

# SHER AFGHAN KHAN



- KULLIYAH OF ENGINEERING
- IIUM Gombak Campus
- Email address: [sakhan@iium.edu.my](mailto:sakhan@iium.edu.my)

## KELAYAKAN AKADEMIK

- ENGINEERING (AVIATION / AERONAUTICS / ASTRONAUTICS)
- Ph. D.
- M. Tech.

## TANGGUNGJAWAB MENGAJAR

ADVANCED FLUID DYNAMIC	2016/2017
AERODYNAMICS II	2016/2017 2017/2018 2018/2019 2019/2020 2020/2021
AUTOMOTIVE ENGINEERING LAB II	2015/2016 2016/2017 2018/2019
AUTOMOTIVE ENGINEERING LAB III	2018/2019
FLUID MECHANICS	2015/2016 2016/2017 2017/2018 2018/2019 2019/2020 2020/2021
PROJECT I	2020/2021
PROJECT II	2018/2019 2019/2020

## PROJEK PENYELIDIKAN

### In Progress

**2017 - Present** Nonlinear Fluid Structure Interaction and Control of Lifting Surface and Body

**2017 - Present** Active Control of Base Flows and the control Effectiveness

### Completed

**2017 - 2019** Active Control of Base Flows and the control Effectiveness

**2017 - 2020** Nonlinear Fluid Structure Interaction and Control of Lifting Surface and Body

## Article

- 2020 [Numerical investigation of secondary peaks in Nusselt profile under water jet impingement.](#) Journal of Thermophysics and Heat Transfer , 34 (2 (April-June)) pp.421-428
- 2020 [Experimental investigation on the performance of single spark ignition and twin spark ignition engine fuelled with ethanol-gasoline blends.](#) Journal of Advanced Research in Fluid Mechanics and Thermal Sciences , 65 (1) pp.25-41
- 2020 [An investigation of effect of control jets location and blowing pressure ratio to control base pressure in suddenly expanded flows.](#) Journal of Thermal Engineering, , 6 (2 (Special Issue 11)) pp.15-23
- 2020 [Thermo-mechanical analysis and estimation of turbine blade tip clearance of a small gas turbine engine under transient operating conditions.](#) Applied Thermal Engineering , 179 pp.1-32
- 2020 [Wall Pressure Measurements Beneath the Supersonic Jets in an Abruptly Augmented Nozzle.](#) Journal of Advanced Research in Fluid Mechanics and Thermal Sciences , 66 (2) pp.20-31
- 2020 [Base and wall pressure control using cavities and ribs in suddenly expanded flows -an overview.](#) Journal of Advanced Research in Fluid Mechanics and Thermal Sciences , 66 (1) pp.120-134
- 2020 [Optimum spacing between grooved tubes: an experimental study.](#) Journal of Mechanical Science and Technology , 34 (1) pp.469-475
- 2020 [Investigation and back-propagation modeling of base pressure at sonic and supersonic Mach numbers.](#) Physics of Fluids , 32 (9) pp.1-18
- 2020 [Investigation of characteristics of spark ignition engine fuelled with ethanol-gasoline blends using Iso-octane additive.](#) Journal of Advanced Research in Fluid Mechanics and Thermal Sciences , 66 (1) pp.151-163
- 2020 [Numerical investigation of non-dimensional constant and empirical relation representing Nusselt profile non-uniformity.](#) Journal of Thermophysics and Heat Transfer , 34 (1) pp.1-15
- 2020 [Prediction of base pressure in a suddenly expanded flow the processes at supersonic Mach Number Regimes using ANN and CFD.](#) Journal of Applied Fluid Mechanics , 13 (2) pp.499-511
- 2020 [Prediction of base pressure in a suddenly expanded flow process at supersonic mach number regimes using ANN and CFD.](#) Journal of Applied Fluid Mechanics , 13 (2) pp.499-511
- 2020 [Experimental and numerical investigation of suddenly expanded flow field for supersonic Mach numbers with and without annular cavities.](#) International Journal of Fluid Mechanics Research , 47 (4) pp.337-356
- 2020 [Determination of wall pressure flows at supersonic Mach numbers.](#) Materials Today pp.1-6

- 2020** [Numerical investigation of splitter plate effect on the bluff body using finite volume method.](#) Materials Today: Proceedings (10.1016/j.matpr.2020.05.559) pp.1-10
- 2020** [Comparing the effect of different turbulence models on the CFD predictions of NACA0018 airfoil aerodynamics.](#) CFD Letters , 12 (3) pp.1-10
- 2020** [Computation of stability derivative for a wing for specific heat ratio= 1.66 for hypersonic flow.](#) International Journal of Mechanical and Production Engineering Research and Development (IJMPERD) , 10 (special Issue) pp.208-218
- 2020** [An investigation of three-way catalytic converter for various inlet cone angles using CFD.](#) CFD Letters , 12 (9) pp.76-90
- 2020** [CFD analysis of an automobile catalytic converter to obtain flow uniformity and to minimize pressure drop across the monolith.](#) CFD Letters , 12 (9) pp.116-128
- 2020** [Maximum temperature analysis in a Li-ion battery pack cooled by different fluids.](#) Journal of Thermal Analysis and Calorimetry , 141 pp.2555-2571
- 2020** [Estimation of hypersonic unsteady and quasi-steady damping derivatives for a delta wings at large incidence.](#) International Journal of Advanced Science and Technology , 29 (6) pp.6844-6863
- 2020** [Numerical investigation of mathematical non-dimensional constant representing smoothness in the Nusselt profile.](#) CFD Letters , 12 (6) pp.16-27
- 2020** [Analytical estimation of stability derivatives of wing with curved leading edges at hypersonic mach number.](#) Test Engineering & Management , 83 (2) pp.13808-13819
- 2020** [Numerical investigation of semi-empirical relation representing nusselt number under waterjet impingement.](#) Journal of Thermophysics and heat transfer , 34 (3) pp.579-590
- 2020** [Enlarge duct length optimization for suddenly expanded flows.](#) Advances in Aircraft and Spacecraft Science , 7 (3) pp.203-214
- 2019** [Analysis of damping derivatives for delta wings in hypersonic flow for curved leading edges with full sine wave.](#) International Journal of Engineering and Advanced Technology (IJEAT) , 9 (1) pp.5457-5466
- 2019** [Modeling and structural analysis of three-dimensional wing.](#) International Journal of Engineering and Advanced Technology (IJEAT) , 9 (1) pp.6820-6828
- 2019** [Numerical investigation of flow field of a non-circular cylinder.](#) CFD Letters , 11 (5) pp.37-49
- 2019** [Effect of micro jet control on the flow filed of the duct at Mach 1.5.](#) International Journal of Recent Technology and Engineering (IJRTE) , 8 (2S8) pp.1758-1762
- 2019** [Experimental research on flow development and control effectiveness in the duct at high speed.](#) International Journal of Recent Technology and Engineering (IJRTE) , 8 (2S8) pp.1763-1768
- 2019** [Experiment on of nozzle flow with sudden expansion at Mach 1.1.](#) International Journal of Recent Technology and Engineering (IJRTE) , 8 (2S8) pp.1769-1775

- 2019** [Simulation of effect of various distances between front and rear body on drag of a non-circular cylinder.](#) Advanced Research in Fluid Mechanics and Thermal Sciences , 62 (1) pp.53-65
- 2019** [Influence of micro jets on the flow development in the enlarged duct at supersonic Mach number.](#) International Journal of Mechanical & Mechatronics Engineering , 19 (1) pp.70-82
- 2019** [CFD simulation with analytical and theoretical validation of different flow parameters for the wedge at supersonic Mach number.](#) International Journal of Mechanical & Mechatronics Engineering IJMME-IJENS , 19 (1) pp.170-177
- 2019** [Investigation of base pressure variations in internal and external suddenly expanded flows using CFD analysis.](#) CFD Letters , 11 (4) pp.32-40
- 2019** [Estimation of stiffness derivative of an ogive for specific heat ratio 1.666.](#) Test Engineering and Management , 81 (11-12) pp.5091-5100
- 2019** [Influence of control mechanism on the flow field of duct at Mach 1.2 for area ratio 2.56.](#) International Journal of Innovative Technology and Exploring Engineering (IJITEE) , 8 (6S4) pp.1135-1138
- 2019** [An effect of sweep angle on roll damping derivative for a Delta wing with curved leading edges in unsteady flow.](#) International Journal of Mechanical and Production Engineering Research and Development (IJMPERD) , 9 (2) pp.361-373
- 2019** [Numerical simulations of a CD nozzle and the influence of the duct length.](#) International Journal of Innovative Technology and Exploring Engineering (IJITEE) , 8 (9S2) pp.622-630
- 2019** [Control of CD nozzle flow using microjets at Mach 2.1.](#) International Journal of Innovative Technology and Exploring Engineering (IJITEE) , 8 (9S2) pp.631-635
- 2019** [Effects of micro jets on the flow field of the duct with sudden expansion.](#) International Journal of Innovative Technology and Exploring Engineering (IJITEE) , 8 (9S2) pp.636-640
- 2019** [On numerical investigation of semi-empirical relations representing local nusselt number at lower nozzle-target spacing's.](#) International Journal of Engineering , 32 (1) pp.137-145
- 2019** [Numerical investigation of semiempirical relations representing the local Nusselt number magnitude of a pin fin heat sink.](#) Heat Transfer—Asian Research , 48 (5) pp.1857-1888
- 2019** [Challenges and solutions for using liquid fuels in aviation industry.](#) International Journal of Engineering and Advanced Technology (IJEAT) , 8 (2s2) pp.288-290
- 2019** [Hydrocarbons as alternative refrigerants in domestic refrigerators.](#) International Journal of Innovative Technology and Exploring Engineering (IJITEE) , 8 (6S3) pp.496-501
- 2019** [Effect of nozzle pressure ratio and control jets location to control base pressure in suddenly expanded flows.](#) Journal of Applied Fluid Mechanics , 12 (4) pp.1127-1135

- 2019** [Modelling of a three-shaft high-bypass-ratio engine performance and emission prediction using hydrogen fuels.](#) International Journal of Innovative Technology and Exploring Engineering (IJITEE) , 8 (6S3) pp.484-490
- 2019** [Estimation of damping derivatives for delta wings in hypersonic flow for straight leading edge.](#) International Journal of Mechanical and Production Engineering Research and Development , 9 (5) pp.255-264
- 2019** [Numerical study of heat transfer augmentation using pulse jet impinging on Pin Fin heat sink.](#) CFD letters , 11 (3) pp.84-91
- 2019** [Effect of ethanol-gasoline blends on performance, combustion and emission characteristics of spark ignition engine.](#) Journal of Advanced Research in Fluid Mechanics and Thermal Sciences , 62 (2) pp.209-220
- 2019** [Control of nozzle flow using microjets at supersonic Mach Regime.](#) International Journal of Engineering , 32 (7) pp.991-998
- 2019** [Investigation of the effects of nozzle exit mach number and nozzle pressure ratio on axisymmetric flow through suddenly expanded nozzles.](#) International Journal of Engineering and Advanced Technology (IJEAT) , 8 (3) pp.570-578
- 2019** [Numerical simulation of suddenly expanded flow at Mach 2.2.](#) International journal of Engineering & Advanced Technology (IJEAT) , 8 (3) pp.457-462
- 2019** [Experimental and numerical investigation on gas turbine blade with the application of thermal barrier coatings.](#) Advances in Materials Research , 8 (4) pp.275-293
- 2019** [A cost-effective data acquisition instrumentation for measurement of base pressure and wall pressure in suddenly expanded flow through ducts.](#) Journal of Advanced Research in Fluid Mechanics and Thermal Sciences , 60 (1) pp.112-123
- 2019** [Numerical investigation of nondimensional constant and empirical relation representing nusselt profile nonuniformity.](#) Journal of Thermophysics and Heat Transfer , 34 (1) pp.215-229
- 2019** [Study of feasibility of pulse detonation engine powered by alternative fuels.](#) International Journal of Engineering and Advanced Technology (IJEAT) , 8 (2S2) pp.291-296
- 2019** [Effect of sweep angle and a half sine wave on roll damping derivative of a Delta Wing.](#) International Journal of Recent Technology and Engineering , 8 (2S3) pp.984-989
- 2019** [Role of active control in increasing base pressure at Sonic Mach Number.](#) International Journal of Recent Technology and Engineering , 8 (2S3) pp.966-970
- 2019** [Effect of area ratio on base pressure and control effectiveness.](#) International Journal of Recent Technology and Engineering , 8 (2S3) pp.953-958
- 2019** [Experimental research on wall pressure distribution in C-D nozzle at Mach number 1.1 for area ratio 3.24.](#) International Journal of Recent Technology and Engineering , 8 (2S3) pp.971-975
- 2019** [Analysis of area ratio in a CD nozzle with suddenly expanded duct using CFD method.](#) CFD Letters , 11 (5) pp.61-71

- 2019** [Analysis of parameters affecting thrust and base pressure in suddenly expanded flow from nozzle.](#) Journal of Advanced Research in Fluid Mechanics and Thermal Sciences , 64 (1) pp.1-18
- 2019** [Optimization of two-dimensional wedge flow field at supersonic Mach number.](#) CFD Letters , 11 (5) pp.80-97
- 2019** [Influence of expansion level on base pressure and reattachment length.](#) CFD Letters , 11 (5) pp.22-36
- 2019** [Grooved cavity as a passive controller behind backward facing step.](#) International Journal of Advanced Research in Fluid Mechanics and Thermal Sciences , 53 (2) pp.185-193
- 2019** [Threaded spikes for bluff body base flow control.](#) Journal of Advanced Research in Fluid Mechanics and Thermal Sciences , 53 (2) pp.194-203
- 2019** [Role of ultrasonication duration and surfactant on characteristics of ZnO and CuO nanofluids.](#) Materials Research Express , 6 (11) pp.1-13
- 2019** [Aerodynamics investigation of delta wing at low Reynold's number.](#) CFD letters , 11 (2) pp.32-41
- 2019** [CFD analysis of splitter plate on bluff body.](#) CFD Lettrs , 11 (11) pp.25-38
- 2019** [Evaluation of stiffness derivative for a delta wing with straight leading edges in unsteady flow.](#) International Journal of Engineering and Advanced Technology (IJEAT) , 8 (3S) pp.754-762
- 2019** [Experimental research of wall pressure distribution and effect of micro jet at Mach 1.5.](#) International Journal of Recent Technology and Engineering (IJRTE) , 8 (2S3) pp.1000-1003
- 2019** [On numerical investigation of semi-empirical relation representing development length for a fluid flow in a closed conduit.](#) CFD Letters , 11 (6) pp.63-71
- 2019** [Inspection of supersonic flows in a CD nozzle using experimental method.](#) International Journal of Recent Technology and Engineering (IJRTE) , 8 (2S3) pp.996-999
- 2019** [On numerical investigation of nusselt distribution profile of heat sink using lateral impingement of air jet.](#) CFD Letters , 11 (9) pp.59-68
- 2019** [Finite element modeling and analysis of a debonded smart beam in actuation.](#) International Journal of Recent Technology and Engineering (IJRTE) , 7 (6S) pp.258-263
- 2019** [An Investigation of RANS simulations for swirl-stabilized isothermal turbulent flow in a gas turbine burner.](#) CFD Letters , 11 (9) pp.14-31
- 2019** [Damping derivative evaluation in pitch for an ogive at high mach numbers.](#) International Journal of Innovative Technology and Exploring Engineering (IJITEE) , 8 (12) pp.1307-1317
- 2019** [Modeling and analysis of convergent divergent nozzle with sudden expansion duct using finite element method.](#) Journal of Advanced Research in Fluid Mechanics and Thermal Sciences , 63 (1) pp.34-51

- 2019** [Research on Flows for NACA 2412 airfoil using computational Fluid dynamics method.](#) International Journal of Engineering and Advanced Technology (IJEAT) , 9 (1) pp.5450-5456
- 2019** [Modelling and analysis of convergent divergent nozzle with sudden expansion duct using finite element method.](#) Journal of Advanced Research in Fluid Mechanics and Thermal Sciences , 63 (1) pp.34-51
- 2019** [Modelling and structural analysis of three-dimensional wing.](#) International Journal of Engineering and Advanced Technology , 9 (1) pp.6820-6828
- 2018** [Investigation of base flow for an axisymmetric suddenly expanded nozzle with micro JET.](#) International Journal of Engineering & Technology , 7 (3.29 (Special issue 29)) pp.236-242
- 2018** [Assessment of different turbulence models in simulating axisymmetric flow in suddenly expanded nozzles.](#) International Journal of Engineering & Technology , 7 (3.29 (Special issue 29)) pp.243-248
- 2018** [CFD analysis of convergent-divergent nozzle flow and base pressure control using micro-JETS.](#) International Journal of Engineering & Technology , 7 (3.29 (Special issue 29)) pp.232-235
- 2018** [Numerical analysis of convergent-divergent nozzle using finite element method.](#) International Journal of Mechanical and Production Engineering Research and Development (IJMPERD) , 8 (6) pp.373-382
- 2018** [A new approach to low-cost open-typed subsonic compressible flow wind tunnel for academic purpose.](#) International Journal of Mechanical and Production Engineering Research and Development (IJMPERD) , 8 (6) pp.383-394
- 2018** [Design & development of a gravity powered fan using gear transmission.](#) International Journal of Engineering & Technology , 7 (3.29 (Special issue 29)) pp.632-637
- 2018** [Base pressure behaviour in a suddenly expanded duct at supersonic mach number regimes using Taguchi design of experiments.](#) Mechanics and Mechanical Engineering , 22 (4) pp.1077-1097
- 2018** [Study of effect of flow parameters on base pressure in a suddenly expanded duct at supersonic mach number regimes using CFD and design of experiments.](#) Journal of Applied Fluid Mechanics , 11 (2) pp.483-496
- 2018** [Base pressure control using micro-jets in supersonic flow regimes.](#) International Journal of Aviation, Aeronautics, and Aerospace , 5 (1) pp.1-26
- 2018** [Modelling of suddenly expanded flow process in supersonic Mach regime using design of experiments and response surface methodology.](#) International Journal of Computational and Applied Mechanics , 49 (1) pp.149-160
- 2018** [CFD analysis of CD nozzle and effect of nozzle pressure ratio on pressure and velocity for suddenly expanded flows.](#) International Journal of Mechanical and Production Engineering Research and Development (IJMPERD) , 8 (3) pp.1147-1157
- 2018** [Effect of semi vertex angle on stability derivatives for an oscillating cone for constant value of specific heat ratio.](#) International journal of Engineering & Technology , 7 (3.29) pp.386-390

- 2018** [Fluid-structure interactions of variable span wings in low Reynold flows.](#) International Journal of Engineering & Technology , 7 (3.29) pp.381-385
- 2018** [Optimization of area ratio and thrust in suddenly expanded flow at supersonic Mach numbers.](#) Case Study in Thermal Engineering , 12 pp.696-700
- 2018** [Study of base pressure behavior in a suddenly expanded duct at supersonic mach number regimes using statistical analysis.](#) Journal of Applied Mathematics and Computational Mechanics , 17 (4) pp.59-72
- 2018** [Passive control of base drag in compressible subsonic flow using multiple cavity.](#) International Journal of Mechanical and Production Engineering Research and Development (IJMPERD) , 8 (4) pp.39-44
- 2018** [Base pressure control by supersonic micro jets in a suddenly expanded nozzle.](#) International Journal of Mechanical & Mechatronics Engineering IJMME-IJENS , 18 (4) pp.101-112
- 2018** [Numerical investigation of critical range for the occurrence of secondary peaks in the Nusselt distribution curve.](#) CFD Letters , 10 (2) pp.1-17
- 2018** [Study on tool wear and tool life during milling JFRP using uncoated carbide cutting tool.](#) ARPN Journal of Engineering and Applied Sciences , 13 (8) pp.2930-2934
- 2018** [Flow control with aerospike behind bluff body.](#) International Journal of Mechanical and Production Engineering Research and Development (IJMPERD) , 8 (3) pp.1001-1008
- 2018** [An investigation to control base pressure in suddenly expanded flows.](#) International Review of Aerospace Engineering (IREASE) , 11 (4) pp.162-169
- 2018** [The computation of stiffness derivative for an ogive in the hypersonic flow.](#) International Journal of Mechanical and Production Engineering Research and Development (IJMPERD) , 8 (5) pp.173-184
- 2018** [Flow control with aero-spike behind bluff body.](#) International Journal of Mechanical and Production Engineering Research and Development (IJMPERD) , 8 (3) pp.1001-1008
- 2018** [Low-cost base drag reduction technique.](#) International Journal of Mechanical Engineering and Robotics Research (IJMERR) , 7 (4) pp.428-432
- 2018** [Design and fabrication of unmanned arial vehicle for multi-mission tasks.](#) International Journal of Mechanical and Production Engineering Research and Development (IJMPERD) , 8 (4) pp.475-484
- 2018** [Passive control of base drag employing dimple in subsonic suddenly expanded flow.](#) International Journal of Mechanical & Mechatronics Engineering , 18 (3) pp.69-74
- 2018** [CFD analysis of human powered submarine to minimize drag.](#) International Journal of Mechanical and Production Engineering Research and Development (IJMPERD) , 8 (3) pp.1057-1066
- 2017** [Comparative heat transfer analysis in different mini-channel heat sinks.](#) International Journal of Recent Research Aspects , 4 (4) pp.41-45



- 2017** [Estimation of stability derivative of an oscillating cone in hypersonic flow.](#) International Journal of Recent Research Aspects , 4 (4) pp.46-52
- 2017** [Predictive modeling of suddenly expanded flow process in the Supersonic Mach number regime using response surface methodology.](#) International Journal of Recent Research Aspects , 4 (4) pp.53-58
- 2017** [Estimation of stability derivatives of a wedges at supersonic Mach numbers.](#) International Journal of Recent Research Aspects , 4 (4) pp.64-68
- 2017** [Computation of stiffness derivative for an unsteady delta wing with curved leading edges.](#) International Journal of Recent Research Aspects .. , 4 (4) pp.69-72
- 2017** [Investigation on the prominence of abrupt expansion on the base pressure of an axi-symmetric body.](#) International Journal of Recent Research Aspects , 4 (4) pp.59-63
- 2017** [Experimental investigation on the effectiveness of active control mechanism on base pressure at low supersonic mach numbers.](#) Lecture Notes in Mechanical Engineering , PartF9 pp.197-209
- 2017** [CFD studies on triangular micro-vortex generators in flow control.](#) IOP Conference Series: Materials Science and Engineering , 184 (1) pp.012007-1
- 2017** [Computational and analytical investigation of aerodynamic derivatives of similitude delta wing model at hypersonic speeds.](#) International Journal of Technology , 8 (3) pp.366-375
- 2016** [Effect of aspect ratio with roll moment derivative of a delta wing in supersonic flow.](#) International Journal of Advances in Engineering Research (IJAER) , 12 (1) pp.10-15
- 2016** [Active control of wall pressure flow field at low supersonic Mach numbers.](#) IOSR Journal of Mechanical and Civil Engineering (IOSR-JMCE) , 3 pp.90-98
- 2016** [Analysis of variation of stiffness derivative with Mach number and angle of attack for a supersonic flow.](#) IOSR Journal of Mechanical & Civil Engineering , 12 (6) pp.97-104
- 2016** [Structural analysis of vee-cap sheet metal component.](#) IOSR journal of Mechanical and Civil Engineering ( IOSR-JMCE) , 18 (6) pp.79-83
- 2016** [Pressure and its derivative with respect to piston Mach number for an oscillating cone.](#) IOSR journal of Mechanical and Civil Engineering ( IOSR-JMCE ) , 18 (6) pp.74-78
- 2016** [Control of ideally expanded and under expanded nozzle flows with micro jets.](#) IOSR journal of Mechanical & Civil Engineering ( IOSR-JMCE) , 18 (6) pp.83-89
- 2016** [Control of suddenly expanded flows from correctly expanded and under expanded nozzles at supersonic mach number for area ratio 2.56.](#) IOSR journal of Mechanical & Civil Engineering , 3 pp.76-82
- 2016** [CFD analysis of the supersonic nozzle flow with sudden expansion.](#) IOSR journal of Mechanical & Civil Engineering ( IOSR-JMCE ) , 18 (6) pp.5-7
- 2016** [Control of wall pressure flow field with micro jets and control effectiveness.](#) IOSR Journal of Mechanical & Civil Engineering , 3 pp.99-107

- 2016** [Supersonic flow analysis and evaluation of damping derivative.](#) IOSR Journal of Mechanical & Civil Engineering (IOSR-JMCE) , 18 (6) pp.29-36
- 2016** [Thermal performance of fined plate mini-channel heat sink.](#) IOSR Journal of Mechanical & Civil Engineering ( IOSR-JMCE) , 18 (6) pp.1-4
- 2016** [Experimental studies of the base flow from the nozzles with sudden expansion with micro jets.](#) International Journal of Energy, Environment, and Economics , 24 (1) pp.59-66
- 2016** [Estimation of surface pressure distribution on a delta wing with curved leading edges in hypersonic/supersonic flow.](#) International Journal of Energy, Environment, and Economics , 24 (1) pp.67-73
- 2016** [Experimental and numerical studies on flow from axisymmetric nozzle flow with sudden expansion for mach 3.0 using CFD..](#) International Journal of Energy, Environment, and Economics , 24 (1) pp.87-97
- 2016** [Effect of sudden expansion for varied area ratios at subsonic and sonic flow regimes.](#) International Journal of Energy, Environment, and Economics , 24 (1) pp.99-111
- 2016** [Estimation of stability derivatives in pitch for an oscillating 2-D wedge in supersonic Flow.](#) Advances and Applications in Fluid Mechanics , 19 (4) pp.873-882
- 2016** [Estimation of aerodynamic derivatives in pitch of a wedge in hypersonic flow.](#) Indian Journal of Science and Technology , 9 (34) pp.1-4
- 2016** [Exprimental study suddenly expanded flow from correctly expanded nozzles.](#) ARPN Journal of Engineering and Applied Sciences , 11 (16) pp.10041-10047
- 2016** [An investigation of base flow control by wall pressure analysis in a suddenly expansion nozzle.](#) Journal of Scientific Research and Development , 3 (5) pp.1-6
- 2015** [Effect of angle of attack on damping derivatives of delta wing with full sine wave curved leading edge.](#) International Journal of Emerging trends in Engineering and Development (IJETED) , 5 (1) pp.237-245
- 2015** [Control of suddenly expanded flow at low supersonic Mach numbers.](#) International Journal of Engineering Research and Applications , 5 (8) pp.24-33
- 2015** [Experimental investigation of the base flow from the nozzles with sudden expansion.](#) International Journal of Applied Engineering Research (IJAER) , 10 (92- spc) pp.208-211
- 2015** [Effectiveness of micro-jets at different level of expansion.](#) IOSR Journal of Mechanical and Civil Engineering (IOSR-JMCE) , 12 (4) pp.29-34
- 2015** [Combined effect of relief and level of expansion in a suddenly expanded flow.](#) IOSR Journal , 12 (5) pp.52-59
- 2015** [Effect of aspect ratio with angle of attack of an oscillating hypersonic delta wing with straight leading edges.](#) Mathematical Sciences International Research Journal , 4 (2) pp.28-33

- 2014** [Studies on flow from converging nozzle and the effect of nozzle pressure ratio for area ratio of 6.25](#) . International Journal of Engineering Science & Advanced Technology , 4 (1) pp.49-60
- 2014** [Influence of micro jets on wall pressure for area ratio 3.24](#). International Journal of Emerging Technology and Advanced Engineering (IJETAE) , 4 (2) pp.872-880
- 2014** [Studies on wall pressure flow control by micro jets for high area ratio](#). International Journal of Advanced Scientific and Technical Research , 4 (1) pp.664-672
- 2014** [The effect of micro jets on wall pressure for sonic under expanded flow](#). International Journal of Engineering Research and Application , 4 (3) pp.32-38
- 2014** [Studies on wall pressure of sonic flow through the converging nozzles for different area ratios](#). International Journal of Emerging Trends in Science and Technology , 4 (2) pp.125-137
- 2014** [Experimental investigation of flow through convergent nozzle and the influence of micro jets on the enlarged duct flow field](#). IPASJ International Journal of Mechanical Engineering (IJME ) , 2 (3) pp.7-14
- 2014** [Effect of mach number on wall pressure flow field for area ratio 2.56](#). IOSR Journal of Mechanical and Civil Engineering (IOSR-JMCE) , 11 (2) pp.56-64
- 2014** [Hypersonic similitude for planar wedges](#). International Journal of Advanced Research in Engineering and Technology (IJARET) , 5 (2) pp.16-31
- 2014** [Estimation of stability derivatives for a planar wedge in the newtonian limit](#). IOSR Journal of Mechanical and Civil Engineering (IOSR-JMCE) , 10 (2 ) pp.1-6
- 2014** [Effect of mach number on stiffness and damping derivatives for oscillating hypersonic non-planar wedge](#). IOSR Journal of Mechanical and Civil Engineering (IOSR-JMCE) , 11 (2vVIII) pp.4-11
- 2014** [Effect of angle of attack on stiffness derivative of an oscillating supersonic delta wing with curved leading edges](#) . IOSR Journal of Mechanical and Civil Engineering (IOSR-JMCE) , 11 (6vIII) pp.12-25
- 2014** [Supersonic similitude for oscillating non-planar wedge](#). IOSR Journal of Mathematics (IOSR-JM) , 10 (2vVI) pp.15-24
- 2014** [Effect of angle of incidence on roll damping derivatives of a delta wing](#). International Journal of Emerging trends in Engineering and Development (IJETED) , 4 (2) pp.343-356
- 2014** [Effect of angle of incidence on stability derivatives of a wing](#). International Journal for Research in Applied Science and Engineering Technology (IJRASET) , 2 (V) pp.411-422
- 2014** [Control of base pressure with micro jets for area ratio 2.4](#). International Review of Mechanical Engineering , 8 (1) pp.1-10
- 2014** [Experimental studies on low speed converging nozzle flow with sudden expansion](#) . International Journal of Emerging Technology and Advanced Engineering (IJETAE) , 4 (1) pp.532-540

- 2013** [Stability derivatives in the newtonian limit.](#) International Journal of Advanced Research in Engineering & Technology (IJARET) , 4 (7) pp.276-289
- 2013** [Stability derivatives of a delta wing with straight leading edge in the Newtonian limit.](#) International Journal of Engineering Research and Application , 4 (2) pp.1482-1488
- 2013** [Approximate analytical method for damage detection in free-free beam by measurement of axial vibrations.](#) International Journal of Damage Mechanics , 22 (1) pp.133-142
- 2013** [Active control of flow through the nozzles at sonic Mach number.](#) International Journal of Emerging trends in Engineering and Development (IJETED) , 2 (3) pp.73-80
- 2013** [Studies on flow from convergent nozzle with sudden expansion and control effectiveness under the influence of micro jets .](#) International Journal of Research in Mechanical Engineering & Technology (IJRMET) , 4 (1) pp.76-87
- 2013** [Control of suddenly expanded flow for area ratio 3.61.](#) International Journal of Advanced Scientific and Technical Research (IJAST , 6 (3) pp.1-11
- 2013** [Sonic Under Expanded Flow Control With Micro Jets.](#) International Journal of Engineering Research and Application , 3 (6) pp.1482-1488
- 2012** [Experimental investigations on wall pressure in suddenly enlarged ducts at supersonic Mach number regimes.](#) International Journal of Emerging Trends in Engineering and Development (IJETED) , 6 (2) pp.496-504
- 2012** [Effect of area ratio on base pressure in a suddenly expanded duct for under expanded flow ft mach 1.87.](#) International Journal of Mechanical and Industrial Engineering , 2 (2) pp.86-90
- 2012** [Studies on suddenly expanded flow at different levels of over expansion for area ratio 3.24.](#) International Journal of Scientific & Engineering Research , 3 (8) pp.1-6
- 2012** [Control of nozzle flow in a suddenly expanded duct with micro jets.](#) International Journal of Engineering Science and Advance Technology (IJESAT) , 2 (4) pp.789-795
- 2012** [Effect of mach number in a suddenly expanded flow for area ratio 4.84.](#) International Journal of Engineering Research and Application , 2 (4) pp.593-599
- 2012** [Wall pressure studies in a suddenly expanded flow for area ratio 2.56".](#) International Journal of Engineering Research and Application , 2 (5) pp.1566-1573
- 2012** [High incidence supersonic similitude for planar wedge.](#) International Journal of Engineering Research and Application , 2 (5) pp.468-471
- 2012** [Estimation of stability derivatives of an oscillating hypersonic delta wings with curved leading edges.](#) International Journal of Mechanical Engineering & Technology , 3 (3) pp.483-492
- 2012** [Estimation of stability derivatives of a delta wing in hypersonic flow.](#) International Journal of Emerging trends in Engineering and Development (IJETED) , 6 (2) pp.505-516
- 2012** [Oscillating supersonic delta wing with straight leading edges.](#) International Journal of Computational Engineering Research, , 2 (5) pp.1226-1233

- 2012** [Oscillating supersonic delta wings with straight leading edges.](#) International Journal of Computational Engineering Research, , 2 (5) pp.12028-12035
- 2012** [Effect on base pressure in suddenly expanded flows with variable location of microjets.](#) International Journal of Current Research and Review (IJCRR) , 4 (16) pp.1-8
- 2012** [Base pressure studies from over expanded nozzle for area ratio 2.56.](#) International Journal of Current Research and Review , 4 (11) pp.107-112
- 2012** [Optimum length for pin fins used in electronic cooling.](#) Applied Mechanics and Materials , 110/16 pp.1885-1895
- 2012** [Control of base flows with micro jet for area ratio of 6.25.](#) ARPN Journal of Engineering and Applied Sciences , 7 (8) pp.992-1102
- 2012** [Active control of base pressure in suddenly expanded flow for area ratio 4.84.](#) International Journal of Engineering Science and Technology (IJEST) , 4 (5) pp.1885-1895
- 2011** [Control of base flows with micro jets.](#) International Journal of Turbo & Jet-Engines , 28 (1) pp.59-69
- 2010** [Oscillating supersonic delta wings with curved leading edges.](#) Advanced Studies in Contemporary Mathematics , 20 (3) pp.359-372
- 2008** [Control of base pressure with micro jets:part-I.](#) Aircraft Engineering and Aerospace Technology , 80 (2) pp.158-164
- 2006** [Nozzle expansion level effect on a suddenly expanded flow.](#) International Journal of Turbo & Jet-Engines , 23 (4) pp.233-257
- 2006** [Active control of base pressure in supersonic regime.](#) Journal of Aerospace Engineering, Institution of Engineers, India , 87 (5) pp.1-8
- 2006** [Control of suddenly expanded flow.](#) Aircraft Engineering and Aerospace Technology , 78 (4) pp.293-309
- 2004** [Control of suddenly expanded flow from correctly expanded nozzles.](#) International Journal of Turbo & Jet-Engines , 21 (4) pp.255-278
- 2004** [Active control of suddenly expanded flow from under expanded nozzles.](#) International Journal of Turbo & Jet-Engines , 21 (4) pp.233-253
- 2003** [Control of suddenly expanded flows with micro-jets.](#) International Journal of Turbo & Jet-Engines , 20 (1) pp.63-81
- 2002** [Active control of suddenly expanded flows from overexpanded nozzles.](#) International Journal of Turbo & Jet-Engines , 19 (1-2) pp.119-126
- 1998** [Chaos in wraparound fin projectile motion.](#) AIAA Journal , 21 (2) pp.354-356
- 1990** [Pitch and roll derivatives of a delta wing with curved leading edge in high speed flow.](#) Aeronautical Society of India , 42 (4) pp.299-302

#### **Conference or Workshop Item**

- 2020 [Position of static cylinder effect on base flows.](#) In: **1st International Conference on Data Science, Machine Learning and Applications, 2019**
- 2019 [Investigation of aircraft engine performance utilizing various alternative fuels.](#) In: **Southeast Asia Workshop on Aerospace Engineering (SAWAE 2019)**
- 2019 [A comparison of the effect of single and multiple cavities on base flows.](#) In: **5th IEEE International Conference on Engineering Technologies and Applied Sciences (ICETAS) 2018**
- 2019 [The effect of replacement of natural sand by manufactured sand on the properties of the concrete.](#) In: **5th IEEE International Conference on Engineering Technologies and Applied Sciences (ICETAS) 2018**
- 2018 [Passive control of base pressure with static cylinder at supersonic flow.](#) In: **1st International Conference on Aerospace and Mechanical Engineering (AeroMech 2017)**
- 2018 [Energy harvesting from aerodynamic instabilities: Current prospect and future trends.](#) In: **International Conference on Advances in Manufacturing and Materials Engineering (ICAMME 2017)**
- 2018 [Optimization of heat transfer on thermal barrier coated gas turbine blade.](#) In: **1st International Conference on Aerospace and Mechanical Engineering, AeroMech 2017**
- 2018 [Experimental investigation of the base flow and base pressure of sudden expansion nozzle.](#) In: **International Conference on Aerospace and Mechanical Engineering (AeroMech17)**
- 2018 [Stability derivatives of a oscillating wedges in viscous hypersonic flow.](#) In: **1st International Conference on Aerospace and Mechanical Engineering (AeroMech 2017)**
- 2018 [Active control of base pressure with counter clockwise rotating cylinder at Mach 2.](#) In: **4th IEEE International Conference on Engineering Technologies and Applied Sciences, ICETAS 2017**
- 2018 [Computation of stability derivatives of an oscillating cone for specific heat ratio = 1.66.](#) In: **1st International Conference on Aerospace and Mechanical Engineering, AeroMech 2017**
- 2018 [Counter clockwise rotation of cylinder with variable position to control base flows.](#) In: **1st International Conference on Aerospace and Mechanical Engineering, AeroMech 2017**
- 2018 [Design and fabrication of flying saucer utilizing coanda effect.](#) In: **1st International Conference on Aerospace and Mechanical Engineering, AeroMech 2017**
- 2018 [Estimation of stability derivatives in newtonian limit for oscillating cone.](#) In: **1st International Conference on Aerospace and Mechanical Engineering, AeroMech 2017**
- 2018 [Investigation of efficacy of low length-to-diameter ratio and nozzle pressure ratio on base pressure in an abruptly expanded flow.](#) In: **3rd International Conference on Design, Analysis, Manufacturing and Simulation, ICDAMS 2018**

- 2017 [Dynamic stability of unguided projectile with 6- DOF trajectory modeling.](#) In: **2017 2nd International Conference for Convergence in Technology (I2CT)**
- 2017 [CFD analysis of effect of Mach number, area ratio and nozzle pressure ratio on velocity for suddenly expanded flows.](#) In: **2017 2nd International Conference for Convergence in Technology (I2CT)**
- 2017 [CFD analysis of effect of flow and geometry parameters on thrust force created by flow from nozzle.](#) In: **2017 2nd International Conference for Convergence in Technology (I2CT)**
- 2017 [CFD analysis of effect of area ratio on suddenly expanded flows.](#) In: **2017 2nd International Conference for Convergence in Technology (I2CT)**
- 2017 [Investigation of effect of process parameters on suddenly expanded flows through an axi-symmetric nozzle for different Mach numbers using design of experiments.](#) In: **3rd International Conference on Mechanical, Automotive and Aerospace Engineering 2016 (ICMAAE'16)**
- 2017 [Estimation of stability derivatives in pitch for an oscillating wedge in hypersonic flow.](#) In: **3rd International Conference on Mechanical, Automotive and Aerospace Engineering 2016 (ICMAAE'16)**
- 2016 [Experimental and numerical studies on flow from axisymmetric nozzle flow with sudden expansion for Mach 3.0 using CFD.](#) In: **International Conference on Energy Systems and Developments (ICESD2016)**
- 2016 [Effect of sudden expansion for varied area ratios at subsonic and sonic flow regimes.](#) In: **International Conference on Energy Systems and Developments (ICESD2016)**
- 2016 [Experimental study of suddenly expanded flow from correctly expanded nozzles.](#) In: **2nd International Conference on Design, Analysis, Manufacturing & Simulation**
- 2016 [Estimation of aerodynamic derivatives in pitch of a wedge in hypersonic flow.](#) In: **2nd International Conference on Design, Analysis, Manufacturing & Simulation**
- 2015 [Effect of level of expansion and inertia level in a suddenly expanded flow.](#) In: **International Conference on Mechanical Engineering & Advanced Material (ICME-AM2015)**
- 2015 [Combined effect of nozzle pressure ratio and screech prone supersonic mach number in a suddenly expanded flow.](#) In: **International Conference on Mechanical Engineering And Advanced Material (ICME-AM) 2015**
- 2015 [Influence of low length-to-diameter ratio and nozzle pressure ratio in an abruptly expanded flow.](#) In: **International Conference on Mechanical Engineering And Advanced Material (ICME-AM) 2015**
- 2000 [Active control of suddenly expanded flow.](#) In: **22nd International Symposium on Space Technology and Science (iSTS)**

**Book  
Book Section**