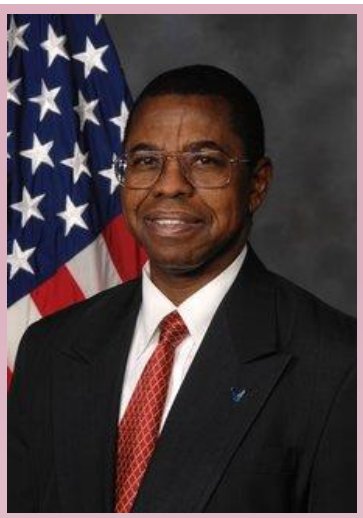
Industrial Engineering Department
Friday Seminar Series



Prof. Adedeji B. Badiru

Dean and Senior Academic Officer

Graduate School of Engineering and Management at the Air Force Institute of Technology

Friday, September 02, 2016 at 10am

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The Role of Industrial Engineers in Solving Global Societal Problems

The fourteen grand challenges of engineering, compiled by the US National Academy of Engineering (NAE) in 2008, have implications for every country in the world. Engineers in 2020 will need diverse skills to tackle the multitude of issues and factors involved in adequately and successfully addressing the challenges. An extract from the NAE document on the 14 grand challenges says, "In sum, governmental and institutional, political and economic, and personal and social barriers will repeatedly arise to impede the pursuit of solutions to problems. As they have throughout history, engineers will have to integrate their methods and solutions with the goals and desires of all society's members". This statement emphasizes the relevance of a holistic systems thinking approach in solving the multi-faceted global problems that we face now and will face in the future. Industrial engineers, by virtue of their versatility, are best positioned to make contributions globally in solving societal problems cited by NAE. This presentation will discuss the critical skills that industrial engineers must have in the 2020 timeframe in order to contribute to devising sustainable solutions to our global problems. Industrial engineering skills will be the cornerstone for integrating the multiple requirements across geographical boundaries as well as across cultural divides. Ideas will be presented in this seminar on how to leverage IE specialty areas, such as Supply Chain, Energy, Health Care, Simulation, and so on, as hot topics to address global challenges. In doing this, the seminar will present the speaker's 15 Grand Challenges for Industrial Engineering Education.

Adedeji B. Badiru, Ph.D., P.E., PMP, IIE Fellow, NAE Fellow, is Dean and senior academic officer for the Graduate School of Engineering and Management at the Air Force Institute of Technology (AFIT). With over $90 million annual budget, he is responsible for planning, directing, and controlling all operations related to granting doctoral and master's degrees, professional continuing cyber education, and research and development programs. He was previously Professor and Head of Systems Engineering and Management at the AFIT, Professor and Department Head of Industrial & Information Engineering at the University of Tennessee in Knoxville, and Professor of Industrial Engineering and Dean of University College at the University of Oklahoma, Norman. He holds BS in Industrial Engineering, MS in Mathematics, and MS in Industrial Engineering from Tennessee Technological University, and Ph.D. in Industrial Engineering from the University of Central Florida. His areas of interest include mathematical modeling, project modeling and analysis, economic analysis, systems engineering, etc. He is the author of over 25 books, 34 book chapters, 70 technical journal articles, 110 conference proceedings and presentations. He also has published 25 magazine articles and 20 editorials and periodicals. Prof. Badiru has won several awards for his teaching, research, and professional accomplishments.