#### Phillip E. Barnes, Ph.D. University of South Carolina Email: <u>pbarnes@environ.sc.edu</u> Programs: <u>http://www.environ.sc.edu/ems/</u> http://artsandsciences.sc.edu/isme

### Experience

2015-Present Distinguished Research Professor Emeritus, Environment and Sustainability Program, School of the Earth, Ocean, and Environment, University of South Carolina, Columbia.

- 2001-2015 *Research Professor, Environment and Sustainability Program, School of the Earth, Ocean and Environment,* University of South Carolina (USC), Columbia, SC: Research and teach in international management system standards and integrated management systems development in environmental, quality, health and safety management systems (EMS Program). Direct the USC Industrial Ecology Program. Teach courses on international management standards and sustainable development. Design and develop courses to address students' needs at the university level and for personnel in government and industrial organizations.
- **1999-2001** *Director*, Center for Manufacturing and Technology (CMAT) USC-Columbia, SC: Develop and strengthen executive level relationships in the areas of business and technology. Meet with SC business leaders/managers to identify areas of need in business and technological development. Prepare and oversee CMAT budget and work with state agencies on SC business development.
- *CMAT Program Manager*, Earth Sciences and Resources Institute, USC, Columbia, SC: Developed EMS and Industrial Ecology program; assisted small and medium sized enterprises to strengthen management practices through implementation of management system standards.
- 1989-1995 Area Manager/Technical Specialist, Small Business Development Center (SBDC) USC-Columbia, SC: Wrote business plans and assisted individuals with entrepreneurial ventures. Technical Specialist with the U.S. Defense Logistics Agency to strengthen small and medium sized enterprises contracts through implementation of quality management practices.

#### <u>Education</u>

International Ph.D., Cleaner Production, Industrial Ecology & Sustainable Development, Erasmus University, Netherlands, 2000; Dissertation: A comparative analysis of multinational facilities in the European Union and the United States during the implementation of ISO 14001; focus: international environmental management systems. *Environmental Management Studies*, Durrell Institute of Conservation and Ecology, University of Kent, United Kingdom, 1995-1996; focus: environmental management standards: BS 7750 and ISO 14001.

*Master of Earth Resources Management*, School of the Environment, University of South Carolina, Columbia, SC, 1995; focus: eco-industrial development and environmental management systems.

*Master of Business Administration*, University of West Florida, Pensacola, Florida, 1985; focus: management.

*Bachelor of Arts, Psychology; Minor: Management*, University of West Florida, Pensacola, Florida, 1982; focus: organizational behavior.

# Training & Certification

*ISO 9001* Quality Management System, competency certification requirements, RABQSA, Pillar Management Associates, 2011

**OHSAS 18001** Occupational Health and Safety Assessment Systems, Lead Auditor training, RABQSA, Pillar Management Associates, 2011

*Integrated EMS and Regulatory Compliance Auditing,* Naval Civil Engineer Corps Officer School, CIN: A-4A-0079, 2010

Navy Bureau of Medicine, EMSWeb, Beta Test and Training, 2010

Navy Bureau of Medicine, EnviroManager, Software Training, 2008

*ISO 14001 International Environmental Management Systems Certified Lead Auditor,* RABQSA, 1999-2012

ISO 9000 International Quality Management Systems Lead Auditor Trained, General Physics Corporation, 1995

*Waste Reduction Specialist*, University of Tennessee, Center for Industrial Services, 1992

# **University Program Affiliations**

**Faculty Associate/Visiting Faculty, Autonomous University of Barcelona, Spain**-International EMS Integration and Sustainability Course, which includes the European Eco-Management and Auditing Scheme (EMAS), 2003-2012

Joint Research Partnership, University of Aalborg, Denmark, integration of international management system standards, 2003

Faculty Associate, USC Walker Institute of International and Area Studies, 2009-Present

**Faculty Associate, International Department, USC Moore School of Business**— Developed and taught course: International Business and Sustainable Development, 2006-2012

**Faculty Member, SC Honors College**—Developed and taught course: International Environmental Management Standards and Sustainable Development, 2006-2009 **EU Application Committee Member**, European Union Application for Summer School Intensive Program, Lifelong Learning Programme Erasmus. Members: University of Siagan Cormany: Autonomous University of Paraelona, Spain: Aalborg University

Siegen, Germany; Autonomous University of Barcelona, Spain; Aalborg University, Denmark, University of Ljubljana, Slovenia, March 2009-2011.

**Visiting Faculty, Universite Abdelmalek Essaad**i, Faculty of Science and Technologies, Tangier, Morocco, 2009-2010

Column Writer, USC Moore School of Business, Research Division, Business and Economic Review, Column: Environmental Update/Sustainability Watch, 1991-2009 Co-Founder/Faculty Member, International Environmental Management Education (IEME) Summer School (participants include Germany, Spain, U.S., Denmark, Ecuador, Morocco, Greece, Netherlands, Portugal) two week summer school on Environmental Management Systems and Sustainable Development, 2004-2015. Managing Director/Faculty Member, International Sustainability Management Education (ISME) network: Name change and update of IEME Summer School: 2015

## Publications and Presentations

### **Selected Publications:**

- Book Chapter: The Plan-Do-Check-Act Cycle to Mitigate Climate Change, Demystifying Climate Risk Volume II, Industry and Infrastructure Applications, Editor Carole Leblanc, Cambridge Scholars Publishing, 2017
- Integrating Management System Standards in a Moroccan Blood Transfusion Center; In Process.
- **EMS Plan for Pollution Prevention**, Environmental Office, Naval Hospital Beaufort, Navy Med-East, US Navy OPNAV 5090.1D, November, 2014
- Co/author with Dr. Ona Egbue, PhD, U.S. Presidential Executive Orders and Federal Energy Policy: Developing Energy Management Systems to Meet Energy Reduction Goals, International Journal of Technology, Policy and Management, Inderscience, 2013
- Energy Reduction Plan Using ISO 50001 Energy Management Systems, Environmental Office, Naval Hospital Beaufort, Bureau of Medicine, U.S. Navy, 2015 (case study for referred paper, 2013)
- Implementation of International Organization for Standardization (ISO) Environmental Management System Standards in a Moroccan Regional Center for Blood Transfusion, Moroccan-American Commission for Educational and Cultural Exchange, June, 2009
- Incorporating Environmental Management Systems into Permitting Decisions, U.S. EPA Grant Number PI-83230301-0, March 2007
- A Comparison of ISO 14001 and the Joint Commission of Healthcare Accreditation, Navy Hospital Beaufort, 2005
- How the Environmental Excellence movement is being driven by the EMS Concept, <u>SC E2 Magazine</u>, vol 5 no 2, Summer 2004, 14-19
- Department of Defense Published Report: Results of Environmental Management System Training and Implementation: A survey of Department of Defense military installations in Region 4., 2003
- The Changing of Environmental Management, SC <u>E2 Magazine</u>, summer, 2001

- The Benefits of an Environmental Management System for the Small and Medium Sized Enterprise, <u>SC E2 Magazine</u>, 2000
- Eco-Industrial Development in South Carolina, <u>SC Environmental Excellence</u> (E2) Magazine, 1999
- Implementing a P2 Program in your Company: Design and Implementation of an EMS in the Printing Industry, Journal of Flexography, 1998
- **Developing a P2 Network**, Publications of EPA Pollution Prevention Conference, 1994

#### **Selected Presentations:**

- Integrating Environmental and Health and Safety Management Systems in a Blood Transfusion Center, Center for Blood Transfusion, Rabat Morocco, January, 2016
- **Changes in the ISO 14001:2015 and ISO 50001 Overview**, SC Environmental Excellence Program, BMW Manufacturing Facility, Grier, SC, April, 22, 2015
- Environmental Entrepreneurship and Management Systems, American-Moroccan Competencies Network, New York, NY, 2012
- **Moroccan Environmental Sustainability Initiative,** Faculty of Sciences and Technology, University of Abdelmalek Essaadi, Tangier, Morocco, June, 2010.
- Management Systems Integration and Sustainable Development, Autonomous University of Barcelona, Spain, May, 2009
- Implementation of International Organization for Standardization (ISO) Environmental Management System Standards in a Moroccan Regional Center for Blood Transfusion, Centre Regional Transfusion Sanguine, Rabat, Morocco, February 2009
- Implementation and Continual Improvement of an Environmental Management System at a Naval Hospital, Cooperative Ecological Studies Unit, Orlando, FL, October, 2008
- Using an Environmental Management System to meet the requirements of Executive Order 13423: Strengthening Federal Environmental, Energy and Transportation Management, Pentagon, Washington DC, April, 2008.
- Using the Sustainable Development Planner in Business, Council of Environmental Deans and Directors and the Global Environmental Management Initiative (GEMI) Sustainable Business Tools Workshop, New Jersey, September 2007
- Environmental Management Systems for Materials and Processes, 17<sup>th</sup> Annual Conference: Cleaner Sustainable Industrial Materials & Process, February 20-23, Monterey, California, 2005.
- *EMS/GIS in Enhancing Entrepreneurial Ventures in Brownfield Redevelopment*, International Sustainable Business Conference, July, 2002
- **Building Partnerships in Sustainable Development**, International Society for Industrial Ecology Conference, Delft University, Netherlands, Fall 2001
- EMS/GIS for Brownfield Redevelopment, Rotterdam, Netherlands, 2000

• ISO 14001 EMS/GIS for Eco-industrial Development, Storstrom, Denmark, 2000

# **Significant Honors and Recognition**

- **Fulbright Specialist Roster:** Placed on the Fulbright Specialist Roster upon recommendation of the Fulbright Specialist Peer Review Panel. Opportunities to use expertise to assist and collaborate with academics and professionals in continual improvement in global sustainable development initiatives.
- **Fulbright Scholar:** Research the implementation of international management system standards in the Ministry of Health Institute of Nursing and Technologists, including a review ISO 9001 Quality Management System in a Blood Transfusion Center value chain., Morocco, 2015-2016
- Environmental Stewardship Award for Faculty, Environment and Sustainability Program, School of the Earth, Ocean and Environment, University of South Carolina, 2011
- **Fulbright Scholar**: Study on the Integration of ISO 14001 with World Health Organization Quality Standards and ISO 9001. Morocco, 2008-2009
- **Sub-committee member:** Learning and Climate Change, Joint Actions on Climate Change, Greening of Industry Conference, Aalborg University, Denmark, June 09
- Subject Matter Expert: Pentagon Committee for Executive Order 13423: Strengthening Federal Environmental, Energy and Transportation Management: Using ISO 14001 EMS in meeting EO 13423 Goals, April 2008
- **Co-founder/Faculty Member:** International Environmental Management Education (IEME) Summer School: Negotiated official Memorandum of Understanding between University of Siegen, Germany, and University of South Carolina, 2003; faculty member in the IEME since 2004.
- **Research Initiator Award:** University of South Carolina, Office of Research, 1999
- SC Governor's Pollution Prevention Award: Reducing Hazardous Waste in a Small Printing Company, Co-award with DHEC Waste Management,1994
- Quality Circle Graduate Assistantship: Westinghouse Nuclear Components Facility, Pensacola FL, and Westinghouse Productivity and Quality College, Pittsburgh, PA, 1982-1984
- Omicron Delta Kappa, Leadership Honor Society, University of West Florida, Pensacola, FL, 1984
- Who's Who Among Students in American Colleges and Universities, University of West Florida, Pensacola, FL, 1984