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A Technology Analyst's Thoughts

(Sponsored by Communications Society (NV))

Susan Kalla is recognized as one of the world's most prescient and accurate high-tech analysts. Ranked by Institutional Investor in 2002 and 2003, Ms. Kalla is known for downgrading the telecom sector in 2000 before it collapsed and for upgrading the sector to catch the upturn in 2003. Dow Jones' Barron's has profiled her views on the telecom sector and individual telecom equipment and services stocks many times, and she is a frequent guest on CNBC, PBS, and Bloomberg television. Her research is a synthesis of experience, well-placed sources, relevant focus, and a deep understanding of the intricacies of the industries she covers.

Ms. Kalla is a senior analyst and senior vice president for technology research, telecommunications equipment and services at Friedman Billings Ramsey. She joined FBR in May 2001 with eight years of Wall Street experience, including senior analytical positions with ING Barings Furman Selz and Soundview Financial Group. Ms. Kalla has also held research, marketing and business development positions in the telecommunications industry, and she began her career as an engineer for the Public Broadcasting Service. Ms. Kalla received her bachelor and master degrees from the University of Maryland.

Wednesday, March 30, 2005

Notable Wartime Applications of Technology

(Sponsored by Life Members Chapter (W/NV))

This talk will examine the technology of warfare in a historical perspective, focusing on the tacti-

GMU Offers Certificate in Nanotechnology

By Kiki Ikossi and Murty Polavarapu

Nanotechnology has been widely recognized as the enabler of the next technological revolution. While more precise definitions exist, nanotechnology can be generally described as the science and technology of controlling and manipulating things at the atomic layer and nanometer (10^{-9} m) scale. Lux Research, a technology consulting firm, recently reported that total expenditures by federal and state governments in nanotechnology totaled $1.4 billion in 2004. Competition is also mounting among various states to attract private investments in nanotechnology. Lux Research's ranking of states for economic development from nanotechnology placed Virginia and Maryland fourth and seventh respectively. With the enormous potential of nanotechnology comes the challenge of preparing a workforce skilled in this inter-disciplinary field.

Locally, George Mason University has taken the first steps in this direction by announcing a new graduate certificate program nanotechnology and nanoscience offered through the School of Computational Sciences at its Fairfax Campus. "Nanotechnology and nanoscience are of great importance in a wide range of industries and are fundamental for the success of the region and the nation in the 21st century," said Dr. Estela Blaisten-Barojas, certificate program coordinator. "Hence, it is imperative that these fields be incorporated into the education of the next generation of applied scientists and engineers."

According to Professor Blaisten-Barojas, the certificate program should be attractive to students and professionals who wish to benefit from the employment boom in the nanoscience fields. "Graduates will be well prepared to fill the demand for personnel with nanoscience training who can serve as process controllers in area fabrication facilities or participate as members of interdisciplinary science teams," she said.

Ideal candidates for the certificate are those who have a background in physical, chemical or material sciences or in any branch of engineering, and are either currently working in or planning to enter into the fields of nanotechnology and nanoscience.

The Mason graduate certificate is composed of five courses for 15 credit hours focusing on nanomaterials and nanostructures and their relation to bulk materials, as well as methods for characterization and production of nanomaterials. The first two courses, which are being offered in Spring 2005, are *Introduction to Nanomaterials and Interactions*, and *Nanoelectronics*. Other courses to be offered include Strategies for Nanocharacterization, Survey of Nanostructures, Nanofabrication, Public Policy and Legal Issues in Nanotechnology, and Computational Modeling in Nanoscience.

The deadline for applying to the program is May 18 for the summer semester, and August 15 for the fall semester. More information and application forms are available at http://masonanoforum. gmu.edu/certificate.htm. For other questions, contact Dr. Blaisten-Barojas at 703-993-1988 or blaisten@gmu.edu.

There is also a proposal to develop a set of graduate level courses in nanotechnology that can be developed and shared across all the universities in the state of Virginia.