

Faculty Profile

Brief Profile (Few Paragraphs)



Personal Information

- **Name:** Mukesh M
- **Designation:** Assistant Professor
- **Department:** Aerospace Engineering
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Domain of Expertise

Research Focus

- **Primary Area:** Aerodynamics, Thermodynamics, gas dynamics
- **Allied Areas:**
 - Computational fluid dynamics
 - Product design and developments for aerospace applications
 - Introduction to drone technology

Academic Qualifications

- **Ph.D.:** Pursuing in Aerospace Engineering particularly in Aerodynamics domain from VTU since 2024.
- **M.Tech:** Aerospace propulsion technology from VTU in year 2015
- **B.E./B.Tech:** Aeronautical engineering from VTU in the year 2012.

Professional Experience

Experience			
S.No	Institute/College/Industry	Job Title	Duration (From- To)
1.	Computational Mechanics Lab (CML), Department of Aerospace Engineering, Indian	Project assistant	2.3 years(June 2012 to September 2014)

	Institute of Science, Bengaluru		
2.	Mangalore Institute of Technology, moodabidre, Mangaluru	Assistant professor	July 2015- Nov 2015
3	Acharya institutes, Soldevanahalli, Bengaluru	Lecturer	December 2015 to Jan 2018
4	RV College of College of Engineering, Bengaluru	Assistant professor	Jan 29 th - till date

Publications & Patents

Journal Publications

[1] M. Mukesh, N. K. S. Rajan, and Basawaraj, "An experimental study on performance of a kerosene-based pulse detonation engine," *Int. J. Mech. Ind. Technol.*, vol. 3, no. 1, pp. 344–349, Apr.–Sep. 2015. [Online]. Available: www.researchpublish.com

[2] V. K. Shashi, A. Sridhar, K. L. C. Kumar, P. Srinivasan, and M. Mukesh, "Aerodynamic design and optimization of supersonic inlets for external compression," *AIP Conf. Proc.*, vol. 2204, p. 030005, 2020. [Online]. Available: <https://doi.org/10.1063/1.5141568>

[3] M. Mukesh, M. D. Arun, N. S. Divyasharada, K. Prakash, and R. R. V., "Experimental and numerical analysis of rectangular, tapered and tapered swept back wings," *Int. Res. J. Eng. Technol. (IRJET)*, vol. 6, no. 5, May 2019, e-ISSN: 2395-0056, p-ISSN: 2395-0072.

Conference Papers

[1] S. Manjunatha, M. Mukesh, S. R. Pranesh, and P. S. Kulkarni, "Numerical investigation of aerodynamic parameters of all electric mini air vehicle (UAV) and effect of winglets on its performance," in *Proc. 14th Annu. CFD Symp.*, CFD Division, Bangalore, India, Aug. 10–11, 2012. [Online]. Available: <http://eprints.iisc.ac.in/id/eprint/48401>

[2] K. Deepak, A. U. Wangikar, G. R. Chathura, S. S. Khadtare, A. G. Rao, Y. Yogesh, M. Mukesh, and S. Rao, "Optimization of conceptual design of air breathing hypersonic vehicle," in *Proc. IEEE Aerosp. Conf.*, Big Sky, MT, USA, 2022, pp. 1–10. doi: 10.1109/AERO53065.2022.9843693.

[3] M. Mukesh, P. Jain, A. M., S. Naaz, and G. N. D'Souza, "Numerical and experimental analysis of linear aerospike nozzle," in *Proc. 4th Int. Conf. Emerging Res. Civil, Aeronaut. Mech. Eng.*, Nitte Meenakshi Inst. Technol., Bangalore, India, Sep. 22–23, 2023.

[4] S. Arsh, S. A. Mir, R. Banerjee, T. Mongia, and M. Mukesh, "A CFD-driven design exploration and aerodynamic analysis of a novel SR-72 variant," in *Proc. Annu. AeSI CFD Symp.*, Birla Inst. Technol., Mesra, Ranchi, India, Aug. 11–13, 2024.

Books/Book Chapters

1. NIL

Patents [Filed / Published / Granted]

1. NIL

R & Grants & Consultancy Projects

Ongoing & Completed Research Projects

1. NIL

Ongoing & Completed Consultancy Projects

1. NIL

Professional Memberships

- NIL

Awards & Recognitions

- **Best research paper award for the following research paper:** M. Mukesh, P. Jain, A. M., S. Naaz, and G. N. D'Souza, "Numerical and experimental analysis of linear aerospike nozzle," in *Proc. 4th Int. Conf. Emerging Res. Civil, Aeronaut. Mech. Eng.*, Nitte Meenakshi Inst. Technol., Bangalore, India, Sep. 22–23, 2023.
- Have been identified as resource person to train newly recruited engineers such as graduate trainees of HAL at HAL Management academy on March 27th and 28th, 2024

Student Supervision

- **Ph.D. Candidates:** [Number] ([X] Graduated)
- **M.Tech/M.Sc. Students:** [Number]
- **Undergraduate Research Mentees:** In the current academic year, 2 groups up to 8 students are interning under me in collaboration with IISc.

Professional Roles

- **Editorial Board:** [Journal Name]
- **Chair/Committee Member:** [Conference Name, e.g., *IEEE International Conference on Robotics*]
- **Industry Advisor:** [Company/Startup Name]

Teaching

Core Courses: 3rd semester(academic year 2025-26)

- [AS233AI] [**Thermodynamics**]
- [AS114AT] [**Introduction to drone technology**]

Advanced/Lab Courses:

- Gas dynamics lab, Aerospace propulsion lab

Professional Roles

Responsibilities

- **Academic:** NPTEL Coordinator and Placement Coordinator.
- **Administrative:** Gas dynamics Lab In-charge.

External Connect

- Member of BoS for curriculum development in the department of Aerospace engineering.
- Coordinator for joint curriculum development for industry based elective called **product, design and development for aerospace applications** for the 6th semester students of aerospace engineering in association with **Boeing India**.