

KARUNYA INSTITUTE OF TECHNOLOGY AND SCIENCES

(Declared as Deemed to be University under Sec. 3 of the UGC Act 1956)
A CHRISTIAN MINORITY RESIDENTIAL INSTITUTION
AICTE Approved & NAAC Accredited
Karunya Nagar, Coimbatore - 641 114, Tamil Nadu, India

DEPARTMENT OF MECHANICAL ENGINEERING

Center for Research in Materials Science and Thermal Management (CRMT)

The CRMS&TM is established in 2009 to provide solution to the problems related to material science and thermal management in electronics. This Centre is functioning with two laboratories namely "Advance Thermal Sciences Lab" and "Micro and Nano Heat Transfer Lab". All the complicated cooling systems were developed in Advance Thermal Sciences Lab and the same were tested in the Micro and Nano Heat Transfer Lab. This Centre has backed 4 external funded projects and published over 50 Referred journals and many international conferences. Also this is Center act as a good flat form for the Research Scholars, Masters and under graduates to shape their carrier in the field of research in thermal management and material science. Further, this Centre helps the students to carry out their academic projects and through that they can acquire hands on experience on thermal related experiments. The heat pipe based products developed in the laboratories of good quality and could be used in real time applications such as satellites, space vehicles etc.

Facilities available for research, consultancy and testing:

- ➤ Heat Pipe research facilities
- Plasma heating facilities
- > Nanofluid heat transfer research facilities

Major equipment's



Testing of heat pipe based heat flux sensor



Experimental facility for pool boiling heat transfer



Rotating heat pipe research facility



Experimental facility for closed loop pulsating heat pipe



Vacuum Pumping Facility

Faculty In-charge



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