

## **Dr. Sabah ABRO VITAE**

### **Education:**

- 1987 Ph.D. Applied Mathematics, Catholic University of Louvain, Belgium
- 1979 Master's Degree in Probability & Statistics, University of Wales, UK
- 1975 Master's Degree in Planning, Arab Institute of Planning, Kuwait
- 1971 Bachelor Degree in Applied statistics, University of Baghdad

### **Academic experience:**

- 2014- Professor, and Director of Graduate Programs in Engineering Technology (full-time)
- 2001- 2014 College Professor and Program Director LTU (full-time)
- 1997- 2001 Adjunct Faculty, Wayne State University, University of Detroit Mercy, and Lawrence Technological University (LTU)
- 1995- 2001 Director of Program, Focus: HOPE, part of Greenfield Coalition for new engineering education (An NSF supported Program) (full-time)
- 1992-1995 Associate Professor and Chair of Computer Science Department, Al-Isra University, Amman, Jordan
- 1987-1991 Assistant Professor, Al-Mustansiria University, Baghdad (full-time)

### **Non-academic experience:**

- 1998- Ann Arbor Consulting, Providing consultation and training on Six Sigma and Lean Manufacturing to Industry
- 1996-2000 Several workshops sponsored by NSF on: CBT designs, Teaching by Objectives, Curriculum Development, Self-Based Learning and Hands-On Engineering Education.
- 1987-1991 Regional consultant Arab Institute of Statistics

### **Certifications:**

Master Black Belt Six Sigma Program, Ann Arbor Technology Group, 2014

### **Current Membership in Professional Organizations:**

ASEE, ASQ

### **Honors and awards:**

- 2012– Faculty of the year award
- Nominee for Best Teacher Award
- Nominee for using Technology in classroom Award

### **Service activities:**

Director of Assessment (Chair of University Assessment Committee)  
Chair of the Engineering Faculty Council  
Director of LTU program at Focus: HOPE  
Member of Doctorate committees in College of Engineering

**Principal publications of the last five years:**

- Embedding Professional Development in Curriculum, paper and presentation at CIEC, February 2022
- Khaleel Al ithawi, Kingman Yee, Sabah Abro, M. Isthiaq Hussain. "Optimization Analysis in a New Engine Block Manufacturing System Using Simulation Approach." ID 160. 5<sup>th</sup> North American International Conference on Industrial Engineering and Operations Management, August 10-14, 2020.
- Khaleel Al ithawi, Kingman Yee, Sabah Abro, M. Isthiaq Hussain. "The Effect of Machine Layout on Engine Block Manufacturing System Profitability and Rate of Return." ID 161. 5<sup>th</sup> North American International Conference on Industrial Engineering and Operations Management, August 10-14, 2020.
- Khaleel Al ithawi, Kingman Yee, Sabah Abro, M. Isthiaq Hussain. "Using Design of Experiment and Steepest Descent Methodologies to Improve Cooling Process in Engine Block Manufacturing System." ID 162. 5<sup>th</sup> North American International Conference on Industrial Engineering and Operations Management, August 10-14, 2020.
- LS-DYNA Simulation of the Ballistic and Structural Performance of Transparent Armor Systems with Angled Composite Design and Air Gap Structure, Emad Attalla, Badih jawad, Vermon Fernandez, Sabah Abro, Liping Liu, 2019 SAE International.
- "Optimization of Curved Spacer Prototype Design for Flow Improvement in Centrifugal Pump Impeller," M, Hermez, B. Jawad, L. Liu, and S. Abro, 2018 ASME International Engineering Congress and Exposition, Paper No. IMECE2018-87075.
- "Enhanced Production Process to Reduce Warranty," C. Michael-Shenouda, B. Jawad, C. Zinser, L. Liu, and S. Abro, 2017 ASME International Engineering Congress and Exposition, Paper No. IMECE2017-70739.
- "Enhanced Process to Improve Supplier's Quality and Reduce Warranty, "C. Michael, B. Jawad, L. Liu, V. Fernandez, S. Abro, C. Zinser, and D. Guidos, 2017 SAE International Congress and Exposition Meeting, Detroit, Michigan, April, 04-06-2017, SAE Paper Number 2017-01-1604.