

Name	Dr. Aldin Justin Sundararaj				Designation	
Date of Joining	03/05/2010				Assistant Professor (S.G)	
Research Areas	Primary: Ignition, energetic propellants, combustion, shock waves, detonation and heat transfer.				Email aldinjustin@karunya.edu Contact :9047653317	
Education	Ph.D.	Propulsion	Karunya Institute of Technology and Sciences.	2018		
	P.G	Engineering Design	Karunya University.	2010		
	U.G	Mechanical Engineering	Dr. Babasaheb Ambedkar Marathwada University.	2007		
Other Experience	Project consultant, Aerospace Department, IIT Madras from Nov. 2023 to Feb. 2024.					
Total Experience (Years)	Teaching & Research			Industry		
	14			01		
Area of Specialization	Propulsion Shock wave					
Subjects Teaching	Under Graduate (Only Core mentioned)			Post Graduate (Only Core mentioned)		
	❖ Aircraft Propulsion ❖ Rocket Propulsion ❖ Cryogenic Propulsion ❖ Aerospace Propulsion			❖ Advanced Propulsion Technology		
No. of Papers Published	Scopus	20+	Web of Science	5	UGC / Others	3
No. of Papers Presented in Conferences	International: 14+ National: 07		No. of FDPs attended 05+		No. of Guest Lectures Delivered 06+	
Patents	1. Deflagration to detonation supersonic igniter, 2019 Indian Patent No 201941026005. 2. Supersonic nozzle extension for optimum operation with thrust augmentation, 2023, Indian Patent No: 202341087944.					
Research Guidance	Ph.D.: 05	PG Level: 05			UG Level: 50+	
Grants fetched from government	Aeronautics Research & Development Board, DRDO		Flame Acceleration Studies of Hydrocarbon Fuels using a Deflagration-To-Detonation Transition Tube		INR 90.34 Lakhs	

organization	Defence Research Development Laboratory, DRDL	Investigation of ignition delay of hydrocarbon fuel samples	INR 9,88 Lakhs
	Aeronautics Research & Development Board, DRDO	Investigation of ignition delay of Isrosene using shock tube as a tool	INR 9,28 Lakhs
	BrahMos Aerospace, VSSC, LPSC, IPRC, ISRO HQ, DRDL, AR&DB	4 th National Symposium on Shock Waves	INR 3,52,994/-
	Science and Engineering Research Board, SERB	Attended a short term course on “Atomization and Spray” TU Darmstadt, Germany	INR 1,27,039/-
	Tamil Nadu State Council for Science and Technology	Experimental investigation to study the effect of blockage ratio and length/diameter ratio on a deflagration flame tube	INR 7500/-
Board of Studies	Member of Board of Studies for 3 Institutions in Tamil Nadu and Kerala.		
Professional Memberships	<ul style="list-style-type: none"> ❖ Institute of Engineers- India M-1612705 ❖ Life member of Society of Shock Wave Research ❖ Life member of Combustion Institute –India LMC-1313 ❖ Life member of Indian Cryogenic Council–India LM-843 		
Awards / Honours	<ol style="list-style-type: none"> 1. Achievers Award - Karunya University in the year 2022. 2. Science and Engineering Research Board Travel grant – Government of India to attend a short-term course on “Atomization and Spray”, Germany- Feb -2020. 3. India – Israel fellowship - Karunya Institute of Technology and Sciences, Jan-2020. 4. Young Achiever Award – Institution of Engineers-India in the year 2019. 5. Young Engineer Award – Institution of Engineers-India in the year 2018 6. Best Poster Award - Karunya University in the year 2017 7. Achievers Award - Karunya University in the year 2016 8. Gold Medal for M-Tech - Karunya University in the year 2010 		
Consultancy work	<ul style="list-style-type: none"> ❖ Defence Research Development Laboratory, DRDO 		

Other Responsibilities	Coordinator for <ol style="list-style-type: none">1. IQAC: Internal Quality Assurance cell2. NAAC: National Assessment and Accreditation Council3. NBA: National Board Accreditation4. ARIIA: Atal ranking of Institution on Innovation Achievement5. NIRF: National Institution Ranking Framework6. AQAR: Annual Quality Assurance Report7. QS-I Gauge8. In-charge for Propulsion and High Enthalpy lab9. Drone Technology for Agriculture Mission-Leader10. Association / Mindkraft11. Alumni and Parents Interaction12. Department Reports
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