2009 SEArı Annual Research Summit

Research Preview
“Overview of Research Poster Topics”

SEArı Graduate Research Students

October 20, 2009
Cambridge, MA
Massachusetts Institute of Technology
Research Portfolio & Methods

RESEARCH PORTFOLIO
• Socio-Technical Decision Making
• Designing for Value Robustness
• Systems Engineering Economics
• Systems Engineering in the Enterprise
• Systems Engineering Strategic Guidance

METHODS USED
• Models and Simulations: MATLAB Models, Agent-based Models, STK
• Empirical studies of historical systems, programs, and practices
• Grounded theory, coding/memo writing methods, latent semantic analysis
• Experiment-based studies: advanced analyses, visualizing complex data sets
Alumni Students

The following students graduated in June 2009

Deb Chattopadhyay (SM)
A Method for System of Systems Tradespace Exploration

Caroline Lamb (PhD)
Leveraging Organizational Culture, Standard Process, and Team Norms to Enable Collaborative Systems Thinking

Tsoline Mikaelian (PhD)
An Integrated Real Options Framework for Model-based Identification and Valuation of Options under Uncertainty

Matthew Richards (PhD)
Design for Survivability: Concept Generation and Evaluation in Dynamic Tradespace Exploration

Lauren Viscito (SM)
Metrics for Flexibility in the Operationally Responsive Space Paradigm
Students (1)

David Broniatowski (PhD)
Decision-Making by Technical Expert Committees for Engineering Systems

Kacy Gerst (SM)
Evolving Decision Tools throughout the Enterprise to Address Human Systems Considerations

Kevin Liu (SM)
Economics of Human Systems Integration

Julia Nickel (SM)
Application of Multi-Attribute Tradespace Exploration to the Architecting and Design of a Transportation System
Students (2)

M. Greg O'Neill (PhD)
Assessing the Impacts of Fractionation on Pointing-Intensive Spacecraft

Christopher Roberts (PhD)
Enterprise Management of Systems-of-Systems in the DoD

Nirav Shah (PhD)
Distributed Decision Making in Systems of Systems

Zoe Szajnfarber (PhD)
Understanding the Dynamics of Innovation in the Government Space Sector
Poster Session
2:50pm to 4:15pm

Please enjoy:
– interacting with the students
– the refreshments