



Prof. Mahesh Rajkumar Dalwani

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EDUCATIONAL DETAILS

- 2015 : M.Tech in Mechanical (Thermal) Engineering, Sardar Patel College of Engineering, Mumbai University, 2017**
- 2017 : B.E in Mechanical Engineering, North Maharashtra University**

PROFESSIONAL EXPERIENCE

- ❖ **Assistant Professor, at Shri Vile Parle Kelavani Mandal's Institute of Technology, Dhule,** from 30-06-2018 to till date.
- ❖ **Assistant Professor, MGM CET, Navi Mumbai** from 27-09-2017 to 28-06-2018.
- ❖ **Research Scholar, Indian Institute of Technology, Bombay,** to 01-08-2016 to 18-08-2017
- ❖ **Research Projects:**

Experimental and Theoretical Determination of Ignition delay of Hypergolic Propellants.

[One-year project at Indian Institute of Technology, Bombay under the guidance of Professor Arindrajit Chowdhury (Associate Professor at IIT, Bombay). The project was sponsored by Defense Research and Development Laboratory (DRDL), India.]

Objectives:

- Prepare mixtures of hypergolic fuels in various proportions and determine –
 1. Properties - density, surface tension, viscosity, thermal stability
 2. Hypergolicity of fuel.
 3. Ignition delays in a fabricated drop test setup (with RFNA, WFNA, Nitric acid)
- To understand physical and chemical process during the interaction of hypergolic fuel oxidizer Interaction.
- Model Ignition delay time.
- Compounds chosen –
 1. UDMH, N₂H₄, and mixtures with Ionic Liquid.
 2. Xylenes, Triethylamine, TMEDA, Furfuryl alcohol



❖ **Conferences – Published Papers**

Sr. No.	Title of Paper	Name of Conference in which published	Date of Publication
1	Experimental Determination of Ignition Delay of Hypergolic Bipropellants.	11th Asia Pacific Conference on Combustion, Sydney, Australia	13/12/2017
2	Ignition Delays of Blended Unsymmetrical Dimethyl Hydrazine with an Energetic Ionic Liquid.	11th Asia Pacific Conference on Combustion, Sydney, Australia	13/12/2017

❖ **Conferences / Seminars Attended**

Sr. No.	Name of Conference in which published	Date of Publication
1	Challenges in Engineering Teaching and Research	03/06/2018
2	Integrating Human Values in Professional Education	13/06/2018

❖ **TECHNOLOGY PROFICIENCY**

PLATFORMS : DOS, WINDOWS
PROGRAMMING LANGUAGES : C, FORTRAN
OFFICE TOOLS : M.S office
DESIGN SOFTWARE : AUTOCAD, MATLAB, CATIA, CHEMKIN, NASA CEA ,

❖ **AREA OF INTEREST**

Transport Phenomena, Combustion, Heat Transfer, Refrigeration and Air-conditioning, Renewable energy and Environmental effects