

Certification Course

LEAN SIX SIGMA

**Black Belt
Accelerated**

Duration = 8 Days

English Medium Course

การบรรยายเป็นภาษาอังกฤษตลอดหลักสูตร

International LEAN SIX SIGMA BLACK Belt Training in Thailand
Joint Training International Certification brought by Industry Expert within
Australia, Malaysia & Singapore.



INTRODUCTION

The **Black Belt Accelerated** Course is designed to improve process performance, deliver medium to high impact projects and achieve significant cost savings.

Six Sigma **Black Belt Accelerated** is designed so that people acquire the special skills and knowledge required before leading or taking part in any continuous improvement project.

Black Belt Accelerated will effectively use the Six Sigma tools in their organization, with customers and suppliers for achieving business improvement results.

Black Belt Accelerated will gain thorough understanding of all aspects of the DMAIC model in accordance with Six Sigma principles.

Black Belt Accelerated will gain knowledge of Lean enterprise concepts and will be able to identify non-value-added elements and activities.



**DESIGNED
FOR**

- Process Engineer
- Production / Manufacturing Engineer
- Maintenance Engineer
- Quality Engineer
- Improvement Engineer
- Supervisor
- Superintendent
- Executive
- Professional wanted to become a specialist
- Professional keen to improve skill
- Professional keen to upgrade Career Growth

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For further details, or clarification, kindly contact +669 2195 6199 or send your e-mail to trainingcenter@hmcenter-group.com



SESSION 1: (3 Days) DEFINE & MEASURE PHASE

- Introduction & Overview of Six Sigma
- Cost of Poor Quality (COPQ)
- Drill Down Tree & Pareto Chart
- Project Charter Development
- Teams & Stakeholder Analysis
- Voice of Customers (VOC) & Kano Model
- SIPOC & Basic Process Mapping
- Quality Functional Deployment (QFD)
- Financial Analysis and Cost Savings
- Root Cause Analysis (RCA) Tools
- Cause & Effect Matrix
- Operational Definition
- Data Collection Plan
- Basic Statistics and Sampling Techniques
- Measurement System Analysis (MSA)
- Capability Analysis and Sigma Value
- Graphical & Value Analysis
- Detailed Process Mapping
- Fishbone Diagram
- Failure Modes and Effects Analysis (FMEA)

SESSION 3: (3 Days) IMPROVE & CONTROL PHASE

- Generating Improvement Ideas
- Design of Experiment (DOE)
- Evaluating & Selecting Best Solutions
- Solution & Training Implementation Plan
- Develop & Execute Pilot Plan
- Lean Enterprise
- Cost & Benefit Analysis (ROI)
- Process Control Plan
- Standard Operating Procedures (SOP)
- Statistical Process Control (SPC)
- Best Practice and Replication Opportunities
- Process Ownership and Dashboards

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SESSION 2: (2 Days) ANALYZE PHASE

- **Hypothesis Testing**
- **Advanced Statistical Root Cause Analysis tools** : Type 1 & Type 2 error, Degree of Freedom, Power and Sample Size, 1 Sample t-Test, 2 Sample t-Test, One way ANOVA, Test of Equal Variance (TOEV), 1 Proportion Test, 2 Proportion Test, Chi-Square Test, Non-Parametric Analysis and General Linear Model (GLM)
- **Regression Analysis**
- **Value Stream Mapping (VSM)**
- **Advanced Graphical Analysis**
 - Pareto Charts
 - Box Plots
 - Run Charts
 - Dot Plots
 - Sigma Value / Z-Bench
 - Graphical Tools for Statistics
- **Summarizing Potential Factors and Potential Solutions**
 - Correlation Analysis
 - Multiple Regression
 - Simple Linear Regression
 - Best Subset Regression

METHODOLOGY

- | | |
|---------------------|----------------|
| ■ Group Discussions | ■ Simulation |
| ■ Case Study | ■ Activities |
| ■ Talk over Tea | ■ Own Software |
| ■ Networking | ■ Own Books |
| | ■ Q & A |

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TRAINER & SENIOR CONSULTANT

HARBANS SINGH

Mr. Harbans Singh, is a graduate of University of East London and holds a Bachelors Degree (Hons) in Information Technology majoring in Software Engineering. He is certified as a Six Sigma Black Belt trained by Juran Institute (USA & Korea) under the supervision of Samsung Electronics Asia Pacific.

Mr. Harbans has gained over 12 years of working experience both in manufacturing and service industries.

Mr. Harbans major achievements would include the development of Six Sigma Green Belts and Six Sigma Black Belts within Samsung Electronics Asia Pacific Region. Furthermore Harbans mentored Six Sigma Yellow Belt, Green Belt and Black Belt projects that contributed to total cost savings about USD\$ 15 million during the past 6 years. Harbans also has an extensive experience in developing and conducting Six Sigma Champions Training, Black Belt, Green Belt and Yellow Belt training programs for Private Companies, major Government Linked Companies (GLCs) in Malaysia and many other Government Agencies.



TRAINER & CONSULTANT

ARSHAD ISMAIL

Mr. Arshad Ismail, is a graduate of Universiti Sains Malaysia (USM), Penang Malaysia and holds a Bachelors Degree in Operations Management, majoring in Operations and Re-Engineering. He is certified as Lean Six Sigma Black Belt by IASSC under the supervision of expert from LSS Academy. Mr.Arshad has gained over 15 years of Industrial experience in Manufacturing sectors and Shared Service. Mr.Arshad has clocked working with Electrical&Electronic, Petrochemical, Pharmaceutical and Industrial sector of Manufacturing.

Mr Arshad has extensive experience in performing statistical analysis by using Tableau,Minitab,Phyton and R Programminig. Mr.Arshad has delivered various Quality Improvement and Cost Effective Projects across industries by using LEAN Methodologies and LEAN Six Sigma as methodologies.

Mr.Arshad major achievements would include development of LEAN BUSINESS SYSTEM (L.B.S) for major Petrochemical Plant base in United Kingdom. With L.B.S Mr.Arshad integrating LEAN Six Sigma as part or organization culture. Furthermore, Mr.Arshad mentored Six Sigma Yellow Belt and Six Sigma Green Belt projects that contribute to total cost effectiveness about USD 9million.



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