

## CURRICULUM VITAE

**Dr. ANDALLIB TARIQ**

Male, Indian, Born on September 19th, 1970.

***Profile:** Received his BE degree in Mechanical Engineering from Bangalore University, India and subsequently completed MBA from Bihar University, India. Further studied in Mechanical Engineering and received his MTech and PhD from **Indian Institute of Technology, Kanpur (IIT-K), India**. Established and implemented a critical heat transfer enhancement technology based on liquid crystal thermography.*

***Research interests and expertise:** heat transfer enhancement, experimental fluid mechanics, turbulence, flow visualization, optical techniques. Well acquainted with hotwire anemometry (HWA), liquid crystal thermography (LCT), particle image velocimetry (PIV) techniques, micro pressure sensors, piezoelectric actuators, image processing and LabVIEW.*

*Has several years of teaching/research experience in India as well as abroad. Published many papers in various international journals of repute, and several technical reports for research projects.*

**SUBJECT & FIELD OF SPECIALIZATION** : Mechanical Engineering; Fluid Mechanics & Thermal Sciences

**PRESENT POSITION** : Assistant Professor  
Department of Mechanical & Industrial Engineering  
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**EDUCATION:**

Qualification	Branch/Stream	University/Board	Year
PhD <sup>*</sup>	Mechanical Engineering / Fluid Mechanics & Thermal Science	IIT, Kanpur, India	2004
MTech <sup>++</sup>	Mechanical Engineering / Fluid Mechanics & Thermal Science	IIT, Kanpur, India	1998
MBA	Material Management / Marketing Research	Bihar University, India	1995
BE <sup>*</sup>	Mechanical Engineering	Bangalore University India	1992

<sup>\*</sup> **Thesis entitled:** "Heat Transfer Enhancement and Fluid Flow Transport Phenomena behind Surface Mounted Solid and Permeable Rib". (A brief summary about the field of research enclosed)

<sup>++</sup> **Thesis entitled:** "Augmentation Heat Transfer Using an Internally Threaded Tube".

<sup>\*</sup> **Project carried on:** "Problem connected with the fabrication of convergent and divergent assemblies of L.P Engine of PRITHVI MISSILE" at Aero-engine division of Hindustan Aeronautics Ltd. Bangalore, India.

## PROFESSIONAL EXPERIENCE:

### (i) Research:

- ✚ Worked as **Post-doctoral Fellow** on the Naval Research Board (NRB) project entitled, "Active Flow Control by Dynamics Obstacles in Propulsion Application" at IITK, India.
- ✚ Worked on the research project entitled "*Experimental Study of Heat Transfer Enhancement in Vortex Dominated Flow Using Liquid Crystal Thermography*" of Aeronautical Research and Development Board (ARDB) at IITK, India as a Project Senior Research Assistant.
- ✚ Worked on the project entitled "*Mathematical Modeling of CVD & Czochralski Crystal Growth Systems, Role of Magnetic Fields & their Effects on Thermo-mechanical Properties*" of Centre for Advanced Technology (CAT), Indore at IITK, India as an "Senior Project Fellow," and developed the code for the control of the crystal diameter by using the pull velocity.

### (ii) Teaching:

- ✚ Worked as an **Assistant Professor** in Mechanical Engineering Department at College of Engineering, Qassim University, Al-Qassim, Kingdom of Saudi Arabia since October, 2004 to August 2007.
- ✚ Worked as **Lecturer** in the Department of Mechanical Engineering at Maulana Azad College of Engineering and Technology, Patna, for a period of three years from March 1995 to December 1998.
- ✚ Worked as **Part-time Lecturer** in the Dept. of Mech. Engg. at Muzaffarpur Institute of Technology (MIT), Muzaffarpur, for a period of two years from January 1993 to December 1994.

### (iii) Sponsored Research projects (from Qassim University, Saudi Arabia)

- ✚ A Novel Approach of Evaluating Heat Transfer Coefficient of Surface Using LCT

### (iv) Academic activities

- ✚ Actively involved in organizing the International Conference on Engineering Education - ICEE 2006.
- ✚ Actively involved with the active learning methodology in engineering curriculum.

**Courses Taught** : Heat Transfer, Energy Conversion, Thermodynamics, Fluid Mechanics, Machine Drawing, etc.

**Laboratory Experiences** : Energy Conversion, Fluid Mechanics and Turbulence Research Lab.

## RESEARCH PUBLICATIONS

### (a) INTERNATIONAL JOURNALS:

- J1.** Malay K. Das, A. Tariq, P.K. Panigrahi and K. Muralidhar (2005). *Estimation of Convective Heat Transfer Coefficient from Transient Liquid Crystal Data Using an Inverse Technique*. **Inverse Problems in Science and Engineering**, Vol. 13(2), pp. 133-155.
- J2.** Andallib Tariq, P. K. Panigrahi and K. Muralidhar (2004). *Flow and Heat Transfer in the Wake of a Surface-mounted Rib with a slit*. **Experiments in Fluids**, Vol. 37, pp. 701-719.
- J3.** Andallib Tariq, K. Singh and P. K. Panigrahi (2003). *Flow and Heat Transfer in a Rectangular Duct with Single-Rib and Two-Ribs Mounted on the Bottom Surface*. **Journal of Enhanced Heat Transfer**, Vol. 10/2, pp. 171- 198.
- J4.** P. K. Panigrahi and Andallib Tariq (2003). *Liquid Crystal Heat Transfer Measurements in a Rectangular Channel with Solid and Slit Rib*. **Journal of Visualization**, Vol. 6, No. 4, pp. 407-416.

### (b) INDIAN JOURNALS:

- J5** Andallib Tariq, S. K. Swain and P. K. Panigrahi (2002). *An Experimental Study of Convective Heat Transfer from Flat and Ribbed Surfaces*. **Indian Journal of Engineering and Material Science**, India, Vol. 9, pp. 464-471.

#### **UNDER SUBMISSION:**

- J6.** Andallib Tariq, P. K. Panigrahi and K. Muralidhar (2006). *An Experimental Investigation on the Effect of Slit Location*. **Journal of Enhanced Heat Transfer**.
- J7.** Andallib Tariq, P. K. Panigrahi and K. Muralidhar (2006). *Heat Transfer Enhancement Analysis of Multiple Perforated Ribs in a Rectangular Duct*. **Transactions of the ASME, Journal of Heat Transfer**.

### (c) BOOK/CHAPTER CONTRIBUTION:

- B1** A. Tariq, K. Singh and P. K. Panigrahi (2002). *Detailed Measurement of Heat Transfer and Flow Characteristics in Rectangular Duct with Rib Turbulators Mounted on the Bottom Surface*. "Engineering Turbulence Modelling and Experiments-5". (Editors. W Rodi and N Fueyo), pp. 445-454, Elsevier Science Ltd. UK, 2002.

### (d) INTERNATIONAL CONFERENCES/SYMPOSIUM

- C1.** Andallib Tariq and P. K. Panigrahi (2003). *Heat Transfer and Flow Characteristics of Rib with a Slit*. **ASME International Mechanical Engineering Congress and RD & D Expo, Washington**, IMECE-41352.
- C2.** Andallib Tariq and P. K. Panigrahi (2003). *Heat Transfer and Flow Characteristics of a Flat Surface with Solid and Slit Ribs*. **ISHMT-ASME Heat and Mass Transfer Conference, India**.
- C3.** A. Tariq, K. Singh and P. K. Panigrahi (2002). *Detailed Measurement of Heat Transfer and Flow Characteristics in Rectangular Duct with Rib Turbulators Mounted on the Bottom Surface*. **5<sup>th</sup> International Symposium on Engineering Turbulence Modeling and Measurements, Mallorca, Spain**. (Subsequently published in the edited book entitled, "Engineering Turbulence Modelling and Experiments-5", see ref. B1).
- C4.** A. Tariq, K. Singh and P. K. Panigrahi (2002). *An Experimental Investigation of Heat Transfer Enhancement and Fluid Flow Characteristics in a Ribbed Rectangular Duct*. **An International Symposium on Recent Trends in Heat and Mass Transfer, India**.
- C5.** Andallib Tariq, Keshav Kant and Pradipta K. Panigrahi (2000). *Heat Transfer Enhancement Using an Internally Threaded Tube*. **ISHMT-ASME Heat and Mass Transfer Conference, India**, pp. 277-281.

### (e) NATIONAL CONFERENCE

- C6.** A. Tariq, S. K. Swain and P. K. Panigrahi (2001). *An Experimental Study of Convective Heat Transfer from Flat and Ribbed Surfaces*. **28<sup>th</sup> National Conference on Fluid Mechanics and Fluid Power, Pune, India**. pp. 305-314.