

DFSS Black Belt Training & Certification

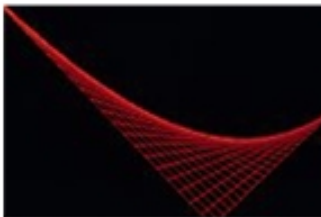
Week 1: September 10 - 14, 2007

Week 2: October 15-19, 2007

Week 3: November 12-16, 2007

Week 4: January 7-11, 2008

Troy, Michigan



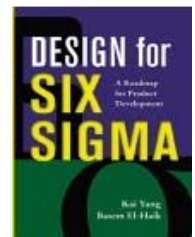
By **Dr. Basem Haik**

This Training
Puts Your
Career on
...*Stroids*.



"Now here's a powerful engineering resource that makes it easier to implement Design For Six Sigma in new product and service development, one step at a time."

*Ed Orzetti, VP of Six Sigma
Textron Inc.*



6σ

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Events" to register

"In this training, you get the detailed directions, careful comparisons, and worked-out calculations that make every step easier and make sense of every step. This trailblazing authority shows you a systematic 1, 2, 3 method for achieving world-class quality in product development and manufacturing, a revealing inside-industry case studies and a groundbreaking comparisons of traditional quality tools with newer contemporary tools"

*M.K. Sethya
VMR Inc., USA*



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The customer-oriented design is a development process of transforming customers wants into design solutions that are useful to the customer. This process is carried over several phases starting from a conceptual phase. In this phase, conceiving, evaluating and selecting good design solutions are difficult tasks with enormous consequences. It is usually the case that organizations operate in two modes 'fire prevention', i.e. conceiving feasible and healthy conceptual entities, and 'fire fighting', i.e. problem solving such that the design entity can live to its committed potentials. Unfortunately, the later mode consumes the largest portion of the organization human and non-human resources. The Six Sigma Professionals, Inc. Design For Six Sigma methodology is designed to target both modes of operations in product, process and service development environments.

Our Design For Six Sigma spans over four phases: **I**dentify, **C**haracterize, **O**ptimize and **V**erify, a.k.a. ICOV methodology. DFSS is a scientific approach comprised of fundamental knowledge areas in different design, quality and reliability fields as well as the relationship between these fundamental areas. DFSS fundamental knowledge areas include a mix of principles, tools, ideation and conception methods such as Axiomatic Design, Theory of Inventive Problem Solving (TRIZ), Robust Design, Test Method Development and a spectrum of empirical statistical and mathematical models.

The major objective of DFSS is to 'design it right the first time' to avoid painful down stream experiences. The term 'six Sigma' in the context of DFSS can be defined as the level at which *design vulnerabilities* are not effective. There are many weaknesses exhibited in current engineering practices. These weaknesses often lead to problematic quality issues in the designed entity. This situation is an urgent call for DFSS as a new engineering approach. These weaknesses can be categorized as follows:

- 'Conceptual Weaknesses' leading to lack of functional robustness of the fundamental system elements. This category is associated with the system design (hierarchical level) and results from violation of design principles.
- 'Operational Weaknesses' leading to lack of robustness at the operational level, i.e. associated with the usage environment of the system occurring over the system's life cycle. This results when the system is subjected to noise factors such as customer use/abuse, material degradation, and piece-to-piece variation.

Identify

I

Characterize

C

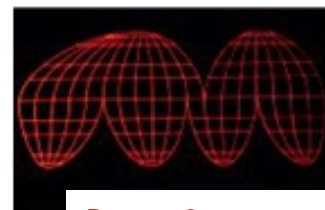
Optimize

O

Verify

V

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The objective of DFSS when adopted upfront is to 'design it right the first time' by anticipating the effect of both sources of design vulnerabilities. This requires that companies should be provided by the means to achieve this noble objective and to sustain it. Here where Six Sigma Professionals, Inc. (SSPI) comes in.

Dear Future Black Belt,

The Design For Six Sigma Black Belt (DFSSBB) serves as a specially trained project leader or team member on contemporary design methods. This focus allows the Black Belt to work on effectively and efficiently on a wide-spectrum of product development projects throughout the business.

This DFSSBB training and certification provides the necessary processes, tools and methodologies to systematically produce and innovate products at Six Sigma quality. It harnesses your company intellectual capital and channels it to produce customer-focused design (or re-design) and breakthrough product improvements. An individual with Six Sigma Professionals, Inc. (SSPI) DFSS Black Belt training will be able to resolve most product issues for his/her organization with our DFSS ICOV innovative technologies. S/he will be skilled in listening to the voice of the customer, cascading requirements, optimization techniques, innovation and test method development.

Our DFSS training and certification combines traditional class room-based teaching with multimedia instruction to provide participants with an effective, convenient and value-efficient training to the DFSS methodology and tools. Using detailed training material, one-on-one correspondence, and software applications, Belts will be closely led through a well structured, supervised series of study topics, discussions, and exercises over a four -week period. This also results in more individual attention and a higher level of retention.

The workshop is designed to provide an understanding of the DFSS contemporary areas of knowledge. The Identify-Characterize-Optimize-Verify (ICOV) is presented with numerous case studies and examples drawn from several product development applications across many industries. Because it's designed with a heavy practice orientation, a significant portion of your time is spent working through interactive practices.

Warm regards,

*Dr. Basem Haik
President, Six Sigma Professionals, Inc.*

INSTRUCTOR

Dr. Basem Haik is the president of Six of Sigma Professionals, Inc. in Canton, Michigan, USA. Dr. Haik holds two doctorate degrees and a wealth of 17 years industry experience. As a Master Black Belt, he helped companies implement Six Sigma and DFSS strategies. He conducts Six Sigma and DFSS deployment planning, in-house and public training sessions as well as project/program consultation.

Dr. Haik's areas of expertise are: Six Sigma, Lean Manufacturing, Lean Six Sigma, Design For Six Sigma (DFSS), Reliability Engineering, Robust Design, Axiomatic Design, Product Development Methods, DFSS for R&D, Test Method Development, Engineering Statistics, and Theory of inventive Problem Solving (TRIZ). Dr. Haik is the author of the following best sellers:



Register by **August 10, 2007** and get free autographed copies of the **four** books on the 1st day of the course.

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WORKSHOP OBJECTIVE

- To provide belts with a thorough understanding of the Design For Six Sigma methodology theoretical basis.
- To give belts a familiarity with DFSS software that will enable them to efficiently use on their projects.
- Gear up the belts with laser like focus on the project with creation of project charter and DFSS ICOV roadmap.
- Train Black Belt belts on DFSS methodologies and tools with hands on practice.
- Helps belts work on completing their 1st project step by step.
- Generate ground for independent handling of future DFSS projects for their company.
- Provide hands on statistical tools that can be immediately applied in their respective areas of work.
- Lead teams in applying the DFSS I-C-O-V methodology to Innovate new and/or improve legacy products

BENEFITS OF ATTENDING

In companies who adopted DFSS, several studies have shown that the method delivers dramatic payoff. Black Belts will acquire DFSS hard skills to tackle projects on their own with minimal supervision. Large scale DFSS deployment companies realized millions of bottom line benefits, customer satisfaction, growth and innovation.

TRAINING MATERIAL

Each Belt will be receiving a comprehensive set of notes including a step-by-step Design For Six Sigma Black Belt project roadmap and a template set for each week of training.

SOFTWARE

Six Sigma software like Minitab, MS Office Suite (Excel, PowerPoint, Word, etc.) and others will be used throughout the course.

WHO SHOULD ATTEND

Quality professionals, system engineers, design engineers, managers, Six Sigma professionals, product improvement leaders, project managers, quality engineers, and supervisors should attend this training session. This is the only Applied Design For Six Sigma certification in the world with emphasis on Axiomatic Design and Innovation. In particular, employees that will be actively participating in cost reduction and/or quality improvement initiatives or other projects of strategic importance need to receive DFSS Black Belt training.

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PREREQUISITES

None. However, it is recommended that belts should have a project that they are or will be working on for class discussion and certification. Belts are assumed to have a reasonable knowledge of MS Office software (PowerPoint, Word and Excel). An understanding of the business environment is a plus.

POST SESSION PROJECT CONSULTATION

Post session project consultation is available and can be arranged with the instructor separately.

FEES

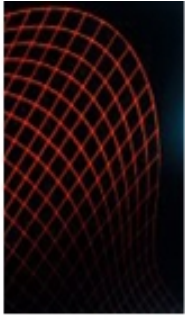
US\$ 3,200 per week per Belt, a total of US\$ 12,800. This rate includes Belt's Pack (Folder, Manual, Hand-outs, etc), templates, breakfast, lunch and snacks during breaks.

REGISTRATION

Visit www.sixsigmapi.com and click on "Public Training Events" to register and pay online or fill the registration form on Page 7 and fax it to +(734) 728 8507. Other forms of registration are listed on Page 6.

CERTIFICATE

A DFSS Black Belt certificate signed by Dr. Basem Haik will be handed to all DFSS Black Belts subject to the process on Page 6.



The following course outline will be followed. All Training is arranged around the DFSS ICOV process with emphasis on **Axiomatic Design**.

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variability and design complexity reduction.

- Introduction to Robust Design
- Parameter Design
- Tolerance Design
- O-ptimize Phase Roadmap

WEEK 1 (September 10-14, 2007): I-identify Phase

Belts will be trained on tools to identify and/ or validate their DFSS project, verify their business case, listen to voice of the customer, define high-level requirements and prepare themselves to be effective project team leaders. You will learn:

- Lean Six Sigma Introduction
- DFSS Strategy and Gate Review Process
- DFSS Project Charter
- Engineering Statistics
- Quality Function Deployment
- Listening to the Voice of the Customer
- Multi-Generational Planning
- I-identify Phase Roadmap

WEEK 2 (October 10-14, 2007): C-haracterize Phase

Belts will learn and practice using DFSS Characterize roadmap and tools to develop creative solutions necessary to satisfy project requirements and develop a design conceptual structure. Belts will learn:

- Design Principles
- Basic Statistics with Minitab
- Measurement System Analysis
- Process Capability
- Design Failure Mode & Effect Analysis
- Systematic Innovation
- Design Interface & Integration Management
- C-haracterize Phase Roadmap

WEEK 3 (November 12-16, 2007): O-ptimize Phase

Belts will learn how to optimize the design scoped in their project and to extract information necessary for decision making to guide further opportunities for

WEEK 4 (January 7-11, 2008): V-erify Phase

Belts will learn how to verify and validate the optimized solution in the use environment with test method development, Statistical Process Control, and Engineering Statistics. They will be introduced to various methods of Verification/validation identification, prioritization, and Implementation.

- Test Method Development
- Statistical Process Control
- Verification Statistics
- V-erify Phase Roadmap

Features

- Professionally printed student notebooks
- Fun and exciting exercises
- Fun learning atmosphere
- Access to instructor with extensive project experience
- Project consulting support during each training week
- Certification venue
- Student data files and DFSS templates
- Discounted post-training consulting support

PROGRAMME

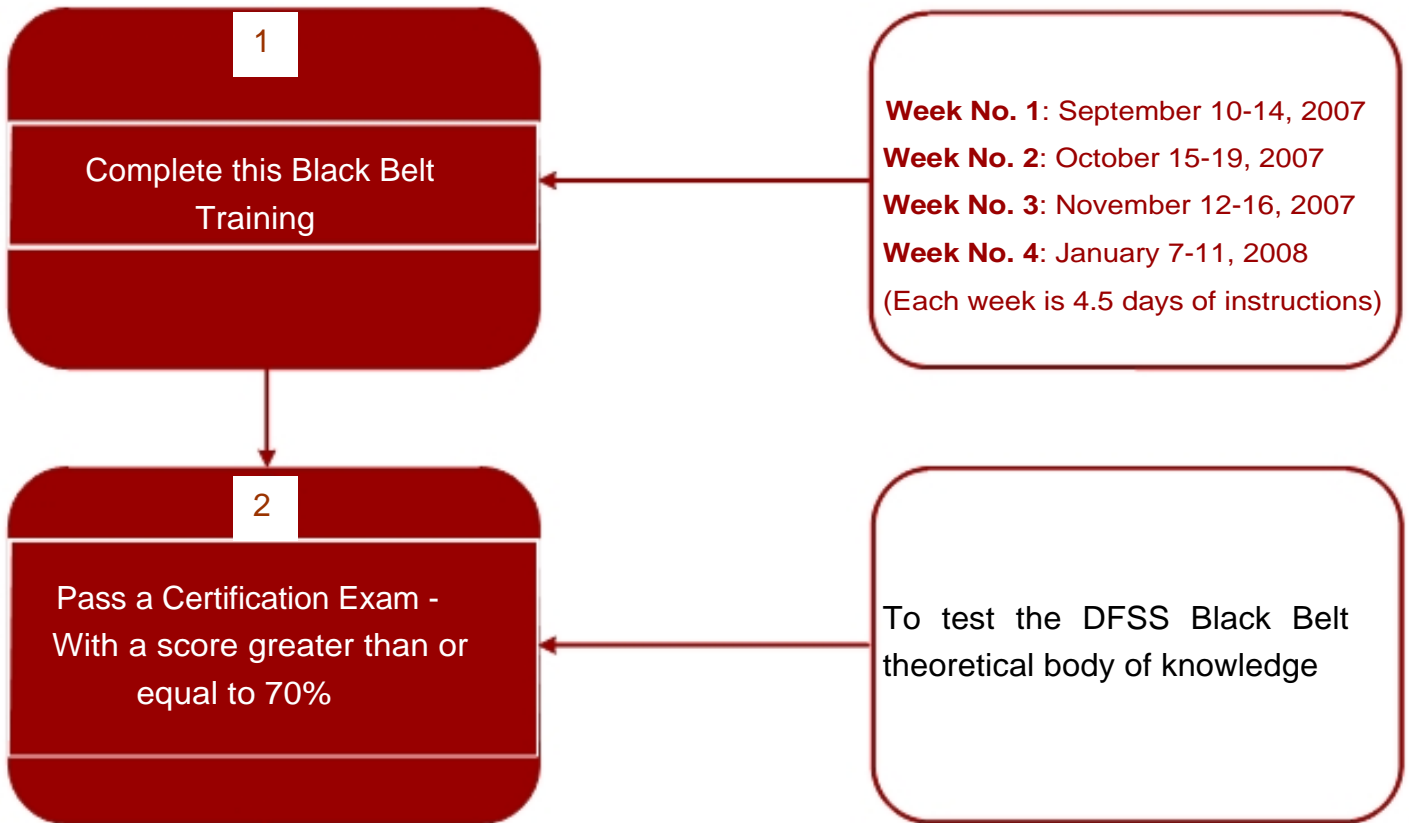
08:00 AM- 12:00 AM	Morning Session
10:00 AM- 10:15 AM	First Break
12:00 PM-1:00 PM	Lunch
01:00 AM- 05:00 PM	Afternoon Session
03:00 PM - 03:15 PM	Second Break

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2-STEP DFSS BLACK BELT CERTIFICATION

Design For Six Sigma Black Belt (DFSSBB) course prepares your company's project leaders and team members to implement DFSS in the workplace.

*The combined DFSSBB Training & Certification program includes: the 4-week training course and passing an exam with a passing grade over **70%**.*



FOUR WAYS TO REGISTER

- Visit www.sixsigmapro.com and click on "Public Training Events" pane to register and pay **Online**
- Download the registration form and fax it to +(734) 728 8507
- Email a scanned copy of this the registration form to training@sixsigmapro.com
- Call us @ +(866) 642 8683 or +(734) 765-5229

UPON RECEPTION OF YOUR PAYMENT, WE WILL EMAIL YOU WITH CONFIRMATION LETTER, LOGISTICS & OTHER DETAILS.

**Contact Us for In-house Training
and Project / Program Consultancy**



Design For Six Sigma Black Belt Training & Certification

Week No. 1: 9/10- 9/14, 2007
 Week No. 3: 11/12-11/16, 2007

Week No. 2: 10/15 - 10/19, 2007
 Week No. 4: 1/7 - 1/11, 2008

REGISTRATION FORM

YES, Please register the following personnel to attend the session (Use separate blank sheet if more than one to attend)

Six Sigma Professionals, Inc. (SSPI)
 39505 Dorchester Circle
 Canton, Michigan 48188 USA
 Tel. : +(866) 642 8683 or + (734) 765-5229
 Fax : +(734) 728 8507 training@sixsigmapi.com

Name Mr / Ms _____

Position _____

Organization _____

Address _____

City / Country _____

Telephone _____ Fax _____ Mobile _____

Email _____

Course/Session	Duration	Date & Venue	Total Session Fees
BB : 101 DFSS Black Belt Training & Certification Troy, Michigan	4 weeks	Wk1 : 9/10- 9/14, 2007 Wk2: 10/15-10/19, 2007 Wk 3: 11/12-11/16, 2007 Wk4: 1/7-1/11, 2008	US\$ 12,800

CANCELLATION & RESCHEDULING POLICY

- If you are unable to attend, you can send a substitute delegate in your place.
- If you cancel your registration (14) or more calendar days before Week No. 1 scheduled start date (September 10, 2007) of this training -- No charge
- Cancel your registration (1- 13) calendar days prior to Week No. 1 session start date (September 10, 2007) -- 50% of the total session fee.
- Do not show up for the event; or cancel on the day of the event -- 100% of the total session fee.

DISCLAIMER

Six Sigma Professionals, Inc. (SSPI) may cancel or reschedule a class at its discretion, and if it does, will use reasonable efforts to notify you at least one week in advance. You will not be charged for the cancellation or rescheduling. Please notify us as soon as possible via email at training@sixsigmapi.com of any changes in your scheduled training.

CREDIT CARD PAYMENT	OTHER FORMS OF PAYMENT
Credit Card <input type="checkbox"/> Visa <input type="checkbox"/> Amex Please debit my <input type="checkbox"/> MC <input type="checkbox"/> Discover Name _____ Card Number _____ Expiration Date _____ Card Verification Number _____ Billing Address _____ Signature _____	<p>Check. Enclosed is our check for US \$ 12,800.00</p> <p>Bank Transfer. Please call +866 642 8683 for details.</p> <p>Online. Visit www.sixsigmapi.com and click on "Public Training Events" to register and pay</p> <p>PAYMENT TERMS & CONDITIONS For us to make sure that we can provide you with the best training, please arrange for payment to arrive by August 27, 2007. For less than 14 days, prior to September 10, 2007, you can only register Online by visiting www.sixsigmapi.com and clicking on "Public Training Sessions" pane.</p>