



## DEPARTMENT OF AEROSPACE ENGINEERING

### List of Publications

#### Publication Details Journals/Conference/Book

Publication Details				
Year	SCI	Journals	Conference	Book / Book Chapters
2022-2023	5	3	8	-
2021-2022	5	1	-	5
2020-2021	2	3	2	-
<b>Total</b>	<b>12</b>	<b>07</b>	<b>10</b>	<b>5</b>

Publication Details				
Year	SCI	Journals	Conference	Book / Book Chapters
2022-2023	5	3	8	-
2021-2022	5	1	-	5
2020-2021	2	3	2	-
2019-2020	6	2	-	-
2018-2019	2	2	4	-
<b>Total</b>	<b>20</b>	<b>11</b>	<b>14</b>	<b>5</b>

**DEPARTMENT OF AEROSPACE ENGINEERING****Journals Publication Details /Conference/Book**

2022-2023								
Sl. No	Year	Title of Research Paper	Journal	Authors	IJ/NJ	ISSN / ISBN	Month	Impact Factor/ SCOPS index
1	2023	Prediction of TEC and range error using low-latitude GPS data during January to April 2022 solar flare events	Geomagnetism and Aeronomy	Mr. M. Vijay and Dr. R. Mukesh	IJ	1555-645X.	January	0.844
2	2023	Comparative Study and Aerodynamic analysis of Rectangular Wing using High lift systems	International Journal of Aerospace Engineering, Hindawi	P. Radhakrishnan and Dr. R. Mukesh	IJ	1687-5966	May	1.198
3	2022	Analysis of Ionospheric TEC variations due to X, M & C Class Solar Flares during the years 2003 to 2018 and comparison with IRI models	Geomagnetism and Aeronomy	Mr. M. Vijay and Dr. R. Mukesh	IJ	1555-645X.	December	0.844
4	2022	Streamline Effect Improvement of Additive Manufactured Airfoil Utilizing Dynamic Stream Control Procedure	Advances in Materials Science and Engineering	Mr. Srinath and Dr. R. Mukesh	IJ	1687-8434	September	2.098
5	2022	Wind Tunnel Testing and Validation of Helicopter Rotor Blades Using Additive Manufacturing	Advances in Materials Science and Engineering	Dr. Inamul Hasan and Dr. R. Mukesh	IJ	1687-8434	September	2.098
6	2022	Prediction of Range Error and correction in single frequency navigational receivers based on GPS satellite data during solar flare days	IEEE	Dr. R. Mukesh and Mr. M. Vijay	IJ	1803-7232	December	Scopus
7	2022	Prediction of QoS data for pressure sensor using Prophet and FFNN AI algorithms	IEEE	A. Krishnakumar and Dr. R. Mukesh	IJ	1803-7232	December	Scopus
8	2022	Prediction of QoS data for various sensors using AI algorithms	IJISAE	A. Krishnakumar and Dr. R. Mukesh	IJ	2147-6799	December	Scopus

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2021-2022								
Sl. No	Year	Title of Research Paper	Journal	Authors	IJ/NJ	ISSN / ISBN	Month	Impact Factor/ SCOPUS index
1.	2022	Influence of input parameters for prediction of GPS and IRNSS TEC by using OKRSM at Hyderabad Stations during solar flare event	Acta Geophysica	Dr. R. Mukesh and Mr. M. Vijay	IJ	1895-7455	January	2.293
2.	2022	Aerodynamic performance analysis of supercritical airfoil in Helicopter main rotor	Transactions of the Canadian Society for Mechanical Engineering	Dr. Inamul Hasan and Dr. R. Mukesh	IJ	0315-8977	January	1.324
3.	2021	Forward Flight Performance Analysis of Supercritical Airfoil in Helicopter Main Rotor	Intelligent Automation & Soft computing	Dr. Inamul Hasan and Dr. R. Mukesh	IJ	1079-8587	November	3.401
4.	2021	Computational Study of Aerodynamic Performance of Three and Four-Bladed Helicopter Rotor with Supercritical Airfoil	Journal of Environmental Protection and Ecology	Dr. Inamul Hasan and Dr. R. Mukesh	IJ	1311-5065	December	0.692
5.	2022	Deep learning and optimization for quality-of-service modelling	Journal of King Saud University - Computer and Information Sciences	Dr. R. Mukesh	IJ	1319-1578	September	8.839
6.	2022	Study on the characteristics of ordinary concrete with the granite dust as a substitute for the fine aggregates	Materials Today	Dr. C. Suresh	IJ	2214-7853.	July	Scopus



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2020-2021								
Sl. No	Year	Title of Research Paper	Journal	Authors	IJ/NJ	ISSN / ISBN	Month	Impact Factor/ Scopus index
1.	2021	Analysis of TEC values predicted by OKSM amongst low, mid and high latitude GPS stations during X 9.3 solar flare	Astrophysics and Space Science	Dr. R. Mukesh and Mr. M. Vijay	IJ	0004640 X	August	1.909
2.	2020	Performance analysis of Navigation with Indian Constellation Satellites	Journal of King Saud University	Dr. R. Mukesh	IJ	1018-3639	December	Scopus
3.	2020	Prediction of TEC using NavIC/GPS data with geostatistical method/forecasting capability comparison with other models	Astrophysics and Space Science	Dr. R. Mukesh	IJ	0004640 X	September	1.909
4.	2021	Aerodynamic Investigation of Double Surface Airfoil	ACS Journal for Science and Engineering	J. Siva, Dr. C Suresh, Dr. V. Paramaguru	IJ	2582-9610	September	Google Scholar
5.	2021	Prediction of GPS TEC during the X9.3 Solar Flare for DGAR low latitude station by using OKSM	Journal of Physics	Dr. R. Mukesh and Mr. M. Vijay	IJ	1742 6588	May	Scopus

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2019-2020								
Sl. No	Year	Title of Research Paper	Journal	Authors	IJ/NJ	ISSN / ISBN	Month	Impact Factor/ SCOPUS index
1.	2020	Ordinary kriging - and cokriging - based surrogate model for ionospheric TEC prediction using NavIC/GPS data	Acta Geophysica	Dr. R. Mukesh	IJ	1895-7455	August	2.293
2.	2020	Forecasting of ionospheric TEC for different latitudes, seasons and solar activity conditions based on OKSM	Astrophysics and Space Science	Dr. R. Mukesh	IJ	0004640X	January	1.909
3.	2020	On the use of laser beam welding for Austenitic steel type 316L and stainless-steel type 304 for aerospace applications	International Journal of Innovative Technology and Exploring Engineering	Dr. R. Mukesh	IJ	2278-3075	January	Scopus
4.	2020	Aerodynamic Analysis of Isolated 3 Bladed Helicopter with Supercritical Airfoil	Solid State Technology	Inamul Hasan and Dr. R. Mukesh	IJ	0038-111X	June	Scopus
5.	2019	Analysis of signal strength, satellite visibility, position accuracy and ionospheric TEC estimation of IRNSS	Astrophysics and Space Science	Dr. R. Mukesh	IJ	0004640X	November	1.909
6.	2019	Cokriging based statistical approximation model for forecasting Ionospheric VTEC during high solar activity and storm days	Astrophysics and Space Science	Dr. R. Mukesh	IJ	0004640X	August	1.909
7.	2019	Developing A Smart Fuel Using Artificial Neural Network for Ci Engine Fuelled with Calophyllum Inophyllum Diesel Blend at Various Compression Ratio	Environmental Progress & Sustainable Energy	Dr. V. Paramaguru and Dr. C. Suresh	IJ	1944-7450	October	2.824
8.	2019	Increasing Aerodynamic Efficiency of Commercial Aircraft Wing using Computational Fluid Dynamics	Tierärztliche Praxis Journal	Dr. V. Paramaguru and Dr. C. Suresh	IJ	0303-6286	November	0.388



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2018-2019								
Sl. No	Year	Title of Research Paper	Journal	Authors	IJ/ NJ	ISSN / ISBN	Month	Impact Factor/ SCOPUS index
1.	2018	Airfoil Shape Optimization based on Surrogate Model	Journal of The Institution of Engineers (India): Series C	Dr. R. Mukesh	IJ	2250-0545	August	Scopus
2.	2019	Prediction of Ionospheric Vertical Total Electron Content from GPS data using Ordinary Kriging-based Surrogate Model	Astrophysics and Space Science	Dr. R. Mukesh	IJ	00046 40X	January	1.909
3.	2018	Comparison of TEC of IRNSS with IRI and GPS TEC at equatorial latitude Station	AIP	Dr. R. Mukesh	IJ	1551-7616	November	Scopus
4.	2018	Prediction and optimization of CI engine performance fueled with Calophyllum inophyllum diesel blend using response surface methodology (RSM)	Environmental Science and Pollution Research	Dr. V. Paramaguru and Dr. C. Suresh	IJ	1614-7499	June	5.190



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### Conference Publication Details

2022-2023

Sl. No	Year	Title of Research Paper	Conference (Name, Volume, Issue & Page Nos)	Authors	IC / NC	ISSN / ISBN & Country	Month	Impact Factor/ SCOPUS index
1	2022	Prediction of Range Error and correction in single frequency navigational receivers based on GPS satellite data during solar flare days	ICDI 2022, UTP, Malaysia.	Dr. R. Mukesh and Mr. M. Vijay	IC	2249-6661	December	Scopus
2.	2022	Prediction of QoS data for pressure sensor using Prophet and FFNN algorithms	ICDI 2022, UTP, Malaysia.	A. Krishnakumar and Dr. R. Mukesh	IC	2249-6661	December	Scopus
3.	2023	Modelling low latitude ionosphere predictions using GPS data with ARMA	ICRTSEM2023, PMC Tech, Hosur, India.	Dr. R. Mukesh and Mr. M. Vijay	IC	-	April	-
4.	2023	Design and Analysis of UAV Profile for Agriculture and Surveying Application	ICETMSST2023 Sri Eshwar College of Engineering, Coimbatore, India	Dr. R. Mukesh & Dr. P. Theerthamalai	IC	-	April	-
5.	2023	Design of Supersonic Air Intake for Stable Optimum Performance of Ramjet Projectile	ICETMSST2023 Sri Eshwar College of Engineering, Coimbatore, India	Dr. R. Mukesh & Dr. P. Theerthamalai	IC	-	April	-
6.	2023	Prediction of Ionospheric TEC based on GPS data during Indonesian Earthquake using ARMA model	IRCEMST23, JJCET, Trichy, India	Dr. R. Mukesh and Mr. M. Vijay	IC	-	May	-
7.	2023	Deep Learning based approach to predict Ionospheric TEC for Low and Mid Latitudes during X 1.59 Solar Flare	ICAIAS23, IGCE, Trichy, India	Dr. R. Mukesh and Mr. M. Vijay	IC	-	May	-



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8.	2023	Prediction and analysis of ionospheric TEC during solar eclipses using AI and Surrogate Models	National Conference on AI and ML in Aerospace and Biomedical Engineering Applications, ACS College of Engineering, Bangalore	Dr. R. Mukesh and Mr. M. Vijay	NC	-	June	-
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2020-2021								
Sl. No	Year	Title of Research Paper	Conference (Name, Volume, Issue & Page Nos)	Authors	IC / NC	ISSN / ISBN & Country	Month	Impact Factor / SCOPUS index
1.	2021	Prediction of GPS TEC during the X9.3 Solar Flare for DGAR low latitude station by using OKSM	ICAISEN21, SRM TRP Engineering College, Trichy	Dr. R. Mukesh	IC	India	April	-
2.	2021	Prediction of GPS TEC during the X9.3 Solar Flare by using OKMM	IVCACME21, Kongu Engineering College, Erode, India	Dr. R. Mukesh	IC	India	April	-





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2018-2019								
Sl. No	Year	Title of Research Paper	Conference (Name, Volume, Issue & Page Nos)	Authors	IC / NC	ISSN / ISBN & Country	Month	Impact Factor/ SCOPUS index
1	2019	Performance Analysis of IRNSS and TEC Prediction using Surrogate Model	ICETMR 2019, National University of Singapore.	Dr. R. Mukesh	IC	Singapore	April	-
2.	2019	Performance Analysis of NACA 2411 Ice accreted original and optimized airfoils	ICMMM 2019, Bannari Amman Institute of Technology, Sathyamangalam, India	Dr. R. Mukesh	IC	India	March	-
3.	2018	Comparison of TEC of IRNSS with IRI and GPS TEC at equatorial latitude Station	IconSET 2018, ACS College of Engineering, Bangalore, India	Dr. R. Mukesh	IC	India	November	-
4.	2018	Calculation of Ionospheric Total Electron Content using IRNSS Satellites	ICSMDA 2018, Kongu Engineering College, Erode, Tamil Nadu, India	Dr. R. Mukesh	IC	India	June	-



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### Book Publication Details

Year	Title of Research Paper	Title of the book/chapters published	Authors	ISBN & Country	Name of the Publisher
1.	Aerodynamic measurement of non-planar wings using Blower Balance Tunnel	Aspects and Applications of incompressible and compressible aerodynamics	Dr. C. Suresh, Dr. V. Paramaguru	ISBN: 13: 97816 68442302 India.	IGI Global Publishers
2.	Shock Reflections and Intersections	Aspects and Applications of incompressible and compressible aerodynamics	Dr. C. Suresh, Dr. V. Paramaguru	ISBN: 13: 97816 68442302 India.	IGI Global Publishers
3.	Introduction to Avionics	Introduction to Avionics Vol I and Vol 2	Dr. R. Mukesh	ISBN: 978-93-80686-20-2 India	Shanlax Publishers
4.	Aircraft Systems	Aircraft Systems and Instrumentation	Dr. R. Mukesh	-	Shanlax Publishers
5.	Rockets and Missiles	Missiles and Launch Vehicles	Dr. R. Mukesh and Dr. P. Theerthamalai	-	Shanlax Publishers



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**Table B.5.7.1.4 PhD Guidance- VTU Research Centre- Department of ASE**

Sl. No.	Research Guide	Name of Scholar	Topic of Research	University & Year of Registration	Status
1	Dr. R. Mukesh Professor & Head Aerospace	Nishanth. P (1AH15PAJ01)	Aerodynamic Investigation and Shape Optimization Studies on Blended Wing Body Aircraft Configuration	VTU, Belgaum 2015	PhD Awarded on 10.3.2022
		Inamul Hasan (1AH17PMA01)	Flow Characteristics Analysis of Supercritical Airfoil in Helicopter Main Rotor Blades	VTU, Belgaum 2017	PhD Awarded on 06.12.2022
		Radhakrishnan P (1AH19PAE01)	Aerodynamics Performance and crack growth analysis of structural wing with high lift devices incorporated with self-healing concept.	VTU, Belgaum 2019	CV Completed 07.01.2022
		Srinath R (1AH19PAE02)	Aerodynamic Performance enhancement of airfoil using optimization and passive flow control techniques.	VTU, Belgaum 2019	CV Completed 18.02.2022
		Prashant (1AH20PAE01)	Numerical and Experimental analysis of Aerodynamics Characteristics of an unsymmetrical Airfoil	VTU, Belgaum 2020	Pursuing
		Swathi K (1AH20PAE02)	Prediction of Ionospheric TEC and estimation of range error based on NavIC data by using Machine Learning Algorithms	VTU, Belgaum 2020	Pursuing
		Praneeth H R	Design and Optimization of an airfoil for enhancement of aerodynamic efficiency under rainfall conditions	VTU, Belgaum 2023	Registered



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Table B.5.7.1.5 - Ph.D. Awarded during the assessment period while working in the Institute

Sl. No.	Name of faculty	Details of Faculty	University	Title of Research	Year of Completion
1	Dr. Inamul Hasan	Associate Professor	VTU, Belgaum.	Flow Characteristics Analysis of Supercritical Airfoil in Helicopter Main Rotor Blades	2022
2.	Dr. V. Paramaguru	Associate Professor	Anna University	Studies on performance and emission characteristics of variable compression ratio diesel engine blended with alternative fuels and soft computing approach using RSM and ANN.	2021