

Session Code: **PE01**

Manufacturing  
Improvement  
Training Program

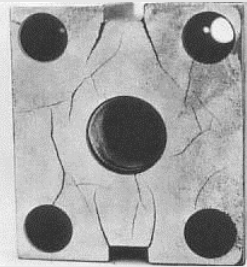
2-day Technical Training Course

**Program: MANUFACTURING INSIGHTS SKILLS (MIS)**

**Session Topic:** Failures of Tools & Dies and Precaution

**By: William Lee**

**SBL TRAINING PROGRAM**



**Course Objective**

The objective of this patented MIS program is to raise technical competency of technical employees from local manufacturing industry for product quality & productivity improvement through understanding of vital manufacturing variables. At the end of the MIS training, participants will realize the importance of technical details study & the introduction of science & engineering procedures to their existing practices for a profitable manufacturing operation.

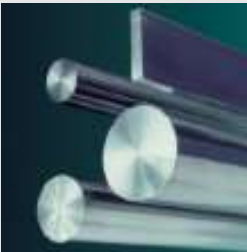
**Session Overview**



The program is intended to improve understanding of various tool processing & their effects to the tooling materials properties and behavior so that proper pre-treatment, during treatment and post-treatment measures can be planned correctly. This lead to reduce risk of premature tool failure during tool making process and when places them into service condition. Participants will learn various influencing factors for tool life performance and metallurgical effects of various tools manufacturing processes. The program will emphasize on the proper design, handling & processing of tooling materials use in fabricating moulds, tools, dies, jigs & fixtures. Fundamental knowledge & practical data will be explained & given during the presentation. In addition, each topic will be followed by a video presentation. Contents of the video programs are designed by professionals and will allow course participants to witness samples from actual condition relevant to the teaching topic; this will help further reinforce understanding of the different subjects.

**Benefits**

1. Understand common tool failures & their causes.
2. Prevent premature tools, moulds & dies failures by applying proper pre-, during and post treatments of various tools processing works.
3. Learn various tooling performance improvement programs.
4. Learn how to cooperate with designers, tool makers, heat treaters, tooling materials suppliers, production & maintenance people for achieving better production economy.



**Course Contents**

**1. Failure due to design faults**

Learn how unfavorable tool design can bring heat treatment related problems and service related failures.

**2. Failures due to tooling material**

Study how material factors can influence tool life performance.

**3. Failures due to machining defects**

Understand how a piece of tool can subject to various metallurgical altered & mechanical altered defects bring about by various finishing & machining operations.

**4. Failures due to poor heat treatment**

Get to know how irregularities during heat treating can cause tool failures during hardening, tool making & servicing period.



## Course Instructor



William Lee - Malaysian, Materials Engineer with an honorable Bachelor Degree awarded by The Engineering Council of London (EC, UK). He has over 25 years working & teaching experience in manufacturing industry. William possesses strong fundamentals knowledge in technical science & has special talent to communicate and explain to others the principles involved in various engineering fields. His ability to present and link the various engineering disciplines with real industrial use has made many of his course participants to appreciate the significant of technical details study

for manufacturing improvement. Over the years, he has developed a series of patented Manufacturing Insights (MIS) Training programs for various manufacturing industries. He is now a full time contract speaker for a few training organizers as well as professional associations in ASEAN & Australia. William will bring a wealth of teaching experience to this program along with his strong industrial background as a former engineering practitioner in tooling, materials, heat treatment, moulding & metal forming divisions. In addition, William is a versatile trilingual instructor who can instruct technical courses in English, Bahasa Malaysia or Mandarin (or a combination of the languages) to ensure full understanding of his presentation by his trainees from all levels.

## Target Participants

Participating companies can be from metal stamping, forming & machining, plastic moulding, electronic, automotive, extrusion, die casting, moulds & dies, tool steels as well as heat treatment industry. Target audience can be those involved in activities related to tooling, parts or products manufacturing such as technical group personnel, production managers, supervisors, tooling engineers, tool makers, engineering specialists, quality controllers and R&D researchers, designers, machinists, technicians and heat treaters.

## Administrative Details

1. Should public training not be scheduled for this program we will consider opening an ad hoc public training class if you've minimum guaranteed participants to attend this program.
2. We can bring this program to your premises as in-house training event for your in-house employees only. Interested participating company may contact us for an in-house training proposal.
3. In-house training can be conducted on weekdays or weekends (including public holidays) to meet the scheduling needs of your targeted staff.
4. For in-house training, a list of participants complete with their full name & designation must be presented to training provider one week prior commencement of each program. The total no. of training manual is supplied to the actual no. of turned out attendees only.
5. Substitute is allowed to replace the earlier registered person if he / she is unable to attend the training program (both public and in-house training). Participating company must inform us the details of replacement person.
6. All programs are of SBL (Skim Bantuan Latihan) type. Eligible company (Human Resources Development Fund contributor) must apply through themselves for the rebate of any eligible expenses (including training fees) from Human Resources Development Council. Training provider bears no responsibility for the approval of training grants or any form of rebates between participating company and HRDC.



Organized by:

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