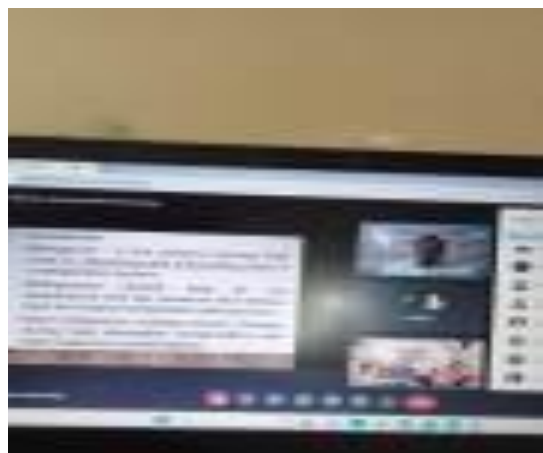


TECHNICAL ACTIVITY CARRIED OUT BY CENTRES / OVERSEAS CHAPTERS

Name of Centre / Overseas Chapter:		Meerut Local Centre	
Title of Activity:	Lecture Meeting		
Activity under Divisional Board (delete which are not applicable):	MC		
Date:	27-08-2023	Venue:	On google meet from own place



Speaker Delivering Talk



Audience in Lecture Meeting

Brief Report (not exceeding 4000 characters)

A lecture meeting was organized on “**Refrigerants**” on 27th August, 2023. Dr. K.L.A. Khan Dean IEC and Professor, Department of Mechanical Engineering KIET Group of Institutions was the speaker. The session was started with a welcome note from Er. M.L. Jain, Chairman Meerut Local Centre. Dr. Khan said that Refrigerant is the primary working fluid used for absorbing and transmitting heat in a refrigeration system. Refrigerants absorb heat at low temperature and low pressure and release heat at a higher temperature and pressure. Most refrigerants undergo phase changes during heat absorption (evaporation) and heat releasing (condensation). Due to several environmental issues such as ozone layer depletion, global warming and their relation to the various refrigerants used, the selection of suitable refrigerants has become one of the most important issues in recent times. The thermodynamic efficiency of a refrigeration system depends mainly on its operating temperature. There are Primary and Secondary refrigerants. Primary refrigerants are fluids which are used directly as working fluids. Secondary refrigerants are fluids which are used for transporting thermal energy from one location to other. They are also known as Brines or Antifreezes. Generally the freezing point of a brine will be lower than the freezing point of its constituents. Essential

properties of refrigerants include chemical stability, and latent heat of vaporization.

Refrigerants are Halocarbons(R11,R12 etc.) and chloroflorocarbons called Freons also. He told Inorganic refrigerants include CO₂, water, NH₃, air, SO₂

He also discussed ozone layer and harmful consequences of ozone depletion on human and plants. He also discussed Montreal Protocol that was signed in 1987 under the 'UNEP' after much discussion. India ratified it on Sept 17,1992.

In the end, Hony. Secretary Er. R.P. Agrawal delivered vote of thanks.