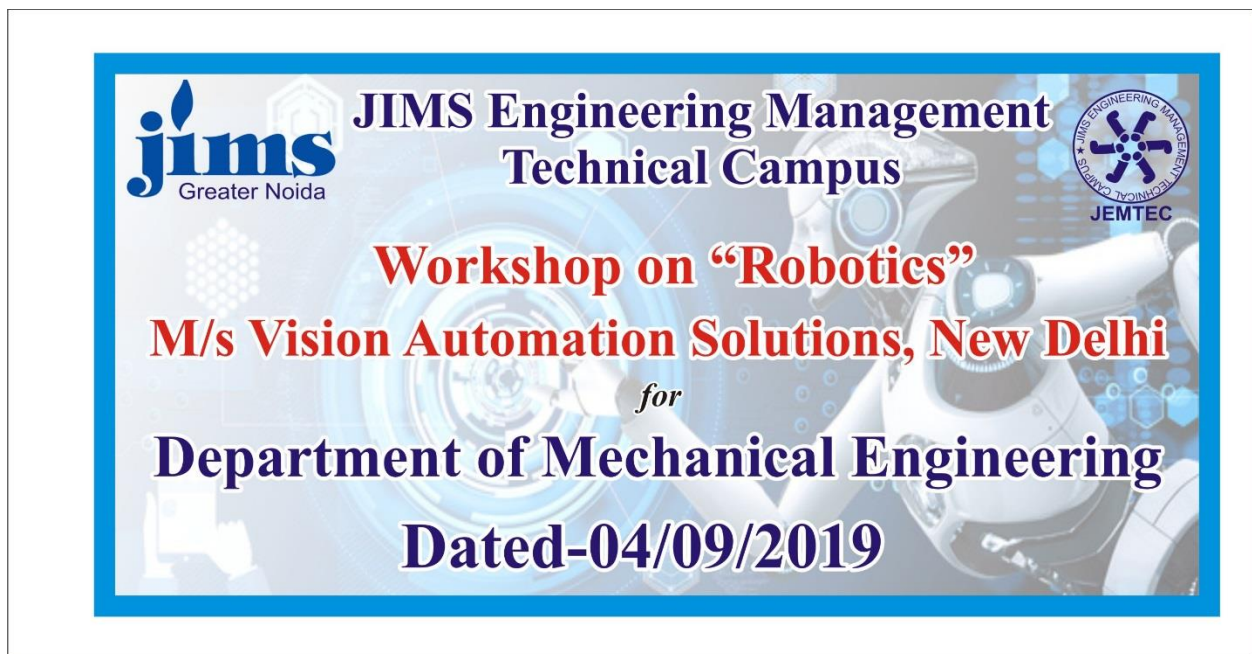


REPORT
ON
“ROBOTICS WORKSHOP”



Organized By

Department of Mechanical Engineering

In association with

Vision Automation Solution, New-Delhi

**JIMS ENGINEERING MANAGEMENT TECHNICAL CAMPUS,
GREATER NOIDA- 201308 (UP)
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INTRODUCTION..

These technologies are used to develop machines that can substitute for humans. Robots can be used in any situation and for any purpose, but today many are used in dangerous environments (including bomb detection and de-activation), manufacturing processes, or where humans cannot survive. Robots can take on any form but some are made to resemble humans in appearance. This is said to help in the acceptance of a robot in certain replicative behaviors usually performed by people. Such robots attempt to replicate walking, lifting, speech, cognition, and basically anything a human can do. Many of today's robots are inspired by nature, contributing to the field of bio-inspired robotics.

The concept of creating machines that can operate autonomously dates back to classical times, but research into the functionality and potential uses of robots did not grow substantially until the 20th century. Throughout history, it has been frequently assumed that robots will one day be able to mimic human behavior and manage tasks in a human-like fashion. Today, robotics is a rapidly growing field, as technological advances continue; researching, designing, and building new robots serve various practical purposes, whether domestically, commercially, or militarily. Many robots are built to do jobs that are hazardous to people such as defusing bombs, finding survivors in unstable ruins, and exploring mines and shipwrecks. Robotics is also used in STEM (Science, Technology, Engineering, and Mathematics) as a teaching aid.

APPLICATIONS..

Current and potential applications include:

- Military robots
- Caterpillar plans to develop remote controlled machines and expects to develop fully autonomous heavy robots by 2021. Some cranes already are remote controlled.
- It was demonstrated that a robot can perform a herding task.
- Robots are increasingly used in manufacturing (since the 1960s). In the auto industry, they can amount for more than half of the "labor". There are even "lights off" factories such as an IBM keyboard manufacturing factory in Texas that is 100% automated

- Robots such as HOSPI are used as couriers in hospitals (hospital robot). Other hospital tasks performed by robots are receptionists, guides and porters helpers.
- Robots can serve as waiters and cooks also at home. Boris is a robot that can load a dishwasher.
- Robot combat for sport – hobby or sport event where two or more robots fight in an arena to disable each other. This has developed from a hobby in the 1990s to several TV series worldwide.

Workshop Schedule

11.00AM	Inauguration (Seminar hall AB-II)
11.15 AM	Welcome speech by Prof. Dr.D.Jha, HOD(ME)
11.30AM	Presentation and Workshop by Er.Dolly Sharma and demonstrated by Er.Umesh Prajapati and Ms.Sunayana Sharma
2.00 PM	Vote of Thanks by Mr. Dhruv Kumar, Assistant Professor

A BRIEF DISCUSSION OF ROBOTICS WORKSHOP..

Department of Mechanical Engineering, JEMTEC, Greater Noida has organized a workshop on “Robotics” for 2nd Year, 3rd Year & Final Year students on Date 04/09/2019 in the seminar hall of AB-II from 11.00 AM to 2:00 PM. Dr. Devendra Jha (HOD,ME) welcomed our Guest Ms.Dolly Sharma (Executive),Mr. Umesh Prajapati (Expert Trainer) and Ms.Sunayana sharma (Assistant Trainer) of Vision Automation solution with bouquet & mometo and explained the importance of this session for the students to gain hands on experience in latest trends of Robotics in automotive industries. Around 125 students took part in the workshop. Expert from Vision Automation Solution Mr.Umesh prajapati & Ms.Sunayana Sharma were invited for an introductory talk on Latest trends of Robotics in Automotive Manufacturing industries. The speaker firstly introduced about the company and then they gave the technical perspective of the component and the parts of Robots manufactured by them. They explained the various components of Automatic Guided Vehicles (AVG) and Robotic Buggy which has been designed especially for Automation in industries. The Session was started with a lecture on basic concepts discussed in the seminar hall with the help of Power Point Presentation. The workshop begins

with introductory video clips on the subject of how robots are used in today's ever growing manufacturing industry. These videos define the many characteristics of the three generations of robots beginning with the 1980's in the automotive assembly lines. It demonstrates the many different programmable robots that are used and articulates clearly their unique qualities. Demonstration program started after completion of PPT and videos all the students saw and learned how the robot is actually working. The students were demonstrated in various group with live demonstration of different robots which is operated by solar energy.

LEARNING OUTCOMES..

- Students will gain an appreciation of the effort needed in construction and have a sense of achievement with something they have made.
- Students are encouraged to try their hand at assembling and modeling of Robots.
- This is a creative approach to the learning of science through real life exposure, mechanical innovation and simultaneously promotes to do hands on projects on Robots.

CONCLUSION..

- Students learned about the robots and assembly.
- Students will be able to participate in the Technical Festival and Robotic events organized by IITs, NITs and Institute of National repute. This in turn will enhance the name and fame of our Institution.
- SOME PHOTO-GRAPHS ATTACHED BELOW

