

# Yogesh Chamanlal Prajapati

## M.Tech (Thermal Engineering)

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### Objective:

To work hard with full determination and dedication to achieve organizational as well as personal goals in order to build a long-term career by investing the best of my technical knowledge and educational qualification.

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### Education:

Qualification	Board/University	Passing Year	Percentage/CPI
M.Tech in Thermal Engineering (Gate 2016 score- 415)	Institute of Technology, Nirma University	2018	8.40 CPI (79%)
B.Tech in Mechanical Engineering	Indus University	2016	8.90 CPI (84%)
H.S.C.	Gujarat Higher Secondary Education Board	2012	83.00%
S.S.C.	Gujarat Secondary Education Board	2010	90.46%

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### Projects:

#### M.Tech Project- “On Selection of Optimum Diesel/Biodiesel Blend for CI Engine Using Promethee/Topsis Method”

To find out the Diesel/Biodiesel blend having optimum percentage of best two biodiesels from the eight different biodiesels on the basis of engine performance, combustion and emission parameters. Two different sets of experiments are conducted: first set to find the best two biodiesels and second set to find optimum percentage of them in single blend. Optimization methods ‘Topsis’ and ‘Promethee’ are used to give ranks to the different blends and spearman’s rank correlation is used to find optimum percentage of best two biodiesels by comparison with test results of pure diesel.

#### M.Tech Seminar- “Energy Generation from Municipal Solid Waste”

Different types of solid wastes and the conversion of waste to energy methods like incineration, pyrolysis, gasification have been studied. Case study of organic waste convertor machine has been carried out.

### **B.Tech Project- “Reduction of Rejection ratio of Sand Casted parts of Bar Cutting Machine” (7<sup>th</sup> semester)**

The company has faced the casting problems of important parts of bar cutting m/c such as incomplete casting of bull gear, slag inclusion in bronze bush, blow holes in coupling nib and support. Detailed study of casting process has been done. We have modified the gating system design by increasing no. of vent holes, proper ramming of mould, raising pouring metal temperature, tapering the sprue area and proper skimming.

### **B.Tech Project- “To fabricate the Mechanism for Recovering Kinetic energy in Bicycle” (8<sup>th</sup> semester)**

Principle of Regenerative Braking System is used to recover the kinetic energy of bicycle that is wasted during deceleration or braking in the case of traffic jam or downhill travel. A flywheel is used for storing and resupplying of energy, in which a normal bicycle is modified using pipes, axle, bearings, sprockets, clamps and clutch plate. Test results shows that 17 to 18% more distance can be covered using flywheel assembled KERS bicycle.

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### **Industrial Training:**

#### **Exergy Analysis of the Screw compressor at Ingersoll Rand (India) Limited (22<sup>nd</sup> may to 1<sup>st</sup> July, 2017)**

Industry’s various departments and different types of air compressors have been studied. For the case study of the exergy efficiency of oil flooded screw compressor, two equations are used, in which one is from book and second one is according to one research paper. Computer program is made. For the given input conditions, parametric study has been carried out, in which the exergy efficiency of paper’s equation is 12-24% more than book’s approach.

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### **Experience:**

Teaching Assistant at Institute of Technology, Nirma University (August 2016 to April 2018). I have assisted the faculty in making study material related to day to day teaching. I have taught the ‘Workshop Practices’ subject to the first year B.Tech engineering students.

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### **Industrial Visit:**

Ingersoll Rand (India) Ltd., Ice Make Refrigeration Pvt Ltd., Citizen Industries Limited, Indo German Tool Room, Waterman Industries Pvt Ltd., Ahmedabad, SPRERI (Sardar Patel Renewable Energy Research Institute), Vallabh Vidyanagar.

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### **Computing Skills:**

Microsoft Word, PowerPoint, Excel, AutoCAD, Tecplot, LaTeX software, Basic C++ language.

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## Extra-Curricular:

- 1) Participated in 'i-Create' (Model presentation cum Exhibition) event at Indus University.
- 2) Passed the Elementary and Intermediate Drawing Examination with Grade 'A' and 'B' respectively.
- 3) Participated in District level science quiz in secondary level organized by GUJCOST.

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## Personal Details:

Identity	Languages	Strength	Hobbies
Indian	English	Quick learner	Drawing
Hindu	Hindi	Hardworking	Playing Chess
Single	Gujarati	Communication Skills	Listening Music

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## References:

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I hereby declare that the above written particulars are true to the best of my knowledge and brief.

Yours Sincerely,  
Yogesh Prajapati