



SATISFACTION GUARANTEED

We ensure satisfaction in our training courses.
If you think this training does not meet the objective as mentioned in the brochure, we will replace you with other training with the same or less value (valid 1 year).

1 Title

Statistical Process Control – QT06

2 Programme Overview

Statistical process control (SPC) is the application of statistical methods to the monitoring and control of a process to ensure that it operates at its full potential to produce conforming product. Under SPC, a process behaves predictably to produce as much conforming product as possible with the least possible waste. While SPC has been applied most frequently to controlling manufacturing lines, it applies equally well to any process with a measurable output. Key tools in SPC are [control charts](#), a focus on [continuous improvement](#) and [designed experiments](#).

3 Target Group

Management Representatives, Department Heads, Managers, Supervisors, Engineers, Chemist, Line Leader, Executives for manufacturing, Quality Assurance, and those involved in product improvement.

4 Objectives

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

- ✓ Understand the principle of SPC in process control plot SPC charts and interpret the pattern
- ✓ Select the appropriate tool for an identified purpose within ISO QMS required activities
- ✓ Use the statistical tools as improvement tool that meet ISO QMS required activities
- ✓ Apply the selected tools & interpret the results of the application
- ✓ Make correct decisions based on the interpretation

5 Contents

- 5.1** Background of SPC
- 5.2** Prevention versus detection
- 5.3** Common and special causes of variation
- 5.4** Control charts for variable data



- 5.5 X-bar and R charts
- 5.6 Individual and moving range charts
- 5.7 Process capability studies – Ppk / Cpk
- 5.8 Examples of SPC
- 5.9 Control charts for attribute data
- 5.10 Attribute Charts:-
proportion non conforming (p) charts and nonconformities (c) charts & Process stability
- 5.11 Process capability analysis
- 5.12 Workshop & Presentation

6 Methodology

Theory discussion, Group exercises, workshops usually base on participants' organization information, individual problem analysis and reporting.

7 Certificate of Competency

Participants will be provided with a certificate of attendance at the end of the course

8 Duration & Time

2 days (9.00 am – 5.00 pm)

9 Course Fee

- a) Public Programme = RM1,900 / Pax
- b) In-house programme = RM 5,000 / Day

10 Course Date

- 10.1 Public Programme - Please refer to our latest training schedule
- 10.2 In-house Programme - To be determined by Customer

11 Venue

- 11.1 Public Programme - Ascendent's Training Room
- 11.2 In-house Programme - Customer's Premises

12 Contact Information

- 12.1 Name & address of Training Provider
Ascendent Technology Sdn Bhd (1093652-W),
B-5-03, Neo Damansara, Jalan PJU 8/1
Bandar Damansara Perdana
47820 Petaling Jaya, Selangor
- 12.2 Training Provider registration number: 1093652-W
- 12.3 Contact Person
MdmTeoh



Ascendent Technology Sdn Bhd (1093652-W)
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12.4 Telephone & Fax number
Tel: 03-7722 5313 /5317
Fax: 03-7731 6443

12.5 Email address
training@ascendent.com.my

12.6 Website: www.ascendent.com.my

13 Government Grant Registration

- 13.1** HRDF Reg. No. 1093652-W Training Provider
- 13.2** Claimable under SBL
- 13.3** MOF Registered No 357-02243485



14 Profile of Trainer

Mr. Lua Kheng Leong

Current PhD student of University of Nottingham
MBA (TQM) from Sunderland University
MSc (Quality Engineering) from Nottingham Trent University

Background of the Consultant / Trainer

Mr. Lua Kheng Leong is the founder and principal consultant of **Ascendent Technology SdnBhd** (Formerly known as Ascendent Consultancy). He is also the founder, former managing director and former principal consultant of **Pyrometro** group of companies since the company established in 1992. His contributions to the companies were immersing. He brought into the group of companies more than 20 years of rich and valuable experience, specializing in Metrology and Quality Management. Pyrometro was the early bird in ISO/IEC G25 certification and the 1st. commercial calibration laboratory to be accredited under MS ISO/IEC 17025. Mr. Lua developed new products in calibration and testing for the companies. He also designs and conducts training courses in metrology and quality management for the companies. He is a graduate in MBA (TQM) from **Sunderland University** and MSc (Quality Engineering) from **Nottingham Trent University**. He is now a PhD student of University of Nottingham, doing research in quality engineering.

In 1983, he received his professional training for 6 months in Australia. The training is **Defense corporation programme between government of Malaysia and Australia**. During the training, he gained vast experiences in metrology include uncertainty of measurement.

In 1997, he represented Malaysia participated in the Program on Measurement organized by The Association For Overseas Technical Scholarship (AOTS) in cooperation with **Japan Quality Assurance Organization** in **Tokyo, Japan** for the “**Physical Quantity Course**”.

He updates his skill and knowledge by attending Measurement Uncertainty Course, organized by DSM (under Ministry of Science, Technology & Environment) and National Measurement Laboratory, CSIRO, Australia.1997, and ISO Lead auditor course, 1999. He possesses an **ISO/IEC 17025 Lead Assessor certificate** which was awarded by National Association of testing Authorities, **Australia (NATA)** by April 2009.

He is a Certified Trainer for Corporate Programmes (PSMB/ TTT 0269). As a trainer, his wide experience as a consultant in MS ISO/IEC 17025 consultation, conducting training, managing a group of companies, qualifies him for the programs he conducts in MS ISO/IEC 17025 Laboratory Management System, Calibration and Quality Management.



Qualification

Current PhD student of University of Nottingham
MBA (TQM) from Sunderland University
MSc (Quality Engineering) from Nottingham Trent University

Course Attended

Pass ISO 9001 Lead Auditor training
Pass ISO/IEC 17025 Lead Assessor training(NATA)
Physical Quantity Course in Japan (AOTS)
Metrology in Australia

Research paper published

An Alternative Method To Determine Measurement Instrument Fitness
Measurement Instrument Intermediate Check
Measurement Instrument In **SAMM** Accredited Soil Testing Laboratory

15 Major Consultation Services

1. Kumpulan Ikram Sdn Bhd
2. Samsung Corning in Senawang
3. Samsung SDI in Senawang.
4. Pioneer Technology (M) SdnBhd in Muar
5. UNIPEQ (Food Analytical Laboratory of University Kebangsaan Malaysia)
6. Veterinary Research Institute, Ipoh
7. Ain Medicare SdnBhd, Kelantan.
8. TKR Manufacturing Sdn. Bhd. Malacca
9. Allied Calibration Engineering Services Sdn. Bhd., Kemaman, Terenggan
10. UKM Medical Molecular Biology Institute (UMBI)
11. Malaysian Vaccines & Pharmaceuticals SdnBhd, Bangi, Selangor
12. Hume Cemboard Industries SdnBhd (Fibre Cement Division)
13. PusatPenyelidikan&Analisis Air (ALIR), FakultiSains&Teknologi, UKM,Bangi, Sel.
14. Johor Biotechnology & Biodiversity Corporation
15. MIMOS Berhad -Testing Lab.
16. ExcelTest Monitor & Control
17. PFC Engineering Sdn Bhd in Kemaman.



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18. EPE Switchgear (M) Sdn. Bhd
19. Healthtronics (M) SdnBhd
20. Grandee Biotechnologies Sdn. Bhd
21. Pusat Pengurusan Penyelidikan dan Instrumentasi (CRIM) UKM, Bangi, Selangor
22. Geospec Testing SdnBhd
23. Geospec Sdn Bhd (Calibration Lab.)
24. Perbadanan Biotechnology Melaka
25. Nihon Denkei (M) SdnBhd
26. PK AGRO-INDUSTRIAL PRODUCTS (M) SDN BHD
27. Forest Research Institute Malaysia (FRIM-NPQC)
28. Samsung SDI Energy Malaysia SdnBhd
29. UniversitiTunHussienOnn Malaysia
30. MIMOS (Wafer Fabrication - ASSL)
31. Global Instrument Sdn Bhd
32. Glostrex Technology Sdn Bhd
33. Pro Equip Engineering & Trading Sdn Bhd
34. Lumileds Malaysia Sdn Bhd
35. Malaysia Airlines Berhad
36. LSP Advanced Sdn Bhd



Registration Form for Public Training

Title: Statistical Process Control – QT06

Course Date:

Name of Participant	=	Designation
1.....	=
2.....	=
3.....	=
4.....	=

Company Name & Address / Stamp:

.....

Tel No: Fax No:

Email:

Contact Person:

Designation:

Terms & Conditions

All cheques should be crossed and made payable to:
ASCENDENT TECHNOLOGY SDN BHD

Bank A/C No.
 Public Bank Berhad **3190-2958-32** / Maybank **5127-6360-6820**

Admittance will be permitted upon receipt of full payment 2 weeks before the course is conducted. Ascendent Technology Sdn Bhd reserves the right to cancel or postpone due to unforeseen circumstances.

If you are unable to attend, a replacement is welcome at no extra charge. The course fee, less 50% for cancellation, will be promptly refunded for cancellations received in writing at least seven (7) working days before the course. No refunds shall be made after this period.



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Letter of Acceptance for In- House Training

Title: Statistical Process Control – QT06

Course Date:

I,..... of confirmed to award the training as above to Ascendent Consultancy; subject to the Terms and Conditions contained herein.

Company Name & Address / Stamp:

.....

Tel No:

Fax No:

Email:

Contact Person:

Designation:

Terms & Conditions

All cheques should be crossed and made payable to:

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