

## CURRICULUM VITA

### **Richard E. Biehl, Ph.D.**

Lecturer

Department of Industrial Engineering and Management Systems  
College of Engineering & Computer Science  
University of Central Florida  
12800 Pegasus Dr., Orlando, FL 32816-2993  
Phone: 407-823-2204, Fax: 407-823-3413  
Email: richard.biehl@ucf.edu

### **Highlights**

- Systems and quality engineering instructor for over 10 years
- Specialized in healthcare systems and informatics
- Information technology and quality practitioner with 40 years of experience
- Designing and building data warehouses for over 35 years
- Consulting, instructing, and mentoring independently for the past 30 years
- Taught and mentored Six Sigma projects as Black Belt for over 12 years
- Published expert in quality management, data modeling, and process analysis disciplines
- Author of numerous data, process, architecture, and quality course curriculums

### **EDUCATION**

- |      |                                                                                                                                                                                                                                                                                  |
|------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 2008 | Ph.D. in Applied Management & Decision Sciences<br>Walden University<br>Minneapolis, Minnesota<br>Dissertation: <i>Interactions among process improvement, business process, and information technology process maturities in corporate information technology organizations</i> |
| 1999 | M.S. in Educational Change & Technology Innovation<br>Walden University<br>Minneapolis, Minnesota<br>Thesis: <i>Customer-supplier analysis in educational change</i>                                                                                                             |
| 1978 | B.A. in Philosophy<br>Binghamton University<br>Binghamton, New York                                                                                                                                                                                                              |

**Certifications**

- CSSBB Certified Six Sigma Black Belt  
American Society for Quality
- CSQE Certified Software Quality Engineer  
American Society for Quality

**EMPLOYMENT**

2009-present UNIVERSITY OF CENTRAL FLORIDA  
Industrial Engineering & Management Systems Department (IEMS)  
College of Engineering & Computer Science (CECS)

2009-2015 Adjunct Instructor  
2015-present Lecturer  
Director, M.S. in Healthcare Systems Engineering

2009-2015 Adjunct Instructor  
UNIVERSITY OF CENTRAL FLORIDA  
M.S. in Healthcare Informatics Program  
Health Management & Informatics Department (HMI)  
College of Health & Public Affairs (COPHA)

2000-2003 Adjunct Instructor  
CAPELLA UNIVERSITY  
M.S. in Information Technology Program  
School of Business & Technology (SOBT)

1988-2009 Data & Quality Management Consultant  
DATA-ORIENTED QUALITY SOLUTIONS

**Committees**

Advisory Council, Central Florida Health Information Technology Initiative (CFHITI),  
UCF College of Medicine, Orlando, FL, 2010-2013

Management Engineering & Process Improvement Committee (ME-PI), Health Information and  
Management Systems Society (HIMSS), Chicago, IL, 2010-2012

## PUBLICATIONS

### Books & Chapters

Talent Management for the Health IT Professional (Chapter V-5). In *The Handbook of Continuing Professional Development for the Health IT Professional*. CRC Press. Boca Raton, FL. March 2017.

*Data Warehousing for Biomedical Informatics*. Francis & Taylor / CRC Press. Boca Raton, FL. January 2016.

Practical Guidelines for Supertype and Subtype Modeling, in *High-Performance Web Databases, Design, Development, and Deployment*. Best Practices Series 2001 (p. 319-331), Auerbach, New York, 2001.

General Ledger as a Data Warehouse, in *Controllershship: The Work of the Managerial Accountant*, John Wiley & Sons, 1997.

Data Modeling for Knowledge-Based Systems, in *Handbook of Data Management - 1994-1995 Yearbook* (Chapter VII-1), Auerbach, New York, August 1994.

Data Administration and the Malcolm Baldrige National Quality Award, in *Handbook of Data Management* (Chapter II-7), Auerbach, New York, November 1993.

Practical Guidelines for Supertype/Subtype Modeling, in *Handbook of Data Management* (Chapter V-6), Auerbach, New York, November 1993.

### Peer-reviewed Journals

Casarett, D.J.; Farrington, S.; Craig, T.; Slattery, J.; Harrold, J.; Oldanie, B; Roy, J.; Biehl, R.; & Teno, J. (2012). The Art versus Science of Predicting Prognosis: Can a Prognostic Index Predict Short-Term Mortality Better than Experienced Nurses Do? *Journal of Palliative Medicine*, 15(6). 703-708.

Customer-Supplier Analysis in Educational Change, *Quality Management Journal*, 7(2), p22-39, American Society for Quality, Spring 2000.

Software quality assurance and planning for teacher and classroom. *Technology and Teacher Education Annual*, 1997. Association for the Advancement of Computing in Education (AACE), 1997.

## Other Publications

Six Sigma for Software, *IEEE Software* (p68-70), IEEE Computer Society, March/April 2004.

Space Activism Matures, *AD Astra*, National Space Society, Washington DC, Sept./Oct. 1995.

Quality Assurance Theory vs. Practice, *Software Quality*, Fall 1991 (Part 1) and Winter 1991/1992 (Part 2), Software Division, American Society for Quality Control.

## Editorial Work

*Practice Standard for Project Configuration Management*, Project Management Institute, Newtown Square, PA, PSPCM Author Team, 2007.

*Software Quality Professional*, American Society for Quality, Associate Editor, 1997-2000

*Quality Dictionary*, Quality Council of Indiana, Editorial Board, 1997

*Journal of the Quality Assurance Institute*, Editorial Board - Book Review Editor, 1988-1994

## PRESENTATIONS

*Issues in Evaluating and Modeling Social-Scale Systems.*

2018 IISE Annual Conference & Expo, Orlando, FL, USA – May 21, 2018

*Semantic Data Analysis for Interoperability.*

2017 Annual HIMSS Conference & Exhibition, Orlando, FL, USA – February 22, 2017

*Innovations in Data Infrastructure. Scalable Strategies for Big Data:*

A HIMSS Virtual Briefing – June 8, 2016

*Data Warehousing with Semantic Ontologies.*

2015 Annual HIMSS Conference & Exhibition, Chicago, IL, USA – April 13, 2015

*36 Mistakes Six Sigma Green Belts Make and How to Avoid Them.* 2015 Healthcare Systems Process Improvement Conference, Orlando, FL, USA – February 20, 2015

*Clinical Data and Semantic Interoperability.* HIMSS Central & North Florida Chapter, Orlando, FL, USA – November 8, 2013

*Data Warehousing for Enterprise Data Management.* HIMSS Central & North Florida Chapter, Orlando, FL, USA – November 8, 2013

*Engineering Semantics into Systems*. International Council for Systems Engineers, Orlando Chapter, Orlando, FL, USA – October 17, 2013

*Systems Engineering & Big Data*. IBM Rational Systems & Software Engineering Symposium, Lake Buena Vista, FL, USA – September 24, 2013

*Fundamentals of Data Warehousing in Healthcare*  
2013 HIMSS Annual Conference, New Orleans, LA, USA – March 3, 2013

*Connecting Points of Care: Leveraging EHRs to Make HIE Work* (Panel)  
iHT2 Health IT Summit, Fort Lauderdale, FL, USA, June 13, 2012

Implementing a Healthcare Data Warehouse in One year (Or Less)  
2012 HIMSS Annual Conference, Las Vegas, NV, USA - February 23, 2012

*Standardizing Data Dimensions of Healthcare Data Warehouses* (Poster Session).  
AMIA Now! 2010 Conference. Phoenix, AZ, USA. May 25-27, 2010

*Standardizing Data Warehouse Dimensions for Bioinformatics* (Poster Session).  
Bio-IT World Conference and Expo 2010. Boston. MA, USA. April 20-22, 2010

*Standardizing Data Dimensions of Healthcare Data Warehouses*.  
2010 HIMSS Annual Conference. Atlanta, GA, USA. March 3, 2010

*Ontology-Based Dimensional Data Warehouse Design*. 2009 OOPSLA Workshop on Ontology-Driven Software Engineering, Orlando, FL, USA. October 25, 2009

*Data Quality Measurements in a Hospital Data Warehouse*. 4th World Congress for Software Quality. Bethesda, Maryland, USA. September 17, 2008

*Data Quality Issues in Enterprise Data Warehousing*. 4th World Congress for Software Quality. Bethesda, Maryland, USA. September 15, 2008

*Using Professional Certifications to Add to the Bottom-Line*. Volusia Manufacturers Association. Daytona Beach, FL, USA. May 13, 2008

*Adapting Six Sigma to Career Development*. ASQ World Conference on Quality Improvement. Houston, FL, USA. May 7, 2008

*Success by Design: Effective Data Quality Measurements in a Hospital Data Warehouse*.  
2008 HIMSS Annual Conference. Orlando, FL, USA. February 24, 2008

*Data Quality Measurements in a Hospital Data Warehouse.* ASQ International Conference on Software Quality (ICSQ07). Denver, CO, USA. October 16, 2007

*Internal Certification Issues in Corporate Settings.* National Organization for Competency Assurance (NOCA). NOCA Academy. May 31, 2007

*Getting People to Use Quality Tools.* ASQ World Conference on Quality Improvement. Orlando, FL, USA. May 2, 2007

*Personal Six Sigma: Adapting Six Sigma to Professional Practice.* 23rd Annual Pacific Northwest Software Quality Conference. Portland, Oregon, USA. October 11, 2005

*Six Sigma for Software.* 14th Annual QAI International IT Quality Conference. Orlando, Florida, USA. March 23, 2005

*Six Sigma Project Types: Implications for Project Managers.* PMI Central Florida Chapter Monthly Meeting. Orlando, Florida, USA. February 1, 2005

*Optimizing Quality Goals by Differentiating Six Sigma Project Types.* ASQ Section 1509 Orlando Monthly Meeting. Orlando, Florida, USA. January 27, 2005

*CMMI: Adapting to SEI's new Integrated CMM.* 10th Annual QAI International IT Quality Conference. Orlando, Florida, USA. April 25, 2001

*Quality-Based Requirements Definition.* 10th Annual QAI International IT Quality Conference. Orlando, Florida, USA. April 24, 2001

*Software Quality Assurance and Planning for Teacher and Classroom.* 8th International Conference of the Society for Information Technology and Teacher Education, Association for the Advancement of Computing in Education. Orlando, Florida, USA. April 4, 1997

## **PROFESSIONAL AFFILIATIONS**

Health Information and Management Systems Society (HIMSS), Chicago, IL  
 Management Engineering & Process Improvement Committee, 2010-2012  
 Enterprise Information Systems Steering Committee, 2008-2009  
 Enterprise Integration Task Force, 2006-2008  
 IHE Special Interest Group

American Medical Informatics Association (AMIA), Bethesda, MD  
People & Organizational Issues Working Group  
Clinical Research Informatics Working Group  
Knowledge Discovery & Data Mining Working Group

Institute of Industrial & Systems Engineering (IISE), Norcross, GA

International Council on Systems Engineering (INCOSE)  
Orlando Chapter - Membership Chair, 2010  
Orlando Healthcare Outreach Working Group, 2009-2010

American Society for Quality (ASQ), Milwaukee, WI  
Education Chairperson, Human Development & Leadership Division, 2006-2007  
Strategic Planning Chairperson, Software Division, 1997-1999  
Associate Editor, Software Quality Professional, 1997-2000

Software Engineering Institute (SEI), Pittsburgh, PA  
Invited Participant - High Maturity Practices Workshop, November 1999  
Invited Participant - CMM v2.0 Requirements Workshop, February 1995  
Review Committee - Software Engineering Capability Maturity Model v1.0

Project Management Institute (PMI), Newtown Square, PA  
Software Special Interest Group  
Configuration Management Standard Core Team Member

IEEE Computer Society, New York, NY  
Software Engineering Standards Subcommittee, 1992-2006

Computer Professionals for Social Responsibility (CPSR), Palo Alto, CA