aerodynamics and Impingement Heat Transfer From Hexagonal Arrays of Multiple Dual-Swirling Impinging Flame Jets. <i>Journal of Heat Transfer</i> , 2020, 142, .	1.2	4
23	A Numerical Investigation on Fluid Dynamics and Heating Characteristics of Co-and-Counterrotating Multiple Swirling Impinging Flames Arranged in 3 Å– 3 Inline Array. <i>Journal of Thermal Science and Engineering Applications</i> , 2020, 12, .	0.8	3
24	Numerical Study of Characteristics of Underexpanded Supersonic Jet. <i>Journal of Aerospace Technology and Management</i> , 2020, , .	0.3	1
25	Study of flow patterns and impingement heat transfer for an annular array of eight co-rotating dual-swirling flames. <i>International Journal of Heat and Mass Transfer</i> , 2019, 144, 118657.	2.5	8
26	Measurement of laminar burning velocities of methane-air mixtures simultaneously at elevated pressures and elevated temperatures. <i>Fuel</i> , 2019, 257, 116120.	3.4	49
27	Effect of solidity and airfoil on the performance of vertical axis wind turbine under fluctuating wind conditions. <i>International Journal of Green Energy</i> , 2019, 16, 1329-1342.	2.1	11
28	Laminar burning velocity of n-butane/Hydrogen/Air mixtures at elevated temperatures. <i>Energy</i> , 2019, 176, 410-417.	4.5	22
29	Numerical investigations on behaviour bifurcation of premixed H ₂ -air flames in mesoscale tubes. <i>Combustion Theory and Modelling</i> , 2019, 23, 969-993.	1.0	7
30	Effect of Knudsen Number, Lid Velocity and Velocity Ratio on Flow Features of Single and Double Lid Driven Cavities. <i>Journal of Applied Fluid Mechanics</i> , 2019, 12, 1575-1583.	0.4	3
31	Studies on effusion cooling: Impact of geometric parameters on cooling effectiveness and coolant consumption. <i>Aerospace Science and Technology</i> , 2018, 77, 58-66.	2.5	19
32	Numerical Study on Thrust Generation in an Airfoil Undergoing Nonsinusoidal Plunging Motion. <i>Journal of Aerospace Engineering</i> , 2018, 31, 04018037.	0.8	2
33	Effect of hole pattern on the structure of small scale perforated plate burner flames. <i>Fuel</i> , 2018, 216, 722-733.	3.4	15
34	Tip Opening of Burner-Stabilized Flames. <i>Energy & Fuels</i> , 2018, 32, 2344-2354.	2.5	6
35	Compact design of planar stepped micro combustor for portable thermoelectric power generation. <i>Energy Conversion and Management</i> , 2018, 156, 224-234.	4.4	118
36	A comprehensive review of measurements and data analysis of laminar burning velocities for various fuel+air mixtures. <i>Progress in Energy and Combustion Science</i> , 2018, 68, 197-267.	15.8	329

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37	Influence of thickness on performance characteristics of non-sinusoidal plunging motion of symmetric airfoil. <i>Aerospace Science and Technology</i> , 2018, 81, 333-347.	2.5	14
38	Aeroacoustics Analysis of Globe Control Valves. <i>International Journal of Automotive and Mechanical Engineering</i> , 2018, 15, 5547-5561.	0.5	1
39	Effect of Wall Thermal Boundary Conditions on Flame Dynamics of CH ₄ -Air and H ₂ -Air Mixtures in Straight Microtubes. <i>Combustion Science and Technology</i> , 2017, 189, 150-168.	1.2	20
40	Dynamics of premixed methane/air mixtures in a heated microchannel with different wall temperature gradients. <i>RSC Advances</i> , 2017, 7, 2066-2073.	1.7	30
41	Burning velocities of DME(dimethyl ether)-air premixed flames at elevated temperatures. <i>Energy</i> , 2017, 126, 34-41.	4.5	47
42	Investigation of dilution effect with N ₂ /CO ₂ on laminar burning velocity of premixed methane/oxygen mixtures using freely expanding spherical flames. <i>Fuel</i> , 2017, 196, 225-232.	3.4	75
43	Effect of airfoil and solidity on performance of small scale vertical axis wind turbine using three dimensional CFD model. <i>Energy</i> , 2017, 133, 179-190.	4.5	109
44	Effects of CO ₂ /N ₂ dilution on laminar burning velocity of stoichiometric DME-air mixture at elevated temperatures. <i>Journal of Hazardous Materials</i> , 2017, 333, 215-221.	6.5	19
45	Investigations on flame dynamics of premixed H ₂ -air mixtures in microscale tubes. <i>RSC Advances</i> , 2016, 6, 50358-50367.	1.7	25
46	Influence of fluctuating wind conditions on vertical axis wind turbine using a three dimensional CFD model. <i>Journal of Wind Engineering and Industrial Aerodynamics</i> , 2016, 158, 98-108.	1.7	29
47	Numerical simulations of steady perforated-plate stabilized Syngas air pre-mixed flames. <i>International Journal of Hydrogen Energy</i> , 2016, 41, 13747-13757.	3.8	15
48	Investigation on supersonic combustion of hydrogen with variation of combustor inlet conditions. <i>International Journal of Hydrogen Energy</i> , 2016, 41, 5833-5841.	3.8	33
49	Numerical study of effect of pitch angle on performance characteristics of a HAWT. <i>Engineering Science and Technology, an International Journal</i> , 2016, 19, 632-641.	2.0	22
50	Effect OF CO ₂ /N ₂ dilution on laminar burning velocity of liquid petroleum gas-air mixtures at elevated temperatures. <i>Energy</i> , 2016, 100, 145-153.	4.5	28
51	A review on small scale wind turbines. <i>Renewable and Sustainable Energy Reviews</i> , 2016, 56, 1351-1371.	8.2	385
52	Power generation by high head water in a building using micro hydro turbine—a greener approach. <i>Environmental Science and Pollution Research</i> , 2016, 23, 9381-9390.	2.7	14
53	Numerical Study of Natural Convection in an Enclosure with an Internal Heat Source at Higher Rayleigh Numbers. <i>Heat Transfer - Asian Research</i> , 2015, 44, 620-640.	2.8	7
54	Dynamics of Premixed Hydrogen-Air Flames in Microchannels with a Wall Temperature Gradient. <i>Combustion Science and Technology</i> , 2015, 187, 1620-1637.	1.2	36

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55	Parametric studies of dissimilar friction stir welding using computational fluid dynamics simulation. International Journal of Advanced Manufacturing Technology, 2015, 80, 91-98.	1.5	20
56	Combustion characteristics of the effect of hydrogen addition on LPG-air mixtures. International Journal of Hydrogen Energy, 2015, 40, 16605-16617.	3.8	26
57	Numerical study of a buoyant plume from a multi-flue stack into a variable temperature gradient atmosphere. Environmental Science and Pollution Research, 2015, 22, 16814-16829.	2.7	8
58	Numerical investigations of unsteady flame propagation in stepped microtubes. RSC Advances, 2015, 5, 100879-100890.	1.7	26
59	Numerical Simulation of Temperature Distribution and Material Flow During Friction Stir Welding of Dissimilar Aluminum Alloys. Procedia Engineering, 2014, 97, 854-863.	1.2	68
60	Three-Dimensional Simulations of Steady Perforated-Plate Stabilized Propane-Air Premixed Flames. Energy & Fuels, 2014, 28, 5415-5425.	2.5	26
61	Numerical study on effect of vent locations on natural convection in an enclosure with an internal heat source. International Communications in Heat and Mass Transfer, 2013, 49, 69-77.	2.9	22
62	Modeling of Homogeneous Mixture Formation and Combustion in GDI Engine with Negative Valve Overlap. ISRN Mechanical Engineering, 2013, 2013, 1-12.	0.9	2
63	Laminar Burning Velocity of Propane/CO ₂ /N ₂ -Air Mixtures at Elevated Temperatures. Energy & Fuels, 2012, 26, 5509-5518.	2.5	64
64	Adiabatic burning velocity and cellular flame characteristics of H ₂ -CO-CO ₂ -air mixtures. Combustion and Flame, 2011, 158, 2149-2164.	2.8	70
65	Adiabatic burning velocity of H ₂ -O ₂ mixtures diluted with CO ₂ /N ₂ /Ar. International Journal of Hydrogen Energy, 2009, 34, 8378-8388.	3.8	44
66	Enhancement of Heat Transfer with Porous/Solid Insert for Laminar Flow of a Participating Gas in a 3-D Square Duct. Numerical Heat Transfer; Part A: Applications, 2009, 56, 764-784.	1.2	10
67	Measurement of adiabatic burning velocity in natural gas-like mixtures. Experimental Thermal and Fluid Science, 2008, 33, 10-16.	1.5	52
68	Effect of Axial Pressure and Tool Rotation Speed on Temperature Distribution during Dissimilar Friction Stir Welding. Advanced Materials Research, 0, 418-420, 1934-1938.	0.3	6