

## **Professor Richard de Neufville - Masters Theses Supervised**

155. " 'Firefighting' within the U.S. Coast Guard's Infrastructure Recapitalization Program," Joshua Fant, System Design and Management Program, August, 2021.
154. "Engineering Options Analysis of Dual Hydrogen - Natural Gas Fueling: A Texas Power Plant under Carbon Price," Maria Paz Etcheverry, System Design and Management Program, May 2021.
153. "The Potential for Plant-Based Meat in Africa - A Proposed New Approach using a Systems Design Methodology," Thomas Smith, System Design and Management Program, October 2020.
152. "Valuing Investments in Agile Project Design: Example for Upstream Oil and Gas Development," Katherine Brown, System Design and Management Program, August 2020.
151. "Managing Environmental Risks with Flexibility: Case of Phosphate Fertilizer Industry in Morocco," Adèle Cadario, System Design and Management Program, May 2020.
150. "De-Risking Project Finance for Infrastructure Development Through Flexibility in Engineering Design," Juan Pablo Duarte, Technology and Policy Program, May 2019.
149. "Analysis of Flexible Design Options for Mixed-Signal Integrated Circuit Products," Matthew McShea, System Design and Management Program, 2019
148. "Identifying Opportunities for Flexible Design of Infrastructure: Case Studies of a Space Launch Complex and LNG for Sardinia," Davide Lasi, System Design and Management Program, August 2018.
147. "Developing Flexibility through Alternative Project Delivery Methods for the U.S. Army Corps of Engineers Project Management Business Process," Brian Williams, System Design and Management Program, January, 2018.
146. "Improving Value of Strategic Defense Systems using Modular Open Architecture" Charles "Barry" Wilson, Technology and Policy Program, May 2017.
145. "Embracing the Future of Land Transportation: Valuing Flexibility in Design and Technology Options for Autonomous Vehicle Developments in Singapore," Huiling Eng, System Design and Management Program, December 2016.
144. "Flexibility *IN* Ballpark Design," Kyle Ressler, System Design and Management Program, May 2014.
143. "Beyond DCF Analysis in Real Estate Financial Modeling: Probabilistic Evaluation of Real Estate Ventures," Keith Leung, Master of Science in Real Estate Development, Feb. 2014.
142. "Choosing Flexibility: Exploring the many layers of Decision-Making for a desalination project in Qatar," Abdullah Al-Misnad, Technology and Policy Program, January 2014.
141. "Implication of the Jensen's Inequality for System Dynamic Simulations: Application to a Plug & Play Integrated Refinery Supply Chain Model", Esteban Montero, System Design and Management Program, December 2013.
140. "An Optimization Approach for Scheduling Aircraft Landings in a Terminal Area under the Concept of Alternative Arrival Routes," Mayara Condé Rocha Murça, Instituto Tecnológico da Aeronáutica, Brazil, December 2013 [External Examiner]
139. "Flexible Design: An Innovative Approach for Planning Water Infrastructure Systems Under Uncertainty," Melanie Wong, Technology and Policy Program, May 2013.
138. "A Spinoffs Study Applied to the Airline Industry," Erika Kutsher, System Design and Management Program, August 2012.
137. "Risk Management and Governance for PFI Project: Technology Policy Lessons from the case of Japan," Takuji Matsumoto, Technology and Policy Program, May 2012.

136. "System Architecture Decisions under Uncertainty: A Case Study on Automotive Battery System Design," Matthew Renzi, System Design and Management Program, May 2012 (with Qi Hommes).
135. "Improving the Risk Identification Process for a Global Supply Chain," Amil Mody, Leaders for Global Optimization Program, May 2012.
134. "Forest Fire Management in Portugal: Developing System Insights through Models of Social and Physical Dynamics," Ross Collins, Technology and Policy Program, May 2012.
133. "Governance Mechanisms for Infrastructure Public-Private Partnerships: Focus on India," Arjun Gupta, Technology and Policy Program, August 2011.
132. "Valuing flexibility in product platforms: An analytical framework," Matt Harper, Systems Design and Management Program, May 2011.
131. "Flexibility in Early-Stage Design of US Navy Ships: an Analysis of Options," Jonathan Page, System Design and Management and Naval Engineer Programs, May 2011.
130. "The European Satellite Navigation Program: Policy Analysis and Recommendations for the Future," Laura Escudero San José, Technology and Policy Program, November 2010.
129. "Apply Option-Thinking in Long Term Infrastructure Investment: the Case of Commercial Real Estate," Na Zhang, Technology and Policy Program, May 2010
128. "Performance and Design of Taxi Services at Airport Passenger Terminals," David Costa Bologna Master's, Transportation Program, Instituto Superior Técnico, Lisbon, Dec. 2009
127. "Integrated Method to Create Optimal Dynamic Strategic Plans for Corporate Technology Start-Ups," Samir Mikati, May 2009
126. "A Methodology for Identifying Flexible Design Opportunities," Jennifer Wilds, September 2008.
125. "Real Options in Action: Applicability of Vertically Phased Development in Commercial Real Estate," Jason Pearson and Kate Wittels, Master of Science in Real Estate Development, August 2008.
124. "A Real Options Analysis of a Vertically Expandable Real Estate Development," Anthony Guma, Master of Science in Real Estate Development, August 2008. **[2008 Prize for Best Thesis in Center for Real Estate]**
123. "Using Design Flexibility and Real Options to Reduce Risk in Private Finance Initiatives: The Case of Japan, Dai Ohama, May 2008.
122. "Real Options Analysis of Flexibility in a Hospital Emergency Department Expansion Project," Luis Maseda, May 2008.
121. "Hybrid Lattice and Decision Analysis of Real Options: Application to a Supply Chain Strategy," Nestor Quispez-Asin, January 2008
120. "Tackling Uncertainty in Airport Design: A real Options Approach," Richard-Duane Chambers, August 2007
119. "Strategic Planning for Rail System Design: an Application for Portuguese High-Speed Rail," Boyana Petkova, Industrial Engineering and Management, U. of Groningen, Netherlands, (with J. Sussman, J. Simons and H. Sol), June 2007
118. "Facing Reality: Design and Management of Flexible Engineering Systems," Michel-Alexandre Cardin, June 2007.
117. "Potential On-time Performance Improvements at the Lufthansa Station at Frankfurt Airport: A Human Factors Approach," Joerg Speri, Massey University School of Aviation (New Zealand) external examiner, Spring 2007
116. "Real Options Analysis as a Decision Tool in Oil Field Developments," Abisoye Babajibe, January 2007.
115. "A Practical Method for Incorporating Real Options Analysis into US Federal Benefit-Cost

Analysis Procedures," Darren Rivey, January 2007.

114. "R&D and Deployment Valuation of the Intelligent Transportation Systems: A case example of Intersection Collision Avoidance Systems," Kenichi Hodota, May, 2006
113. "Valuing Innovative Technology R&D as a Real Option: Application to Fuel Cell Vehicles," Maggie Tsui, September 2005
112. "Real Options Approach to Capacity Planning under Uncertainty," Gittanjali Mittal, January, 2004
111. "Managing Risks of Supply-Chain Disruptions: Dual Sourcing as a Real Option," Sophie Pochard, August 2003.
110. "Real Options for Naval Ship Design and Acquisition: A Method for Valuing Flexibility under Uncertainty," Jeffrey Gregor, June 3, 2003.
109. "Enhancing the Economics of Satellite Communications via Staged Deployment and Orbital Reconfiguration," Mathieu Chaize (with Olivier de Weck), May 2003
108. "Analysis of Real Options in Hydropower Construction Projects - A Case Study in China," Tao Wang, August 2003.
107. "Valuing Flexibility in Infrastructure Developments: The Bogotá Water Supply Expansion Plan," Natalia Ramirez, May 2002. **[Prize for Best Thesis in Technology Policy]**
106. "Designing Flexibility into Airport Passenger Buildings: The Benefits of Multifunctional Space and Facilities" Steven Belin, May 2000
105. "Engineering Design Lead-time Drivers Analysis (Part II)," Nestor Macias, May 1999
104. "Application of Dynamic Strategic Planning to Urban Transit Projects: case studies of Boston and Osaka," Yasuyuki Nishimura, May 1999.
103. "Dynamic Strategic Planning for Transportation Infrastructure Investment in Japan," Taku Nishimura, May 1999.
102. "Evaluation of Nested and Parallel Real Options: Case Study of Ford's Investment in Fuel Cell Technology," Skander Oueslati, May 1999.
101. "Dynamic Strategic Planning for System Design: An application to Oil Field Development," Magali Smets, Jan. 1999.
100. "Alternative Fuel Vehicle Policy: A Life Cycle Analysis Tool for Emissions, Costs and Energy Efficiency with an Application to the United States," Jeremy Hackney, May 1997.
99. "Dynamic Technology Strategies for High-Tech Commodity Products: A Case Study of Personal Copiers," Ali Pirnar, May 1996.
98. "The evaluation of French Major Highway Projects: Recommendations based on the American Experience," Alexis de Pommerol, May 1995
97. "Strategic Planning for Newcomer in Silicon Wafer Industry," Masahiro Kimura, May 1995.
96. "Designing Airport Passenger Buildings for the 21st Century: Matching Configuration and Internal Transport Systems," Chai Teck Phua, May 1995.
95. "Priorities for the Mexico City International Airport Under Privatization," Javier Rojas-Guzman, May 1995.
94. "Technology Transfer through R & D Organizations-Industry Interaction: A Policy Analysis for a Public Research Institute in Mexico," L. Gomez-Ugarte, May 1994.
93. "Transformation and reaction of the Airline Industry in a deregulation context: A strategy for Air France," H. Poupart-Lafarge, May 1994.
92. "Incorporating Risk into Power Station Investment Decisions in South Africa," Darryl Aberdein, May 1994.

91. "Dynamic Strategic Planning for Technological Choice: A Case Study of MWRA Residuals Management Facilities Plan," Hotasi Nababan, May 1993
90. "A Management Proposal for the Future of Petroleos de Venezuela's (PDVSA) Corporate Flight Departments," Alessandro Ungredda, May 1993
89. "Dynamic Strategic Plan for an Embedded Space Computer," Harry Benz, May 1993
88. "Airport Privatisation or Corporatisation? Lessons from the British Airports Authority Plc and Recommendations for Kenya Airports Authority," Philip Wambugu, August 1992.
87. "Managing Large-Scale Public Projects: The Advantages of 'Lean Management' as seen through a Study of Organizations in the U.S. and Japan," Hiroshi Shiroy, May 1992.
86. "An Improved Concept of Planning for NASA Missions," Mark Lee, May 1992
85. "Strategic Planning: An Approach to Improving Airport Planning under Uncertainty," Jaime Maldonado, Aug. 1990
84. "Cargo Operation at New Tokyo International Airport," Aki Matsuzaki, May 1990
83. "Impact of Project Risk and the Need for Work on Construction Contractor Bidding," Don King, May 1990
82. "Strategic Policy Development for Short-Haul Intercity Transport: The case of the Tiltrotor vs. Maglev," Robert Pearce, Dec. 1989
81. "European Airline Deregulation: Defining Air France's Strategy for the 1990's," Philippe Bosquet, May 1989
80. "The Process of Technological Change: A Study of Geographic Information Systems Development," Jennifer Croissant, May 1989
79. "Competition in a Deregulated European Airline Industry: Defining a Strategy," José Bolorinos, May 1988
78. "A Comparative Study of the Semiconductor Industry in Taiwan and Korea," W. Tsai, Jan. 1988 (Reader)
77. "Promoting the Development of Alternative Waste Disposal Technologies under the Massachusetts Superfund Law," J. Baskir, Jan. 1988 (Reader)
76. "Spatial Logistics Management: Analysis of Potential Applications," Carolyn Wong, September 1987
75. "Accessing the Distant Airport by Train," K. Doust, August 1987 (external examiner, University of New South Wales).
74. "Monitored Retrievable Storage of Spent Nuclear Fuel: A Policy Assessment," K. Yuracko, May 1987 (Reader).
73. "The Political Determination of Water Quality Standards," Alice Outwater, May 1987
72. "A Strategy for Technology Transfer with Example Transfer to the Water Resources Industry," Sarah Slaughter, May 1987
71. "A Practical Method for Estimating Price Elasticities of Water Using Quasi-Experimentation," David Dorau, February 1987.
70. "Efficient Management of Water Utilities using Marginal Cost-Pricing," Pascale Michaud, February 1987.
69. "Geographic Database Management for Organizing Delivery Routes and Service Zones," Patrick, Ferraris, February 1987.
68. "Contact Angle and Preload Sensitivity to Dimensional Variations in a Ball Bearing," Richard Montesanti, February, 1987.

67. "State Mature Industry Policy: Massachusetts' Response to the Closing of the Quincy Shipyard," Paquita Zuidema, September 1986.
66. "Multi-Use Airport Design: A New Terminal for Malpensa International Airport, Milan, Italy," Constantine Seremetis, May 1986 (with Dennis Frenchman).
65. "Is Risk Analysis Worthwhile in Project Appraisal?" Richard Tomlinson, May 1986.
64. "Statistical Exploration of 'Certainty Effects' on Utility Assessments," Philippe Delquié, May 1986.
63. "An Analytic Negotiation Approach to Cost Allocation," Craig Dunbar, May 1986.
62. "Transborder Data Flows: The Privacy Issue," Gerard Genotte, May 1985.
61. "A Methodology for Selecting Space Transportations Systems," Teresa Villareal, May 1985.
60. "Effectiveness of Interactive Computer Program for Utility Assessment Using Certainty and Lottery Equivalents: Application to Medical Decision-Making," Valerie Pietrzyk, May 1985.
59. "Marketing Strategies in Innovative Industries: The Case of Package/Document Delivery Services", François Jacques, May 1985.
58. "Role of Analysis in Decision-Making Process: The Case of The Great Salt Lake," Claire Bischoff, January 1985.
57. "Possible Effects of the European Common Market on Aviation Networks," de Buretel de Chasse, January 1984.
56. "Enlightened Tunnel Visions: Examining the Consequences of One-Way Tolls in Boston through an Analysis of the Queuing System," David Chia, May 1983.
55. "Regulatory Policies Promoting Small Scale Hydropower in New England: A Policy Analysis," Ronald Adams, February 1983.
54. "Transfer Passenger Needs at Airports - Human Factors in Terminal Design," Marie Claire Brillembourg, June 1982.
53. "U.S. Airports Before and After the Deregulation Act of 1978," Fadika Adama, May 1981.
52. "Lash Versus Conventional Water Transport System: An Economical Comparison for the Amazon Region," Newton de Castro, Jr., May 1981.
51. "Strategies for Improving Boston's Competitiveness with Other Ports," James Spall, January 1981.
50. "Mingling Human Values in the Development Planning Process," Oscar Cortez, January 1981.
49. "Global Climate Change and its Effect on Food Production: A Review of the Climatic Impact Assessment Program's Estimates of Wheat Yield Changes and Their Use in Policy-Making Analyses," Tariq Mahmood, June 1980.
48. "Remanufacture of Durable Products: A Value Preserving Technology," Richard Kutta, June 1980.
47. "Analysis of Air Passenger Handling Facilities: The New Air France Terminals at Paris/CDG Airport as a Case Study," M. Grillot, June 1980.
46. "A Study of Gate-Sharing at Airports: Boston as an Example," D. Guadinat, June 1980.
45. "The Prospects for Remanufacturing of Metalworking Products in the Andean Countries," C. Barnett, February 1980.
44. "Regulations and Technological Change in the Automobile Industry," David Kagan, February 1980.
43. "The Use of Economic Incentives to Encourage Noise Abatement: The Airport Operator's Perspective," C. Miller, June 1979.

42. "Computer Simulation of Rail Freight Management on a Line of Stations Network," J. McDugald, June 1979.
41. "Energy Conservation Information Programs: What the U.S. can Learn from Canada and France," W. Dunbar, February 1979.
40. "The Effectiveness of Regional Resource Committees in Implementing Regional Recovery Programs," B. Mellea, June 1978.
39. "A Parametric Characterization of the Interface Between Dispersed Solar Energy Systems and the Utility Networks," J. Tatum, June 1978.
38. "The Role of Experts in Airport Planning: A Study of Professional Paradigms," J. Weiss, June 1978.
37. "Consumption of Depletable Resources: Stockpiling as a Strategy," A. Ghirardi, June 1978.
36. "Optimal Pricing for Peak Loads and Joint Production: Theory and Application to Diverse Conditions," P. L. Chernick, September 1977.
35. "Demand Response to Air Travel Level of Service: A Case Study of Texas Intrastate Markets," C. R. King, June 1977.
34. "Cost-Effectiveness Analysis of Urban Transit Alternatives," E.M. Rouleau, June 1977.
33. "A Comparison of Several Methods for Calculation of Airside Airport Delay," J. Scalea, June 1976
32. "An Analysis of Queuing Networks," D. Gougenheim, 1976.
31. "Optimal Combination of Design Strategies for Transfer Traffic in Airport Terminals," I. Rusconi-Clerici, 1976.
30. "Competition Between Air and Rail Service in the Boston-New York Corridor," R. Jego, 1975.
29. "Analysis of Bidding Behavior of Contractors in Various Economic Conditions Using Utility Assessment," Y. Lesage and I. Hani, 1975.
28. "A Methodology for Sizing Transportation Facilities Under Stochastic Load," J. Rebelo, 1974.
27. "The Gate Arrival Concept for Air Cargo Terminals," F. Chin, 1973.
26. "Collective Decision-Making and Evaluation for Large Scale Engineering Systems," P. Stone, 1973.
25. "Systems Analysis of Airport Fire Prevention Methods," D. Shpilberg, 1973.
24. "Airline Competitive Games and Airport Utilization," W. Gelerman, 1972.
23. "Airport Access in the Transportation Planning Environment of New York," A. Marder, 1972.
22. "Rationalization of Air Transportation Networks," S. Gordon, 1972.
21. "Air Transportation in Less-Developed Areas--Normative Models for Public Policy-Making," Luis Javier Mira, 1972.
20. "Decision Analysis of R&D Strategies for Open-Cycle Coal-Burning Power Generating Systems," P. Byer, 1972.
19. "New York City Airport Access Study," J. Yaney, 1972.
18. "Community Opposition to Airport Development," G. Lantner, 1972.
17. "A Market Area Analysis of Parallel Air Service Between Two Regions," J. Batchelder, 1972.
16. "Economic Impact of Airport Development," T. Yajima, 1971.
15. "Evaluation of Alternate Means of Increasing Capacity at Logan International Airport," O. Renard, 1971.

14. "Public Project Evaluation through Pluralistic Bargaining," L. Storch, 1971.
13. "An Evaluation of Alternative Terminal Designs for Airports," D. Fay, 1971.
12. "An Airport Access Demand Study," F. Koller and R. Skinner, 1971.
11. "A Cost-Effectiveness Analysis of CBD-Oriented Airport Access Systems," E. Mierzejewski, 1971.
10. "Multiple-Objective Analysis of the Proposed Red River Dam, Kentucky," C. Magnell, 1971.
9. "An Analysis of the Desirability of Satellite Terminals to Improve Airport Access," William Leder, 1970.
8. "Outbound Airline Baggage Systems; A Survey of Technologies and Methods for Analysis," Karla Karash, 1970.
7. "Noise Prediction Techniques for Highway Design," A. Jan, 1970 ]
6. "An Impact-Incidence Matrix Study of the Dallas-Fort Worth Regional Airport," D. Elliott, 1969.
5. "Optimal Scheduling of Freight Trucking," J. Lasky, 1969.
4. "Multiqueue Networks in Transportation Terminals, C. Brazie, 1968.
3. "A Level-of-Service Cost Model for Transit Planning," T. Uzowicz, 1968.
2. "A Highway Investment Planning Model: An Application of Dynamic Programming," Y. Mori, 1968.
1. "A Resource Allocation System for Several Multicomponent Projects," P. Flanagan, 1968.