

MANAKULA VINAYAGAR INSTITUTE OF TECHNOLOGY

DEPARTMENT OF MECHANICAL ENGINEERING

ABOUT THE DEPARTMENT

Undergraduate education (UG) course B.Tech in Mechanical Engineering is a comprehensive degree program. The goal of the Mechanical Engineering curriculum is to create a flexible undergraduate educational experience in Design, Mathematics, Modeling, computation, Quality management, Engineering science & humanities.

The Department of Mechanical Engineering has been continuously striving to make progress in Teaching and Research. The Department was started with an intake (UG) of 50 students in 2012. The Mechanical Department is well equipped with excellent laboratories to make the students to easily understand and study the latest research areas such as computational fluid dynamics, Mechanics of Robot, Aerospace and Defense field, etc and also has separate Department library houses best books in the technical field this vast reservoir of knowledge is a source of constant value addition to the students and faculty members the library's rich in manufacturing, design, metallurgy, drawing and materials science. To enhance the Technical Skills of the students, the Department also organizes various program such Value-added course, Quiz completion, Seminars, Workshops, Industrial visit and Guest lecturers which would make them globally competitive as well as students become an indispensable Engineer and earn the income they deserve.

The Mechanical Engineering Department was established in the year 2012. The department has established Manufacturing process lab, Dynamics of Machines, Material Testing and Measurement, CAD, CFD labs at an investment of about Rs. 2 Crores. The labs are equipped with world class HI-Tech equipments and Machineries to meet the latest Technological innovation.

VISION

"The Mechanical Engineering Department aspires to be acclaimed globally for renowned education and research to accelerate well qualified engineers who are creative, entrepreneurial and flourishing in advanced fields of engineering and research."

MISSION

- **To assure quality education to the students and broaden their profession to make them competent Mechanical Engineers globally**
- **Nurturing vital, state of art, research facility to provide students and faculty with outstanding opportunities to discover, illustrate, implement and disseminate wisdom.**
- **To develop alliance with world class R&D organizations and educational institutions in India and overseas for teaching, research and consultancy services.**
- **To provide the students with academic environment of excellence, leadership, and ethical guidelines needed for lifelong productive career.**

DEPARTMENT ACTIVITY **“VIBRANT 2K18” on the** **occasion of Mitilence**



VIBRANT 2K18 was organized by the Department of Mechanical Engineering on the occasion of MITILENCE A National level technical symposium conducted on 9th & 10th February 2018. The Inauguration was common for all the departments. Totally 223 registrations were made for the two days events from various colleges Pondicherry and Tamilnadu State. 103 students were participated in technical events and 120 students in Non technical events. The winners were awarded the cash prizes of Rs.1500, Rs.1000, Rs.500 and certificates.

Events in VIBRANT 2K18:

PAPER PRESENTATION

IDEA FLASH

POSTER PRESENTATION

EVERYTHING IS DESIGN

BOTTLE ROCKETRIX

THINK FUTURE

I m MACHINIST

SHERLOCK HOLMES

TROLL MANIA

FUNK FROM JUNK

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MOBILE PHOTOGRAPHY

SPECIAL EVENT-RC RACING

“PMKVY LATHE OPERATOR COURSE”

AT MIT, PUDUCHERRY

In Puducherry ManakulaVinayagar Institute of Technology, organized inaugural function for PMKVY Scheme for lathe operator and

Assistant electrician was organised in collaboration with AICTE on 22nd Jan 2018. Shri. M.DHANASEKARAN, Chairman and Managing Director, Sri ManakulaVinayagar Educational Trust, presided the function. Shri.S.V.SUGUMARAN, MLA Vice Chairman and Dr.K. NARAYANASAMY, Secretary of Sri ManakulaVinayagar Educational Trust, felicitated the program. Dr.B.Radjaram, Professor & Head, Department of Mechanical Engineering, delivered the Welcome address by inviting the participants of PMKVY scheme. Then later the honorable members of the program lightened the kuthu villaku in order to have grand opening of skill development program.

Next Mr. D.Balaji, Assistant Professor from Department of Electrical and Electronics Engineering gave introductory speech about the program and its salient features. Dr.S.Malarkkan, Principal has delivered the felicitation address by describing the importance of skill development and job market status for youth in India. The objective of Short term training in Pradhan Mantri Kaushal Vikas Yojana scheme is to provide skill training to the young people living across all states and districts of India in various sectors and job roles. This scheme primarily targets only rural youth with limited sanctioned intake of 25 candidates. The government of India has decided to implement such schemes in order to enrich the skills of youth in our country. There are many field specializations in the scheme such as automotive sector, agriculture sector, apparel etc. The main objective of skill training is to encourage the institutions for making the best use of available infrastructure of higher education system during off hours for skill training. Provide employable and certifiable skills based on National Occupational Standards (NOS) with necessary soft skills to the school dropouts who want to pursue/attain higher order skills and living in the vicinity of College. The major outcome of PMKVY is to train and guide the candidates in placing in the job after the end of course. An incentive of Rs.

475/ placed candidate given to the training providers on achieving 70% placement in the batch. These are the special highlights of the scheme which was given by the head of the institution in the function. At the end Mr. Shanmugasundaram, Associate Professor from department of Electrical and Electronics Engineering delivered the proposed vote of thanks.



Principal discussing about the importance of PMKVY to the participants.

ONE DAY WORKSHOP ON “TOTAL PRODUCTIVE MAINTENANCE IN ENGINEERING INDUSTRY” AT MIT, PUDUCHERRY

In Puducherry Manakula Vinayagar Institute of Technology, One day workshop on “Total Productive Maintenance in Engineering Industry” was conducted for Mechanical Engineering Students on 17.2.2018. The first session was taken by Dr.P.Shahbudeen, Professor, Department Of Industrial Engineering Anna University/ Chennai has explained the concept of maintenance Simulation and the second session was taken by Mr.K.Palani Manager (safety And Environment) Ashok Leyland / Chennai and he explained about the automobile maintenance concept in industries after lunch the third session was started and it was taken by Mr.R.Ganesan Senior GMAXles India/

Chennai and he discussed about the Introduction to TPM and its importance
Department Head honoring the chief guest



Guest Lecture Program at MIT, Puducherry.

A guest lecture was organised by the department of Mechanical Engineering and ISTE Student Chapter on the topic “Development of wheel Hub through Hot Forging Technology” at Manakula Vinayagar institute of Technology, Madagadipet, Puducherry on 26.02.2018.

Shri. M.Dhanasekar, Chairman and Managing Director, Sri Manakula Vinayagar Educational Trust, chaired the function.

Shri S.V.Sugumaran, Vice Chairman, Sri Manakula Vinayagar Education Trust, Presided over the program. Shri Narayanasamy Kesavan, Secretary, Sri Manakula Vinayagar Education Trust, Felicited the program. Dr. S. Malarkkan, Principal, Manakula Vinayagar Institute of Technology, motivated the students to develop their knowledge, projects and skills to complete in this competitive world. Dr. B. Radjaram, Professor & Head, Department of Mechanical Engineering, welcomed the gathering and delivered a brief note about the program and chief guest.



Mr. M. Narendran, Assistant Manager, TVS-Sundaram Fasteners Limited, Puducherry, was the chief guest of the program. He has shared his industrial experience with students for improving the technical skills and briefly explained the forging and other manufacturing methods to make a product and also gave useful tips for various career opportunities for mechanical engineers in various fields and importance's of knowledge, attitude, skill, habit, communication, leadership, teamwork, strengths and limitations are considered to be the success mantra to excel in global corporate landscape. His lecture was so motivational and he created a positive aura, which moved the students towards optimism. It was a great experience and very useful lecture to the students. All the Heads of the Departments, students and staff members of Mechanical Engineering participated in the special lecture. Quiz competition is conducted for mechanical Engineering students, Prizes given to the winners on this occasion.

Guest Distributing prizes to the prize winners

Guest Lecture

A guest lecture is arranged by the department of mechanical engineering of Manakula Vinayagar Institute of Technology, Madagadipet, Puducherry on 24th March 2018 titled as "BIOMASS AND BIO ENERGY CONVERSION SYSTEMS". Dr. B. Radjaram, Professor & Head, Department of Mechanical Engineering, welcomed the gathering and delivered a brief note about the program and the chief guest. Dr. L. Kumaraja, Associate Professor, Pondicherry Engineering College, chief guest for the

guest lecture has delivered a crisp and informative lecture on the biomass energy conversion systems. All real time applications, right from kitchen to industrial working systems are discussed. Students participated actively and enthusiastically for the guest lecture and made it be a grand success.

Guest Distributing prizes to the prize winners in the quiz Competition



Staff and students conference activities:

- V.Sowndarapandiyar, S.Ariharan, K.Vivekanand & P.Sivabalan guided by Dr. B. Radjaram, Professor and Head, Department of Mechanical Engineering had participated in the conference titled as AMPIE 18 in Mahendira Institute of Engineering and Technology on 14th & 15th Feb 2018 and presented their paper titled as "Improving efficiency of solar panel by automatic mist cooling system".
- P.Aravindan, V.V.Rajan, S.Santhosh & S.Pradeep Kumar guided by Mr. K. Karthigayan, Assistant Professor had participated in the conference titled as AMPIE 18 in Mahendira Institute of Engineering and Technology on 14th & 15th Feb 2018 and presented their paper titled as "Optimization of Lead Time in Retrofitting of Cranes".
- M.Thiyagarajan, N.Vignesh, R.Prabathu & A.AjithKumar guided by Dr.P.Sivasankaran, Assistant Professor had participated in the conference titled as AMPIE 18 in Mahendira Institute of Engineering and Technology on 14th & 15th Feb 2018 and presented their paper titled as "Design and optimization of screw less machine vice using DFA".
- P.Thayanathan, S.RajeshKumar, N.Yuvarajan & B.Gouthaman guided by Mr. S. Ganesh Kumar, Assistant Professor had participated in the conference titled

as AMPIE 18 in Mahendira Institute of Engineering and Technology on 14th & 15th Feb 2018 and presented their paper titled as “Condensation of atmospheric air for getting pure drinking water and analyze its influencing parameter”.

- R.Pradeep kumar, S.Aravindh, E.Mugilan & S.Gurubathan guided by Mr. A. Thiagarajan, Assistant Professor had participated in the conference titled as AMPIE 18 in Mahendira Institute of Engineering and Technology on 14th & 15th Feb 2018 and presented their paper titled as “Design and fabrication of propeller and propeller shaft with alternative position And axis of ships”.
- G.Pushparaj, D.Krishnamoorthy, R.Sarath & P.Prakash guided by Mr.M.Thirunavukarasu, Assistant Professor had participated in the conference titled as AMPIE 18 in Mahendira Institute of Engineering and Technology on 14th & 15th Feb 2018 and presented their paper titled as “Fabrication of electromagnetic engine”.
- K.Krishnaraj, G.Jayakumar, B.Gokulnath & V.Aravind guided by Mr. K.Selvam, Assistant Professor had participated in the conference titled as AMPIE 18 in Mahendira Institute of Engineering and Technology on 14th & 15th Feb 2018 and presented their paper titled as “Fabrication of hybrid solar wind turbine”.
- P.Selvaganapathy, V.Anandhan, M.Srinivasan & S.Surender guided by Mr. R.Karthikeyan, Assistant Professor had participated in the conference titled as ICEMRE 18 in College of Engineering Villupuram on Jan 4 & 5 2018 and presented their paper titled Technology titled as “Design and fabrication of Magado Air conditioning System”.
- Nazil munam, J.Anandhan, T.Amerdharajan & S.Sivapugazh guided by Mr.R.Ranjit kumar, Assistant Professor had participated in the conference titled as AMPIE 18 in Mahendira Institute of Engineering and Technology on 14th & 15th Feb 2018 and presented their paper titled as “Ultimate stress analysis of structural steel flat plates with dents”.
- V.Ravi teja, V.Sureshkumar, P.Sathish & S.Balaji guided by Mr.B.Vasanth, Assistant Professor had participated in the conference titled as MINTSEM 18 in

Annamalai University on FEB 1&2 2018 and presented their paper titled as “Remodeling of petrol engine generator”.

- Mr.S.Balaje, Assistant Professor had presented a paper in the conference titled as AMPCO – 17 Indian Institute of Technology, Roorkee titled as “Tribological behavior of acrylonitrile butadiene styrene (ABS) Composites reinforced with carbon nano tube (CNT)”.
- Mr.A.Thiagarajan & Mr.R.RanjitKumar, Assistant Professors of mechanical engg department had participated in All India seminar on carbon sequestration & climate



change mitigation conference organised by Pondicherry engineering college & IEI(I) on 2nd and 3rd Nov 2017.

- Mr.K.Karthigayan Assitant Professor of mechanical engg department had participated in All India seminar on carbon sequestration & climate Interdisciplinary STC under Quality improvement Programme at Pondicherry Engineering College on 6th-10th Nov 2017.
- Mr.M.Thirunavakarasu, Mr.E.Suresh, Mr.J.Sugumaran, Mr.K.Manikandan, Mr.R.Karthikeyan & Mr.B.Vasanth Assistant Professors of mechanical engg department had participated in the one day FDP on Research Perspectives in IC Engines at SRM Institute of Science and Technology on 6th Dec 2017.
- Mr.A.Thiagarajan, Mr.K.Selvam & Mr.S.Ganesh kumar Assistant Professors of mechanical engg department had participated in the one week FDP on Advances in refrigeration and air conditioning at Pondicherry engineering college on 11th-15th Dec 2017.

Student Activities-Co-Curricular & Extra Curricular :

- Mr.B.Venkataboopathy of 3rd year student has attended “National Integrated Camp NIC-2018” at Karnataka organized by Department of Youth Empowerment & Sports and awarded as the **Best NSS Volunteer in Puducherry State.**
- Mr.K.Harigaran, Mr.K.suriya, Mr.A.Meadin raj, Mr.A.Gowthaman & Mr. A. Martin of 3rd year students has participated in one day workshop on “Advance Automotive System” on 16th Mar 2018 at Pondicherry Engineering College.
- Mr.S.sakthivel and Mr.A.Jamaal Sharief of 3rd year students has participated in paper presentation on 24th Mar 2018 at Vellore Institute of Technology.
- Mr.B.Dhanasekar, Mr.G.Agilan&Mr.M.Abishekof 3rd year students has participated in one day workshop on “Kevlar Materials” on 17th Mar 2018 at Pondicherry Engineering College.
- Mr.R. Aravind Anjane & K.Rajesh of 3rd and 2nd year students has participated in “CADD Modelling” event on 22th Mar 2018 at Rajiv Gandhi Engg College and won the 1st and 3rd prize with a cash award of Rs 2000/- Rs 500/-
- Mr.K.Rajakumaran & Mr.B.Nagaraj 3rd year students has participated in “Technical Quiz” event on 23th Mar 2018 at Pondicherry Engg College and 3rd prize with a cash award of Rs 800/-
- Mr.K.Yogesh, Mr.M.Nirmmal Kumar, Mr.A.Dileep& Mr. A. Martin of 3rd year students has participated in one day workshop on 15th Feb 2018 at Mahendra Institute of technology.
- Mr.K.Rajakumaran, Mr.B.venkataboopathy, Mr.A.Dileep, B.Ashwin & P.Balamurugan of 3rd year students has attended in six days workshop and received the certificate on the



inaugural function of Vibrant 2K18 on the occasion of Mitilence.



- Mr.Rajakumaran has co-ordinated a “Driverless Cars” event in Technical Club Activity.
- Mr.G.Agilan, Mr.G.Dinesh Parekh, Mr.A.R.Aravind, Mr.K.Kumerasan, Mr.A.Aahaswaran, Mr.T.Krishanaraj and Mr.T.Devarajan of 3rd year and 2nd year Mechanical students has won the Stellars Trophy on 17.3.2018 organized by Department of Electronics and Communication MVIT.



- Mr.B.Duraimurugan & Mr.J.Edwin of 2nd year student has won the 1st prize in “Bottle Rocketrix” event on 23.3.2018 organised by Pondicherry Engineering College.
- Mr.B.Z.Jawahar of 3rd year student has participated in “Solo Singing” competition and won the 2nd prize with a cash award of Rs 1000.
- Mr.T.Devarajan, Mr.S.Govindan & S.Vignesh of 2nd year students has participated in “TATA Hackathon” on 1st march 2018 organised by Christ

University Bangalore.

- Ms.K.Nilofer Jabeen & Mr.A.Aakash of 2nd year students has participated in paper presentation on “Design of solar consumer products” on 3rd Mar 2018 organized by Technical Club & ISTE Students Chapter MVIT and won the 2nd Prize with a Cash award of Rs 1500.
- Mr.S.sakthivel and Mr.A.Jamaal Sharief of 3rd year students has participated in paper presentation on “Design of solar consumer products” on 3rd Mar 2018 organized by Technical Club & ISTE Students Chapter MVIT and won the 3rd Prize with a Cash award of Rs 1000.



NPTEL COURSES

- ✧ Mr. A.Jammal Sharif, Mr. M.Venkataboopathy & Mr.VigneshKumar of III year Mechanical Engineering Student has successfully completed the **NPTEL online certification** course “**Fundamentals of Manufacturing Process**” with “**Elite**” Certificate.
- ✧ Mr. S.Sakthivel of III year Mechanical Engineering Student has successfully completed the **NPTEL online certification** course “**Strength of Materials**” with “**Elite**” Certificate.
- ✧ Mr. R.Praveen Kumar of III year Mechanical Engineering Student has successfully completed the **NPTEL online certification** course on “**Strength of Materials**”
- ✧ Mr. P.Venkateswaran & Mr.K.Yogesh of III year Mechanical Engineering Student has successfully completed the **NPTEL online certification** course on “**Fundamentals of Manufacturing Process**”

Department Placement

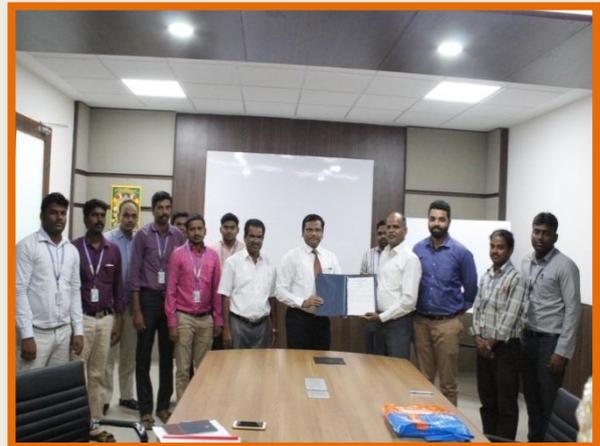
- In 2014-18 batch 35 students has



placed in “Infant Engineers” Pvt Ltd Chennai.

Memorandum of understanding:

MoU has been signed with ProCAE organization for the wellbeing of the students in the analysis part of the Mechanical engineering. It provided a good confidence hike in students mind and stature upon FEA and it trained with expertise in HYPERMESH software.



National Institution for Quality and Reliability:

Organization:

NIQR came into existence in July 1987 with the amalgamation of National Institution of Quality Assurance and Indian Association of Quality and Reliability.

National Institution for Quality and reliability is administrated by a National Executive Council functioning at the National Head Quarters at Chennai, Tamil Nadu and Executive Committee at various Branches.

Leading Industrialists, Top Level officers / Executives, Managers, Professionals and Academia elected through a democratic process with appropriate representation are the Members of the Executive Council and Branch Executive Committees.



INAUGURATION OF “NIQR MIT MECHANICAL ENGINEERING STUDENTS CHAPTER” AT MIT, PUDUCHERRY. ON 16TH SEPTEMBER 2017.

In Puducherry, Manakula Vinayagar Institute of Technology, “National Institution for Quality and Reliability” students chapter was inaugurated for Mechanical Engineering Students, the first in Puducherry Union Territory.

Invocation by Guests, Principal, All Department HOD’s and students of MIT.

MVIT-PUDUCHERRY

Mr. C. V. Gowri Sankar , Retd. Plant Head (Operation) India Pistion Limited /Secretary, NIQR Chennai branch gave introduction about NIQR and the activities being done by NIQR for student members.



Mr. R. Ganesan, Retd. Senior General Manager, Axles India Limited delivers a talk as Mentor of the chapter.



Mr. K. Sridharan Balaji, Head of Production (Special Director), Ashok Leyland/ National Secretary, NIQR. He delivered keynote address on Economic Scale Index and also stated How Engineering students should prepared for Multinational companies by providing information about Employability skills, lab with lot of measuring instruments, MSME, Curriculum Planning and Industry 4.0. He gave ideas to bridge the gap between Industry and Institution.

Mr. K. Manikandan, Head (Sourcing development), Ashok Leyland/ Chairman-NIQR Chennai Branch, delivered lecture on “Core Competency”.



Dr.V. Swaminathan Retd. Deputy General Manager, Sundaram Brake Linings Limited /National Vice President – NIQR, appreciated our Institution for inaugurating maiden “NIQR MIT MECHANICAL ENGINEERING STUDENTS CHAPTER” in Regional level and also provided information regarding vacuum tube transportation, TPM, TQM, Kaizen, PDCA in his lecture on “Quality seeds for inclusive growth of Asia”.



Vote of Thanks by Mr. S. Balaje, Assistant Professor, Dept., of Mech. Engg., MIT,



MVIT-PUDUCHERRY

Industrial visit:

- Department of Mechanical engineering of MIT arranged industrial visit for Second year students in reputed company of SPINCO in 2-8-17 and 3-8-18. About 79 students are benefited from the industrial visit to gain more knowledge and execution of their innovative ideas on their respective interests.
- UCAL POLYMER, Puducherry has been visited by the second year students of MIT on 24-3-18. Around 79 students gained with more knowledge about polymers and their application on the engineering field.
- Department of Mechanical Engineering of MIT arranged industrial visit for Third year students to ASHOK LEYLAND, Chennai on 4-1-18 and 13-9-18. About 100 students in the third year of mechanical department gained immense ideas of automobile parts functioning and inspired them to indulge in many innovative ideas.



- Lucas TVS, Puducherry also visited by the third year students on 3-3-18 and 10-3-18 which made the students to access the primitive ideas in the



- field of automobile engineering.
- Grundfos pump Pvt ltd was visited by the third year students on 22-9-17.
- Mitsubishi Heavy industries also visited by the third year mechanical students of MIT on 22-01-18 and 23-01-18.
- Neivelli Lignite Corporation also visited by the department of mechanical engineering students third year students on 23-2-18.
- International Bakery products Ltd also visited by the second year students of Mechanical Engineering on 3-3-18.

Technical Events:

- Mr. M. Parthiban and Mr. B. Mohammed Sameer of Second year of Mechanical engineering presented a paper titled as “3D printing Technology” and won 1st prize.
- Mr. Dharanitharan of Second year of Mechanical engineering presented a paper titled as “Advanced CNC Machining Process” and won 2nd prize.
- Mr. R. Sharanivasan, Mr. J.Edwin and Mr. S.HARISHKUMAR of Second year of Mechanical engineering presented a paper titled as “DRIVERLESS CAR” and won 3RD prize.
- Mr. T. Devarajan and Mr. A. Rajesh of second year of Mechanical engineering participated in “AUTOCAD DESIGN CONTEST” and won 1st prize.
- Mr. S. Vignesh and Mr. Vignesh Kumar of second year of Mechanical engineering participated in “AUTOCAD DESIGN CONTEST” and won 2nd prize.
- In a Mini Project Expo, Mr. T. Devarajan, Mr. S.Vignesh, Mr. S. Govindhan and Mr. K. Siva of second year of Mechanical engineering won 1st prize.
- Mr. S. Naresh of third year Mechanical engineering student has won 2nd prize.
- Mr. M. Amarnath, Mr. V. S. Mugeish Adithyan won 3rd prize in the MINI PROJECT EXPO.
- Mr. M. Venkataboopathy and Mr. Vigneshkumar of Third year

Mechanical engineering students have won 1st prize in ELECTRO MECHANICS EXPO

- Mr. Jamaal Sheriff and Mr. S. Sakthivel of third year Mechanical engineering students have won 2nd prize in ELECTRO MECHANICS EXPO
- Mr. P. Balamurugan and Mr. M. Lokeshkumar of third year Mechanical engineering students have won 3rd prize in ELECTRO MECHANICS EXPO.

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