



First Select

## Classic Control & Troubleshooting

| بتاریخ                     | اماكن الإنعقاد | الرسوم (\$) | احجز مقعدك               |
|----------------------------|----------------|-------------|--------------------------|
| ٢٢ ديسمبر - ٢٦ ديسمبر ٢٠٢٤ | دبي            | ٢٩٠٠        | <a href="#">سجل الآن</a> |

### Objectives

- Understand all basics of any control panel and its complicated connections
- Able to connect any production line with classical control
- Make start stop power and control circuit for 3ph induction motor
- Make reverse direction circuit for 3ph induction motor
- Star delta motor and Dahlander motor
- More than 10 other circuit with classic control
- Sensors types & connection

### Course Outline

Day 1 (Basics of electricity for any control engineer)

|                                     |    |
|-------------------------------------|----|
| Sources of electricity and standard | .1 |
| Balance loads and un balance loads  | .2 |
| Earth , neutral and ground          | .3 |
| Short circuit protection            | .4 |
| Overload protection                 | .5 |
| Cables selection and testing        | .6 |
| Phase sequence protection           | .7 |
| Switches types                      | .8 |
| Troubleshooting                     | .9 |

## Day 2 (classic control basics)

|  |    |
|--|----|
| Contactors ( types & selections)                             | .1 |
| Start stop power and control circuit for 3 Ø induction motor | .2 |
| reverse direction for 3 Ø induction motor                    | .3 |
| methods of starting of motors                                | .4 |
| soft starter   | .5 |
| star delta motor   | .6 |
| reverse direction for star delta motor                       | .7 |

## Day 3 ( Practical all day)

|                              |    |
|------------------------------|----|
| all the previous application | .1 |
|------------------------------|----|

## Day 4 ( practical applications)


|                       |    |
|-----------------------|----|
| application on timers | .1 |
|-----------------------|----|

## Day 5 ( sensor application)

|                   |    |
|-------------------|----|
| proximity sensors | .1 |
| limit switches    | .2 |
| optical sensors   | .3 |
| temp sensors      | .4 |

## WORKSHOP STYLE

The workshop will be of five day's duration consisting of interactive learning sessions, videos, examples and role-play exercises to provide the delegates with the knowledge and experience of using the key learning issues and techniques.

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