

**Name:** Sushama Rajendra Garad

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### **Objective:**

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To attain a position in the area of **Mechanical Engineering** ensure continuous enhancement of my education and skills with an opportunity for mutual growth and advancement.

### **Personal Profile:**

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Date of Birth : 10<sup>th</sup> June, 1992.  
Address : A/P-Salegaon , Tal- Lohara, Dist- Osmanabad  
Nationality : Indian.  
Gender : Female.  
Marital status : Single.  
Languages Known : English, Hindi and Marathi

### **Technical Education:**

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**Pursuing M.E. Second Year Mechanical (Heat power Engineering) from PES's Modern College of Engineering, Pune.**

### **Education:**

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- **ME(Heat Power) 1<sup>st</sup> year** in PES's Modern College of Engineering, Pune with **(6.66)**
- **B.E. (Mechanical)** from ADCET, ASHTA in **2014** with **(63.12%)**
- **HSC** from Latur board, **2010** with **Securing (64%)**.
- **SSC** from Latur Board, **2008** with **Securing (82.92%)**.

### **Project:**

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**“Performance evaluation of heat transfer and friction factor characteristics in a tube using square notched twisted tape inserts”**

The heat transfer can be increased by the use of an active technique by means of external power. Considerable work has been done for the development of various heat transfer surface devices for the heat transfer augmentation. The development of these performance thermal systems employs active techniques which require some external power input for the improvement in the rate of heat transfer. Tube inserts present some advantages over other enhancement techniques, such as they can be installed in existing smooth tube that exchanger, and they maintain the mechanical strength of the smooth tube. Their installation is easy and cost is

low. It is relatively easy to take out for cleaning operations too. Nusselt number, friction factor, pressure drop, heat transfer parameter will be experimentally investigated. The obtain result will show the experimental readings and this readings compare with and without insert. The present work represents numerical analysis (CFD) of square notched twisted tape insert in a tube by varying pitch with air as a working fluid. The results for simple twisted tape insert, square notched with single and double slot twisted tape insert at different twist ratio (4, 5, and 6) determined. Reynolds number varied from 35000-45000. Both pressure drop, heat transfer coefficient, Nusselt number are calculated and compared with plane tube. It is found that heat transfer enhancement of square notched twisted tape single slot and double slot is about and 32.31%, 39.2% as compared with plane tube.

### **Seminars:**

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- “Heat transfer enhancement using Nano fluid”.
- “Power generation from waste heat using heat pipe assisted thermo electric generator”.
- “Study of performance characteristics of pulsating heat pipe”.

### **Research Interest:**

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- Heat transfer, Thermo-dynamics, Waste heat recovery, Air conditioning system.

### **Extra-Curricular Activities:**

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- Industrial Training in Mennon piston Automobile, Kolhapur, in 2013
- Project presentation in **PROFEST-2014**.
- Paper presentation in 2<sup>nd</sup> mechanical engineering post graduate students conference in **MECHPGCON-2016** (Heat power engineering , Automotive, Energy Engineering) held at Department of Mechanical Engineering, MAEER’s MIT college of engineering, Pune.

### **Technical skills:**

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- **Well versed with software:** AutoCAD, Catia, CFD, and Unigraphics.
- **Well conversant with Windows Operating System.**

### **Hobbies:**

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- Reading Books, Listening songs, watching TV.

### **Declaration**

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I hereby declare that the above mentioned information is correct to the best of my knowledge.

**Place: Pune (Maharashtra)**

**Sushama Rajendra Garad.**

