

PhoeniX Software and Design for eXcellence start a unique programme to improve Micro and Nano Technology manufacturing control and reduce time-to-revenue



Manufacturing with high product yield still is a major challenge for many micro and nano technology (MNT) foundries. In comparison to CMOS foundries, MNT foundries support an impressive diversity of technologies for moderate product volumes. This combination makes process capability control and reproducible manufacturing, for instance of microfluidics, integrated photonics and MEMS, very complex.

The Yield Engineering programme coaches MNT engineers to efficiently control manufacturing variation and consequently improve yield

The main indicator for manufacturing quality control is yield. High yield can only be achieved by capable processes, which deliver on target and within specified variations. Yield problems can be very costly and time-consuming. The growing number of MNT foundries struggling with manufacturing variation shows a strong need for dedicated yield engineers.

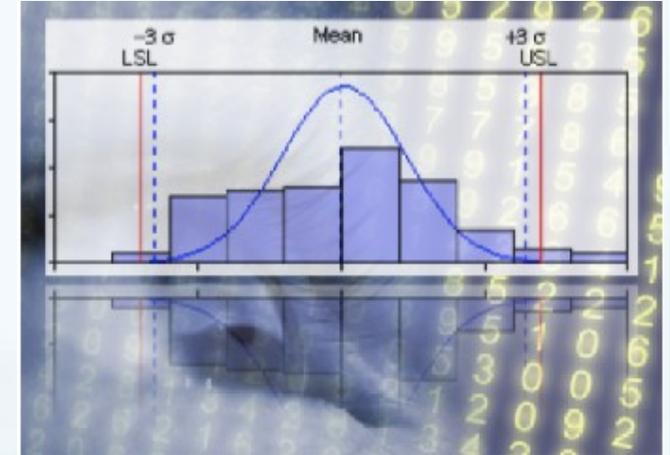
The Yield Engineering programme explains how technology diversity can co-exist with excellent product quality and high manufacturing yield

Programme Objectives

- Understand variation, yield and yield loss mechanisms in manufacturing.
- Recognise the difference between process- and product-related yield losses.
- Set-up, use and maintain statistical process control (SPC).
- Learn to use tools and techniques in order to recognise, report and solve yield losses.
- Learn improvement project formats for solving yield issues.



Yield engineers monitor and reduce manufacturing variation. They should have a keen understanding of process error propagation in products. Yield engineering requires a consistent quality system that traces critical process parameters tool-by-tool, step-by-step and wafer-to-wafer. Yield engineers lead improvement teams for out-of-control signals that are reported within the quality system.



The Yield Engineering Programme is a gradual approach to improve quality in MNT manufacturing

The task of yield improvement teams is to eliminate the root cause of failure mechanisms. The programme coaches engineers a pragmatic approach of Statistical Process Control (SPC) based on commonalities in different technologies and products.

Who will benefit most?

The programme aims at engineers with a profound knowledge of MNT manufacturing technologies, and preferably more than 2 years of working experience. The level of the programme is comparable to generic Six Sigma Green Belt trainings.

The experts

The training sessions will be held by Dr. Chris Rittersma, Six Sigma Black Belt and founder of Design for eXcellence. Chris holds more than 15 years of experience in MEMS and CMOS process development, manufacturing and design. Application specialists of Phoenix Software will be present at the course to demonstrate the advantages of Manufacturing Automation solutions in the MNT industry. Illustrations will be based on the Living Database software, which will be utilised in terms of data collection and yield analysis demonstrations.

Follow-up

Phoenix Software offers participating customers to follow-up with a pilot DMAIC/8D yield improvement project. DMAIC/8D projects typically result in 25% and 10% yield improvement respectively. The pilot includes hands-on support for implementing the required tools with the Living Database and SPC. The projects include support from highly skilled and experienced yield experts.

For more information about dates, terms and conditions and registration, please contact Phoenix Software under training@phoenixbv.com or check the website: www.phoenixbv.com/training

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