

# Professional Training Courses

*Take your training program to the next level.*

Innovative Decisions, Inc., (IDI) is a management consulting firm serving business and government clients. IDI specializes in the disciplines of decision and risk analysis, operations research, and systems engineering. IDI supports the needs of analysts, managers and senior decision-makers through its decision conferencing, consulting, research, and training services.



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- **Multiple Objective Decision Analysis**
- **Systems Decision Making**
- **Advanced Systems Decision Making**
- **Systems Engineering**
- **Group Facilitation**

[www.innovatedecisions.com/courses.htm](http://www.innovatedecisions.com/courses.htm)

**Training your people is your best investment.**

***“Training is everything.”***  
Mark Twain

***“If you train hard, you’ll not only be hard, you’ll be hard to beat.”***  
Hershel Walker

***“Luck is what happens when preparation meets opportunity.”***  
Seneca, Roman philosopher, mid-1st century AD

For questions or to register please email:  
[gparnell@innovatedecisions.com](mailto:gparnell@innovatedecisions.com)

Courses available at your location tailored specifically for your needs.  
**MasterCard or VISA accepted**

Gregory S Parnell, Ph.D.



Past President, Decision Analysis Society  
Past President, Military Operations  
Research Society

Gary Smith

President, Logical Decisions Inc.

### Multiobjective Decision Analysis Using Value-Focused Thinking

This course presents the theory, practice, and art of Multiobjective Decision Analysis (MODA) using Value-Focused Thinking (VFT).

MODA is the appropriate technique for hard problems involving multiple stakeholders, complex value tradeoffs, significant outcomes, and major uncertainties. VFT is a philosophy for creating value for customers.

MODA/VFT provide fact-based information for major public and private decisions.

Students receive: *Strategic Decision Making: Multiobjective Decision Analysis with Spreadsheets* (Kirkwood), course notes, and e-files.

**4 days**  
**Tuition per student \$2,995**  
**15-30 students**

Gregory S Parnell, Ph.D.



Past President, Decision Analysis Society  
Past President, Military Operations  
Research Society

Patrick J. Driscoll, Ph.D.



President-Elect, INFORMS Military  
Applications Society

### Systems Decision Making

This course presents a function-based, value-focused process that integrates expert opinion and data to support decision making for technology management. The Systems Decision Process (SDP) is a flexible, four-phase process that contains problem definition, solution design, decision making, and solution implementation. Each phase includes several tasks and multiple techniques that enable program managers, system architects, and systems engineers to tailor the SDP to address the unique requirements of their system decision environment. The SDP uses cost-benefit principles from economics and the mathematics of Multiobjective Decision Analysis to define value and analyze the decision trade-space.

Students receive: *Decision Making in Systems Engineering and Management* (Parnell, Driscoll, and Henderson), course notes, e-files, and trial version of Crystal Ball.

**2 Days**  
**Tuition per student \$1495**  
**12-30 students**



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### **Advanced Systems Decision Making**

This course is a follow-on to the two day Systems Decision Making course. The course provides more in-depth knowledge of the systems thinking methods and additional analytical techniques that are used in the Systems Decision Process. The Systems Decision Process (SDP) is a flexible, four-phase process that contains problem definition, solution design, decision making, and solution implementation. The SDP uses cost-benefit principles from economics and the mathematics of Multiobjective Decision Analysis to define value and analyze the decision trade-space. The course includes an expanded case study to apply the course material and analytical techniques.

Students receive: *Decision Making in Systems Engineering and Management* (Parnell, Driscoll, and Henderson), course notes, e-files, and a trial version of Crystal Ball.

**2 Days**  
**Tuition per student \$1495**  
**12-30 students**

Dennis M Buede, Ph.D.



Fellow, International Council on  
Systems Engineering

### **Foundations of Systems Engineering**

This course (1) emphasizes the importance of systems engineering and systems thinking in the product and project design and development process and (2) differentiates between good and bad systems engineering practices to avoid major cost, schedule and performance problems. Many case studies (e.g., Apollo 13, FBI's Virtual Case File, Boeing 777) are used throughout the course to illustrate key points. Typical attendees are managers, program managers, engineers and scientists getting into systems engineering and systems engineers wanting to improve their organization's ability to do systems engineering.

Students receive: *The Engineering Design of Systems* (Buede), course notes, and e-files.

**2 Days**  
**Tuition per student \$1495**  
**15-25 students**

F. Freeman Marvin, M.P.P.



Certified Professional  
Facilitator

### **Group Facilitation**

Successful organizations today involve customers, suppliers, and inter-disciplinary teams when solving complex problems. This course provides tools and techniques for successful group collaboration, creative problem solving, and consensus decision making. Students watch clips from the classic film *12 Angry Men* and engage in practical exercises. The typical students are leaders and managers who chair or sit on panels, working groups and committees, group facilitators, and others who want to learn how to work together in teams to effectively solve problems and make better group decisions.

Students receive:  
*The Skilled Facilitator*  
(Schwarz), course notes, and  
e-files.

**2 Days**  
**Tuition per student \$1,495**  
**10-20 students**