MECHTECH

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DEPARTMENT OF MECHNAICAL ENGINEERING

Advancing Mechanical Engineering Exploring New Technologies & Innovations

AMBALIKA INSTITUTE
OF MANAGEMENT & TECHNOLOGY

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ABOUT AIMT

Ambalika Institute of Management and Technology (AIMT) was established in 2008 as a private engineering and management college in (Mohanlalganj) Lucknow, Uttar Pradesh India and is affiliated to AKTU and BTE and Approved by AICTE. The Lucknow campus is spread over 200 acres and is located near NH-56B, surrounded by lush green field and enhanced by a beautiful lake which makes it Best Private Engineering Institute in Lucknow. The institute is 24 kilometers from Lucknow Railway Station and 20 kilometers from Amausi Airport, Lucknow. It is very well connected to the district headquarters.

Ambalika center of excellence has become the most dominating center delivering high-end technical skills to our engineers to make them highly employable. AIMT, Lucknow is imparting training and joint certification programs of innovative technologies in collaboration with the Industry giants such as Microsoft, KUKA Robotics, Siemens, Ace Micromatics, MTab, Master CAM etc.

ABOUT INSTITUTE

WORKSHOP

COLLEGE LIBRARY

LABORATORIES

CLASS ROOMS

ROBOTICS

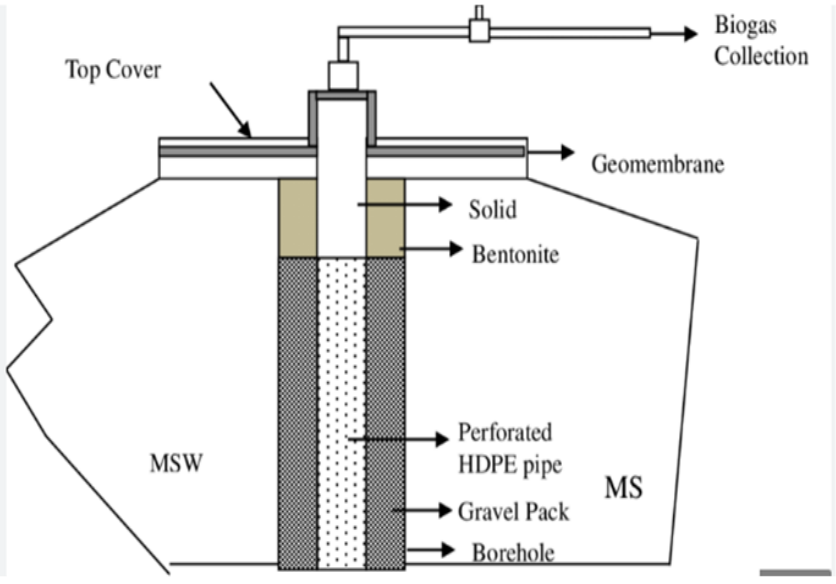
01 Biogas backpack

Biogas backpacks are a new type of portable energy source that can be used to power small electronic devices. The backpacks are designed to be filled with biogas, which is a renewable energy source created by the breakdown of organic matter.

The biogas is then used to power small electronic devices such as cell phones, tablets, and laptops. Biogas backpacks are a great way to reduce your carbon footprint and help the environment. The backpacks are made from recycled materials and are designed to be lightweight and easy to carry. They are also designed to be durable and long-lasting, so you can use them for years to come.

The biogas backpacks are powered by a small fuel cell that converts the biogas into electricity. The electricity is then used to power the small electronic devices. The backpacks are also designed to be easy to use and maintain, so you don't have to worry about complicated setup or maintenance.

Biogas backpacks are a great way to reduce your carbon footprint and help the environment. They are also a great way to stay connected while on the go. With a biogas backpack, you can stay connected to the world without having to worry about running



Kaushal Saini (2103630400008)
Asim Murtaza (2103630400004)

02

Nazava Water Filters

Nazava Water Filters are a revolutionary new way to provide clean, safe drinking water to people in developing countries. The filters are designed to be easy to use and maintain, and they are made from durable materials that can withstand the harsh conditions of many developing countries. The filters use a simple gravity-fed system to filter out bacteria, viruses, and other contaminants from water sources. The filters are also designed to be affordable, so they can be used by people in even the poorest countries.

The filters are made from a combination of ceramic and activated carbon, which are both effective at removing contaminants from water. The ceramic is designed to trap particles, while the activated carbon absorbs chemicals and other contaminants. The filters are also designed to be easy to clean and maintain, so they can be used for years without needing to be replaced. The filters are designed to be used in a variety of ways. They can be used to filter water from rivers, lakes, and other natural sources, or they can be used to filter water from wells and other man-made sources. The filters can also be used to filter water for drinking, cooking, and other uses.

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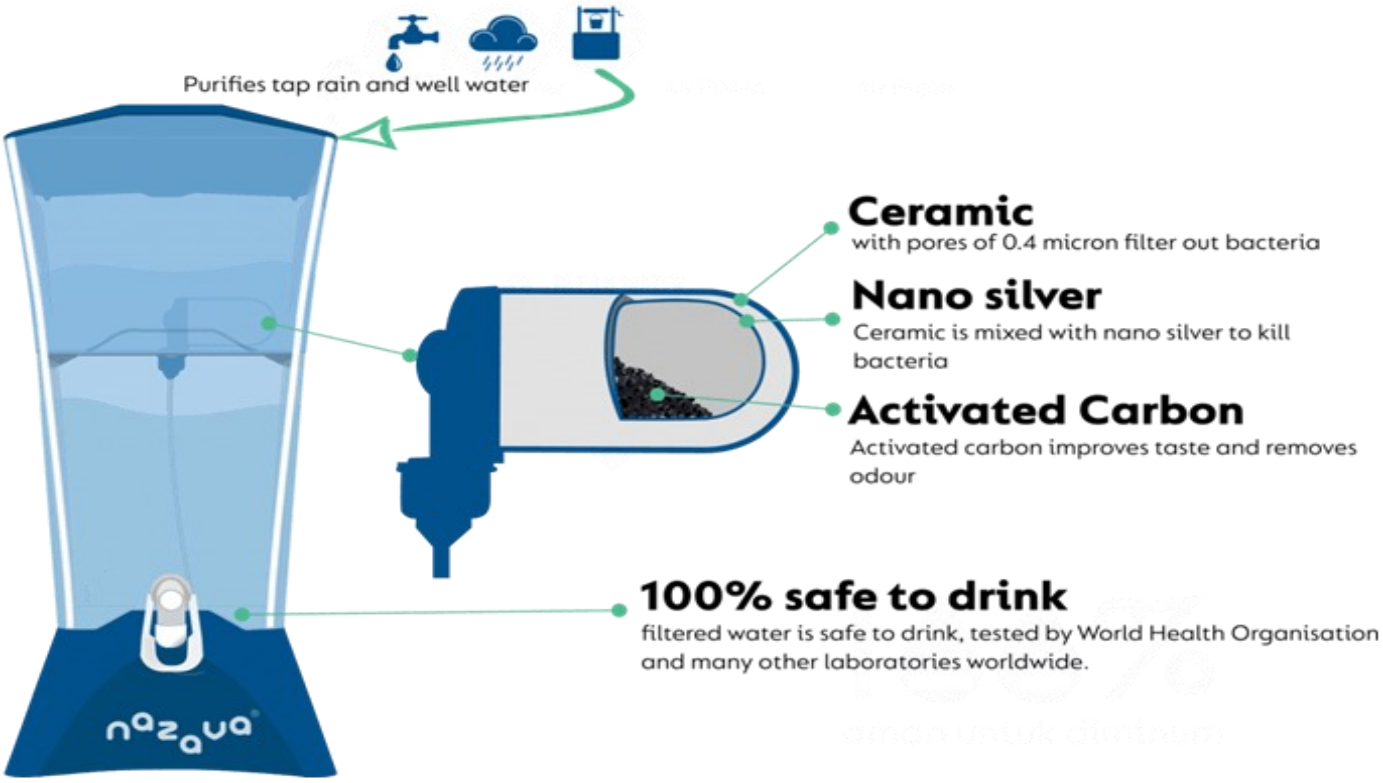

Anand Singh (2103630400002)
Gopi Kumar Sharma(2103630400007)

Ultrasonic “Tornado”: A New Faster Way to Break Down Blood Clots

Ultrasonic “tornado” technology is a faster and more efficient way to break down blood clots, allowing doctors to treat patients more quickly and effectively. The technology works by using high-frequency sound waves to create a “tornado” effect in the blood clot. This causes the clot to break down into smaller pieces, which can then be more easily removed from the body. The process is much faster than traditional methods, which can take hours or even days to complete. The technology has already been used to treat a variety of conditions, including deep vein thrombosis, pulmonary embolism, and stroke. It has also been used to treat patients with heart failure, as well as those with chronic obstructive pulmonary disease. The technology is still in its early stages, but it has already shown great promise. It is expected to become even more effective as researchers continue to refine the technology and make it more widely available. Ultrasonic “tornado” technology is a revolutionary new way to treat blood clots. It is faster and more efficient than traditional methods, and it has already been used to treat a variety of conditions. As researchers continue to refine the technology, it is expected to become even more effective in the future.

Saurav Kumar(2103630400018)
Vineet Kumar (21036304000020)

04 Mechanical Stimulation Could Be Used To Strengthen Muscles

Mechanical stimulation is a form of physical therapy that uses mechanical forces to stimulate muscles and other tissues. It is used to improve muscle strength, flexibility, and range of motion. Mechanical stimulation can be used to treat a variety of conditions, including muscle weakness, joint pain, and muscle spasms. Mechanical stimulation is typically used in combination with other forms of physical therapy, such as stretching and strengthening exercises. It can also be used to supplement other treatments, such as medications or surgery. Mechanical stimulation works by applying mechanical forces to the muscles and other tissues. This can be done through a variety of methods, including electrical stimulation, ultrasound, and mechanical vibration. The mechanical forces stimulate the muscles and other tissues, causing them to contract and relax. This helps to strengthen the muscles and improve their range of motion. Mechanical stimulation can be used to treat a variety of conditions, including muscle weakness, joint pain, and muscle spasms. It can also be used to improve balance and coordination. In addition, mechanical stimulation can be used to reduce pain and improve circulation. Mechanical stimulation is generally safe and well-tolerated. However, it is important to discuss any potential risks and side effects with your doctor before be-

Alok Sharma
Adarsh Singh

05 Acoustic Wave Separation

Acoustic wave separation is a process used to separate sound waves from one another. It is used in many applications, such as noise reduction, sound isolation, and sound enhancement.

The process of acoustic wave separation involves the use of a device called an acoustic separator. This device is designed to separate sound waves based on their frequency, amplitude, and phase. The device works by using a series of filters to separate the sound waves. The filters are designed to allow certain frequencies to pass through while blocking out others.

The acoustic separator is typically used in a variety of applications, such as noise reduction, sound isolation, and sound enhancement. In noise reduction, the device is used to reduce the amount of background noise in a room or area. This can be done by blocking out certain frequencies that are not needed. In sound isolation, the device is used to separate two different sound sources, such as a microphone and a speaker. This can be done by blocking out certain frequencies that are not needed. Finally, in sound enhancement, the device is used to increase the clarity of a sound source. This can be done by allowing certain frequencies to pass through while blocking out others.

Acoustic wave separation is a useful tool for many applications. It can be used to reduce noise, isolate sound sources, and enhance sound clarity. It is important to understand how the device works and how it can be used in order to get the most out of it.

Abhishek Singh (2003630400001)
Shailesh Pratap Singh (2003630400043)

06 Windows Double as Solar Panels: fully transparent solar power-generating windows

Windows are one of the most important features of any building, providing natural light and ventilation. But what if they could do more? What if windows could also generate solar power?

That's the idea behind a new type of window technology called "transparent solar cells". These windows are made of a special type of glass that is coated with a thin layer of transparent photovoltaic material. This material is able to absorb light from the sun and convert it into electricity.

The technology is still in its early stages, but it has the potential to revolutionize the way we think about windows. Not only could these windows provide natural light and ventilation, but they could also generate electricity for the building. This could help reduce energy costs and make buildings more energy efficient.

The technology is still being developed, but it has already been tested in a few buildings. In one case, a building in the Netherlands was fitted with transparent solar cells and was able to generate enough electricity to power the building's lighting and ventilation systems.

The technology is still being refined, but it has the potential to be a game-changer for the way we think about windows. In the future, windows could be more than just a source of light and ventilation – they could also be a source of renewable energy.

Sachin Sharma (2003630400038)
Sagar Sharma (2003630400039)

07

Biodiesel Production from Waste Cooking Oil by Using an Ultrasonic Tubular Reactor

Biodiesel production from waste cooking oil is an important process for the production of renewable energy. The use of an ultrasonic tubular reactor is an efficient and cost-effective way to produce biodiesel from waste cooking oil. This article will discuss the advantages of using an ultrasonic tubular reactor for biodiesel production from waste cooking oil.

The use of an ultrasonic tubular reactor for biodiesel production from waste cooking oil has several advantages. First, the ultrasonic tubular reactor is a continuous process, which means that the biodiesel production process can be carried out continuously without interruption. This allows for a more efficient and cost-effective production process. Second, the ultrasonic tubular reactor is a closed system, which means that the reaction is contained within the reactor and does not require additional equipment or materials. This reduces the risk of contamination and makes the process more efficient. Third, the ultrasonic tubular reactor is a low-temperature process, which means that the reaction can be carried out at lower temperatures than traditional biodiesel production processes. This reduces the energy requirements and makes the process more cost-effective.

In addition to the advantages of using an ultrasonic tubular reactor for biodiesel production from waste cooking oil, there are also some disadvantages. First, the ultrasonic tubular reactor is a relatively new technology and is not yet widely available. This means that the cost of the equipment may be higher than traditional biodiesel production processes. Second, the ultrasonic tubular reactor is a relatively slow process, which means that the production rate may be lower than traditional biodiesel production processes. Finally, the ultrasonic tubular reactor is a relatively expensive process, which means that the cost of the biodiesel produced may be higher than traditional biodiesel production processes.

Despite the disadvantages of using an ultrasonic tubular reactor for biodiesel production from waste cooking oil, the advantages of using this technology outweigh the disadvantages. The use of an ultrasonic tubular reactor for biodiesel production from waste cooking oil is an efficient and cost-effective way to produce renewable energy. This technology has the potential to reduce the cost of biodiesel production and make it more accessible to a wider range of consumers.

Amit Prajapati (2003630400008)
Aniket Prajapati (2003630400010)

07 Pellet production: A greener bio fuel

As the world continues to grapple with the effects of climate change, the need for renewable energy sources has become increasingly important. One of the most promising renewable energy sources is biomass, which can be used to produce a variety of fuels, including pellets. Pellets are a type of biofuel made from compressed organic matter, such as wood, agricultural waste, and other plant materials. They are a clean-burning, renewable fuel source that can be used to generate electricity, heat homes, and power vehicles.

Pellet production is a relatively simple process. The raw material is first ground into a fine powder and then heated and compressed into pellets. The pellets are then dried and cooled before being packaged for sale. Pellets are a convenient and cost-effective way to produce energy, as they can be stored for long periods of time and transported easily.

Pellets are a greener alternative to traditional fossil fuels, as they produce fewer emissions and are renewable. They are also more efficient than other biofuels, as they can be burned at higher temperatures and produce more energy per unit of fuel. Additionally, pellets are a cost-effective way to produce energy, as they are relatively inexpensive to produce and can be used in a variety of applications.

`Pellet production is becoming increasingly popular as a way to reduce emissions and produce renewable energy. As the demand for renewable energy sources continues to grow, pellet production is likely to become even more widespread. This is good news for the environment, as pellets are a clean-burning, renewable fuel source that can help reduce our dependence on fossil fuels.

Hari Om Chaurasiya(2003630400008)
Vikash Kuamr (2003630400043)

08 Wheels that climb stairs for all kinds of vehicles and devices

In recent years, the development of technology has enabled the creation of wheels that can climb stairs. These wheels are designed to be used on all kinds of vehicles and devices, from wheelchairs to robots.

The technology behind these wheels is based on a combination of mechanical and electrical components. The wheels are equipped with a motor that is powered by a battery. This motor is connected to a series of gears that allow the wheel to rotate in both directions. The wheel is also equipped with a series of sensors that detect the surface of the stairs and adjust the speed and direction of the wheel accordingly.

The wheels are designed to be lightweight and durable, making them suitable for a variety of applications. They are also designed to be able to climb stairs of varying heights and angles. This makes them ideal for use in wheelchairs, robots, and other devices that need to traverse stairs.

The wheels are also designed to be able to climb stairs quickly and safely. This is achieved by using a combination of sensors and algorithms that allow the wheel to adjust its speed and direction as it climbs the stairs. This ensures that the wheel does not slip or lose traction, which could lead to an accident.

The wheels are also designed to be able to climb stairs without the need for a human operator. This makes them ideal for use in robots and other autonomous devices. The wheels can be programmed to climb stairs autonomously, allowing them to be used in a variety of applications.

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The development of wheels that can climb stairs has opened up a world of possibilities for all kinds of vehicles and devices. From wheelchairs to robots, these wheels are revolutionizing the way we move around our environment.

Hari Om Chaurasiya(2003630400008)
Vikash Kuamr (2003630400043)

09

Crop Monitoring and Farmer warnings system

Crop monitoring and farmer warnings systems are becoming increasingly important in the agricultural industry. These systems are designed to help farmers monitor their crops and provide timely warnings about potential problems. By using these systems, farmers can better manage their crops and reduce the risk of crop failure.

Crop monitoring systems use sensors to collect data about the environment and the crops. This data is then analyzed to provide farmers with information about the health of their crops. This information can be used to identify potential problems and take corrective action before they become serious.

The sensors used in crop monitoring systems can measure a variety of factors, including temperature, humidity, soil moisture, and light levels. This data can be used to identify potential problems, such as drought, disease, or pests. The data can also be used to determine when to irrigate or fertilize the crops.

In addition to monitoring the environment, crop monitoring systems can also be used to detect pests and diseases. By using sensors to detect the presence of pests or diseases, farmers can take action to prevent them from spreading. This can help reduce the risk of crop failure and improve yields.

Farmer warnings systems are designed to alert farmers to potential problems. These systems can be used to send out alerts when certain conditions are met, such as when the temperature drops below a certain level or when the soil moisture is too low. This can help farmers take action before the problem becomes serious.

Crop monitoring and farmer warnings systems are becoming increasingly important in the agricultural industry. These systems can help farmers better manage their crops and reduce the risk of crop failure. By using these systems, farmers can take action to prevent potential problems and improve yields.

Abhishek Srivastava (2003630409001)
Atul Raj(1903630400013)

10 Liner system to cover material heaps

A liner system is a type of material handling system used to cover material heaps. It is designed to protect the material from the elements, such as rain, snow, and wind, as well as from other environmental factors, such as dust and dirt. The liner system is typically made up of a series of interconnected panels that are placed over the material heap. The panels are usually made of a durable material, such as polyethylene or PVC, and are designed to be lightweight and easy to install.

The liner system is typically used to cover material heaps that are stored outdoors, such as those used in construction sites, mining operations, and other industrial applications. The system helps to protect the material from the elements, as well as from other environmental factors, such as dust and dirt. The system also helps to reduce the amount of material that is lost due to wind and rain.

The liner system is typically installed by a professional contractor. The contractor will measure the material heap and then design a system that will fit the area. The contractor will then install the panels, making sure that they are securely attached to the material heap. Once the system is installed, it is important to regularly inspect the system to ensure that it is functioning properly.

The liner system is an effective way to protect material heaps from the elements and other environmental factors. It is also relatively easy to install and maintain, making it a cost-effective solution for many industrial applications.

Mohan Joshi (2003630409007)
Aditya Chaudhary(1903630400003)

11 A Mechanical device -Plastic Collection in the river

Plastic pollution is a growing problem in rivers and other bodies of water around the world. To help combat this issue, a new mechanical device has been developed to collect plastic from rivers.

The device, called the Plastic Collector, is a floating platform that is designed to collect plastic debris from rivers. It is made up of a series of interconnected floating platforms that are connected to a central collection unit. The platforms are designed to move with the current of the river, allowing them to collect plastic debris as it passes by. The collected plastic is then stored in the central collection unit, which can be emptied periodically.

The Plastic Collector is designed to be easy to install and maintain, and it is powered by solar energy. It is also designed to be durable and able to withstand the harsh conditions of rivers.

The Plastic Collector is an effective way to help reduce plastic pollution in rivers. It is a cost-effective solution that can be used in a variety of locations, and it is easy to install and maintain. The device is also designed to be environmentally friendly, as it does not produce any emissions or waste.

The Plastic Collector is a promising solution to the growing problem of plastic pollution in rivers. It is an effective way to help reduce plastic debris in rivers, and it is a cost-effective and environmentally friendly solution.

Ayush Singh (1903630400015)
Divyansh Tripathi (1903630400018)

12

Engineered wood material grows stronger by trapping carbon dioxide

Engineered wood material is becoming increasingly popular as a sustainable building material due to its ability to trap carbon dioxide. This material is made from wood fibers that are bonded together with a resin, creating a strong and durable material that is both lightweight and environmentally friendly.

The process of creating engineered wood material involves trapping carbon dioxide in the wood fibers. This process is known as carbon sequestration, and it helps to reduce the amount of carbon dioxide in the atmosphere. The trapped carbon dioxide is then used to strengthen the material, making it stronger and more durable than traditional wood.

Engineered wood material is becoming increasingly popular in the construction industry due to its strength and sustainability. It is often used in the construction of homes, offices, and other buildings, as well as in furniture and other products.

The use of engineered wood material is also beneficial for the environment. By trapping carbon dioxide, it helps to reduce the amount of greenhouse gases in the atmosphere. This can help to reduce the effects of climate change and global warming.

Engineered wood material is becoming increasingly popular as a sustainable building material due to its ability to trap carbon dioxide. This material is strong, lightweight, and environmentally friendly, making it an ideal choice for many construction projects. It is also helping to reduce the amount of greenhouse gases in the atmosphere, making it a great choice for those looking to reduce their environmental impact.

Mohit Sharma (1903630400028)
Mann Singh (1903630400021)

Ocean-scrubbing ships 'could efficiently remove CO2 from water using new process'

A new process for removing carbon dioxide (CO2) from the ocean could be made more efficient with the help of ocean-scrubbing ships, according to a new study.

The process, developed by researchers at the University of California, San Diego, uses a combination of chemical reactions and physical processes to remove CO2 from seawater. The team believes that the process could be used to help reduce the amount of CO2 in the atmosphere, which is a major contributor to climate change.

The process works by using a combination of chemical reactions and physical processes to remove CO2 from seawater. The team used a combination of a chemical reaction and a physical process to remove CO2 from seawater. The chemical reaction involves the use of a catalyst to convert CO2 into bicarbonate ions, which can then be removed from the water. The physical process involves the use of a membrane to separate the bicarbonate ions from the seawater.

The team believes that the process could be made more efficient by using ocean-scrubbing ships. These ships would be equipped with the necessary equipment to carry out the process, and could be used to remove CO2 from large areas of the ocean.

The team believes that the process could be used to help reduce the amount of CO2 in the atmosphere, which is a major contributor to climate change. The process could also be used to help reduce ocean acidification, which is caused by the increasing levels of CO2 in the atmosphere.

The team is now looking to develop a prototype of the process, which could be tested in the ocean. If successful, the process could be used to help reduce the amount of CO2 in the atmosphere, and help to reduce the effects of climate change.

Piyush Sharma (1903630400029)
Saurabh Singh (1903630400036)

14

Autonomous steering system keeps human drivers engaged

Autonomous steering systems are becoming increasingly popular in the automotive industry, as they offer drivers a more comfortable and efficient driving experience. Autonomous steering systems are designed to take over the steering wheel and keep the driver engaged in the driving process. This technology is becoming increasingly popular as it allows drivers to focus on other tasks while the car is in motion.

Autonomous steering systems use sensors and cameras to detect the road ahead and adjust the steering wheel accordingly. This technology is designed to keep the driver in control of the vehicle, while also providing a more comfortable and efficient driving experience. Autonomous steering systems can be used in a variety of vehicles, including cars, trucks, and buses.

Autonomous steering systems are designed to reduce driver fatigue and improve safety. By taking over the steering wheel, the system can help drivers stay alert and focused on the road. This technology can also help reduce the risk of accidents, as it can detect potential hazards and alert the driver to take corrective action.

Autonomous steering systems can also help reduce fuel consumption. By taking over the steering wheel, the system can help drivers maintain a steady speed and reduce the amount of fuel used. This technology can also help reduce emissions, as it can help reduce the amount of time spent idling.

Autonomous steering systems are becoming increasingly popular in the automotive industry, as they offer drivers a more comfortable and efficient driving experience. This technology can help reduce driver fatigue, improve safety, and reduce fuel consumption. Autonomous steering systems are becoming increasingly popular in the automotive industry, as they offer drivers a more comfortable and efficient driving experience.

Vishal Sinha (1903630400042)
Anurag Dhiman (1903630400011)

DEPARTMENT OF MECHANICAL ENGINEERING

Mechanical engineering is a subset of general engineering. Engineers use science and mathematical principles to solve technical problems. Since they often create new products to solve these problems, they are in high demand. Engineers are essentially inventors. By dreaming up ideas and turning them into a reality they push technology to its limits.

Mechanical engineers are specialized engineers who work with mechanical devices. These may include elevators, refrigeration and air-conditioning equipment, robots, and electric generators. Mechanical engineers design tools used in other engineering disciplines. As you can imagine, mechanical engineering is one of the broadest engineering specialties.

Mechanical Engineering is an engineering discipline that involves the application of principles of physics for analysis, design, manufacturing, and maintenance of mechanical systems. It requires a solid understanding of key concepts including mechanics, kinematics, thermodynamics and energy. Mechanical engineers use these principles and others in the design and analysis of automobiles, aircraft, heating and cooling systems, manufacturing plants, industrial equipment and machinery, medical devices and more.

To develop department of mechanical engineering as a centre of excellence in the various advance fields.

To develop the habit of continuous learning, team work and fulfill the societal needs.






Department Vision & Mission

VISION

- To nurture the students in achieving excellence in mechanical engineering to develop proficiency in the field of research activities

MISSION

- To motivate students to indulge in analytical and creative thinking by putting them in challenging environment by means of appropriate pedagogy.
- To develop department of mechanical engineering as a centre of excellence in the various advance fields.
- To develop the habit of continuous learning, team work and fulfill the societal needs.

Programme Educational Objectives (PEOs)

1. To prepare students for successful career in Core Mechanical and Interdisciplinary Industries through strong foundation in mathematical, scientific and engineering fundamentals. (Pre-preparation)
2. To develop ability among the students for acquiring technical knowledge in specialized areas of Mechanical Engineering such as Materials, Design, Manufacturing and Thermal Engineering with a focus on research and innovation and gaining the technical skills in classical software packages. (Core competence and professionalism)
3. To equip students with broad based knowledge to support the service industries, economic development and to address social and engineering challenges of the nation. (Breadth)
4. To promote the students for continuous learning, research and development with strong professional, moral and ethical values and zeal for life-long learning. (Learning environment)

Programme Objectives (POs)

PO 1: Engineering knowledge: Ability to perform academic activities and achieve the expected requirements by conforming to a pre-defined process as set by the institute and university.
PO 2: Problem analysis: Ability to effectively apply knowledge of computing and mathematics to computer science problems.
PO 3: Design/development of solutions: Ability and skills to effectively use state-of-the-art techniques and computing tools for analysis, design and implementation of computing systems which resolve real life problems.
PO 4: Conduct investigations of complex problems: Ability to utilize multidisciplinary knowledge across domains to effectively apply computer technology in a global and social environment.
PO 5: Modern tool usage: Ability to efficiently make use of additional training provided throughout the course, satisfying industry requirements and thereby becoming globally employable.
PO 6: The engineer and society: Ability to successfully pursue professional development through lifelong learning.
PO 7: Environment and sustainability: Ability to communicate effectively with both technical and non-technical audiences.
PO 8: Ethics: Ability to become a versatile professional and function effectively as an individual and as a member.
PO 9: Individual and team work: Ability to understand professional, ethical, legal, security, and social issues and responsibilities.
PO 10: Communication: Communicate effectively with the engineering community and with society at large. Be able to comprehend and write effective reports documentation. Make effective presentations, and give and receive clear instructions.
PO 11: Project management and finance: Demonstrate knowledge and understanding of engineering and management principles and apply these to one's own work, as a member and leader in a team. Manage projects in multidisciplinary environments.
PO 12: Life-long learning: Recognize the need for, and have the preparation and ability to engage in independent and life-long learning in the broadest context of technological change.

Message

Executive Director's Message

It gives me immense pleasure to introduce our Technical Magazine "MechTech" from Dept. of Mechanical Engg will be published quaterly. Our students are very innovative and ever eager to learn new concepts. Apart from teaching, our faculty members are deeply engaged in research work. Our faculty and students regularly present their research findings in various academic conferences. It will help the documentation culture of the institute. One of our greatest strength is our highly qualified and dedicated faculty members and staff. I congratulate the editorial team, faculty, staff members and students for their contribution in the maiden issue of "MechTech". It is an attempt of the Technical Magazine to acquaint its readers with the Techological updation in the field of Mechnical Engineering.

Mr. Ambika. Mishra
Executive Director
Ambalika Group of institutes

Director's Message

I feel honored and grateful to start the Third edition of our Technical Magazine "MechTech" from Dept. of Mechanical Engineering. This magazine will serve to reinforce and allow an increased awareness in the field of Mechanical Engineering and an improve interaction among all of us. It will not only serve the objective of creating responsiveness but will give a platform to new ideas, progress and creativity. I do hope that it will encourage faculty, students and others to contribute regularly in making our newsletter a success and may it acquire great heights in the years to come.

Dr. Ashutosh Dwivedi
Director
Ambalika Institute Of Management & Technology

HOD's Message

We are delighted to introduce our department and share with you all the exciting things happening in Mechanical Engineering. Our department is committed to providing students with an excellent educational experience that prepares them for successful careers in engineering. Our faculty members are dedicated to excellence in teaching, research, and service. Our students are engaged in innovative projects that are making a difference in the world.

Our department offers a wide range courses, including design and analysis of mechanical systems, robotics, materials science, and energy conversion.

We invite you to learn more about the Mechanical Engineering Department and the exciting opportunities available to our students.

Mrs.Vandana Pathak
Head
Department of Mechanical Engineering
Ambalika Institute Of Management & Technology

Chief Editor ’s Message

We are proud to present our latest issue of the Mechanical Engineering Technical Magazine. This issue is packed with cutting-edge research and development in the field.We hope that this magazine will help you stay up-to-date with the latest trends and advancements in mechanical engineering. We would like to thank our dedicated team of writers and editors who worked hard to make this magazine possible. We are also thankful for the generous support of our sponsors, who made this publication possible. We hope that you enjoy this issue of the Mechanical Engineering Technical Magazine and find it to be a valuable resource in your professional journey.

Madhur Prakash Srivastava,
Assistant Professor,
Mechanical Engg.Department
Ambalika Institute Of Management & Technology

ABOUT MAGZINE

Advancing Mechanical Engineering magazine is a publication dedicated to exploring new technologies and innovations in the field of mechanical engineering. Technologies and Innovations is a magazine dedicated to exploring the latest advances in mechanical engineering. The magazine covers topics such as new technologies, innovations, and research in the field of mechanical engineering. It also provides readers with insights into the latest trends and developments in the industry. The magazine is published quarterly and is available in digital formats. It is a great resource for engineers, students, and professionals who are interested in staying up to date with the latest advancements in The magazine covers topics such as the latest advances in Mechanical Engineering, and other cutting-edge technologies. It also features articles on the latest trends and developments in the industry.The magazine is a great way to explore new technologies and innovations in the field of mechanical engineering. The magazine is a great resource for anyone interested in staying up-to-date on the latest advancements in mechanical engineering.

OTHER ISSUES

AMBALIKA INSTITUTE
OF MANAGEMENT & TECHNOLOGY