

CLEANROOM

FACILITIES & TECHNOLOGIES

28~29 JULY 2008, SHAH VILLAGE HOTEL, PETALING JAYA

Accredited:

12 CPD POINTS

BOARD OF ENGINEERS
MALAYSIA

OBJECTIVE

Cleanrooms are widely used in industries these days, especially in electronic and semiconductor manufacturing plants. The requirements of a cleanroom are very stringent. Different design, construction and maintenance methodologies are involved as compared to conventional systems.

The course is designed for participants who have little or no knowledge of the theory of Cleanrooms. This course is also designed to introduce the participants to the various cleanroom terminologies frequently used etc. The overall objective is to give the participants a functional knowledge of cleanroom theory. At the end of the programme, participants will be able to understand:

- develop a working knowledge of cleanrooms ;
- differentiate between the different classes of cleanrooms; and
- understand better the design, construction, operations & maintenance requirements of cleanrooms.

The FACILITATOR

ENGR. N. JAYASEELAN MIEM, MIET, MASME
BEng(Hons) Mech Eng (UMalaya), HND(Mech) Leeds Poly,UK



ENGR. N. JAYASEELAN obtained his Higher National Diploma in Mechanical Engineering from Leeds Polytechnic (UK) and subsequently a Bachelor Degree (Honours) in the same discipline from the University of Malaya.

He was one of the recipients of a scholarship awarded by the Association of Overseas Technical Scholarships (AOTS) from the Ministry of Economy, Trade & Industry of Japan to attend a course on pumps which was organized by the Ebara-Hatakeyama Memorial Fund in collaboration with the Assoc. of Consulting Engineers M'sia.

He has about 25 years of working experience in various industries, which includes building maintenance, foundry, water and sewerage industries, etc. He has vast theoretical and practical knowledge on pump design, selection, installation, operation, maintenance and trouble-shooting.

The PROGRAMME DAY 1

08.30 Registration

09.00 SESSION 1 – OVERVIEW OF CLEANROOM TECHNOLOGY

- The need for a Cleanroom
- History of Cleanrooms
- Cleanroom in the Semiconductor and Pharmaceutical Industries
- Overview of the Wafer Fabrication Process
- The Cleanroom as a system and unit operations

10.00 Refreshment

10.30 SESS. 2 –CLEANROOM CONTROLLED ENVIRONMENT CONCEPTS

- Cleanroom Basics • Particulate Standards
- Gas and Vapour Standards • Contamination

11.30 SESSION 3 – MICRO CONTAMINATION (PARTICULATE)

- The nature of Particulate Contamination
- Particulate Contamination Flow
- Particulate Contamination Sources
- Particulate Transport and Retention
- Contamination Monitoring
- Identification for Particulate Contamination

1.00 Lunch

2.00 SESS. 4 – CREATING A CLEANROOM

- Construction materials
- Construction Practices
- Air Flow Basics • Typical Cleanroom Layout
- Configurations, Designing for Cleanroom Class Level

3.00 Refreshment

3.30 SESSION 5 – FACILITIES & SERVICES

- Electrical Systems
- Power Conditioning
- Compressed Air
- Wet Side and Dry Side Air

4.30 Adjourned

DAY 2

09.00 SESSION 6–VIBRATIONS

- External Vibration (Natural and Man-made)
- Internal Vibration

10.00 Refreshment

10.30 SESSION 7 – CLEANROOM CODES AND LEGISLATION

- Fire Protection and Smoke Removal

11.00 SESSION 8 – ULTRA PURE WATER

- The Uses of Ultra-Pure Water
- Raw Water Constituents
- Water Quality Standards

11.30 SESSION 9 – PRODUCTION MATERIALS

- Bulk Chemical Storage and Distribution Systems
- Hazardous Production Materials
- Safe Storage
- Handling and Use of Wet Chemicals and Gases
- Personal Protective Equipment

1.00 Lunch

2.00 SESSION 10- WASTE TREATMENT

- Acid Waste Neutralization Plant
- Hydrofluoric and Phosphoric Acid Waste Treatment

3.00 Refreshment

3.30 SESS 11 – PEOPLE & CONTAMINATION

- Apparel
- The Use of Apparel
- Work Practices and General Behaviour

4.00 Certificate of Attendance Presentation / End of Workshop

WHO SHOULD ATTEND

- Facilities Engineers • Design Engineers
- Maintenance Engineers • Academicians
- Architects, Property and Asset Managers
- Production & Manufacturing Technicians
- Researchers • Any one involved in clean-rooms & would like to widen their knowledge.

"I/We would like to attend the 2-Day Short Course in "CLEANROOMS – FACILITIES AND TECHNOLOGIES" dated 28 -29 July, 2008 at Shah Village Hotel, Petaling Jaya, Selangor Darul Ehsan

Enclosed herewith a Crossed Cheque/ Bank Draft/ Money Order/ Postal Order/ Government Purchase Order No. _____ for the sum of RM _____ issued in favour of "PLANT AND MACHINERY ENGINEERING CONSULTANTS"

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THE FEE

RM 1,800.00 Per Participant
For group participants of (3), the Overall Discount is RM 300.00

Organised by:

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(001716807-K)

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