

# Elim Rosalva Myers

U.S. Citizen

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## **OBJECTIVE**

Industrially experienced, bilingual, advanced degree chemical engineer looking for a position in process simulation software development utilizing my effective programming and communication skills.

## **PROGRAMMING/RESEARCH EXPERIENCE**

### **PhD Graduate Research Assistant**

08/00-12/02, 01/05-12/09

Kurata Thermodynamics Laboratory (KTL), University of Kansas

Lawrence, KS

Developed computationally efficient procedure for analyzing design parameter uncertainty and for evaluating efficacy of design safety factors. Coupled the procedure with commercial process simulator. Collaborated in developing a tool for operator training for excursion response. Evaluated numerical procedure for removing errors from plant data to be used in plant performance analysis. Programmed model simulator for KTL's pilot packed distillation column for its use in plant performance analysis. Maintained KTL's website.

### **MS Graduate Research Assistant**

08/93-07/95

Instituto Tecnológico de Celaya

Celaya, Gto., México

Created a batch cooling crystallizer simulator with a graphical interface for observing simulation progress and allowing user to interact with the simulation for changing final product characteristics.

### **Undergraduate Research Assistant**

08/91-06/92

Universidad de Guanajuato

Guanajuato, Gto., México

Developed simulator to evaluate heat pump's efficiency by exergy analysis.

## **TEACHING EXPERIENCE**

### **Graduate Teaching Assistant**

01/05-05/09

The University of Kansas

Lawrence, KS

Lectured, assisted students in process simulation and maintained course websites for Process Safety and Design I. Collaborated on development of the Introduction to Computing Engineering course as well as implemented material and taught laboratory sessions. Received Outstanding Teaching Assistant Award in May/06 based on students evaluations.

### **Lecturer**

05- 06/99

Universidad del Noreste

Tampico, Tams., México

Taught in the Environmental Engineering Masters program course that included: Mexican legal units and standards, instrument calibration and measurements' uncertainty estimation. Developed and implemented the course material.

### **Instructor**

08/95-07/99

Universidad de Guanajuato

Guanajuato, Gto., México

Taught Separation Processes, Numerical Methods, and C++ Programming. Developed and implemented material for the three courses. Directed students in developing and writing thesis to obtain BSChE degree. Collaborated in updating and accrediting the ChE curriculum.

## **INDUSTRIAL EXPERIENCE**

### **Industrial Support Engineer**

12/97-04/98

Center of Research and Technological Assistance (CIATEC)

León, Gto., México

Obtained accreditation to calibrate weight standards and measuring equipment. Provided calibration and industrial support to regional industries. Communicated with potential customers and successfully expanded industrial customer base.

### **Process Engineer**

10/92-08/93

Mexicana de Cobre S.A. De C.V.

Nacozari de García, Son., México

Provided plant support and managed process control equipment. Communicated effectively with a diverse population.

### **Chemical Engineering Intern**

01-06/91

State of Guanajuato Environmental Department

Guanajuato, Gto., México

Implemented and used method for measuring lead in industrial waste water. Reported amount of lead contained in monthly waste waters samples from regional industries.

**Chemical Engineering Intern**

Mexicana de Cobre S.A. de C.V.

01/90 and 07/90

Nacozari de Garcia, Son., México

Learned and used laboratory methods, data analysis and reporting to evaluate plant performance and support Nalco products' use in plant operation.

**EDUCATION****PhD in Chemical Engineering**, GPA 3.8/4.0

05/10

The University of Kansas

Lawrence, KS

Advisor: Dr. Colin S. Howat

Thesis Topic: Process Design Reliability Estimation and Coupling with Commercial Process Simulator.

**MS in Chemical Engineering**, GPA 88.6/100

05/99

Instituto Tecnológico de Celaya

Celaya, Gto., México

Advisor: Dr. Pedro Quintana

Thesis Topic: Development of Batch Cooling Crystallizer Simulator.

**BS Chemical Engineering**, GPA 8.4/10

07/91

**MBA**, 25% of the courses, GPA 9.2/10

08/92

Universidad de Guanajuato

Guanajuato, Gto., México

**WORKSHOPS AND SHORT COURSES**

Hazard Identification and Risk Assessment, Minimization of Waste Generation and Environmental Administration Systems, Quality Systems ISO-9000, Teaching/Training Techniques, Weight Metrology, Introduction to the Calculus of Uncertainties in Measurements, Basic Course of Metrology of Volume, Simulation of Chemical Processes w/ASPEN, Simulation of Processes, Introduction to the Dynamic Behavior of Non-linear Systems, Optimization, Application of Artificial Intelligence Techniques, Experimental Design and Analysis in Extractive Metallurgy.

**PROGRAMMING SKILLS**

Advance level programming in C, C++, FORTRAN, VBA/Excel, mixed programming (FORTRAN with Visual C++ and FORTRAN with VBA/EXCEL), Basic, Mathcad, Matlab. Familiar with GAMS, SAS and HTML.

**SELECTED TECHNICAL PRESENTATIONS**

**Myers, E.R., 2006.** Improved Procedure for Estimating Process Design Reliability, Sigma Xi Student Research Paper Competition (received First Place Award in the Advanced Graduate Student category), Lawrence, KS.

**Myers, E.R. (Presenter) and Howat, C.S., 2005.** Improved Procedure for Estimating Process Design Reliability, Paper 496c, AIChE 2005 Annual Meeting, Cincinnati, OH.

**Myers, E.R. (Presenter) and Howat, C.S., 2005.** An Efficient Procedure for Estimating Process Design Reliability Coupled to a Commercial Process Simulator, Paper 243b, AIChE 2005 Annual Meeting, Poster, Cincinnati, OH, Poster.

**Hinkle, P.R, Myers, E.R., and Howat, C.S., 2005.** The Role of Wavelet Denoising in Improving Reconciliation and Interpretation in Plant Performance Analysis, Paper 240x, AIChE 2005 Annual Meeting, Cincinnati, OH, Poster.

**Satuluri, M., Myers, E.R., and Howat, C.S., 2005.** Training for Excursion Response: Using Dynamic Simulation with Noise, Paper 140o, AIChE 2005 Spring National Meeting, Poster.

**PROCEEDINGS**

**Mejía, E.R., Quintana, P. and Cuéllar, R., 1995.** Batch Cooling Crystallizer Simulation. XVI Reunión Nacional de la AMIDIQ, San Luis Potosí, S.L.P. , México.

**Baltazar, J.C. and Mejía, E.R., 1994.** Heat Pumps Exergy Analysis, XVII Reunión Nacional de Energía Solar, Hermosillo, Son., México.

**ACTIVITIES**

Multiple leadership and organizational responsibility positions throughout academic career, most recently graduate student representative for the Chemical and Petroleum Engineering Faculty meetings.

**MEMBERSHIPS**

AIChE , Golden Key.