Vahan Tanal

Vahan Tanal is a registered professional engineer in New York, USA. He has a Bachelor's degree in Civil Engineering from Robert College in Istanbul and Master's degree in civil engineering from the University of Wyoming. He has been awarded an honorary Doctor of Engineering degree by NUACA.

He has worked on major projects for a global engineering firm for over 35 years. He was a senior Vice President in charge of the firms' ports and marine engineering business globally. His expertise is in ***geotechnical engineering, underground structures, tunnels, manmade islands, ports and marine structures***.

He was an adjunct professor at Columbia University in the City of New York, teaching graduate courses in foundation engineering. He has authored many technical papers and articles and conducted seminars in the USA and internationally.

Outline of Presentation

Marketing, Business Development and Sales

This is a continuation of NUACA's course on Engineering and Construction Management. It covers marketing and sales training, education, strategies, and client relations. The sales themes focus on strategic and tactical planning, client relations, competitor analysis and intelligence, technical and political activities, proposal preparation, presentations. Client needs such as feasibility, planning, environmental, design, construction management, operation & maintenance, capital asset survey/management are business areas that are addressed.

Risk Management

This is also a continuation of NUACA's Project and Construction Management course. It presents the importance and fundamentals of risk management and how to identify and evaluate risks at different project phases. It addresses ways to evaluate and mitigate risks. Risks include possibility of loss, injury-peril, exposure to possible economic loss arising from involvement in the design and construction, and unexpected events or occurrences that affect the project. The presentation describes when to perform risk analyses and assessments, sources and types of risk in various project phases and provides steps for the development of a risk management plan.

David Michaelian

David Michaelian is a Registered Professional Electrical Engineer in New York.

He has over 45 years of experience in Design and Construction as a Project Manager, Chief of Technical Services and Chief Quality and Safety, He managed more than 40 Engineering teams for all of Metropolitan Transportation Authority (MTA) of New York Capital Construction Projects, (20 billion Dollars of Federal Transportation Authority Fund). He received numerous achievement awards for his work and as Editor of Capital Program Management Weekly News Magazine.

David Michaelian is the inventor of the Track Clearance Device. (The instrument allows for direct reading of all track configration from minicomputer screen without any calculation or conversion of data).

After Retiring from MTA he was hired by Tishman Turner Joint Venture (TTJV). As consultant, working at the World Trade Center in New York.

Outline of Presentation

NEW YORK CITY TRANSIT SYSTEM EXTENSION OF NO 7 LINE

The project involves the extension of the No 7 Line from Manhattan's 42nd Street to the intersection of the 10th Ave and 34th Street (the Jacob Javits Convention Center). It includes 1.5 miles of running tunnel tracks and two stations. Almost all of the tunnels and stations were constructed under existing subway lines, stations and major buildings and facilities.

The presentation covers both the design and construction of the project. The tunnels were constructed using a Tunnel Boring Machine (TBM), which is illustrated by two videos included in the presentation. It is the only NY subway system station with no support columns and incline moving elevator.

NYC Transit comprises of a total of 842 miles of tracks, and 468 stations. It delivers over 1.79 billion rides, averaging approximately 5.5 million rides on weekdays. It operates 24 hours a day.

Mohsen Jafari

Program Director
Information Management Group (IMG)
Professor, Industrial and Systems Engineering
Rutgers, The State University of New Jersey

Mohsen Jafari, Ph.D., is a professor in Rutgers' Department of Industrial and Systems Engineering, program director of CAIT's Information Management Group, and he oversees the Transportation Safety Resource Center (TSRC), also at CAIT. He is the architect of TSRC's Plan4Safety, a web-based crash data analysis tool that provides multiple layers of analysis and modeling.

He has served as P.I. and co P.I. on many projects relating to national infrastructure improvement that have been funded by federal and state agencies.

Jafari has more than 24 years experience in the areas of industrial engineering and operations research. He taught at Syracuse University before coming to Rutgers as an associate professor of industrial engineering in 1993.

Outline of Presentation

Case studies on energy efficiency in built environment, how simple and more complex solutions can save energy and money in infrastructural projects. Use of new technologies from clean energy, alternative fuel, to smart grid to energy efficiency.

Discussion around energy planning related issues, how a government should plan its energy resources through demonstration of a real life example from nuts to bolts in terms of analysis, some engineering aspects and economics. How to analyze economics and impacts of various plans.

Discussion on business opportunities in the field.

Matthew Jokajtys

Matthew Jokajtys is an environmental counsel at PSEG Services Corporation, and is licensed to practice law in New York and New Jersey. He advises PSEG's independent power producer and regulated electric and gas utility subsidiaries on all issues of state and federal environmental law, with a focus on site remediation, hazardous waste management, and permitting.

Prior to joining PSEG, Matthew practiced law at a private law firm in Manhattan, New York, focusing on environmental litigation, enforcement defense and brownfields redevelopment. He holds a Master of Environmental Management degree from Yale University, and a Bachelor of Science in Natural Resources Planning from the University of Vermont. He graduated cum laude from Pace University School of Law with a Juris Doctor and a certificate in environmental law.

Outline of Presentation

Strengthening New Jersey's Gas and Electric Infrastructure

Following Superstorm Sandy's devastating impact on the electrical grid in New Jersey, PSE&G embarked on a multi-billion dollar energy infrastructure hardening program. Known as "Energy Strong," this program has resulted in a stronger, smarter and more resilient electrical grid. In addition, PSE&G is currently replacing hundreds of miles of old, low pressure cast iron gas mains with high pressure plastic through its "Gas System Modernization Program," resulting in safety, climate and reliability improvements. This lecture will discuss the impacts these programs are having on the energy infrastructure and environment of New Jersey as PSE&G continues to implement them across New Jersey.

Established in 1903, Public Service Enterprise Group ("PSEG") is a diversified energy company with approximately 13,000 employees. PSEG's regulated public utility affiliate, Public Service Electric & Gas Company ("PSE&G"), is the largest electric and gas distribution and transmission utility company in New Jersey. It serves over 70% of the state's population, with 1.8 million gas and 2.2 million electric customers

Ali Maher

Director
CAIT Central Administration
Professor, Civil and Environmental Engineering
Rutgers, The State University of New Jersey

Ali Maher, Ph.D., is the director of CAIT and a professor of civil and environmental engineering at Rutgers. Under his leadership, since 1998 CAIT has successfully completed three times to maintain its status as a Tier I University Transportation Center (UTC), a network of internationally recognized research and education organizations that are a vital source for the professionals and leaders needed to meet our transportation needs now and in the future.

It was Maher's vision to develop a center that would promote advancements in heavily utilized intermodal corridors and he was instrumental in forming a service network for members of the transportation infrastructure community at Rutgers.

Maher is a widely recognized expert, often tapped as a resource by industry and government agencies. His expertise spans the areas of ground improvement, soil dynamics, infrastructure asset management, nondestructive testing, environmental geotechnology, and new technology vehicles. Since CAIT's inception, Maher has brought in more than $54 million of external research and technology transfer projects.

Maher has been a pioneer in promoting collaboration and building partnerships with other universities and public and private stakeholders to address our country's most pressing transportation challenges.

Clifton Lacy

DISTINGUISHED PROFESSOR OF PROFESSIONAL PRACTICE

Clifton Lacy was the founding director of the Institute for Emergency Preparedness and Homeland Security at Rutgers University.

Prior to that, Dr. Lacy served as Commissioner of the New Jersey Department of Health and Senior Services under Governors James McGreevey and Richard Codey, leading a department with a $3 billion budget responsible for public health protection and services, health planning and regulation, hospital financing, public health and environmental laboratory services, senior services, health care policy and research, minority and multicultural health, and health emergency and terrorism preparedness and response. In this role, he directed development and implementation of the health emergency and terrorism preparedness and response plan for the State of New Jersey.

Outline of Presentation

Disaster Preparedness and Response:
Naturally-Occurring, Accidental, and Intentional Threats and Hazards

Overview of Threats and Hazards to Health Care, Public Health, and the Community

- Biological Threats
- Chemical Threats
- Radiological Threats
- Cyber Threats

Explosive/Incendiary Threats

Nichan Tchorbajian

Nichan received his Bachelors degree in Pure Mathematics at “The Centre Mathematique et Physique de Lyon”. He continued his graduate studies in Physics, and signal Processing, receiving his Masters Degree, and also obtained a second Masters degree “Summa Cum Laude” in Engineering.

At his first job, Nichan’s introduction of a revolutionary signal processing device (he had developed for the Concord SST plane in France), was considered a technological breakthrough. In few years his rapid rise in the industry, had major Consumer and Defense companies seeking his expertise and advice in the most advanced technologies, where he holds several patents.

He was the founder and CEO of Advanced Systems Development Inc., a company specialized in the design, development and manufacturing of the internationally recognized Advanced Electronic Environment Simulators “AMES”. These simulators are an essential part of today’s modern weapons programming, testing, and training. His company was recognized domestically and internationally as the leader in the market and had most governments of the free world as its customers.

In 1996 Nichan sold his company to a major US Defense Company, and after a short retirement he started a Real Estate Developing Company that has very successfully developed over 25 Residential and Commercial projects in NYC.

Aram Setian

Aram Setian, received his first training in electrical engineering in the military, followed by formal education in the US. He has a Bachelor’s degree in Electrical Engineering and Master’s degree in Physics from Columbia University in New York city as well as Masters degree in Business Management from Long Island University. He has frequently lectured as guest professor at Columbia University on general engineering topics.

He has over 40 years of experience in Research and Development in Automotive Systems, Management, Public Relations and Marketing.

He is the founding President of the Armenia Engineers and Scientists of America, Northeastern Section.

Outline of Presentation

SME Entrepreneurship

IDE Entrepreneurship

Corporate Entrepreneurship

Types of Innovation

Categories of Innovation

Business Incubation.

Business Accelerator.

1. PIllars of Entrepreneurship
2. Entrepreneur Skills
3. Myths about Entrepreneurs
4. Disciplined Entrepreneurship
    A. Step by Step Approach to Disciplined Entrepreneurship
5. Workshop (Disciplined Entrepreneurship Exercise & Answers.)
6. Bayleian LTD. Case Study.