



# UNIVERSITY OF CALCUTTA

## ACADEMIC DEPARTMENT – JUTE AND FIBRE TECHNOLOGY

### FACULTY ACADEMIC PROFILE/ CV

1. **Full name of the faculty member:** Dr. Amiya Kumar Singha
2. **Designation:** Associate Professor
3. **Specialisation :** Heat Power, Refrigeration and Air Conditioning, Computational Fluid Dynamics.
4. **Passport size photograph :**



5. **Contact information :**

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6. **Academic qualifications:**

College/ university from which the degree was obtained	Abbreviation of the degree
Jalpaiguri Government Engineering College / North Bengal University	B.E. (Mechanical)
Bengal Engineering College / Calcutta University	M.E.(Heat Power Engineering)
State Council for Engineering and Technical Education.	Diploma in Industrial Safety
Javdavpur University	PhD (Engineering)

7. **Positions held/ holding:** Associate Professor

8. **Research interests:**

- Computational Fluid Dynamics
- Refrigeration and Air conditioning.
- Fire and Safety Engineering.

9. **Research guidance :**

Number of researchers awarded M.Phil/ Ph.D degrees : 04

Number of researchers pursuing M.Phil/ Ph.D : 01

10. **Projects :**

1) Modernization & Development of Mechanical Engg. Laboratory.

11. **Select list of publications:**

**Singha, A. K., Sarkar, A, De, P. K.,** “Numerical study on heat transfer and fluid flow past a circular cylinder in the vicinity of a plane wall”, *Numerical Heat Transfer; Part A: Applications*, 53:6, 641-666, 2008.

**Singha, A. K., Sarkar, A, De, P. K.,** “Wall effect on heat transfer and fluid flow for incompressible viscous flows past a circular cylinder”, *Journal of Energy Heat and Mass Transfer ;* vol. 31, pp. 169-184, 2009.

**Singha, A. K.,** “Numerical Simulation of Shedding Pattern of near wake vortices behind a circular cylinder near a plane boundary” *International Journal on Recent and Innovation Trends in Computing and Communication*; vol. 2, pp. 3149-3154, 2014.

**Bairagi, S. R., Ray, S. C. , Singha, A. K.,** “Studies of Dimensional Parameters and Properties of Newly Developed Nonwoven Floor Mats” *International Journal of Engineering Sciences & Research Technology*, Vol-6(12), pp. 224-230, 2017.

**Singha, A. K.,** “Numerical Simulation of Flow past a Circular Cylinder between Parallel Walls” *International Journal of Creative Research Thoughts*; Vol. 5(4), pp. 2315-2323, 2017.

**Singha, A. K.,** “Heat Transfer and Fluid Flow Past a Circular Cylinder Between Parallel Walls” *International Journal of Engineering Sciences & Research Technology*; Vol. 6(12), pp. 224-230, 2017.

**Sekhar Das, Amiya Kumar Singha, Atin Chaudhuri & Prasanta Kumar Ganguly,** “Lengthwise jute fibre properties variation and its effect on jute–polyester composite” *The Journal of The Textile Institute*: 24.05. 2019.

**Singha, A. K., Sarkar, A, De, P. K,** “Wall effect on heat transfer past a circular cylinder numerical study ”, Proceedings of International Conference on Mechanical Engineering (ICME), Dhaka, Dec 2005.

**A. K. Singha, S. Ghosh,** “Optimizing the design of bare tube cooling coil in cold storage application”, Proceedings of International Conference on Mechanical Engineering (ICME), Dhaka, Dec 2005.

**A. K. Singha,** “Numerical Study of a Viscous Fluid Flow Past A Circular Cylinder in an Unbounded Domain”, Proceedings of International Conference on Mechanical Engineering (ICME), Dhaka, Dec 2011.

**A. K. Singha,** “Heat Transfer across a Bare Tube Cooling Coil in Staggered Arrangement for Cold Storage Application”, Proceedings of International Conference on Mechanical Engineering (ICME), Dhaka, Dec 2015.

**Singha, A. K,** “Heat Load and Duct Design in Comfort Air Conditioning – A Case Study”, Proceedings of Clean and Comfort Air in Public Buildings " 2016, State Electrical Engineer’s Association.

### **C) Book Chapter:**

**Sekhar DasI, Shantanu Basak, Pintu Pandit and Amiya Kr. Singha,** “ Chapter 5 : Hybrid Bast Fibre Strengthened Thermoset Composites” Thermoset Composite Materials Research Foundations 38 (2018) PP 112-127.

#### **12. Membership of Learned Societies:**

Life Member of Institute of Engineers

Life Member of Indian Society of Heating, Refrigerating & Air conditioning Engineers (ISHRAE)

#### **13. Patents: Nil**

#### **14. Invited lectures delivered: Nil**

#### **15. Awards: Nil**

#### **16. Other notable activities: Consultancy Work**

- i) Air Conditioning and Ventilation proof Consultant of RITES for construction of seven multi specialty/ super- specialty hospitals at districts, under WB Housing Board, Government of West Bengal.
- ii) Mechanical Ventilation system consultancy of Indoor Cricket Coaching Centre of The Cricket Association of Bengal (CAB)