

2010

ThinnkWare-

“Technol ogy & innovaTion kiosk”

www.thinnkware.com

“This is Computer age next will be Robotic era”

WORKSHOP ON MECHANICAL ROBOTICS “X-MECHBOT”

ThinnkWare conceptualizes their own unique modules in Mechanical Robotics with self developed Robotic kits for which provide students a good platform to learn the basic concept of Robotics. And make autonomous working robot without using microcontroller.

Thinnk Ware, venture of KC Robotics & Embedded Pvt. Ltd.
www.thinnkware.com

ThinnkWare:Technology & Innovation Kiosk

Shepherding-Intelligent-Tomorrow

M/s ThinnkWare is a venture which deals in the domain of Robotics, Embedded Systems & MATLAB with strategically current focus in educational domain to bridge the gap between Industry demands & current academics offerings in Institutes. With a passion in Robotics and keeping constant eye on various national & international events, we have vast experience in the same and a constant focus in this grooming industry. **ThinnkWare** was founded by a strong team of young Engineers & budding Entrepreneurs working in the same industry, and is currently incubated at STEP-ITBI, JSSATE Noida. The company is properly backed by the experienced IITians and Industries.

By developing an active interest of youth in robotics and embedded systems, Thinnk Ware aims to lay a strong foundation for the technical development of our country. Thinnk Ware is a constant facilitator in the scientific and technical education of students by providing them requisite resources through wide variety of kits, software based programming tools, basic & advanced level workshops and web based learning resources.

The various products have been designed with a viewpoint of both educating and inspiring the individual not only about how robots work but about the importance of practical learning both in the academic and professional segments. Thus graduating the idea of Embedded Systems and Robotics from hobby to profession and preparing the students to be confident about pursuing a career.

ThinnkWare was conceptualized based on a market unavailability of hands-on practical training and prohibitive cost for hardware and components coupled with their unavailability. With emphasis in superiority & quality, and fueled by an strong R&D team **ThinnkWare** set up at STEP-JSSATE, Noida constantly churn out products to facilitate its goal of creating a strong & rich technical community.

ThinnkWare proposes to be a one-stop-shop for the technical educational needs of the nation with products ranging from student & professor training sessions, laboratory architecture and equipment for educational institutions. Range can be checked out at roboniche section.

We invite you to come share this dream with us propagating these fundamentals further towards the development of a strong and technically rich community. In this proposal we'll guide you through ThinnkWare specifically designed keeping the target audience in mind.

Achievements:

- Appreciated by Dr. APJ Abdul Kalam for their concept of Shepherding-Intelligent-Tomorrow.
- Awarded by Amity HR Excellence award for best team effort.
- Publicized on many magazines & Newspapers.
- Trained more than 5000 students from IITs, NITs, International Universities, Deemed Universities and various Private Institutes.

Team ThinnkWare.

X-MechBOT

X-MechBOT is a rigorous two day robotics workshop for the uninitiated and robotics enthusiasts. This workshop is strategically designed for a short term to make full utilization of day to have hands-on fun-filled learning. Not only it introduces students to the basics of robotics but also ignites in them the passion for research and product development in the fields of mechatronics and embedded systems.

The concepts of mechanics and electronics are explained using simple and easy-to-build demonstration kits.

X-MechBOT is an ideal platform for anyone to embark on the exciting and promising field of robotics.

Who can be benefitted?

- B.E/B.Tech/Diploma students of following branches:
Student of any branch as this is the basic course in Robotics and an excellent module for beginners

What is the beneficial learning?

- Basic knowledge of Electronic components
- Their working principle with practical implementation
- Assembling of your own Robot
- Basics of Robotics
- The mechanism behind the Robots
- Making your own automated robot with an electronic brain and electromechanical muscles

Course content:

- Introduction to Robotics
- Definition of Robotics
- The history of Robotics
- Different parts of a Robot with basic block diagram
- Robotics is a field where you can apply your knowledge of physics, chemistry, mathematics.
- Electronics, programming skills, mechanical skills etc. This field is the one where your knowledge is put to test.

Control Systems

- Controlling a robot via wired medium & wireless (RF based)

- Controlling a robot with its own brain
- Designing of logic circuits
- How to implement logic using electronic hardware

Sensors

- Study of different types of sensors
- Touch sensors
- Light sensor using LDR, photo transistor and photo diode.
- Infrared sensor using IR diode, and IR detectors
- Obstacle detectors
- Fire sensor

Actuators

- Types of actuators used in Robotics
- DC motors (geared and non geared)

Motor drivers

- Motor driver using relay
- Motor driver using transistor
- Motor driver ICs

Kit Details:

- Optocoupler Development Board with Motor Driver I C
- Obstacle Detector Sensor with Connector
- Mechbot Robot Wheels with Grip 2 nos.
- Mechbot Robot Chassis
- DC Motor (12 volts) 2 nos.
- IC L293D 2 nos.
- Optocoupler IC 8 nos.
- Connectors
- Castor Wheel
- Castor Stand
- Screws and Nuts
- Adaptor (12volts)
- One Packaging Box.

Course Duration:

- The workshop will be of 2 days (12 hours)

Course Fees:

- The fee for the workshop is Rs. 1300/- each student (with takeaway kit*).

Features of Workshop:

- *Take away Robot kit worth Rs. 2800/- will be given to each team of 4 students.
- Certificate will be given to each participant.
- Free membership on Thinkware web portal for online technical discussion & open source codes.
- Study material & Thinkware CD will be given to each team.

Requirements from college:

- Infrastructure as classroom with proper seating arrangement for participants.
- LCD Projector for the lecture.
- Lodging & Boarding facility for the trainer during workshop.
- Minimum participation of 40 students.

Contact Person:

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CMO

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