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Six Sigma Black Belt (SSBB) Workshop

Starting from 10 July 2010

At Pune

- ***Free access to Minitab and Quality Companion Softwares for your project data analysis by prior appointment***
- ***Library facility with many reference books on Lean Six Sigma and past issues of 'Six Sigma Forum Journal' as well as 'Quality Progress' published by ASQ***

Learn Six Sigma from Hemant Urdhwareshe

***The First
ASQ Certified Six Sigma Black Belt in India
and
Author of the forthcoming book 'Six Sigma for Business Excellence'
being published by Pearson Education***

Institute of Quality and Reliability has conducted Six Sigma Black Belt/Green Belt training for companies like Fleetguard, Menon Pistons, Alfa Laval, TACO, Mahindra Hinoday, Satyam Computers, Eaton Technologies, Mirc Electronics, College of Engineering, Pune etc.

Visit our website: <http://world-class-quality.com/>
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Institute of Quality and Reliability (IQR)

Announces

Six Sigma Black Belt (SSBB) Workshop

(Focused on preparation for ASQ Certification)

(Duration: 16 Saturdays)

Course Schedule: From 10 July 2010 onwards on 16 Saturdays

Timing : 10:00 am – 6.00 pm on Every Saturday

Venue : IQR Learning Center at Paud Road, Pune.

Who is a Six Sigma Black Belt?

Black Belts play a critical role within a Six Sigma infrastructure and culture. Their primary roles are important in many ways. Black Belts provide value within the organization's Six Sigma initiative in a variety of ways.

- **Leading *Six Sigma Black Belt Projects*** and making process improvements
- **Deploying** their organization's Six Sigma program
- **Working with process owners** to ensure project gains are sustained
- **Spreading Six Sigma culture** within the company
- **Sharing of best practices** throughout the organization

Who should attend the training?

This training workshop is designed for professionals, engineers and managers and others ***who aspire to get certified by American Society for Quality (ASQ) as Six Sigma Black Belts (CSSBB)***. The course is ***designed based on the latest ASQ CSSBB Body of Knowledge***. Others who wish to learn fundamentals of Six Sigma Approach, Tools and Applications will also be immensely benefited.

Benefits and Structure of the workshop:

After attending the workshop, the participants will be able to:

- Understand Six Sigma approach and tools
- Apply Six Sigma tools using many exercises to make process improvements using SigmaXL and/or Minitab software
- Prepare for taking Certified Six Sigma Black Belt (CSSBB) examination offered by ASQ
- Test the comprehension and knowledge level with reference to ASQ body of knowledge
- Get certified by IQR as Six Sigma Black Belt (subject to passing the final examination and project completion).
- Use library facility of IQR with many reference books and past issues of Quality Progress and Six Sigma Forum Journal published by ASQ
- Access to Minitab Software for analysing project data

This is a 16-day workshop focusing on learning the concepts and applying these to the projects selected by the participants. Each participant is expected to identify a Six Sigma Black belt project before or during the course. Guidelines and counseling for project selection will be provided to registered participants. This workshop includes sufficient hands on exercises using special SigmaXL and Minitab software and significant time in the workshop would be dedicated to the application exercises. After each session of training, participants are expected to apply the tools to their projects. Participants will also be given set of practice questions in line with ASQ examination. Each participant is expected and encouraged to apply the concepts using Six Sigma tools and SigmaXL/Minitab software. These softwares facilitate effective use/application of Six Sigma statistical tools enabling the belts spend more time focusing on implementing process improvements. For some sessions, participants need to bring laptop computers with Microsoft Windows XP and MS Office.

A simulated test will be conducted at the end of training to assess effectiveness of training. The structure of these tests will be similar to ASQ exams.

Certification: IQR will certify participants who pass the final test and complete their projects as “**Certified Six Sigma Black Belts**” (CSSBB). Participants need to apply separately for Certification from ASQ. See more details below.

About ASQ Certification:

ASQ conducts Certified Six Sigma Black Belt (CSSBB) Examination in March and October every year. ASQ CSSBB enjoys excellent international reputation. Participants can appear for the ASQ exam scheduled in March 2011. More details about ASQ certification are available on web site of ASQ <http://www.asq.org/certification/six-sigma/index.html>. In addition to attending the workshop, participants are expected to prepare for the examination using the course material and other recommended reference books. Depending on the prior experience, study time for preparation may vary between 50 to 100 hours. ASQ CSSBB examination is a 4-hour examination of 150 multiple-choice questions. ASQ certification fees (US \$ 260 for members + ASQ membership fees \$74) are not included in the course fees. Participants need to take up and complete their projects so that they can apply for ASQ certification examination. For detailed information, visit <http://www.asq.org/certification/six-sigma/index.html> .

Course Kit:

1. *Comprehensive workshop material of more than 525 pages (based on ASQ body of knowledge) with index of key words + about 300 practice questions and explanations.*
2. *CD containing many useful templates for implementing Six Sigma and data files for exercises.*
3. *Single user Licensed copy of SigmaXL software is included in the course fees. However, please check the price options for the course for specific details.*
4. *30-day evaluation copy of Minitab Software will be provided.*
5. *Six Sigma Black Belt Handbook published by ASQ depending upon availability at the time of course.*
6. *A six sigma t-shirt!*

Course Contents:

Day	Topics Planned
1	Registration, Introduction of the participants, faculty
1	Overview of the course
1	History and Evolution of Six Sigma
1	Defining customers, CTQs, CTPs, CTCs, QFD
1	Organizing for Six Sigma and Defining Projects
1	McConnell's experiment
2	Mapping the current process
2	FMEA
2	Data Collection
3	Basic Quality Tools and Exploratory Data Analysis: Histograms, Box Plots, Scatter Plots etc.
3	Basic Probability and Statistics
4	Probability plotting and identifying distribution
4	Measurement Systems Analysis
5	Process Capability and Performance
5	Non Normal Data
6	Hypothesis Tests
7	Non Parametric Tests
7	Confidence Intervals and Natural Tolerance Limits
7	Power and Sample Size
8	Analysis of Variance
8	Regression and Correlation
8	Logistic Regression
9	Design of Experiments: Basic Concepts
9	Fractional Factorial Experiments and other designs
9	Other improvement tools
10	Statistical Process Control
11	Lean Principles and Tools
12	Design for Six Sigma
12	Teams and Team management
13	Six Sigma and Other Approaches: Kaizen, 5S, TPM and Theory of Constraints
13	Six Sigma Tools: Case Studies and Application Examples
14	Tools practice on SigmaXL/Minitab
15	Multivariate Analysis: Principal Components, Factor Analysis, Discriminant Analysis and MANOVA
16	Final Examination

Note: The course contents are indicative and will vary to some extent. It is expected that the participants complete the exercises in time and support classroom sessions with self study and project work.

Course Fees:

- Register for the course before 30 June 2010 for Rs. 33,980 (plus Service Tax at 10.3%) per participant. This price **includes comprehensive training material, Six Sigma Black Belt Handbook, training CD containing many useful templates/data files, 30-day trial version of SigmaXL and Minitab-15 software.** The course is non residential. Fees include Lunch and Tea at the venue. In case the course is purchased with SigmaXL software, participants will get a single-user licensed copy of SigmaXL software for Six Sigma implementation.
- **Early registrations (till 30 June 2010) for Rs. 39,980 (plus ST at 10.30%) only including SigmaXL software priced at US\$249 or Rupees 11,500 approximately.**
- **Details of fees:**

		Without SigmaXL Software					
		On or Before 30 June 2010			After 30 June 2010		
No. of participants	Payment option	Price per participant	Service Tax at 10.3%	Total per participant	Price per participant	Service Tax at 10.3%	Total per participant
1	One time payment	33980	3500	37480	36500	3760	40260
2 or more		32280	3325	35605	34675	3572	38247
1	In 2 Equal Installments	34670	3571	38241	37240	3836	41076
2 or more		32940	3393	36333	35380	3644	39024

		With SigmaXL Software					
		On or Before 30 June 2010			After 30 June 2010		
No. of Participants	Payment option	Price per participant	Service Tax at 10.3%	Total per participant	Price per participant	Service Tax at 10.3%	Total per participant
1	One time payment	39980	4118	44098	42500	4378	46878
2 or more		38280	3943	42223	40675	4190	44865
1	In 2 Equal Installments	40670	4189	44859	43240	4454	47694
2 or more		38940	4011	42951	41380	4262	45642

- Participants can choose to pay in two equal installments: 1st installment at registration and second installment on or before 10 August 2010. Refer table above for details of pricing:
- ASQ examination fees are not included. (US \$260+ membership fees \$74).
- The course can be purchased with SigmaXL software for six sigma implementation. Participants have option to buy SigmaXL worth US\$249 or Rs.11,500 (approximately) and get additional discount in the course fee. Refer above table for details.
- Participants can access Minitab SigmaXL and Quality Companion softwares with prior appointment for their project data analysis and practice.
- Participants can use library facility with many reference books and journals on six sigma (Note: participants will need to pay refundable library deposit)

Payment:

- Registration will be confirmed after payment by DD/Cheque payable at par in favour of "Institute of Quality and Reliability, Pune".
- In case of payment in 2 installments, cheque for the first installment and post dated cheque for the second installment should be given at the time of registration.

Cancellation Policy:

- Registration can be cancelled till 2 July 2010. Fees paid will be refunded after deducting Rs.2500. Cancellation after this date is not possible.
Registration can be transferred prior to start of the course at no extra cost.

Faculty:

Mr. Hemant Urdhwareshe, Master Black Belt and Director, Institute of Quality and Reliability (IQR) is the principal faculty for the program. He has more than 28 years of experience in Manufacturing, Quality and Engineering at Cummins India Limited (CIL). As **head of quality, reliability and subsequently engineering functions at CIL, he was actively involved in driving Six Sigma and has led/sponsored many Six Sigma projects**. He has applied various Six Sigma tools in improving processes and solving complex manufacturing and field problems. Hemant has conducted many in-house training programmes on Leadership, Quality Engineering and management at CIL and on behalf of Indian Institution of Production Engineers (IIPE). He has also published many [articles on Six Sigma](#) and quality engineering. Hemant is a visiting faculty at Symbiosis Institute of Business Management for Business Statistics and Six Sigma.



He has conducted Black/Green Belt Programmes for Fleetguard Filters, TACO, Alfa Laval, Menon Pistons and Mahindra Hinoday, Satyam Computers and Eaton Technologies. He has also conducted many Six Sigma Green Belt public workshops. **He has trained more than 350 Six Sigma Black/Green Belts** till date.

He is:

- **The *first* ASQ Certified Six Sigma Black Belt in India (2001)**
- **The *first* ASQ Certified Quality Manager in India (1998)**
- **ASQ Certified Quality Engineer (1996) and**
- **ASQ Certified Reliability Engineer (2005)**
- **The *first person in India with four or more certifications from ASQ***
- **Recipient of *Silver Standard 2003 award from Qimpro Foundation as outstanding Manager of International Quality Systems***
- Senior Member of ASQ, Fellow of IIPE and member of National Center for Quality Management. (NCQM).
- Qualified Lead Assessor
- Author of the book 'Six Sigma for Business Excellence: Approach, Tools, Applications and Case Studies' being published by Pearson Education

Hemant Urdhwareshe will be supported by other competent faculty.

About Institute of Quality and Reliability:

Institute of Quality and Reliability (IQR) was established in Nov. 2005, with primary objective to help Industries for improving their business performance. IQR also supports individuals aspiring to improve their knowledge and skills in Quality and Reliability. After 28 years of rich industrial experience in the Industry, at Cummins India Ltd. (CIL), Hemant Urdhwareshe decided to start IQR. So far IQR has trained more than 350 Six Sigma Black/Green Belts and about 500 individuals in the field of Quality and Reliability.

For registration or more information Contact us:

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