

## **Professor Richard de Neufville – Ph.D. Dissertations Supervised**

82. "Safety Implications of Roadway Design and Management: New Evidence and Insights in the Traditional and Emerging Operational Environments," Sikai Chen, Purdue University, June 2019, (Reader)
81. "A decision support tool for the flexible development or constrained airports," Liliana Magalhães, Instituto Técnico Superior, Universidad de Lisboa, November 2018 (Reader)
80. "International Comparative Analysis of Urban Water Systems," Karen Noiva, MIT Building Technology Group, 2017 (Reader)
79. "Potential Housing Bubble with Chinese Characteristics: Analysis and Policy Design through an Operational Model," Xin Zhang, Engineering Systems Division, 2017 (Supervisor).
78. "Greenhouse gas equivalency metrics for evaluating energy technologies," Morgan Edwards, Engineering Systems Division, 2017 (Reader)
77. "Engineering Options: a proactive planning approach for aging water resource infrastructure under uncertainty," Kim Smet, School of Engineering and Applied Sciences, Harvard University, 2017 (Reader)
76. "Improving the performance of regional electricity markets in developing countries: The case of the Southern African Power Pool," Amy Rose, Engineering Systems, 2017 (Supervisor)
75. "Flexibility in Airport Architectural design: including a life cycle approach in project design management of an airport terminal," Elisabetta Fossi, Università degli Studi di Firenze, Dipartimento di Architettura, March 2017 (external examiner)
74. "Material Diversification in Pavement Management: A Technique to Proactively Deal with an Uncertain Future," Omar Swei, Department of Civil and Environmental Engineering, August 2016 (Co-supervisor)
73. "Metologia de Estimativa de Valor da Flexibilidade Desenvolvimento de Campos de Petróleo", Márcia Ida de Oliveira Silva, Universidade de Campinas, (Brasil) 2016 (Co-supervisor)
72. "Institutionalizing Uncertainty: Exploring how infrastructure stakeholders can prepare for uncertain climate futures," Todd Schenk, Department of Urban Studies and Planning, August, 2015 (Reader)
71. "Negotiated Collaboration: a study in Flexible Infrastructure Design," Vivek Sakhrani, Engineering Systems Division, August, 2015 (Supervisor)
70. "Airport strategic planning in the context of low- cost carriers ascendancy: insights from the European experience," Edgar Jimenez Perez, Universidade de Porto, 2015, (Co-supervisor)
69. "Valuation of Adaptability in System Architecture," Phillip Schrieverhoff, Technical University of Munich, 2014 (Co-supervisor)
68. "Flexible Engineering System Design with Multiple Exogenous Uncertainties and Change Propagation," Hu Junfei, National University of Singapore, 2013 (External Examiner)
67. "Multi-Criteria Decision Analysis for the Development of Sustainable Data Centers," Miguel Covas, Instituto Superior Técnico, 2013 (Reader)
66. "Game Theoretic Models of Inter-firm R&D Dynamics in Semiconductor Manufacturing," Thomas Heaps-Nelson, Engineering Systems Division, May 2013 (Reader)
65. "Stochastic Dominance for Project Screening and Selection under Uncertainty," Adekunle Adeyemo, Department of Chemical Engineering, February 2013 (Reader)
64. "Incorporating Operational Flexibility into Electric Generation Planning: Impacts and Methods for System Design," Bryan Palmintier, Engineering Systems Division, October 2012 (Reader)
63. "Incorporating Endogenous Demand Dynamics into Long-term Capacity Expansion Power System Models for Developing Countries," Rhonda Jordan, Engineering Systems Division, September 2012 (Reader)
62. "Flexibility in Real Estate Management," Markus Harder, Judge Business School, University of

Cambridge, March 2012 (External examiner)

61. "Air transportation design for effective and efficient service to small remote communities: Policy options under regulatory reform," Alda Mendes, Universidade do Porto, March 2012 (Co-Supervisor)
60. "Modeling Cost and Time Uncertainty in Rail Line Construction," Yvonne Moret, Department of Civil and Environmental Engineering, March 2011 (Reader)
59. "Quantitative Performance-Based Evaluation of a Design Procedure for Flexible Design Concept Generation in Engineering Systems," Michel-Alexandre Cardin, Engineering Systems Division, Dec. 2010 (Supervisor)
58. "A Screening Model to Explore Manufacturing Planning Decisions in Automotive Manufacturing Systems under Demand Uncertainty," Yingxia Ying, Engineering Systems Division, May 2009 (Reader)
57. "Exploring Flexible Strategies in Engineering Systems Using Screening Models: Application to Offshore Petroleum Projects," Jijun Lin, Engineering Systems Division, December 2008 (Reader)
56. "Scalability of the Air Transportation System and Development of Multi-Airport Systems: A Worldwide Perspective," Philippe Bonnefoy, Department of Aeronautics and Astronautics, May 2008 (Reader)
55. "Energy System Development in Africa: The case of grid and off-grid power in Kenya," Katherine Steel, Engineering Systems Division, May 2008 (Reader)
54. "Development of the Resource Model for the Decision Aids for Tunneling," Department of Civil and Environmental Engineering, Sangyoon Min, December 2007 (Reader)
53. "Energy Assets Valuation: A Real Option Application," Luis Abadie (External Examiner, Universidad del Pais Vasco), December 2007.
52. "A Life-Cycle Flexibility Framework for Designing, Evaluating and Managing "Complex" Real Options: Case Studies in Urban Transportation and Aircraft Systems," Joshua McConnell, Engineering Systems Division, June 2007 (Reader)
51. "Qualitative Knowledge Construction for Engineering Systems: Extending the Design Structure Matrix Methodology in Scope and Procedure," Jason Bartolomei, Engineering Systems Division, June 2007 (Reader)
50. "Flexibility and Standards in Programs of Large-Scale Projects," Konstantinos Kalligeros, Engineering Systems Division, May 2006 (Supervisor)
49. "Real Options "in" Projects and Systems Design – Identification of Options and Solution for Path Dependency," Tao Wang, Engineering Systems Division, May 2005 (Supervisor)
48. "Flexibility in Building Design: A Real Options Approach and Validation Methodology to Address Risk," Lara Greden, May, 2005 (Reader)
47. "An Empirical Approach to Invention and Technology Innovation in Electricity," Peter Jansson (External Examiner, Cambridge University), January 2003.
46. "Affecting U.S. Education through Assessment: New Tools to Discover Student Learning," Terry Vendlinski, February 2001 (Reader)
45. "Local Contents Requirements and Industrial Development: Economic Analysis and Cost Modeling of the Automotive Supply Chain," Francisco Veloso, January 2001 (Reader)
44. "Dynamics of Technology Adoption in Basic Industry: Implications for Cleaner Production Technology," Mark Stoughton, June 2000 (Chairman)
43. "Economic Performance of Process and Product Firms: Focus and Diversification in the Automobile Supplier Industry," Patrick Steinemann, May 2000 (Reader)
42. "Agency and Information Costs in the Intra-Firm Diffusion of Practice," Michael Lenox, 1999 (Reader)

41. "Storage and Capacity Rights Markets in Natural Gas Industry," Luis Paz-Galindo, 1999 (Reader)
40. "Reducing DOD Product Development Time: The Role of the Schedule Development Process," Ross McNutt, 1999 (Reader)
39. "Organization Structures for Technology Transition: Rethinking Information flow in the Integrated Product Team," Renata Pomponi, 1998 (Reader)
38. "Strategic Evaluation of Environmental Metrics: Making Use of Life Cycle Inventories," Samuel Newell, 1998 (Reader)
37. "Intermediation and Electronic Markets: Aggregation and pricing in Internet Commerce," Joseph Bailey, 1998 (Reader)
36. "Improving the Valuation of Research and Development: A Composite of Real Options, Decision Analysis and Benefit Valuation Metrics," James Neely III, 1998 (Co-Supervisor)
35. "Integrating Small Scale Distributed Generation into a Deregulated Market: Control Strategies and Price Feedback," Judith Cardell, 1997 (Reader)
34. "Uncertain Inference, Estimation, and Decision-Making in Integrated Assessments of Global Climate Change," L. James Valverde, Jr., 1997 (Reader)
33. "Topics on Market-Based Environmental Policy," Juan Pablo Montero, 1997 (Reader)
32. "Planning Level Decision Support for the Selection of Robust Configurations of Airport Passenger Buildings." Thomas Svrcek, 1994 (Co-Supervisor)
30. "Advanced Engineering Materials for Automotive Engine Components: Cost and Component Estimations," Christophe Mangin, 1993 (Reader)
29. "Development Factors and their Effect on Planning and Design of Air Terminal and Airfield Area in International Airports," Ahmed A. Afifi, 1991 (External Examiner)
28. "Rapid "Innovation" and the Integration of Components: A Comparison of User and Manufacturer Innovations Through a Study of the Residential Construction Industry," Sarah Slaughter, 1991. (Reader)
27. "Contingent Weighting of the Response Dimension in Preference Matching," Philippe Delquié, 1989. (Supervisor)
26. "Multiattribute Utility Analysis of Materials Selection Decisions," Deborah Thurston, May 1987 (Reader).
25. "Application of Multi-Attribute Utility Analysis to Problems in Materials Selection," Frank Field, III, May 1985 (Reader).
24. "Empirical Demonstration of Utility Dependence on the Fundamental Assessment Parameters: Revised Assessment Methodology," Mark McCord, August 1983 (Supervisor).
23. "The Regional Inter-Temporal Cost Allocation Problem: A Simplified Methodology Based on the Shapley Value," Elie Gugenheim, June 1983 (Reader).
22. "Joint Supply of Transportation Services and Economic Efficiency," Newton de Castro, Jr., May 1983 (Reader).
21. "State Taxation and U.S. Copper Supply: An Engineering/Economic Analysis of International Market Effects," Patricia Foley, May 1982 (Reader).
20. "Strategies for Planning the Coal Industry in Developing Countries," Miren Salsamendi, December 1981 (Supervisor)
19. "International Distribution of Energy Resources and Economic Growth," Sayed Khandani, September 1979 (Reader).
18. "Production Functions for Airport Terminals," G. Gosling, (University of California, Berkeley), June 1979 (Reader).

17. "Modeling of Individual Risk Attitudes in Decision-Making under Uncertainty: An Application to Nuclear Power," H. Munera, September 1978 (Reader).
16. "Application of Benders' Decomposition to Network Investment Problems," A. Rezende, August 1978 (Reader).
15. "The Effects of the Origin-Destination Matrix on the Performance of Loop Transportation Systems," Mark Daskin, May 1978 (Supervisor).
14. "When Values Conflict: An Application of Multivariate Decision Analysis to Marine Sand and Gravel Mining," W.L. Lee, January 1977 (Reader).
13. "A Methodology to Provide Analytical Information for Coordinated Water Resource Use in International River Basin Development," Paula J. Stone, May 1977 (Reader).
12. "The Rationalization of Airline Networks within Western Europe, with Special Reference to Swissair," J. Greig (London School of Economics), 1975 (Reader).
11. "Analysis of Alternative Health Care Systems," Diana Dutton, 1975 (Reader).
10. "Cost Structure of Regulated Trucking," Ulpiano Ayala 1975 (Supervisor).
9. "A Screening Model for the Selection of Evaluation Techniques for Engineering Systems Designers," P. Byer, 1975 (Supervisor).
8. "Sex-Based Wage Differentials," Mary Corcoran, 1975 (Supervisor).
7. "Relationships Between Economies of Scale and the Shape of Transportation Networks," S. Gordon, 1974 (Supervisor).
6. "Structure of Passenger Travel Demand Models," M. Ben-Akiva, May 1973 (Reader).
5. "Estimation of User Benefits from Urban Transportation Systems," T. Harvey, February 1972 (Reader).
4. "Toward Microanalytic Models of Urban Transportation Demand," Eduardo Aldana, February 1971 (Reader).
3. "Development of a Behavioral Model of Travel Mode Choice," R. Plourde, February 1971 (Reader).
2. "An Analysis of Accessibility Effects of Terminal Location and Configurations," Bernard-André. Genest, January 1970 (Supervisor).
1. "A Method of Schedule and Route Planning in Urban Mass Transit," A. Friedlaender, January 1969 (Reader).