3rd International Symposium on
Energy **C**hallenges & **M**echanics
- towards a big picture

7-9 July 2015
Aberdeen, Scotland, UK

Speaker of Session 11

NUCLEAR ENERGY

Dr. Ben Amaba's expertise is in executive management, strategic planning, operations, and engineering. He is responsible for manufacturing, energy, petroleum, chemical, nuclear, government and logistics industries for systems and software engineering. Dr. Ben Amaba holds a PhD. degree in Industrial & Systems Engineering; a M.B.A./M.S. degree in Engineering and Operations, and a B.S. degree in Electrical Engineering. Dr. Amaba is a registered and licensed Professional Engineer with International Registry; certified in Production, Operations, and Inventory Management by APICS ®; LEED® Accredited Professional (Leadership in Energy & Environmental Design); and certified in Corporate Strategy by Massachusetts Institute of Technology in Cambridge, Massachusetts.

Dr. Amaba holds positions as Executive Board Member of the Florida Energy Systems Consortium (FESC) and Applied Human Factors and Ergonomics (AHFE), Founding member to the Institute of Advanced Systems Engineering, Founding member to the Center of Advanced Supply Chain Management, Founding member to the Center of Biomedical Research, member for Citizens for Clean Energy, Editorial Board of The Open Cybernetics and Systemics Journal, and Executive Advisory Board Member to the University of Miami and University of Central Florida. Dr. Amaba is a member of the organizations: American Nuclear Society (ANS), Society of Petroleum Engineers (SPE), Institute of Industrial Engineers (IIE), Institute of Electrical and Electronics Engineers (IEEE), National Society of Professional Engineers (NSPE), International Council on Systems Engineering (INCOSE), Institute for Operations Research and Management Sciences (INFORMS), Engineering Club of Memphis, and Florida Engineering Society (FES).

Dr. Amaba holds a copyright for Process Activity Flow Framework®, the foundation for IBM's Business Driven Development framework for requirements, design, architecture, simulation, and application development techniques. Dr. Amaba is prominently featured in "Giving 2.0," by Laura Arrillaga-Andreessen, which details contributions to bolster and promote STEM education and careers, and is an Alexis de Tocqueville Society/United Way Member, which recognizes local philanthropic leaders. Dr. Amaba has published globally on
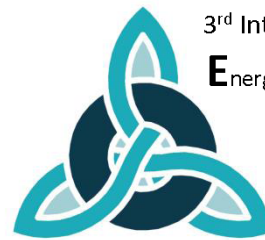
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best practices and robust approaches to drive market innovation, economic development and private public partnerships.

Publications include:

K. Söderholm, B. Amaba, S. Bergqvist, P. Lusardi, J. Tuunanen, "Licensing Process Characteristics of Small Modular Reactors and Spent Nuclear Fuel Repository.", Nuclear Engineering and Design, Elsevier Science 2014.

P. Fechtelkotter, G. Bleakley, B. Douglass, B. Amaba, "Model-Driven Development for Safety-Critical Projects in Intelligent Energy." Society of Petroleum Engineers 2013, Dubai, United Arab Emirates, October 2013.

K. Söderholm, J. Tuunanen, S. Bergqvist, B. Amaba, P. Lusardi, "SMR Licensing Process Characteristics Compared with Final Repository Licensing." American Nuclear Society 2013, Helsinki, Finland, October 2013.

T. Ahram, W. Karwowski, B. Amaba, "Building Sustainable Human-Centered Complex Systems." 48ème congrès international. Société d'Ergonomie de Langue Française. Paris, France 2013.

T. Ahram, W. Karwowski, B. Amaba, A. Soyler, "Applications of Systems Engineering for Workforce Skills and Performance Improvement in Service Industry – Case Study Based on the IBM Rational Software Platform." INNOVATE 2013, Orlando, FL, June 2013.

T. Ahram, W. Karwowski, B. Amaba, "A Complex Adaptive System-of-Systems Engineering Approach to Leadership and Innovation: Sustainable STEM Education and Workforce Development through the Smart Cities Initiative." World Congress on Engineering Education (WCEE), Doha, Qatar, January 2013.

T. Ahram, W. Karwowski, B. Amaba, "Complex Systems Engineering for Rapid Computational Socio-Cultural Network Analysis and Design Support Systems." Social Eco-Informatics, 2nd Annual Conference, October 21-26, 2012.

T. Ahram, W. Karwowski, B. Amaba, "Human Reliability Assessment using Systems Modeling Language and Tasks Based Systemic Structural Activity." 8th International Topical Meeting on Nuclear Plant Instrumentation, Control and Human-Machine Interface Technologies, San Diego, CA, July 2012.

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