Department of Mechanical Engineering, NIT Calicut

Photo of Instrument:				
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Instrument Name	ET 915.07 Air conditioning model			
Instrument Model & Serial No.	ET 915 ET915.07			
Instrument Make	Gunt Hamburg,			
Category of Instrument	Characterization and Testing			
Description of Instrument	ET 915.07 is part of the HSI training system for refrigeration and air conditioning technology. In combination with the base unit ET 915 the operational model of a full air conditioning system is created. The model is plugged onto the base unit, secured using fasteners and connected with refrigerant hoses to become a complete refrigeration circuit for the air cooler.			
	The room climate is created by the interaction of air temperature, heating temperature and air humidity. The purpose of room air conditioning is to shape the room climate in accordance with the requirements of people or sensitive goods. This model introduces the operation of an air conditioning system and the recirculating air and outer air operating modes.			

AC TEST RIG

	The model ET 915.07 includes two air ducts with transparent front. The top air duct serves as climatic chamber whilst the bottom air duct contains the air cooler, two electric air heaters and a steam humidifier. A fan between the two air ducts recirculates the air. A motorised butterfly valve in the top air duct allows a change between outer air and recirculating operation. Dependent on the switching of the two air heaters, the air cooler and the humidifier, the air in the duct system can be cooled, heated, humidified or dehumidified.		
Instrument Technical Description			
and Major Specifications (This	complete model of a full air conditioning system		
Specifications Limited to Major 5)	heating, cooling, humidifying and dehumidifying		
	outer air and recirculation operation possible		
	component operation and fault simulation via the GUNT software		
Application of Instrument (Limited			
to Major 4 or 5)	full air conditioning system and its main components		
	heating and cooling in the h-x diagram		
	humidifying and dehumidifying in the h-x diagram		
	outer air and recirculating operation		
	fault simulation		
Type of Sample Required for Analysis / Testing (Quantity, Pre- Preparation, State etc.) Guidelines for Sample Submission – User Instructions			

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Types of Analysis / Testing			
Faculty In-Charge Name / Email /	Dr. T. J. Sarvoththama Jothi		
Contact	tjsjothi@nitc.ac.in 0495 228 6419		
Technical Staff Name / Email /	Abhilash A		
Contact	9037283029		
Location of Instrument	Thermal Science Lab		
Other Details			

User Charges:

S.NO.	Type of Analysis / Testing	Internal - within Department of NITC	Internal - Other Departments NITC	External Academic Educational Institutes	National R&D Labs	Industry
1						

Slot Booking and Payment Work Flow: