

## Certificate

**Abolfazl Mohammadjoo** successfully attended the training course

### **principles of industrial measurement and instrumentation – PA221**

From 18 till 19 Oct 2016 in Tehran-Iran

The following subject matter was covered in this course:

- Digital and Analog Signals.
- Transducers and Sensors.
- Principles of Pressure , Level , Temperature and Flow Measurement.
- Basic Electrical Principles.
- Control Theory.
- Introduction to Instrumentation Drawings and Symbols.
- Can read and design a PI diagram.
- Can use a software for measuring , control and closed-loop control .
- knows the basics of closed-loop control and common control elements (P, I, D).
- Can operate a control system with P, I, PI or PID controller.
- Is able to choose a loop-tuning method and optimize PID parameters.

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Signature of Trainer

Signature of Didactic manager

FESTO Didactic Iran

*F. Nakhoshtin*

*O.B. Ramin A. Montaghani*

## Certificate

**Abolfazl Mohammadjoo** successfully attended the training course

### **Basic Programming of PLCS – PLC 211**

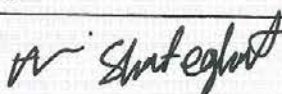
From 27 till 29 Sep 2016 in Tehran-Iran

The following subject matter was covered in this course:

- Basic design of SIMATIC S7 control systems with S7300 hardware.
- Input and output module tasks.
- The three programming languages: FBD , LDR and STL
- Basic command set for SIMATIC S7.
- Creating , loading and testing simple programs.
- PLC timers and counters.
- Archiving and retrieving PLC programs.
- The participant is capable of writing simple digital programs using Organization Block and meets the requirements for higher PLC levels.

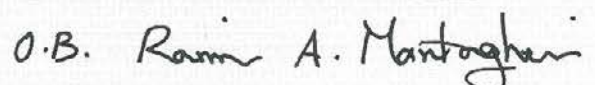
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Signature of Didactic manager



## Certificate

**Abolfazl Mohammadijoo** successfully attended the training course

### **Mastering mobile hydraulics – HY181**

From 13 till 15 Sep 2016 in Tehran-Iran

#### **Training outcomes**

He/she can

- Identify basic components and explain their functions in a given mobile hydraulic circuit.
- Explain hydrostatic transmission, working hydraulics and steering circuits.
- Explain load sensing functions and other efficiency components.
- Make adjustments for the required controls parameters of mobile hydraulics.
- Measure the required parameters in a mobile hydraulic circuit.
- Build and test mobile hydraulic circuits.
- Explain hydraulic safety measures in mobile equipment.

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*F. Nakhostin*

Signature of Didactic manager

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*O.B. Ramin A. Montaghreini*

## Certificate

**Abolfazl Mohammadjoo** successfully attended the training course

### **Advanced Pneumatic - PN122**

From 17 till 19 Sep 2016 in Tehran-Iran

The following subject matter was covered in this course:

- Fundamentals and terminology of control engineering.
- Motion diagrams.
- Function diagrams.
- Types of control (pilot, memory and program controls).
- Design methods for sequence controls.
- In addition to theoretical instruction circuits were set up and tested.
- The participant is capable of designing and constructing simple sequence controls and of representing motion sequences.
- The participant meets the requirements for higher level courses.
- Introduction to vacuum technology.
- Vacuum generation in handling technology.
- Vacuum components in handling technology.
- Component selection criteria.
- Electrical components (on delay timer, off delay timer, counter).

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*M. Talachian*

Signature of Didactic manager

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*O.B. Ravin A. Montagheni*

## Certificate

**Abolfazl Mohammadjoo** successfully attended the training course

### **Modern industrial pneumatics - PN111**

From 27 till 29 Aug 2016 in Tehran-Iran

The following subject matter was covered in this course:

- Combination of electrical control section and pneumatic power section.
- Basic principles of compressed air supply: Production, preparation, distribution.
- Use of Pneumatic and Electro Pneumatic elements and sensors.
- Structure and function of electrical switching devices and electro-pneumatic valves.
- Basic logic functions, basic Pneumatic and Electro Pneumatic circuits.
- Identifying and eliminating faults in circuits.
- Symbolic representation of devices and standards.
- The Participant is capable of designing simple Pneumatic and Electro Pneumatic circuits.
- The Participant meets the requirements for higher level courses.

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Signature of Trainer

*M. Talebian*

Signature of Didactic manager

FESTO Didactic Iran

*O.B. Raim A. Montagheni*

## Certificate

**Abolfazl Mohammadjoo** successfully attended the training course

### **Modern industrial Hydraulics – HY 511**

From 3 till 5 Sep 2016 in Tehran-Iran

The following subject matter was covered in this course:

- Physical fundamentals of Hydraulics.
- Design and function of Hydraulic elements.
- Design and operation of a Hydraulic system.
- Basic Hydraulic circuits.
- In addition to theoretical instruction, basic circuits were set up and tested.
- The participant is capable of designing simple Hydraulic controls.
- The participant meets requirements for higher level courses.

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Signature of Trainer

*F. Nakhostin*

Signature of Didactic manager

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*O.B. Ramin A. Montaghin*

## Certificate

**Abolfazl Mohammadjoo** successfully attended the training course

### **Proportional Hydraulics – HY 132**

From 8 till 10 Oct 2016 in Tehran-Iran

The following subject matter was covered in this course:

- Construction, function and characteristics of proportional solenoids.
- Characteristics of proportional pressure, directional and flow control valves and their functions.
- Dynamic response of proportional valves and their application limits.
- Setting the ramps for multiple speed / pressures circuits.
- Setting the amplifier and set point value cards according to valve dynamic and overlap.
- Velocity, acceleration and force calculation of all components for optimal performance.
- In addition to theoretical instruction, basic circuits were set up and tested.
- The participant is capable of designing and constructing simple proportional hydraulic controls.
- The participant meets the requirements for higher level courses.

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O.B. F. Nakhostin

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O.B. Ramin A. Montagheni

## Certificate

**Abolfazl Mohammadjoo** successfully attended the training course

### **Basic principles of sensor technology for professional training – AUT 121**

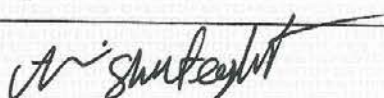
From 15 till 17 Oct 2016 in Tehran-Iran

The following subject matter was covered in this course:

- Basic physical principles and characteristic features in use.
- Sensor selection based on materials and ambient conditions.
- Terms and definitions in sensor technology .
- Design, function and applications of different sensors for detecting presence, distance , travel , force and pressure , material quality etc.
- Industrial applications and realization .
- Technical data and limits on use of sensors.
- Connection technology and signal processing.
- Practical exercises and fault analysis .
- The participant meets the requirements for higher level courses.

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