

# Heat and Mass Transfer Lab

**Mechanical and Production Engineering Department** 

Ahsanullah University of Science & Technology (AUST)

### **General Lab Safety Rules**

**Wear PPE**: Lab coat, safety goggles, gloves, and closed-toe shoes are mandatory.

**No Unauthorized Entry**: Only authorized students and staff are allowed in the lab.

**Keep Workspace Clean**: Ensure all equipment is stored properly and workspaces are clean after experiments.

**No Eating or Drinking**: Food and drinks are strictly prohibited to avoid contamination.

### **Accident and Health Hazard Provisions**

**First Aid Kit**: Familiarize yourself with its location and basic first aid procedures.

**Fire Safety**: Know the emergency exits and fire alarm locations. Evacuate immediately if a fire cannot be controlled.

**Incident Reporting**: Report accidents immediately to the lab In-Charge. Investigations will be conducted to prevent future incidents

## Safety Procedures for Specific Equipment

**Thermal Conductivity Meter (Metal Bars)**: Handle with care; avoid touching heated components. Use heat-resistant gloves when necessary.

Natural & Forced Convection (Pin & Plate Fins): Ensure proper ventilation to prevent overheating during experiments. Avoid direct contact with heated surfaces.

**Parallel and Counter Flow Heat Exchangers**: Always check for any leaks in the fluid system before starting the experiment. Monitor temperature and pressure closely to avoid dangerous conditions.

**Transient Heat Transfer Equipment**: Allow components to cool before handling them after the experiment. Ensure all electrical connections are secure before powering on equipment.

**Mass Diffusivity Meter**: Handle liquids and chemicals according to lab protocols. Use fume hoods where necessary to avoid inhaling hazardous materials.

#### **Lab Contact Information**

Lab In-Charge: Dr. Fazlar Rahman Emergency Contact: [LA: 01680609039, AAO: 01534100141]

**REMEMBER: Safety First!** Always adhere to lab safety protocols.