

# ROY CHANCELLOR

## QUALITY + PROCESS ENGINEERING

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## SUMMARY

**Accomplished** team leader, problem solver, and project finisher who gets results, including coaching and executing Six Sigma projects in multiple facilities in AZ, IL, CT, and Belgium that netted annual savings of \$1M+ over 3 years at Rogers Corp. **Passionate** shaper of product quality and process excellence with a first-time-right attitude. **Ready** to apply broad skills in Six Sigma, technical problem solving, and statistical analysis to continue driving quality into Rogers' products across the product cycle.

## FIRST TIME RIGHT ATTITUDE

- Co-introduced a new SPC method (PRE-Control) that detected spatial variation in ink thickness of EL lamps **at process setup** rather than scrapping whole lots at final inspection for out-of-spec brightness
- Led a team that rapidly killed three critical-to-launch problems for a new EL lamp product, increasing the yield from 10% to 80% **before launch** while working under intense management scrutiny
- Identified and eliminated the root cause of buckling of micro-ribbon cables **before production** using a clever mechanical model and experimental validation to upgrade a custom slitting machine

## TENACIOUS PROBLEM SOLVER

- **Reduced scrap rate by 25 points** for EL phosphor with annual cost savings of **\$124K**. Partnered with the process owner to install automation that removed human variability from the process.
- **Eliminated** failure-to-bond defects after the launch of a new cell phone keypad lamp. Developed a process to recover one million units-in-process and implemented a permanent solution for future units.
- **Eliminated** ribbon cable punctures on SEL 3-series relays by redesigning the ribbon cable routing and updating all BOMs **within one day** to prevent a production stoppage

## SHAPER OF QUALITY CULTURE

- Drove Six Sigma upstream into the R&D process by developing strong relationships with R&D managers, enabling focused training and coaching during product development in AZ, IL, and CT
- Trained 75+ Six Sigma Green Belt candidates, including developing course materials and coaching students on projects. Earned high scores in every class for knowledge, clarity, and passion.

## PASSIONATE COACH AND MENTOR

- Managed and coached four Six Sigma Black Belts on defect reduction and process improvement projects in multiple factories that saved \$1M+ from 2003-05
- Raised 10+ Green Belts to have highly effective problem-solving skills gained through training, coaching, and mentoring on scrap reduction and process improvement projects. Several went on to be Black Belts and one a Master Black Belt.

## KEY SKILLS AND QUALITIES

- |             |                               |                         |                        |
|-------------|-------------------------------|-------------------------|------------------------|
| • Six Sigma | • Rapid Problem Solving       | • Coaching & Mentoring  | • Statistical Analysis |
| • DOE       | • Statistical Process Control | • Risk Reduction (FMEA) | • Finishing Projects   |
| • Lean      | • Electronics Processing      | • Relationship Building | • Humor                |

## EDUCATION

- |  |   |
|--|---|
| • <b>Master of Science</b> , Mechanical Engineering<br>Texas A&M University, 1993, GPA 4.0       | • <b>Advanced Graduate Certificate</b> , Applied Statistics<br>Rochester Institute of Technology, 2004, GPA 4.0 |
| • <b>Bachelor of Science</b> , Mechanical Engineering<br>Arizona State University, 1991, GPA 3.3 | • <b>Post-Baccalaureate Teacher Certification</b><br>Rio Salado College, 2008, GPA 4.0                          |

## **WORK HISTORY**

**2015 – Present      DIRECTOR OPERATIONS + MASTER TEACHER      Great Hearts Academies, Phoenix, AZ**

- Design and deliver highly-interactive mathematics lessons using the Socratic method and high energy
- Organized and led all internal school operations for an 850-student academy including creating the master schedule of classes that solved myriad conflicts and running state-mandated testing (2015-2017)
- Develop honors-level math curricula that are turn-key ready for new teachers to adopt and modify
- Analyze state testing data to drive instructional improvements in core mathematics and English courses

## **RETURNED TO ARIZONA TO TAKE HYBRID DIRECTOR OF OPERATIONS + MASTER MATH TEACHER POSITION**

**2013 – 2015      MANUFACTURING ENGINEER      Schweitzer Engineering Laboratories, Pullman, WA**

- Synthesized requirements from R&D engineers, process engineers, and manufacturing operations to introduce new circuit boards and product assemblies into production and make significant upgrades to existing products
- Solved chronic manufacturing problems on legacy and new products by partnering with product mechanical engineers to design, validate, and release permanent solutions

## **SABBATICAL FROM TEACHING TO ENGINEERING POSITION IN WASHINGTON**

**2008 – 2013      MASTER MATHEMATICS TEACHER      Great Hearts Academies, Scottsdale, AZ**

- Shaped the honors-level math curriculum during the start-up years of a high-performing charter school
- Designed and delivered highly-interactive mathematics lessons that incorporated the Socratic method

**2006 – 2008      MATHEMATICS TEACHER      Scottsdale Unified School District, Scottsdale, AZ**

- Created a highly-practical Business Math course that gave at-risk students valuable real-life math skills
- Taught Geometry to high school sophomores using interactive PowerPoint lessons

## **CAREER CHANGE TO FULL-TIME MATHEMATICS EDUCATION**

**2005 – 2006      STATISTICIAN      Intel Corporation, Chandler, AZ**

- Delivered statistical and technical expertise to microprocessor packaging engineers that included designing experiments, making sense out of complex data, and driving problems to resolution before production:
- Taught multi-week statistical courses to diverse groups engineers, scientists, and technicians with high ratings for clarity, passion, and direct application to students' jobs

**2003 – 2005      SIX SIGMA MASTER BLACK BELT      Rogers Corporation, Chandler, AZ**

**1999 – 2003      SENIOR PROCESS ENGINEER**

- Led and coached teams that solved yield and defect problems and implemented corrective/preventative action for high performance circuit board, electroluminescent (EL) lamp, and polyurethane foam products
- Actively drove Six Sigma into the product development cycle to reduce the risk of quality spills before launch

**1998 – 1999      MECHANICAL ENGINEER      Orbital Sciences Corporation, Chandler, AZ**

- Completed analytical and experimental projects to improve the reliability of electronic packages that control all flight operations of rockets
- Performed fatigue analysis of all production-tested flight units to ensure remaining life was sufficient for flight

**1994 – 1998      PROCESS ENGINEER – CABLES      W.L. Gore and Associates, Phoenix, AZ**

- Characterized and improved processes for high-volume production of micro-coax and micro-ribbon cable products used in ultrasound medical devices and disk drives
- Created process science that fused mechanical engineering principles with experimental results to kill defects