

# Shilpa M Shinde

email: [shilpa.shinde@asu.edu](mailto:shilpa.shinde@asu.edu) ▪ website: [shilpams.wordpress.com](http://shilpams.wordpress.com)

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**CAREER INTERESTS** Design of Experiments, Process / Product Improvement, Quality Improvement, Statistical Quality Control, Process Analytics, Industrial Statistics

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**PROGRAMMING, SOFTWARE SKILLS** JMP, Minitab, Matlab, Design Expert, SAS, IGrafx, SLAM, Microsoft Visio, Microsoft Excel, Microsoft Access, SQL, Visual Basic

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**EDUCATION**

**Arizona State University**, Tempe, Arizona, US

Doctor of Philosophy – Industrial Engineering Dec 2011 (expected)

Master of Science – Industrial Engineering (GPA: 4.00/4.00) Dec 2008

*Dean's List of Academic Excellence (Fall 2006 – Spring 2008)*

**University of Mumbai**, Mumbai, India

Bachelor of Engineering – Electronics Engineering Jul 2001

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**PROFESSIONAL EXPERIENCE**

**Henkel Corporation** *Graduate Intern – Statistics* Jan 2011 – present  
Scottsdale, AZ, US

- Provide statistical support for Quality, Manufacturing, Combat, Fragrance, Packaging (Engineering & Testing), Support Services & Sensory / Market Research.
  - Setup and analyze gage R & R studies and summarize data analysis using summary tables and graphs for the Support Services group.
  - Analysis of designed experiments, gage R & R studies, process capability studies & analysis of data from store audits and manufacturing processes for the Quality / Manufacturing groups.
  - Probit analysis for the Combat group and analysis of messy data.
  - Statistical analysis and graphical comparison of supplier performance for the Fragrance group.
  - Setting up sampling plans for testing of incoming, process and finished goods. Review of supplier data and setup / analysis of gage R & R studies. Design and analysis of designed experiments for troubleshooting and optimization.
  - Review vendor statistics, internal data analysis and provide guidance for design of studies particularly for claim support.
  - Train the employees on statistical topics such as statistical thinking, statistical testing in excel, designed experiments, statistical process control & process capability.
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**Arizona State University** *Graduate Research Assistant* Dec 2009 – Jan 2011  
Tempe, AZ, US *School of Computing, Informatics and Decision Systems Engineering*

- Working on developing new analysis methods to analyze non-regular designs which require lesser number of runs as compared to regular fractional factorial designs. These designs also allow estimation of some of the two factor interactions along with the main effects.
  - Worked on the National Science Foundation project: Web-based Active Learning Modules for Teaching Statistical Quality Control under the supervision of Dr. D. C. Montgomery and Dr. C. M. Borrer.
  - Developed the simulation module to enable students to run designed experiments as part of the
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course curriculum to learn the concepts and statistical tools used in the design and analysis of experiments. The simulation allows the instructor to run different difficulty levels based on the academic level of the students.

- The module was developed using the Basic programming language.
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**The Biodesign Institute at  
Arizona State University**

**Graduate Research Assistant**  
*Center for Applied Nanobioscience*

Oct 2006  
– Dec 2009

Tempe, AZ, US

- Optimized research processes related to developing a biosimetry device to evaluate radiation levels of an individual in the event of a mass radiological accident. Primarily used regression analysis and designed experiments to identify critical factors and eventually optimize the processes / product.
  - Worked with the manufacturing team to improve the processes related to manufacturing of the plastic cartridges required to run the biological assays. Used control charts and designed experiments to reduce the number of defects and the variation in the processes. Other basic statistical tools were employed as and when needed based on the requirements of the process.
  - Implemented a Quality Management System through definition of processes and implementation of the Enterprise Content Management platform across all projects within the center.
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**TATA Elxsi Limited**

**Senior Engineer**

Oct 2005  
– Jun 2006

Bangalore, India

*Quality*

- Ensured process compliance and project deliverable quality for software projects in Digital Signal Processing and Networking domains.
  - Implemented a process improvement plan across the organization.
  - Improved the statistical techniques used for process control such as control charts.
  - Optimized the data collection and process performance measurement processes. Collated the data from various sources into a single database using Microsoft Access.
  - Defined and measured six sigma metrics for the critical processes across the organization.
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**Six Sigma Alchemy (P) Ltd.**

**Strategic Business Unit Head**

Jun 2002  
– Aug 2005

Mumbai, India

*Organizational Development Solutions*

*Held positions of Management Trainee, Service Delivery Leader, Project Leader, Customer Relations Manager before being promoted to Strategic Business Unit Head*

- Developed and implemented the strategic business plan for the business unit.
  - Managed and trained a group of 5 trainees, project leaders and customer relations managers while directly reporting to the managing director of the organization.
  - Business development and marketing of the services offered by the Organizational Development Solutions group.
  - Customer relations management for all the projects managed by the SBU.
  - Consulted, managed and implemented projects in the areas of Six Sigma, ISO 9001:2000, BS7799, business process management systems, human resource management systems and
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## CMM.

- Developed the curriculum and conducted trainings for Six Sigma Blackbelt, Six Sigma Greenbelt, Lean Six Sigma, ISO 9001:2000, Business Process Management System, BS 7799:2002 and CMM.
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## PUBLICATIONS

- Shinde, S.M., Montgomery, D.C. "Analysis Methods for Non-regular Fractional Factorial Designs", INFORMS Annual Meeting, Austin, US (Nov 2010).
  - Shinde, S.M., Orozco, C., Brengues, M., Lenigk, R., Montgomery, D.C., Zenhausern, F. "Optimization of a Microfluidic Mixing Process for Gene Expression-Based Bio-Dosimetry.", Quality Engineering (Accepted).
  - Shinde, S.M. "Statistical analysis and optimization of a microfluidic mixing process based on the bubble-induced acoustic microstreaming principle for a gene expression assay", Master of Science thesis, Arizona State University.
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## TRAININGS, AUDITS CONDUCTED

- Conducted 9 training sessions as assistant faculty for Six Sigma project implementations.
- Conducted 56 training sessions as part of project consultancy and implementation of ISO 9001:2000 systems.
- Conducted 21 audits to ensure conformance of processes to ISO 9001:2000, TS 16949:2002, BS7799:2002 and CMMi standards.