



MAYA TARSADIA INDUSTRIAL AUTOMATION RESEARCH AND DEVELOPMENT CENTER UKA TARSADIA UNIVERSITY

(NAAC Accredited B+ grade with CGPA 2.74)



Training in Basic Industrial Hydraulics



Contents

- What is "Hydraulics"?
- Physical fundamentals and principles
- Hydraulic components (pumps, motors, cylinders, valves: direction, pressure, flow, accessories)
- Fluid power symbols as per DIN ISO 1219
- Basic hydraulic circuits
- Instructions, guidance and review for practical hydraulic aspects
- Techniques of assembly, dismantling and conversion, possibilities for handling and setting of typical components
- Practice by self-trial of circuit making on demonstration power pack
- Instructions on storage, commissioning, trouble shooting, maintenance and safety

Prerequisites

- Final year students having science background with PCM group
- Diploma final year students
- Third year onwards students of Mechanical and Electrical sister branches
- M.Tech. students irrespective of branches
- Teaching faculties
- Corporate/Industries employee

Teaching and Learning Media

- Multimedia presentation
- Actual components and accessories
- PC animations
- Circuit simulation on trainer's kit

Deliverables

- Training manual
- Training certificate

Learning goals

- The participants should be able to understand the physical parameters, symbols, the construction and function of hydraulic components.
- Participants should be able to read, analyze and understand basic hydraulic circuits.
- Participants should be able to make hydraulic assemblies on the training rig.

Duration

- 5 days
- 2 ~3 hours theory sessions
- 4 ~ 5 hours a day

Fees

- For student ₹ 2500/-
- For faculty ₹ 4000/-
- For corporate trainee ₹ 5000/-

Special Vacation batch

- A training schedule is as follows.
- B1 : 20-05-2019 to 24-05-2019,
- B2 : 27-05-2019 to 31-05-2019,
- B3 : 03-06-2019 to 07-06-2019 and
- B4 : 10-06-2019 to 14-06-2019

Amenities

- Breakfast, lunch and high tea

Information and registration

Jayesh Jariwala
In-charge, Maya Tarsadia Industrial Automation
Research and Development Center
Chhotubhai Gopalbhai Patel Institute of Technology,
Uka Tarsadia University,
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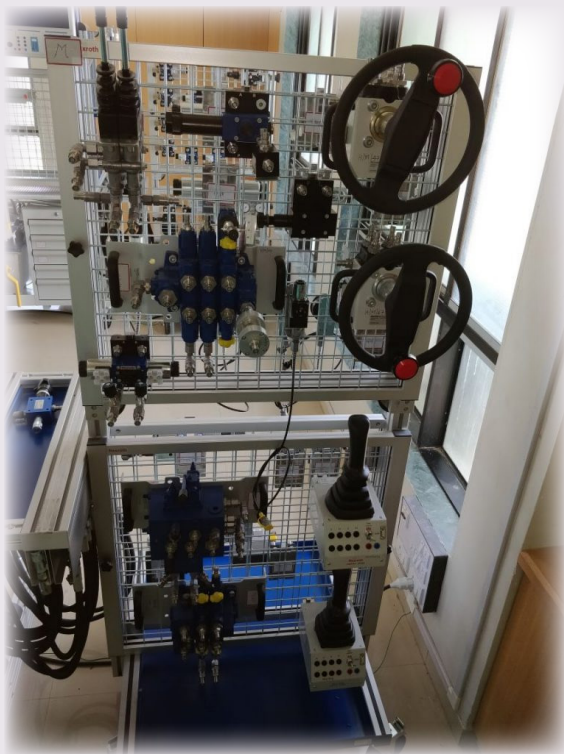


About Industrial Hydraulics Laboratory

Hydraulics-‘the power of liquid’ has wide applications in all engineering domains. Hydraulics is power transmission component of Automation Technology. No advanced mechanical systems can be imagined without hydraulics system. It has special characteristics of raising and lowering loads smoothly, undertaking linear or rotational movements, achieve acceleration or accurate positions, maintaining the preset speeds, transmitting the power or linking motion sequences. The mobile hydraulics and proportional hydraulics expands new horizons. It also amalgamates the PLC, sensors and other electronics within its domain. The beneficiary will work on the carefully designed exercising addressing industrial application. Equipment available at Hydraulics laboratory are Direction Control Valves, Flow Control Valve, Pressure Control Valve, Linear and Rotary Actuators, Pumps, Accumulator, etc...



For more details, visit <https://cgpit-bardoli.edu.in/bosch-lab/>





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About Maya Tarsadia Industrial Automation R&D center

The present engineering industries are rapidly moving to adopt Industry 4.0 approach. The element of automation is obvious in present engineering practices too! Uka Tarsadia University is committed to be inline with cutting edge technology and practices. The motive of establishing the “Maya Tarsadia Industrial Automation Research and Development Center” was to make beneficiaries aware of the industrial automation which is the need of an hour. The beneficiary of this center will be students, faculties and people from industries. It would be the best solution to bridge and narrow down the gap between industry and academia. This will corroborate the theoretical knowledge with actual industry practices too!

BOSCH-Rexroth group is competent and well known group for automation. It serves in wide spectrum of automation applications. BOSCH-Rexroth provides industrial automation training kits containing the scaled down model of actual application components and instruments. It is matter of proud for both BOSCH-Rexroth and Uka Tarsadia University to develop this center. The center also works on “Train the trainer” concept. The trainers at the center are trained directly by Rexroth India Pvt. Ltd.





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न्यूक्लियर पावर कॉर्पोरेशन ऑफ इंडिया लिमिटेड

NUCLEAR POWER CORPORATION OF INDIA LIMITED

(भारत सरकार का उद्यम A Government of India Enterprise)

काकरापार गुजरात स्थल Kakrapar Gujarat Site

डाक: अणुमाला, वाया: व्यारा, जिला: तापी, गुजरात - 394651
PO: Anumala, Via: Vyara, Dist.: Tapi, Gujarat - 394651



एम. पी. हंसोरा, स्थल निदेशक

M. P. Hansora, Site Director

फोन नंबर Phone No. : 02626 - 234245 / 231201

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ई-मेल E-mail : mpansora@npcil.co.in

D.O. No.KGuj.Site/Site Director/2019/ 32

February 14, 2019

Sub: Training on "Basic Industrial Hydraulics".

Dear Shri Pahl,

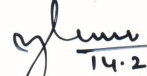
It is a matter of great pleasure and honor to bring on the record that two teams of NPCIL Engineers have undergone training on "Basic Industrial Hydraulics" at BOSCH Center of Excellence in Industrial Automation established at Chhotubhai Gopalbhai Patel Institute of Technology (CGPIT), Uka Tarsadia University, Maliba Campus, Bardoli during the period 17th-19th December 2018 and 4th-5th February, 2019.

The learning from the training has added significant value and enhanced knowledge of the participants which will help them in carrying out various operations involving Hydraulics equipments of Kakrapar Gujarat Site, NPCIL. The method of presentation, communication and content delivery process was highly appreciated by all the participants.

We look forward for your continual support and contribution which becomes ladder for the inclusive development of our Engineers and faculty of CGPIT. The initiative taken by the UTU is highly appreciated and noteworthy.

On behalf of Kakrapar Gujarat Site, NPCIL, we extend our sincere thanks and best wishes.

With Warm regards,


14.2.2019.

(M. P. Hansora)

Site Director

Kakrapar Gujarat Site

Testimony

"The learning from the training has added significant value and enhanced knowledge of the participants which will help them in carrying out various operations involving Hydraulics equipments of Kakrapar Gujarat Site, NPCIL. The method of presentation, communication and content delivery process was highly appreciated by all the participants."

- M.P. Hansora
Site Director,
Kakrapar Gujarat Site,
Nuclear Power Corporation of India Limited