

**Title: GLOBAL TELECOMMUNICATIONS ENGINEERING:
INFRASTRUCTURE vs. IMPLEMENTATION OF INFRASTRUCTURE**

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Abstract: As various countries and economies develop throughout the global marketplace, invariably requirements develop for all disciplines of Engineering including Electrical, Computer Sciences and Telecommunications. To be successful in Global Telecommunications Engineering as with any technical or service-oriented discipline, a “niche” must be developed and improved upon to be successful in the global marketplace. While this presentation is general in nature, the field of international Telecommunications will be described with practical anecdotal examples of successful completion of engineering projects from a global perspective. The presentation will elaborate on the following sub-topics:

- Communications from a Global Perspective - Briefly discuss motivational aspects of the Global Engineering process through the Wheel of Self-Worth and Key Success Factors from a Global Perspective. A real-world international, multi-national/multi-cultural Telecommunications project will be described to demonstrate the power of Key Success Factors through interaction between various cultures in successful project completion.
- Design of Communications Infrastructure - This section would encompass design parameters utilized in the engineering and design of Telecommunications in various frequency bands. Areas highlighted would include military, commercial, point-to-multipoint for rural communication needs, satellite and fiber optic designs. Discuss several international Telecommunications projects with experiential stories of real-world projects with the attendant engineering trade-offs required for successful completion. The concept of TRIZ will briefly be discussed with the goal of system optimization.
- Implementation of Communications Infrastructure - This section would encompass the usage of the various telecommunications networks for specific applications. This would involve many facets of Information Technology including Global Management of Human Resources and Customer Relationship Management (CRM), E-Commerce, Telemedicine and Enhanced Distance Learning. This section would briefly describe the various techniques that are currently used and in development to provide security for information from point of origin to final destination.

Joseph P. Cool - Biography

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Joseph P. Cool, President and Founder of Cool & Associates was born and raised in the City of Pontiac, Michigan. Cool graduated from the School of Engineering, Oakland University with a B.S. Engineering Sciences degree. Since that time, Cool has successfully worked in 54 countries, been exposed to virtually every culture in the world and has developed an awareness of cultural diversity found throughout industry. Additionally, Cool attended an MBA Program through the University of Northern Colorado. Experienced in management, marketing, engineering and operations of Telecommunication systems worldwide, Cool has also been employed by US Department of Defense, worked with many foreign militaries and was employed as a Telecom Consultant in the Kingdom of Saudi Arabia for 6 years in the 1990s. Previously, he had worked as Director, Systems Engineering at Harris RF Systems and Comtech Telecommunications – Systems Division. While employed at Harris in the 1980s, he was responsible for the engineering design, installation and acceptance of two (2) Telecommunication projects in Nigeria – Nigerian Signal Corps and the Nigerian State (Federal) Police. In 1998, he was a member of the Joint US-Saudi Trade Delegation traveling throughout the US and Canada identifying potential market opportunities. Upon completion of a trip to Bosnia and Latvia as a member of the Michigan Civic Leaders Tour, Cool & Associates is currently developing a "business presence" in Eastern Europe for access to the EU as well as developing access to the GCC. Current efforts include developing a Cultural Tour to Ghana with emphasis on cultural and business development opportunities and a Communications Workshop in the Middle East.

Cool has conducted numerous educational programs, speaking engagements including Middle and High School Students, Universities (Engineering and Business Students) and Service organizations (e.g. Rotary, Kiwanis), business planning functions for individuals and small-medium size businesses and continues to have access to Key Decision makers throughout the world including VIP membership in two International Registries for Executives and Professionals. He has been a Speaker at several Annual International Conference presenting subjects including TRIZ and Directory Assistance/Directory Enquiry and his papers have been published in the International TRIZ Journal. Cool recently presented a paper at the Reception of His Excellency Governor Gbenga Daniel in Detroit in May 2007.