


## Faculty Profile

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| <b>Name of Faculty</b>  | Dr.Mukesh Patil  |  |
| <b>Department</b>   | Mechanical Engineering   |   |
| <b>Qualification</b>  | B.E., M.Tech., Ph.D.   |   |
| <b>Designation</b>  | Professor & Head   |   |
| <b>Area of specialization</b>                                       | Thermal Engineering  |   |
| <b>Date of joining BNMIT</b>  | 29.11.2013   |   |
| <b>Nature of association<br/>(Regular/Contractual/<br/>Adjunct)</b> | Regular  |   |
| <b>e-mail</b>   | <a href="mailto:hodme@bnmit.in">hodme@bnmit.in</a><br><a href="mailto:patilmukesh@yahoo.com">patilmukesh@yahoo.com</a> |   |
| <b>No. of years of experience</b>                                   | Teaching:16 years  |   |

### Academic Qualifications

- **Ph.D.** (2013): Department of Mechanical Engineering, PES Institute of Technology-R&D Center, Bangalore, under VTU, Belgaum, India.
- **M.Tech.** (2005): Maintenance Engineering, Department of Mechanical Engineering, Sri Jayachamarajendra College of Engineering, Mysore, VTU, Belgaum, India (**First Class with Distinction; 1<sup>st</sup> Rank**).
- **B.E.** (2000): Mechanical Engineering, Department of Mechanical Engineering, PES College of Engineering, Mandya, University of Mysore, Mysore, India (**First class**).

### Work Experience Details

- **Professor & Head:** Department of Mechanical Engineering, BNMIT, Bangalore, India (01/01/2016 - till date).
- **Professor:** Department of Mechanical Engineering, BNMIT, Bangalore, India (29/11/2013 – 31/12/2015).
- **Assistant Professor:** Department of Mechanical Engineering, PESIT, Bengaluru, India (24/05/2011 – 28/11/2013).
- **Lecturer:** Department of Mechanical Engineering, PESIT, Bengaluru, India (12/08/2006 – 23/05/2011).
- **Lecturer:** Department of Mechanical Engineering, JSSATE, NOIDA (U.P.), India (30/09/2002 – 31/07/2006).

### Subjects Taught

Thermodynamics, Heat Transfer, Energy Engineering, Biomass, Materials Science, Automotive Engineering, IC Engines, Renewable Energy.

### Research Experience Details:

## **Ph.D:**

**Title:** Investigation of Fluid Flow, Heat and Mass Transfer in Porous Medium

**Guide (s):** Dr.K.N.Seetharamu / Dr.Pradeep G. Hegde

**About the work:** The work focused on investigation of fluid flow, heat and mass transfer in porous medium embedded within a vertical porous annulus bounded by different geometries. The investigation was carried out on combined effect of natural convection and thermal radiation on heat and mass transfer characteristics inside the porous medium.

## **Research Supervision**

| Sl.No. | Name of the Student | Degree | University      | Year of Completion | Title of Research Topic  |
|--------|---------------------|--------|-----------------|--------------------|--|
| 1.     | Mr.Karthik S.R.     | Ph.D.  | VTU,<br>Belgaum | Pursuing           | Effects of ultrasonic vibrations on natural convection heat transfer inside enclosures |
| 2.     | Mrs.Prema           | Ph.D.  | VTU,<br>Belgaum | Pursuing           | Forced convection heat transfer through a porous medium saturated with Oldroyd B fluid |

## **Academic Positions and other Responsibilities (University Level):**

**Member,** BoE, Bangalore University, Bangalore.

## **Academic Positions and other Responsibilities (Institute Level):**

- Chief Test Coordinator, BNMIT: 2015-16
- Chief Superintendent at BNMIT: June 2018 and December 2018 B.E. examinations of VTU, Belgaum.
- Started Heat Transfer Lab in 2014 by initiating the purchase and commissioning of all equipments.
- Started Design Lab in 2014 by initiating the purchase and commissioning of all equipments.
- Organised and conducted TATVA 2015 and TATVA 2018 – BNMIT Technical fest
- Initiated and formed R&D Centre at Department of Mechanical Engineering in 2017.
- Initiated and successfully commissioned BNMIT-Toyota Centre of Excellence in the department in association with Toyota Kirloskar Motor Pvt. Ltd., Bangalore.
- Initiated and formed Institution of Engineers (India) Students' Chapter under Mechanical Division.

### **Awards/ Achievements/Memberships:**

- VTU Gold Medal in M.Tech. for the year 2005.
- First Rank in M.Tech.
- Appreciation letter for scoring more than 90% in faculty appraisal at BNMIT.

### **Professional Memberships:**

- Life Member, Fluid Mechanics and Fluid Power Society of India
- Life Member, Indian Society of Technical Education

### **Faculty Development Programs Organized:**

1. Organising chair for FDP on **Research Avenues in Thermal Design And Manufacturing Engineering** by Dept. of Mechanical Engineering, BNMIT from 11<sup>th</sup> to 16<sup>th</sup> July 2016.
2. Organising chair for FDP on **Recent Advancements in Mechanical Engineering** by Dept. of Mechanical Engineering, BNMIT from 16<sup>th</sup> to 21<sup>st</sup> Jan 2017.
3. Organising chair for FDP on **Emerging Research Areas and Trends in Mechanical Engineering** by Dept. of Mechanical Engineering, BNMIT from 31<sup>st</sup> July to 5<sup>th</sup> Aug 2017.

### **Research Publications:**

#### **I. International Journals**

1. Pradeep G. Hegde, **Mukesh Patil**, K.N. Seetharamu, “Numerical Prediction of Thermal Performance of Water Cooled Multi-Stack Microchannel Heat Sink with Counterflow Arrangement”, Journal of Microelectronics and Electronic Packaging, Job.59949; Vol. 6, No.1, Art. 0276, 2011.
2. **Mukesh Patil**, Pradeep G. Hegde, K.N. Seetharamu, “Effects of Radiation and Cold Wall Temperature Boundary conditions in a Vertical Annular Porous Medium”, Journal of Applied Fluid Mechanics, Vol. 6, No. 2, pp. 177-189, 2013.
3. V.Srivastav, P.Badami, **Mukesh Patil**, K.N. Seetharamu, “Natural Convection with Heat Generation in Vertical Porous Annulus with Axial and Radial Magnetic Field”, International Journal of Scientific and Engineering Research, Vol. 5, No. 1, pp. 501-514, 2014.
4. S.Dev, V.Srivastav, P.Badami, **Mukesh Patil**, “Heat and Mass Transfer in an Annular Vertical Porous Cylinder Considering Thermal Equilibrium with Internal Heat Generation”, International Journal of Scientific and Engineering Research, Vol. 5, No. 6, pp. 1042-1061, 2014

## **II. International Conferences**

1. **Mukesh Patil**, Babu Reddy, Pradeep G. Hegde, T.R. Seetharam, K.N. Seetharamu, “Convection and Radiation in a Vertical Cylinder Embedded with Porous Medium”, Proc. of 37th National and 4th International Conference on Fluid Mechanics and Fluid Power (FMFP), 16<sup>th</sup> -18<sup>th</sup> December 2010, Indian Institute of Technology, Madras, Chennai, India.
2. **Mukesh Patil**, Pradeep G. Hegde, T.R. Seetharam, K.N. Seetharamu, “Effects of Aspect Ratio on natural Convection in a Vertical Annulus Embedded with Porous Medium”, Proc of 2nd International Conference on Computational Methods for Thermal Problems (Thermacomp 2011), 5<sup>th</sup> to 7<sup>th</sup> September 2011, Dalian Technological University, Dalian, China.

## **Participation in Training courses/Seminars/Workshops**

1. 37<sup>th</sup> National and 4<sup>th</sup> International Conference on Fluid Mechanics and Fluid Power (FMFP), 16<sup>th</sup> to 18<sup>th</sup> December 2010, Indian Institute of Technology, Madras, Chennai, India.
2. Faculty development program on **Modern Materials and their Applications** by Dept. of Physics, BNMIT. From 16<sup>th</sup> to 20<sup>th</sup> January 2018.

## **Visit Abroad:**

Visited Republican Institute of Vocational Training at Minsk, Republic Belarus (Europe) from 17<sup>th</sup> to 23<sup>rd</sup> July 2018 to supervise the students’ internship program, “Professional Training for Industry 4.0”. Visited several state of the art centers of excellence in construction, food production, car service partnered by “Keller”, “Siemens”, ‘Nissan’, ‘JSC’.

## **Personal Details:**

- **Date of Birth:** 15-05-1979; **Sex:** Male.
- **Family Details:** Wife and a son
- **Passport Number:** J6538464 (valid till 11/04/2021)

**16<sup>th</sup> February 2019**

**MUKESH PATIL**