

**Systems Engineering: The “New Frontier”** – While systems engineering is a relatively mature field of study, a convergence of innovative technologies linking sensors and actuators to mobile and cloud based computing is forcing every industry to re-think their approaches to design methodologies and innovation. In this session, we will survey emerging technologies and how combining them can result in revolutionary product ideas. Past successes and failures in matching technical innovations with market readiness and availability will be examined.

**Corporate Ecosystems** – examines complexities and organizational strategies of American and global corporate environments. Centralized and de-centralized approaches are examined and contrasted. Roles and relationships among corporate functions like sales, marketing, legal, finance, R&D are explained and analyzed. Corporate development including mergers and acquisitions will be surveyed in light of successful and failed experiences.

**Managing Technical Organizations** – provides a detailed introduction to managing complex and hierarchical engineering organizations. Along with costs and benefits of different reporting structures, we will examine success and failure metrics along with generally accepted performance management mechanisms. Emphasis is placed on how to create environments that support and encourage innovation via management of risk/reward trade-offs and establishment of a stakeholder mentality within teams.

**Funding Innovation with Venture Capital** – introduces the student to the dynamics of the venture capital funding models. Provides insight into how venture capitalists evaluate investment opportunities, assess risks, obtain and retain critical technical contributors and executives. Role of venture capital is examined in all phases of startup companies as they go through the phases of technology, product and market development. We will also examine dynamics of Boards of Directors as multiple stakeholders, with frequently divergent goals, seek financial rewards and “exit events”.

These training sessions are taught by a VP of a large American corporation, which develops automated systems for various industries.