Department of Mechanical Engineering
M. Tech.
in
Thermal Sciences & Energy Systems

The curriculum of M.Tech. programme in Thermal Sciences and Energy Systems is designed to enable the students to develop expertise in both theory and design in the areas like thermal systems, energy systems and energy management. The curriculum is designed for value addition to the Mechanical/Chemical/Automobile engineers who are interested to expertise in Thermal and fluid engineering, Energy conversion and conservation. This programme also includes courses on Micro Flows and Micro/Nano Heat Transfer which are of great importance in electronic equipment design industry.

The department has well qualified and experienced faculty who have done their masters and doctoral degrees from premier institutes like IIT’s, NIT’s, Birla Institute etc. The department has exclusive state of the art laboratories for M.Tech and Ph.D. students to do research in areas like renewable energy, alternate fuels, nano fluids, heat transfer, shock waves and hypersonic flows. The department recently established state of the art laboratory for Hypersonic and Shock Wave Research. Amrita is the first private University to establish research facility in the area of hypersonic flow. There are only 4 or 5 education in the country including IIT’s, NIT’s and IISc which have such a facility.

This programme offers wide range of career options for the youngsters in both public and private enterprises. Some of the sectors in which students completing this M.Tech. programme have career options are energy sector, defense sector, electronic equipment sector etc. India is energy starved and developing country. The energy sector is expanding at rapid rate. There are many jobs available in the areas of energy production and energy management. The government enterprises like HAL, NAL, DRDO, ISRO are looking for well qualified engineers. With Make in India slogan becoming louder many electronic equipment manufactures want establish their manufacturing units in India.

Amrita University has tie-up with leading universities in U.S. and Europe for student exchange programmes for one or two semesters.

Some of the areas in which students are currently working on are: bio-fuels, solar distillation, fluidized bed, gas turbine cooling, nano fluids, refrigeration systems, attenuation of blast/shock waves, flow over aero spikes, studies on drag and heat transfer in hypersonic flows.
The department has three technical clubs.
1) Ingenium
2) SAEINDIA Collegiate Club
3) Jido Club
The BAJA team won the runners up award in ‘BAJA SAEINDIA 2017’ competition for the cost category.

Some of the companies which visit for the recruitment are Hyundai, Toyota, Blue star, National instruments, ABB, Bosch, Tata consultancy, Wipro etc. The placement cell also provides opportunities for students to do internships in various companies.