



Modi Institute of Technology, Kota

An Engg. College Approved by AICTE & Affiliated to RTU
Branches: **B.Tech**- ME / EE / ECE / CSE / AI & DS & **M.Tech** – Digital Communication
Nayagaon, Rawatbhata Road, P.O. Borabas, Kota – 324010; Tel.:7665439788;
Website: www.mitkota.com Email: mitkota1@gmail.com

Department of Mechanical Engineering

Introduction

Programs Offered: Bachelor of Technology in Mechanical Engineering (UG)-4 Years (8 Semester Course)

Mechanical Engineering is a broad field of engineering that involves the application of physical principles for analysis, design, manufacturing, and maintenance of mechanical systems. It combines creativity, knowledge and analytical tools to complete the difficult task of shaping an idea into reality. This ranges from the macro to the micro, from the largest systems like land movers and satellites to the smallest components like sensors and switches. The mechanical system can be as simple as the design of chair for comfort or as complex as the operations of a turbocharged engine for speed.

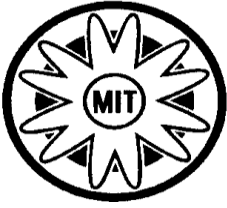
Mechanical Engineers make a difference. That's because mechanical engineering careers center on creating technologies to meet human needs. Virtually every product or service in modern life has probably been touched in some way by a mechanical engineer to help humankind.

Thus Modi institute of technology was introduced a new mile stone of Mechanical Engineering in year 2013 with the intake of 60 seats.

Goals of Department

The Department of Mechanical Engineering at MIT, Kota is founded with the Motto of providing world class Mechanical Engineers to the society who can take the nation on the road ahead. This includes solving today's problems and creating future solutions in health care, energy, transportation, world hunger, space exploration, climate change, and many more.

To achieve the committed goal the department is equipped with seasoned faculty which aims at nurturing the young raw minds so as to face the ever changing challenges of modern day industry with humanity and ethics. The department is also equipped with all the latest equipment and machines needed to churn out a well-qualified professional in his or her respective field of interest. It includes labs for all concerned subjects to ensure complete accumulation and implementation of theoretical knowledge to the real life situations.



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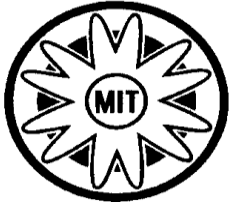
It's truly said that machines run the nation and Mechanical Engineers run the machines so here at ME department of MIT, Kota, we make responsible and dedicated Engineers who are always ready and committed to fulfill the duties and responsibilities bestowed upon them.

Course Detail

In the first six semesters student will follow a core syllabus in the fundamentals of mechanical engineering, mathematics and management. Modules cover mathathematics, mechanics of fluids, mechanics of solids, Engineering thermodynamics, design of machine element, mechanical behavior of materials, manufacturing processes with production engineering, computer integrated manufacturing, industrial engineering and fundamentals and programming of computer. Seventh and eighth semester includes an individual seminar on a advanced topic that shows student's ability of communication. Simultaneously it includes projects with a team effort in area of interest which ensures the team work in student. There must be an industrial training of 45 days after second year and third year to provide the exposure of organizational work and environment.

There are various laboratories in the department to demonstrate the principal of mechanical engineering and also for hands on practice to the students. Some of them are:

- 1) Material Science & Testing Lab
- 2) Basic Mechanical Engineering Lab
- 3) Thermal Engineering Lab – I & II
- 4) Production Engineering Practice
- 5) MAT LAB
- 6) Machine Drawing Practice
- 7) Theory of Machine Lab
- 8) Fluid Mechanics Lab
- 9) Production Engineering Lab
- 10) Digital Electronics Lab
- 11) Machine Design Sessional - I & II
- 12) Heat Transfer Lab
- 13) Mechanical Vibrations Lab



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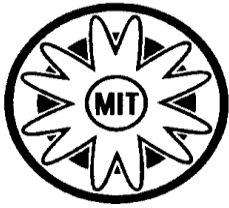
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- 14) Quality Control Lab
- 15) Mechatronics Lab
- 16) CIM Lab
- 17) FEA Lab
- 18) Industrial Engineering Lab.

The Department houses a dedicated complex called the workshop. This workshop has all the latest state of the art machinery for the students to work with along with various faculties guiding them. This houses machine, welding, fitting, carpentry and foundry workshops to impart practical knowledge to the students.

Best Practices

- 1. Lecture Delivery System:** Faculties used traditional way of teaching using blackboard/white board as well as upgraded versions of teaching using overhead projector through power point presentation and video lectures. Online teaching is also used via Google meet and Zoom platform.
- 2. Peer Tutoring:** Tutorial classes for all students and remedial classes for the slow learner students are also be handled by the faculty members
- 3. Online Courses:** Students as well as faculties are motivated to participate in online courses from ATAL, Swayam, NPTEL and Internshala and Coursera platforms. Course selection can be based on curriculum, values, ethics, skill development, communication skills etc.
- 4. Project Assistance:** As a part of curriculum, department provides exposure to the students to work on projects with team effort. It enables them to apply the technical skills they have gained and expand their abilities in analysis-based innovation and engineering judgment. As their projects take form, student teams enable to write formal documentation and make presentations of their work under the guidance of their faculty mentors.
- 5. Industry Mentorship:** Various expert lectures, student workshop and industrial visits are provided to students to ready them for industrial requirement, updated with current technology and future trends. Experts of various field domains from various industries help the students with their guest lectures, workshops and student training program. They are usually called / invited as reviewer for providing their ideas for innovations and reviewing their projects work etc



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- 6. Skill Development:** For the overall development of students, department conducted various activities like quiz competition, essay writing, debate, extempore, mock interviews, role play etc. Students can participate in cultural activities and NSS held in college.

Eligibility

The minimum eligibility criteria to take admission in B.Tech. 1st Year in ME branch is that the students must pass class 12th with Physics, Chemistry and Mathematics subjects with at least aggregate 45% marks for GEN / OBC / SBC category and 40% aggregate marks for SC / ST students from a recognized school / Board or students may take the admission in B.Tech. 2nd (III Semester) in ME branch directly if he will be pass out student of 3 years Polytechnic Diploma Course from recognized Technical Board for which the same percentage criteria as mentioned is considered.

Examination Scheme: Semester wise

Duration of the Course: Four Year

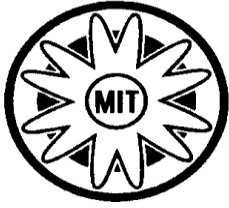
Admission

As this is the affiliating Institute, the following admission processes followed by RTU Kota are as follows:

- REAP (Rajasthan Engineering Admission Process) for Admission in B.Tech 1st Year onwards.
- LEEP (Lateral Entry in Engineering Program for Admission in B.Tech. 2nd year onwards.
- CAM (Centralized Admission for M.Tech.) for admission in Digital Communication.

Achievements

- Two students have been awarded best poster award in international conference “congress of control, robotics and Mechatronics (CRM-2023) on March 25-26,2023 at MIT, Kota.
- Students have got first position for best presentation of Go kart design in “THAR-2021”, technical event organized by RTU, Kota in year 2021.
- Students participated in Science Exhibition every year organized by Modi Educational Group of Institutions, Kota.



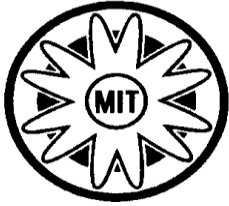
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Activities

The following activities have been conducted in MIT Kota:

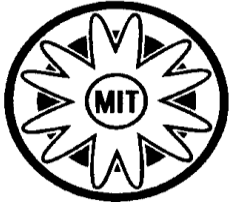
- In-House Training Programme on 3D- Printing Collaboration with SIAT, Kota from 2 July-15 July 2019)
- Occasion of Guru Purnima on 16-07-2019
- Induction Programme for First Year Students on 17 August 2019
- “Degree Distribution Ceremony” on 19 August 2019
- “Plantation” At MIT on 22 August 2019
- International Seminar on “Soft Skills” on 30 August 2019
- Seminar Conducted By “Red Hat Academy” on 3 September 2019
- Radio City 91.1 Fm Had Organized an Activity for Finding The Samsung Young Innovators Contest on 18 September 2019
- Shri Vishwakarma Jayanti Celebrated At MIT on 17 September 2019
- “Dandiya Function” on 1 Oct 2019
- Technorion Zonal Workshop on “Robotics” By Industrial Hub Technology in Association with IIT Bombay on 03 Oct 2019
- Workshop on MATLAB by Softcon India Pvt. Ltd. on 11 Oct 2019
- Three Days Entrepreneurship Awareness Camp on 14 Oct 2019
- Pool Campus Placement Drive by Jaro Education on 17 & 18 October, 2019
- Saras Dairy Plant Visit by R K Sansthan on 21 Oct 2019
- “Constitution Day” on 26 Nov 2019
- Rajasthan Innovation & Startup Expo (‘Rise’) Organized By Depart of It&C, Govt of Rajasthan At MNIT, Jaipur on 19 December 2019



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- Interactive Session for “Ms/Mrs. & Mr. Glamour Rajasthan 2020” on 30 Jan 2020
- One Day Seminar on “Industrial Applications of Cad/Cam” on 18 Feb 2020
- “Thar 2020” Organized By RTU, Kota Robotics Show on 1 March 2020
- Sports & Cultural Week from 2 March to 6 March 2020
- A Cheque Of Rs 2,50,000/- To Hon’ Ble Collector Sh. Om Kasera Ji Against The Pandemic Situation Arising Due To Corona For Food And Other Necessities Of Needy People On 25 March 2020
- Live Launch Of “Artificial Intelligence & Data Science” on Tuesday, 30 June-2020
- “Talk with Youth By Heroes of MIT” on 5 July 2020
- Plantation on International Girl Children’s Day, 12 Oct 2020
- “Corona Jagruk Reilly Mask Distribution Program “Organized By The Joint Venture Of Modi Institute Of Technology, Kota And Municipal Corporation, Kota On 19 Oct 2020
- “Dipawali Milan Samaraoh” on 12 Nov 2020
- “Online Induction Program – 2020” on 5 Dec 2020
- Go Cart Designed By MIT Students
- Expert Lecture On “Maintenance Engineering” In Mechanical Department At MIT, Kota On 6 Jan 2021
- “Pre Placement Talk” By Dr. Ruchika Dave of Reliable Soft Technologies Pvt Ltd at MIT, Kota on 29, January, 2021
- Five Day Workshop on “Emerging Technology in Industrial Automation” From 1 Feb-5 Feb 2021
- Six Days Workshop on “SELP” From 12 March-17 March 2021
- Covid-19 Vaccination Camp Held on 10th April 2021
- One Day Webinar on “Heart Rate Variability and Applications” on 11 May 2021
- One Day Webinar on “AWS Cloud Services” on 22 May 2021



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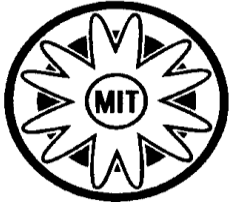
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- One Day Webinar on “Advanced Technology In Automobile And E-Vehicles” on 05 June 2021
- One Day Online Webinar on “Project Management & Customer Support” on 19th June, 2021,
- MIT Kota has organized a Live Yoga Class/Demo on International Yoga Day (21 June 2021).
- MIT Kota has organized a Five Days National Online Workshop on “Present Scenario and Recent Trends in Engineering and Technologies” Phase-1 (PSRT, February-2022) from 1st February, 2022 to 5th February, 2022.
- MIT Kota, Evershine Honda and HMSI have organized a three days workshop and hands-on training on “Road Safety Activities” from 14th December 2022 to 16th December 2022.
- MIT Kota and SCRS have organized a two days Scopus Indexed International Conference on “Control, Robotics and Mechatronics” (CRM-2023) with Springer as publication partner from 25th to 26th March, 2023.
- MIT Kota has organized a “Intercollege Poster Presentation Competition” on March 25, 2023 . The Theme of Competition is “Engineering, Science, Management and Law”.
- MIT Kota and Bureau of Indian Standards (BIS) Jaipur Branch have organized a “Standard Writing Competition” on 31st July, 2023.
- MIT Kota has organized 15 Days In-House Training and Hands on on “ Web Designing: Understanding a Journey from Static To Dynamic Web” from August 18, 2023 to 5 September, 2023.
- MIT Kota has organized the “Orientation Day” on September 8, 2023 for the New Commers Students.
- MIT Kota Has organized the 21 Days Induction Program For New Commer Students of First Year on September 8-28, 2023
- MIT Kota has organized the Gandhi Jayanti and Lal Bahadur Jayanti on October 2, 2023 in which Debate, Essay writing, and speech Competitions have been organized.
- MIT Kota has organized an Expert Lecture on Importance of Analytical Skills and Art of Presentation with Public Speaking” on October 4, 2023.



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- MIT Kota has organized an Expert Talk on Awareness Session on Career Opportunities on October 6, 2023 in collaboration with Red Hat and RCAT
- MIT Kota and Bureau of Indian Standards (BIS) Jaipur Branch have organized a “Youth to Youth Connect” Campaign on 10th October 2023.
- MIT Kota has organized a Major Event: Dandiya Night-2023 on October 18, 2023 in which there were approximately 1000 participants from Kota City.
- MIT Kota has Organized Srijan-2023: An Engineering Quiz Competition in Collaboration with Jaipuria Institute of Management, Jaipur on October 20, 2023

Mr. Vijay Varshney

(O/C Exam)

Mr. Pankaj Jain

HOD (First Year)

Mrs. Seema Arya

HOD (CSE)

Mr. Jitendra Yadvendra

HOD (EE)

Mr. Abhishek Chattri

Dy. Registrar

Dr. Barkha Gupta

HOD (ME)

Dr. Vikas Soni

Principal

Cc to:-

Hon’ble Vice-Chairman Sir for kind information.

Hon’ble Group Director Sir for kind information.

Undersigned, HOD’s & I/C’s. / First Year Coordinator.

Registrar Office/NAAC Coordinator/All Member Concerned/ Accountant