

## DEPARTMENT OF AERONAUTICAL ENGINEERING

### Journal/Conference Publication Details:CAY (2022– 2023)

Name of the faculty	Title of paper	Name of Journal
VIJAYANANDH R	Effect of air gap depth on Trombe wall system using computational fluid dynamics	International Journal of Low-Carbon Technologies
SENTHIL KUMAR S	Design and Multi-Perspective based Computational Analyses of Flying Wing UAV for Rescue Applications at Cryogenic Environments	AIAA AVIATION 2022 Forum
VIJAYANANDH R	Multi-Disciplinary Computational Investigations on Asymmetrical Failure Factors of Disc Brakes for Various CFRP Materials: A Validated Approach	Symmetry
VIJAYANANDH R	High performance evaluation of a PV/T hybrid system connected with a thermal store unit holding paraffin wax	International Journal of Low-Carbon Technologies
SENTHIL KUMAR M	Design, development and multi-disciplinary investigations of aerodynamic, structural, energy and exergy factors on 1 kW horizontal-axis wind turbine	International Journal of Low-Carbon Technologies
NAVEEN KUMAR K	Effect of coconut shell nanopowder reinforcement in the development of palm fiber composites	Frontiers in Materials
VIJAYANANDH R	Asymmetrical Damage Aspects Based Investigations on the Disc Brake of Long-Range UAVs through Verified Computational Coupled Approaches	Symmetry
VIJAYANANDH R	Investigations of performance improvements on the evacuated tube solar collector with and without the incorporation of preheater through various engineering approaches	IET Renewable Power Generation
VIJAYANANDH R	Design and multi-disciplinary computational investigations on PVEH patches attached horizontal axis hybrid wind turbine system for additional energy extraction in HALE UAVs.	IET Renewable Power Generation
VIJAYANANDH R	Nature-Inspired Design and Advanced Multi-Computational Investigations on the Mission Profile of a Highly Manoeuvrable Unmanned Amphibious Vehicle for Ravage Removals in Various Oceanic Environments	Journal of Marine Science and Engineering

## DEPARTMENT OF AERONAUTICAL ENGINEERING

VIJAYANANDH R	Multi-Domain Based Computational Investigations on Advanced Unmanned Amphibious System for Surveillances in International Marine Borders	Aerospace
VIJAYANANDH R	Effect of PCM material and vibration on the performance of evacuated tube solar collector	International Journal of Low-Carbon Technologies
VIJAYANANDH R	Design and fabrication of semi-automatic child retraction mechanism from bore well	AIP Conference Proceedings
VIJAYANANDH R	A conceptual design of tailless minicopter	AIP Conference Proceedings
VIJAYANANDH R	Performance analysis of modified shuttle mechanism in polymerized bag weaving circular loom	AIP Conference Proceedings
ARUL PRAKASH R	Structural optimization for gravitational vortex hydropower's rotor through hydro-structural interaction [HSI] analysis	AIP Conference Proceedings
RAJ KUMAR G	Structural optimization of advanced carbon fiber reinforced polymers under flexural load through finite element analysis	AIP Conference Proceedings
VIJAYANANDH R	Material optimization of a contra-Rotating propeller for a rotary wing unmanned aerial vehicle	AIP Conference Proceedings
SENTHIL KUMAR M	Comparative numerical investigations on aerodynamic performance of plain flaps using CFD for fixed-wing UAVs	AIP Conference Proceedings
SENTHIL KUMAR M	Comparative aerodynamic investigations on the thrust enhancement system of the gas turbine engine using CFD	AIP Conference Proceedings
NAVEEN KUMAR K	Numerical investigation of resonance on aircraft wing by using advanced computational methodologies	AIP Conference Proceedings
RAJ KUMAR G	Material and cross sectional shape optimizations on polymer matrix composites through computational structural analysis under crippling load	AIP Conference Proceedings

## DEPARTMENT OF AERONAUTICAL ENGINEERING

SENTHIL KUMAR M	Investigation of atomic scale effects on nanobots in fluid domain	AIP Conference Proceedings
ARUL PRAKASH R	Design and performance investigations on UAV's convergent-divergent nozzle through validated computational aerodynamic simulation	AIP Conference Proceedings
RAJ KUMAR G	Experimental and computational structural cum fatigue data investigations on various lightweight materials under tensile load	AIP Conference Proceedings
VIJAYANANDH R	Investigation on dimple inspired mitigation of aerodynamic drag of intercity bus	AIP Conference Proceedings
NAVEEN KUMAR K	Design and Innovative Integrated Engineering Approaches Based Investigation of Hybrid Renewable Energized Drone for Long Endurance Applications	Sustainability
VIJAYANANDH R	Design and Parametric Study of Counter-Rotating Propeller of Unmanned Aerial Vehicles for High-Payload Applications based on CFD-MRF Approach	Int. J. Vehicle Structures & Systems
VIJAYANANDH R	Multi-disciplinary engineering design of a high-speed nature-inspired unmanned aquatic vehicle	Ocean Engineering
VIJAYANANDH R	Multi-parametric investigations on gravitational vortex hydropower system (GVHPS) using computational hydrodynamic analysis: a verified computational procedure-based investigation	International Journal of Low-Carbon Technologies
VIJAYANANDH R	CFD modeling of a horizontal wind turbine by utilizing solar nozzle for power production	International Journal of Low-Carbon Technologies
VIJAYANANDH R	Design and advanced computational approaches based comprehensive structural parametric investigations of rotary-wing UAV imposed with conventional and hybrid computational composite materials: A validated investigation	Frontiers in Materials
VIJAYANANDH R	Convolutional neural network modeling and response surface analysis of compressible flow at sonic and supersonic Mach numbers	Alexandria Engineering Journal
VIJAYANANDH R	Design, Computational Aerodynamic, Aerostructural, and Control Stability Investigations of VTOL-Configured Hybrid Blended Wing Body-Based Unmanned Aerial Vehicle for Intruder Inspections	International Journal of Aerospace Engineering

## DEPARTMENT OF AERONAUTICAL ENGINEERING

VIJAYANANDH R	Multi-Perspective Investigations Based Design Framework of an Electric Propulsion System for Small Electric Unmanned Aerial Vehicles	Drones
NAVEEN KUMAR K	Investigation of Aeroelastic Energy Extraction from Cantilever Structures under Sustained Oscillations	Processes
RAJ KUMAR G	Comprehensive computational investigations on various aerospace materials under complicated loading conditions through conventional and advanced analyses: a verified examination	Frontiers in Materials
Dr PS Premkumar	Oil-cooler location optimization study of a pusher type turboprop aircraft using CFD simulation	AIAA Aviation Forum 2022
Dr PS Premkumar	Study on oil-cooler location for a pusher type turbo prop aircraft using numerical simulation	Aircraft Engineering and Aerospace Technology
Dr PS Premkumar	Comparative Study of Microstructural, Mechanical and Electrochemical Aspects of As-Deposited and Shock Wave Exposed Ni-W Nanostructured Coatings.	Defence Science Journal
Dr PS Premkumar	Numerical investigation on the cold flow field of a typical cavity- based scramjet combustor with double ramp entry	International Journal of Turbo & Jet-Engines
Dr PS Premkumar	Numerical investigation of supersonic flow past circular cross-section bodies	AIP Conference Proceedings
Dr PS Premkumar	Numerical analysis on the effect of rotating cylinder over the symmetrical airfoil	AIP Conference Proceedings
Dr PS Premkumar	Design and analysis of 2-kW straight bladed vertical axis wind turbine	AIP Conference Proceedings
Dr PS Premkumar	Computational study of slotted winglets on aircraft wings	AIP Conference Proceedings

## DEPARTMENT OF AERONAUTICAL ENGINEERING

Dr PS Premkumar	Numerical study of leading-edge defect on the aerodynamic characteristics	AIP Conference Proceedings
Dr PS Premkumar	Macro mechanical and water absorption properties of composite laminates with novolac resin and e-glass/sisal fibers	AIP Conference Proceedings
Dr PS Premkumar	Interpretive structural modelling approach: Implementation of sustainability concept and lean in aerospace sectors	AIP Conference Proceedings
Dr PS Premkumar	Design Optimization of Grids in Grid Fins for Spacecrafts.	International Journal of Vehicle Structures & Systems (IJVSS)
Dr PS Premkumar	Stall Delay Characteristics Study of NACA 2412 Wing with Outward Dimples.	International Journal of Vehicle Structures & Systems (IJVSS)
Dr PS Premkumar	Unsteady Aerodynamics of High Lift Systems using Overset Mesh.	International Journal of Vehicle Structures & Systems (IJVSS)
Dr.K.Sundararaj	Turbine Blade Analysis Using Different Alloy	AIP Conference Proceedings
Dr.K.Sundararaj	Jet decay characteristics of truncated chevron nozzle	AIP Conference Proceedings
Dr.K.Sundararaj	Numerical investigation of a finite wing section with a bleed hole allowing boundary layer suction	AIP Conference Proceedings
Dr.K.Sundararaj	Turbulence characteristics of truncated chevron nozzle	AIP Conference Proceedings
Dr.K.Sundararaj	Capacity utilization of aqueous 2-amino-2-methyl-1-propanol (AMP) and methyl diethanolamine (MDEA) for CO <sub>2</sub> capture with piperazine (PZ)	AIP Conference Proceedings

**DEPARTMENT OF AERONAUTICAL ENGINEERING**

Dr.K.Sundararaj	Methods of drag reduction by modifying landing gear system in fighter aircraft	AIP Conference Proceedings
Dr.K.Sundararaj	Morphological analysis of shock wave exposed nickel tungsten thin film prepared by electroplating process	AIP Conference Proceedings
Dr.K.Sundararaj	Numerical analysis of buoyancy driven heat transfer control in a square enclosure with high viscosity materials	AIP Conference Proceedings