

RECRUITMENT BROCHURE 2017-18

INDUSTRIAL TRIBOLOGY, MACHINE DYNAMICS AND MAINTENANCE ENGINEERING CENTRE (ITMMEC)



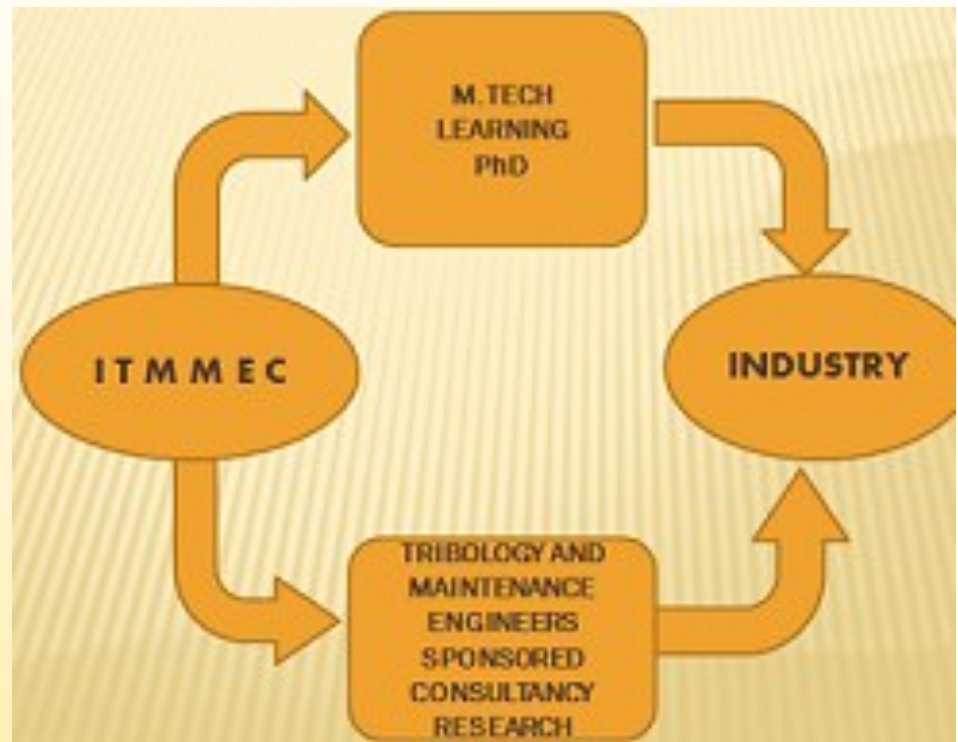
INDIAN INSTITUTE OF TECHNOLOGY
NEW DELHI



UNDERSTANDING ITMMEC

ITMMEC offers an M.Tech. Programme in “Industrial Tribology & Maintenance Engineering”. In addition to fresh graduate engineers this programme has attracted engineers sponsored by various industries . This programme is supported by qualified faculty members from various disciplines. Being an industry oriented centre a strong emphasis is given on industrial problems which needs a deep understanding of alongside courses.

WHY ITMMEC IS DIFFERENT?



COURSES

- FUNDAMENTALS OF TRIBOLOGY
- MATERIAL FOR TRIBOLOGY
- NOISE MONITORING AND CONTROL
- RAM ENGINEERING
- MAINTENANCE PLANNING AND CONTROL
- DIAGNOSTIC MONITORING AND CONDITION BASED MAINTENANCE
- FAILURE ANALYSIS AND REPAIR
- BULK MATERIAL HANDLING
- FINITE ELEMENT ANALYSIS
- VIBRATION AND NOISE ENGINEERING
- FRACTURE MECHANICS
- LUBRICANTS
- CORROSION AND ITS CONTROL

LAB FACILITIES

- UNIVERSAL TRIBOMETER
- SEM, EDS, TEM
- PIN-ON-DISC TEST RIG
- FERROGRAPH
- LASER PARTICAL COUNTOUR
- FFT ANALYSER
- THERMOGRAPHY
- ACOUSTIC EMISSION MEASUREMENT SYSTEM
- VIBRATION MONITORING EQUIPMENT
- GEAR NOISE ANALYSER
- ULTRASONIC FLAW DETECTOR
- MAGNETIC PARTICLE INSPECTION UNIT
- RADIOGRAPHY FACILITIES

The centre introduces postgraduates to topics that are highly selective yet extremely important to any organization. Coursework with focus on maintenance diagnostics tribology, lubrication etc. give students insight into areas which find great Importance in working of any industry. Since students mainly have an mechanical engineering background, with this additional knowledge they have an advantage over their peers in finding a niche in industry.

With rapid industrialization but increasing dearth of maintenance engineers, ITMMEC is here to fulfill the need !



SCANNING ELECTRON MICROSCOPE



UNIVERSAL TRIBOMETER

CONSULTANCY AND RESEARCH PROJECTS

PAST PROJECTS

- ◆ Noise reduction on 12-cylinder diesel engine locomotive
- ◆ Design development and testing of bush bearing for heavy earth moving machineries.
- ◆ Failure analysis of diesel locomotive cylinders
- ◆ Bearing fault prognostics.
- ◆ Design, development and analysis of volo brakes for magneto rheological application.
- ◆ Developing compliant surface and lubricating oil for reduced oil consumption (GE Bangalore)

PRESENT PROJECTS

- ◆ Condition monitoring of bearings using Thermography and current signature
- ◆ Application of acoustic emission for condition monitoring of rotating machines
- ◆ RAM studies of a production line, process or systems
- ◆ Incorporation of self-lubrication character into near-eutectic Aluminium-Silicon alloy
- ◆ Protection of AZ91 alloy against wear and corrosion
- ◆ Shock absorber fluid: State of art and performance optimization
- ◆ Exploring the lubricity of natural resources for green lubricants
- ◆ Tribological investigations of a binary Mg-xZn alloy (x=1to6 wt% of Zn)
- ◆ Influence of ingredients in friction materials on NVH
- ◆ Study on effects of biodiesel on engine health
- ◆ Study of miscibility of lubricating oils

WE ARE PLEASED TO INVITE YOU FOR PLACEMENTS 2017-2018

CONTACTS

Dr. Deepak Kumar,

Program Coordinator , ITMMEC

email: dkumar@itmmech.iitd.ac.in

Phone: +917503444659, 01126591227

Shivam Garg,

Overall Coordinator, PG Placement Cell

email: shvmgrg98@gmail.com, 9910850410

Mayank Srivastav , Nucleus Coordinator

email: mayankietlko@gmail.com,9891050263

Navneet Ranjan Singh, Nucleus Member

email:nav.sngh1990@gmail.com,8588014465

Hemant Kumar, Nucleus Member

email: hemant.kumar.mec10@itbhu.ac.in