

# YOUR PARTNER FOR TRAINING, SKILLING & INNOVATION

# Complete range of Didactic Products... for a World Class Mechatronics Lab



# **1. TRAINER KITS**

Janatics range of trainer kits consists of proven industrial components covering various key technologies like Pneumatics, Hydraulics, Electrical, Electronics, PLC, Vacuum, Sensorics etc., and are used to learn and perform experiments involving product selection, circuit design, simulation, trouble shooting and maintenance

The trainer kits are designed with capability to demonstrate the design, construction and application of their components and circuits. Applicable to various disciplines in academic institutions like Mechanical, Mechatronics, Production, Instrumentation and more, and for companies having ISO & TPM training systems.



#### Pneumatic Trainer Kit (Series JTK)

- Elegant, rugged & upgradable design
- Unique Snap-on mounting base suitable for Aluminium profile plate mounting, saves time in handling of components
- Available in 3 variants namely Pneumatics, Electro Pneumatics & Electro Pneumatics with PLC



#### Pneumatic Trainer Kit (Series JPS)

- Sleek and Sturdy
- Provision for single sided and double sided mounting
- Desktop and workbench type mounting available
- Available in 3 variants namely Pneumatics, Electro Pneumatics & Electro Pneumatics with PLC



#### Pneumatic Trainer Kit (Series PTK)

- Compact and Portable
- Available in 3 variants namely Pneumatic, Electro Pneumatics and Electro Pneumatic with PLC
- Handy for training and demonstrations



#### Transparent Kit - Pneumatic (Series JTK)

- Compact and Handy
- Case with partitions for safe storage of components
- Transparent Trainer Kit enables to visualise the functioning of internal elements.



#### Hydraulic Trainer Kit (Series JTK)

- Elegant, rugged & upgradable design
- Unique Snap-on mounting base suitable for Aluminium profile plate mounting, saves time in handling of components
- Available in 3 variants namely Hydraulics, Electro Hydraulics & Electro Hydraulics with PLC
- Powerpack available in 6, 10 and 40 litres capacity



#### Sensoric Trainer Kit (Series JTK)

- Elegant, rugged & upgradable design
- Unique Snap-on mounting base suitable for Aluminium profile plate mounting, saves time in handling of components
- Various types of Sensors
- Different types of work pieces
- Industrial application focused exercises



### Vacuum Trainer Kit

#### (Series JTK)

- Elegant, rugged & upgradable design
- Unique Snap-on mounting base suitable for Aluminium profile plate mounting, saves time in handling of components
- Various size of vacuum ejectors
- Different types of suction cups
- Fail safe mode circuits
- Industrial application focused exercises
- Different shapes of work pieces



#### PLC Trainer Kit (Series JTK)

- Compact design
- Multi brand PLC's (Siemens, Allen Bradley, ABB, Mitsubishi etc.)
- Suitable for Integrating with Pneumatic, Hydraulic, Vacuum, Sensoric trainer kits
- Unique Snap-on mounting base suitable for Aluminium profile plate mounting, saves time in handling of components
- Industrial application focused exercises

# **1a. TRAINER KIT - MOUNTINGS AND ACCESSORIES**



#### **Mountings**

- Elegant & Modular design
- Available in Desktop & Workbench variants
- Suitable for ITK series trainer kits
- Suitable for all kind of Laboratory and training centres.



JANATICS Desumatic

#### **Pneumatic Trainer Kit**

- Suitable for all series of Trainer kits
- Suitable to fit with standard workbench as well as to use as standalone modules

These are recommended supporting accessories for proper functioning of trainer kits and components. Suitable for all kind of Laboratory and training centers.

# 2. TRAINING AIDS

The training aids facilitate the instructor to explain the subject / technology in a better way for effective dissemination of knowledge



- Sturdy frame
- Covers complete product range
- Cross sectional illustrations

The wall mounted posters contain technical illustrations of products with their cut section, part information and respective ISO symbols. A quick glance on the set of posters provide an overview of the product range

- Visualisation of internal elements
- Effortless handling of components

Cut section enables a trainer to demonstrate the internal construction of a product with industrial products that are to actual scale and makes the trainees to visualise them and gives a realistic view of components in a better way than the graphical representations on books and animations.



Magnetic Symbols are used for training on ISO symbols and circuit designing. These pre-printed magnetic symbols helps in saving time during circuit preparation. Permanent magnetic strips provided on back side of the symbols allows quick snapping of the symbols on a metallic board and lets the user to focus on making the connection lines.

# 3. MECHATRONICS AND AUTOMATION SYSTEMS

Mechatronics & Automation systems are fully functional models of actual applications, mimicking real life industrial automation scenarios.



### **Dynamic Automation System**

#### (Series DPD)

- Exhibits different types and applications of automation Solutions
- Includes Various Technologies connected to Automation
- Portable

These independent preassembled are designed specifically to demonstrate the real life applications of a specific product or set of products, in order to support the trainers as a training aid and facilitate easy understanding by the trainees about a product and its specifications.

Inspires young minds towards creative design and automation.



#### **Do It Yourself Kit**

#### (Series DIY)

- Precut foam for parts storage
- Workbook with tasks and solutions
- Complete set of tools for assembly and dismantling

"DO IT YOURSELF" (DIY) kits are modules of mechatronic systems used to build and assemble fully functional mechatronic systems without the aid of experts or professionals. DIY kits enable students to build and test new automation systems of their own with various technologies such as pneumatics, electrical, PLC, mechanical and sensor to produce actual applications that replicate real life industrial scenario, thereby unleashing the creativity and entrepreneurial skills of a budding engineer as budding entrepreneur.





#### Modular Manufacturing System (Series MMS)

Modular System

- Various technologies connected to Mechatronics and Automation
- Material handling techniques like conveyor, linear or rotary pick and place units
- Various combinations possible

The Modular Manufacturing System is a miniature Factory Automation System which demonstrates the industry processes such as Feeding, Inspection, Buffer, Process, Robot assisted assembly and Sorting.

# Modular Manufacturing System with Industry 4.0 (Series MMS)

Modular System

- Energy Management
- Augmented Reality
- Manufacturing Execution System
- Over All Equipment Effectiveness (OEE)
- Management Information System
- Intelligent Maintenance system

The Modular Manufacturing System with I4.0 is a miniature Smart Factory Automation System which demonstrates the application of latest manufacturing processes and Technologies in the complete value chain.

> Computer Based Tutorials for Process Automation Practicals Conforms to polytechnic syllabus, L-SCHEME 2011 - 2012 Subject code - 22065

Various Automation and Handling Task modules such as feeding, conveying, pick & place, transporting, forming and storage modules are available. Wide range of Modular Manufacturing Systems like Processing station, Conveyor station, Automated Storage and Retrieval System and other production stations that are suitable for modular assembly are available. A wide variety of project assignments and learning objectives help students to build hybrid systems by integrating important automation technologies, such as

◆ Pneumatics ◆ Electrical ◆ PLC ◆ Mechanical ◆ Sensors ◆ Vacuum ◆ Robotics

# **4. DIGITAL LEARNING SOLUTIONS**

Digital Learning Solution provides a wide range of solutions to enhance knowledge and learning using digital age technologies.



#### Computer Based Tutorial (Series JASP)

- Functional animation of products and symbols
- Circuit designing tutorial
- Product description
- Construction of elements



### **Computer Based Tutorial**

- (Series CBT)
- Compliant to Process Automation Practical
- Interactive video tutorial
- Multilingual
- PLC programming instructions
- Circuit designing tutorial



#### **E-Learning**

#### (Series WBT)

- Self-paced learning
- Pictorial illustrations, videos and animations
- Chapter wise quiz
- Online exam
- E-Certification



#### Virtual Mechatronics and Automation Lab (Series VMAL)

- Virtual DIY kits & Trainer kits
- Industrial products
- Easy and Safe to use
- Short learning curve
- Guided mode for self-paced learning
- Non guided mode for assessment
- Available in three variants; Mobile, Desktop and VR



# **5. SOFTWARE**

#### **Automation Studio**

#### (Series JAS)

Automation Studio<sup>™</sup> is the unique fluid power and automation technologies software solution to teach and learn in a fun and effective way! It allows you to easily create or reproduce assignments and learning material, adapting it to your teaching curriculums.







**Training Programmes** 



Product and application training are provided in house and at the customer site for enhanced product experience and effective utilisation.



Establishment of Centre of excellence at educational institutions helps the engineering student community to get a practical knowledge of the product and its applications.



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