

# **Ascendent Technology Sdn. Bhd.** (1093652-W)









# Digital Multimeter Calibration (Competency Training)

#### PROGRAMME OVERVIEW:

This digital multimeter calibration training module is designed to meet ISO quality management system requirement include ISO 9001, ISO14001, ISO/IATF 16949, ISO 22000, ISO/IEC 17025, GMP, HACCP and other quality management systems. The calibration procedure is direct measurement technique. This module includes the evaluation of measurement uncertainty base on ISO Guide to the expression of uncertainty in measurement (GUM) and finally generate calibration certificate.

#### **TARGET GROUP:**

Quality Managers, Technical Managers, Laboratory Managers, Supervisors, Chemist, Engineer, Signatories of test reports & certificates, Laboratories Personnel.

### **OBJECTIVE:**

At the end of the course, participants are expected to:

- 1) Acquire basic knowledge and able to calibrate multimeter according to EURMET- cg15
- 2) Perform calibration independently
- 3) Perform necessary calculations include uncertainty estimation based on ISO Guide. [according to the model given only]
- 4) Able to generate ISO quality management system accepted calibration report

#### **CONTENT:**

- 1) Principle of metrology and ISO requirements in calibration
- 2) Scope Calibration of Digital Multimeter with differences ranges
- 3) References
- 4) Standard used
- 5) Environment condition
- 6) Pre calibration inspection
- 7) Calibration procedure
  - i. DC voltage calibration
  - ii. AC voltage calibration
  - iii. Resistance calibration
  - iv. DC current calibration
  - v. AC current calibration
- 8) Measurement uncertainty calculation
- 9) Guidelines on the determination of measurement uncertainty
- 10) Work example

#### <u>METHODOLOGY</u>:

Lectures, discussion, demonstration, hands-on practice and practical exercises

## **CERTIFICATE:**

Participants are required to complete a project usually at the end of training or within 2 weeks of completion of the training

- ✓ Certificate of competency achieves score points above 70 %
- ✓ Certificate of attendance score points below 70 % or no submission of project

| REGISTRATION FORM (E017):  |                                       |  |   |  |
|--|---------------------------------------|--|---|--|
|  | PUBLIC TRAINING                       |  | 12-7-   |  |
| Course Fee   | : RM 2,100 Per Pax                    | Participant  | : Mr / Ms   |  |
| Training Date  | : Refer to Training Calendar          | Designation  | :   |  |
| Venue  | <del>-</del>                          | NRIC   | :   |  |
| Duration   | : Ascendent Training Room<br>: 2 Days | Mobile No.   | :   |  |
| Time   | : 9:00 AM - 5:00 PM                   | Email  | :   |  |
| Venue  | : Ascendent Technology Sdn Bhd        |  |   |  |
| HRDF   | : SBL - Khas                          | Participant  | : Mr / Ms   |  |
|  |                                       | Designation<br>NRIC  | :   |  |
| IN-HOUSE TRAINING  |                                       | Mobile No.   | :   |  |
| Course Fee   | : RM 6,000 Per Day                    | Email  | :   |  |
| Duration   | : 2 Days                              | Lillaii  | ·   |  |
| Time   | : 9:00 AM - 5:00 PM                   | Participant  | : Mr/Ms   |  |
| HRDF   | : SBL - Khas                          | Designation  | :   |  |
| Maximum No.  | : 5 - 25 Candidates                   | NRIC   | :   |  |
| CANCELLATION / POSTPONEMENT POLICY   |                                       | Mobile No.   | :   |  |
| 1. Ascendent Technology Sdn.Bhd. reserves the right  |                                       | Email  | :   |  |
|  | ostpone or make any changes to the    |  | M. /M.  |  |
| venue and training dates due to unavoidable  |                                       | Participant  | : Mr/Ms   |  |
| circumstances.  2. Reservation can be made by telephone or email,  |                                       | Designation<br>NRIC  | :   |  |
| <ul> <li>but will only be confirmed upon the received of completed registration form and payment.</li> <li>Please do not make any travel arrangements until you have received written confirmation for your registration from us.</li> <li>No cancellation is allowed but a candidate</li> </ul> |                                       | Mobile No.   |   |  |
|  |                                       | Email  |   |  |
|  |                                       | Liliali  | ·   |  |
|  |                                       |  | PAYMENT DETAILS                                     |  |
|  |                                       |  | ould be crossed and made payable to: ASCENDENT      |  |
| replacement can be arranged.   |                                       | TECHNOLOGY S   | SDN BHD Bank A/C No. Maybank 5127-6360-6820.        |  |
| 5. For confirm cancellation: 7 days notice prior to  |                                       | Admittance will  | I be permitted upon receipt of full payment 2 weeks |  |
| commencement will subjected to RM250 service   |                                       | before the course is conducted.                                    |   |  |
| charge. If less than 7 days notice, there will be no   |                                       |  |   |  |
| refund.  6. Confirm postponement for in-house training less  |                                       | Training certificate will be awarded upon received of full payment |   |  |
| than 14 days notice prior to commencement will   |                                       |  |   |  |
| •  | 50% service charge on total invoice.  |  |   |  |
| FOR HR DEPARTMENT  |                                       |  |   |  |
| Company Name:  |                                       | Contact Perso  | n: Mr / Ms:   |  |
|  |                                       |  |   |  |
| Address:   |                                       | Designation:   |   |  |
|  |                                       | Department:  |   |  |
|  |                                       | Email:   |   |  |
|  |                                       | Mobile No:   |   |  |
|  |                                       | Signature:   | Company Stamp:                                      |  |
| Training Date:   |                                       |  |   |  |
| Telephone:   |                                       |  |   |  |
| Type of Industr  | γ:                                    |  |   |  |
|  | <b>Tel:</b> 603-6156 0813 / 2         | 0813   <b>HD</b> • 012-/117  | 2813 / 012-375 2813                                 |  |

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