
Wanpracha Art Chaovallitwongse

Departments of *Industrial & Systems Engineering* and *Radiology*
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Current Positions

- **Professor**, Industrial & Systems Engineering, Univ. of Washington, *09/14 – present*
- **Professor (joint)**, Radiology, School of Medicine, Univ. of Washington, *09/14 – present*
- **Associate Director**, Integrated Brain Imaging Center (IBIC), UW Medical Center, *04/14 – present*

Affiliate/Courtesy Appointments

- **University of Washington**, Seattle, WA
Core Member, Integrated Brain Imaging Center (IBIC), UW Medical Center, *07/11 – present*
Faculty Member, NSF ERC Center for Sensorimotor Neural Engineering (CSNE), *10/12 – present*
Faculty Member, UW Institute of Neural Engineering (UWIN), *07/14 – present*
- **Rutgers University**, Piscataway, NJ
Faculty Fellow, Center for Supply Chain Management (SCM), Rutgers Business School, *04/05 – present*
Member, Center for Discrete Mathematics & Theoretical Computer Science (DIMACS), *01/04 – present*

Professional Experience

- **University of Washington**, Seattle, WA
Associate Professor (with tenure), Industrial & Systems Engineering, College of Engineering, *07/11 – 09/14*
Associate Professor (joint), Radiology, School of Medicine, *07/11 – 09/14*
- **Princeton University**, Princeton, NJ
Visiting Associate Professor, Operations Research & Financial Engineering, *01/11 – 06/11*
- **Rutgers University**, Piscataway, NJ
Associate Professor (with tenure), Industrial & Systems Engineering, *07/10 – 06/11*
Assistant Professor, Industrial & Systems Engineering, *01/05 – 06/10*
Director, Rutgers Center for Information Assurance (RCIA), an NSA National Center of Academic Excellence in Information Assurance, *12/08 – 06/11* (rucia.rutgers.edu)
Undergraduate Director, Industrial & Systems Engineering, *06/10 – 06/11*
Faculty Member, Center for Operations Research (RUTCOR), *05/10 – 06/12*
- **St. Peter's University Hospital**, New Brunswick, NJ
Affiliate Faculty, Comprehensive Epilepsy Center, *01/04 – 08/06*
- **ExxonMobil Research and Engineering**, Clinton, NJ
Post Doctoral Fellow, Corporate Strategic Research, *01/04 – 01/05*
- **University of Florida**, Gainesville, FL
Post Doctoral Associate, Brain Institute and VA Medical Center, *08/03 – 01/04*

Education

- **University of Florida**, Gainesville, FL
 08/2003 Ph.D. in Industrial & Systems Engineering (Thesis Advisor: *Panos M. Pardalos*)
 12/2000 M.S. in Industrial & Systems Engineering
- **King Mongkut Institute of Technology at Ladkrabang**, Bangkok, Thailand
 05/1999 B.E. in Telecommunication Engineering

Awards and Honors

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|------|------------------------------------------------------------------------------------------------|
| 2014 | Nominated for the UW College of Engineering Faculty Innovator Award |
| 2012 | Finalist of the 2012 INFORMS Data Mining Student Paper Competition, with <i>S. Wang</i> |
| 2011 | Finalist of the 2011 INFORMS Data Mining Student Paper Competition, with <i>C.-A. Chou</i> |
| 2011 | Institute of Electrical and Electronics Engineers (IEEE) Senior Member |
| 2010 | Rutgers University Presidential Fellowship for Teaching Excellence |
| 2010 | Early promotion to Associate Professor (with tenure), Rutgers University |
| 2010 | Winner of the 2010 Annual NJ Chapter of INFORMS Student Research Contest, with <i>Z. Liang</i> |
| 2009 | Outstanding Service Award, The Association of Thai Professionals in America and Canada (ATPAC) |

- 2009 Finalist of the 2009 Annual NJ Chapter of INFORMS Student Research Contest, with C.-A. Chou
- 2009 Rutgers FASIP Award for Research, Teaching and Service
- 2008 Pierskalla best paper award for research excellence in health care management science, Institute for Operations Research and the Management Sciences (INFORMS)
- 2008 Nominated for the National Security Science and Engineering Faculty Fellowship (NSSEFF) Program by Rutgers' President McCormick
- 2008 Rutgers FASIP Award for Research, Teaching and Service
- 2007 Notable Alumni, King Mongkut Institute of Technology at Ladkrabang
- 2007 Rutgers FASIP Award for Research, Teaching and Service
- 2006 National Science Foundation (NSF) CAREER Award
- 2006 Rutgers FASIP Award for Research, Teaching and Service
- 2006 Omega Rho International Honor Society (Operations Research and Management Science)
- 2004 Pierskalla best paper award for research excellence in health care management science, Institute for Operations Research and the Management Sciences (INFORMS)
- 2003 Annual Award for Excellence in Research, Industrial & Systems Engineering, University of Florida

Patents

- "Multi-Dimensional Multi-Parameter Time Series Processing for Seizure Warning and Prediction", United States Patent: US 7,263,467 B2, awarded Aug 2007
- "Optimization of Multi-Dimensional Time Series Processing for Seizure Warning and Prediction", International Patent: 7,373,199, awarded May 2008
- "Optimization of Spatio-Temporal Patterns Processing for Seizure Warning and Prediction", United States Patent: US 7,461,045, awarded December 2008
- "Multi-Dimensional Dynamical Analysis", filed on Jan. 27th, 2006 (U.S. Patent Application, Attorney Docket No. 1028724-000154)

Media Citations

Newsletter, Online and TV Coverage:

- *MedicalPhysicsWeb*, "PET/CT: Will Respiratory Gating Help?" (Mar 2014)
- *United Neurodiagnostic Professionals of America (UNPO)*, "Computer Model to Predict Epilepsy With 70% + Accuracy Within 30 Minutes Before Seizure Onset" (Nov 2013)
- *Scicasts*, "Study Looks at Better Prediction for Epileptic Seizures Through Adaptive Learning Approach" (Nov 2013)
- *MedicalNewsToday*, "New Computer Model Can Accurately Predict Epileptic Seizures" (Nov 2013)
- *ScienceNewline: Biology*, "Getting to Grips with Seizure Prediction" (Nov 2013)
- *ScienceDaily*, "Better Prediction for Epileptic Seizures Through Adaptive Learning Approach" (Nov 2013)
- *Epilepsy Research UK*, "US Researchers Develop New Algorithm to Predict Seizures" (Nov 2013)
- *Health ArmMed Media*, "Getting to Grips with Seizure Prediction" (Nov 2013)
- *BioNewsTexas*, "UT Arlington Researcher Part of Emerging Technology for Better Understanding Seizure Activity" (Oct 2013)
- *eHealth: The Enterprise of Healthcare*, "Software for Seizure Prediction" (Oct 2013)
- *ScienceDirect*, Ranked 2nd in Top 25 Hottest Articles in Journal of Computer and System Sciences (2nd quarter of 2009)
- *ScienceDirect*, Ranked 10th in Top 25 Hottest Articles in Chemometrics and Intelligent Laboratory Systems (2nd quarter of 2009)
- *Thai Public Broadcast Station (Thai PBS)*, National TV channel in Thailand (Jun 2008)
- *ScienceDirect*, Ranked 5th in Top 25 Hottest Articles in Operations Research Letters (1st quarter of 2005)
- *TV20*, Central Florida local TV channel, "Predicting Attacks" (Jun 2003)
- *Alligator*, University of Florida's newspaper, "UF Research Seeks to Combat Seizures" (Apr 2003)

Misc:

- Who's Who in the World (Marquis' version – 27th Edition 2010)
- Who's Who in America (Marquis' version – 110th Anniversary of Publishing Edition 2009)
- Who's Who in Science and Engineering (Marquis' version – 10th Anniversary Edition 2008)
- Who's Who in Engineering Higher Education (Academic Keys' version – 2007)
- Who's Who in America (Marquis' version – 61st Edition 2007)
- Who's Who of Emerging Leaders (Marquis' version – 1st Edition 2006)
- Who's Who in America (Marquis' version - 60th Edition 2006)

- Who's Who in Engineering Education (Academic Keys' version – 2005)
- Who's Who in the World (Marquis' version - 23rd Edition 2005)
- Who's Who in America (Marquis' version - 59th Edition 2005)

Research Grants (Total of ~\$9.0M with ~\$1.6M as PI)

Active:

- "Network Optimization of Functional Connectivity in Neuroimaging for Differential Diagnoses of Brain Diseases," *National Science Foundation*, \$345,000 Role: **PI**, T.J. Grabowski, P.R. Borghesani, T. Madhyastha, N. Kleinshan (Co-PIs), 2013-2016
- "Collaborative Research: Scalable Kinship Inference in Wild Populations Across Years and Generations," *National Science Foundation*, \$1,200,139 (Total) with \$245,409 (UW), Role: **PI**, T.Y. Berger-Wolf (University of Illinois at Chicago PI), 2011-2015
- "Collaborative Research: Computational Framework of Robust Intelligent System for Mental State Identification and Human Performance Prediction with Biofeedback," *National Science Foundation*, \$450,000 (Total) with \$206,816 (UW), Role: **PI**, C. Wu (University at Buffalo PI), 2009-2014
- "Continuous Assessment of Cognitive Load in Information Seeking," *Institute of Museum and Library Services (IMLS)*, \$334,640, Role: **Co-I**, J. Gwizdka (PI), 2011-2015

Completed:

- "IBIC: Integrated Brain Imaging Center for the University of Washington," *National Institutes of Health*, \$4,784,831, Role: **Co-I**, T.J. Grabowski (PI), 2010-2013
- "Using a Multi-Touch Screen to Automate Pain Assessment," *National Institutes of Health*, \$102,616, Role: **Co-I**, J. Brodtkin (PI), 2011-2013
- "Real-Time Multi-Voxel fMRI Toward Closed-Loop Human-Machine Interfaces," *National Science Foundation through the NSF ERC Center for Sensorimotor Neural Engineering (CSNE)*, \$100,040, Role: **Co-PI**, T.J. Grabowski (PI), 2011-2013
- "Workshop on Health Systems Analytics and Medical Informatics," *Thailand Ministry of Sciences and Technology*, \$7,000, Role: **Sole-PI**, 2013-2014
- "CAREER: Novel Optimization Methods for Cooperative Data Mining with Healthcare and Biotechnology Applications," *National Science Foundation*, \$400,000, Role: **Sole-PI**, 2006-2012
- "REU Supplement: Novel Optimization Methods for Cooperative Data Mining with Healthcare and Biotechnology Applications," *National Science Foundation*, \$12,000, Role: **Sole-PI**, 2008-20012
- "Collaborative Research: Computational Methods for Kinship Reconstruction," *National Science Foundation*, \$795,822 (Total) with \$187,617 (Rutgers), Role: **PI**, T.Y. Berger-Wolf (UIC PI), 2006-2010
- "Center of Excellence for Cyber-Security and Information Assurance," *Rutgers Academic Excellence Fund*, \$75,000, Role: **PI**, H. Pham, M. Parashar, H. Xiong, T. Nguyen (Co-PIs), 2008-2010
- "Spatio-Temporal Data Mining in Brain Disorder and Cognitive Function Study," *Rutgers Computing Coordination Council (CCC) Collaborative Computing Research*, \$50,000, Role: **PI**, E. Micheli-Tzanakou, N.N. Boustany, R.M. Lehman, B.Y. Wu (Co-PIs), 2008-2010
- "Intelligent Mining of Sensor Signals for Thermal Management and Health Monitoring of Data Centers," *Rutgers Computing Coordination Council (CCC) Green Computing Initiative*, \$50,000, Role: **Co-PI**, M.K. Jeong (PI), 2009-2010
- "School Development Cost Analysis," *New Jersey Schools Development Authority*, \$49,000, Role: **Co-PI**, H. Pham (PI), 2008-2009
- "Workshops Connecting Theoretical Computer Science to Other Fields," *National Science Foundation*, \$300,000, Role: **Co-PI**, F.S. Roberts (PI), 2005-2009
- "Optimization and Statistical Framework for Mining and Categorizing Correlated Text Records," *Cisco – Academic Research & Technology Initiatives*, \$93,000, Role: **Co-PI**, H. Pham (PI), 2006-2007
- "Novel Combinatorial Optimization Approaches to Support the Future Multicast System in the Internet," *Rutgers Research Council*, \$900, Role: **Sole-PI**, 2006-2007
- "Cooperative Data Mining for Aircraft Munition Sensors," *Rutgers Research Council*, \$1,500, Role: **Sole-PI**, 2005-2006
- "Workshop on Health and Clinical Informatics Tools To Improve Current Medical Diagnosis and Health Care Delivery," *Thailand Ministry of Sciences and Technology*, \$14,000, Role: **PI**, 2009-2010
- "Conference on Computational Neuroscience," *DIMACS and University of Florida*, \$15,000, Role: **PI**, P.M. Pardalos, O. Seref, and Petros Xanthopoulos (Co-PIs), 2008

- “Conference on Data Mining, Systems Analysis and Optimization in Neuroscience,” *DIMACS, University of Florida’s Office of the Vice President for Research and Genetics Institute*, \$15,000, Role: **PI**, P.M. Pardalos (Co-PI), 2006
- “Workshop on Clustering Problems in Biological Networks,” *DIMACS*, \$13,000, Role: **PI**, P.M. Pardalos and S. Butenko (Co-PIs), 2006
- “Workshop on Computational Optimization and Logistics Challenges in the Enterprise,” *ExxonMobil and DIMACS*, \$16,000, Role: **Sole-PI**, 2006

Teaching

Rutgers University

S2005	Deterministic Models in Operations Research (<i>Instructor’s rating = 4.58/5</i>) [undergrad]
F2005	Knowledge and Data Engineering (<i>Instructor’s rating = 3.33/5</i>) [grad]
S2006	Network Modeling, Algorithms and Applications (<i>Instructor’s rating = 4.00/5</i>) [grad]
F2006	Knowledge and Data Engineering (<i>Instructor’s rating = 4.67/5</i>) [grad]
S2007	Network Modeling, Algorithms and Applications (<i>Instructor’s rating = 4.75/5</i>) [grad]
F2007	Knowledge and Data Engineering (<i>Instructor’s rating = 4.60/5</i>) [grad]
	Production Control and Operations Management (<i>50% share, Instructor’s rating = 3.69/5</i>) [undergrad]
S2008	Deterministic Models in Operations Research (<i>Instructor’s rating = 4.63/5</i>) [undergrad]
F2008	Network Modeling, Algorithms and Applications (<i>Instructor’s rating = 5.00/5</i>) [grad]
S2009	Facilities Planning (<i>Instructor’s rating = 4.60/5</i>) [undergrad]
F2009	Production Control and Operations Management (<i>Instructor’s rating = 4.70/5</i>) [undergrad]
S2010	Production Analysis (<i>50% share, Instructor’s rating = 4.19/5</i>) [grad]
	Facilities Planning (<i>Instructor’s rating = 4.41/5</i>) [undergrad]
F2010	Production Control and Operations Management (<i>Instructor’s rating = 4.55/5</i>) [undergrad]
S2011	Deterministic Models in Operations Research (<i>Instructor’s rating = 4.48/5</i>) [undergrad]

Princeton University

S2011	Optimization [undergrad]
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University of Washington

W2012	Fundamental Engineering Economics (<i>Instructor’s rating = 4.2/5</i>) [undergrad]
F2012	Introduction to Optimization Models (<i>Instructor’s rating = 4.3/5</i>) [grad]
W2013	Fundamental Engineering Economics (<i>Instructor’s rating = 4.5/5</i>) [undergrad]
F2013	Layout Planning and Materials Handling (<i>Instructor’s rating = 4.4/5</i>) [undergrad]
F2013	Fundamental Engineering Economics (<i>Instructor’s rating = 4.4/5</i>) [undergrad]

Publications (* represents students/postdocs supervised by Dr. Chaovallitwongse)

Selected journal papers (number of papers)

Optimization: *INFORMS Journal on Computing* (4), *Transportation Science* (3), *Operations Research* (1), *Mathematical Programming* (1), *European Journal of Operational Research* (1), *Journal of Computer and System Sciences* (1), *Annals of Operations Research* (5), *Operations Research Letters* (1), *Computers and Operations Research* (3), *Journal of Global Optimization* (2)

Data Analytics: *IEEE Transactions of Knowledge and Data Engineering* (1), *IEEE Intelligent Systems* (2), *IEEE Transactions on Systems, Man, and Cybernetics* (6), *Computational Statistics and Data Analysis* (2)

Applications: *IEEE Transactions on Medical Imaging* (1), *IEEE Transactions on Bio-medical Engineering* (1), *IEEE Transactions on Intelligent Transportation Systems* (1), *IEEE Transactions on Human Machine Systems* (1), *Epilepsy Research* (3), *Clinical Neurophysiology* (2), *Bioinformatics* (1), *Physics in Medicine and Biology* (1), *Computer Networks* (1), *Molecular Ecology Resources* (1)

Selected conference proceedings (number of papers)

ACM-BCB (1), *BIBM* (1), *CBGI* (1), *CSB* (2), *EMBS* (2), *KDD* (1), *ICDM* (1), *INFOCOM* (1), *ISMB* (1)

○ Edited Books:

[E1] **W. Chaovallitwongse**, K.C. Furman, and P.M. Pardalos (Eds). *Optimization and Logistics Challenges in the Enterprise*, Springer, New York, 448 pages, 2009. [ISBN-13: 978-0387886169]

- [E2] S. Butenko, **W. Chaovalitwongse**, and P.M. Pardalos (Eds). *Clustering Challenges in Biological Networks*, World Scientific, Singapore, 332 pages, 2009. [ISBN-13: 978-98127716050]
- [E3] **W. Chaovalitwongse**, P.M. Pardalos, and P. Xanthopoulos (Eds). *Computational Neuroscience*, Springer, New York, 412 pages, 2010. [ISBN-13: 978-0387886299]
- [E4] J.J. Cochran (Editor-in-Chief), J.P. Kharoufeh (Area Editor for Stochastic Models) with **W. Chaovalitwongse** (Topical Editor for Data Mining and Forecasting), *Wiley Encyclopedia of Operations Research and Management Science*, Wiley, New Jersey, 6,408 pages, 2011. [ISBN-13: 978-0470400630]
- [E5] Z. Liang*, **W. Chaovalitwongse**, and L. Shi (Eds). *Supply Chain Management and Logistics: Innovative Strategies and Practical Solutions*, Taylor and Francis, in preparation.
- **Journal Special Issues:**
- [I1] **W. Chaovalitwongse** and O. Seref. "Special Issue on Combinatorial Optimization in Data Mining," *Journal Combinatorial Optimization*, 15(3): 223-224, 2008.
- [I2] **W. Chaovalitwongse** and K.C. Furman. "Special Volume on Optimization and Logistics Challenges with Industrial Applications," *Annals of Operations Research*, 203(1): 1-2, 2013.
- [I3] **W. Chaovalitwongse**, C.A. Chou*, Z. Liang*, and S. Wang*. "Special Volume on Applied Optimization and Data Mining," *Annals of Operations Research*, in preparation.
- **Peer- Reviewed Journal Papers:** (*IF* denotes *Impact Factors*)
- [J1] **W. Chaovalitwongse**, G. Presnyakov*, Y. Cao*, S. Sujitnapitsatham*, D. Won*, T. Madhyastha, K. Weaver, P. Borghesani, and T.J. Grabowski. Network Modeling of Functional Connectivity of Resting State Functional Magnetic Resonance Imaging to Diagnose Brain Diseases. To appear in *IEEE Intelligent Systems*. (*IF* = 3.064)
- [J2] C.-A. Chou*, Z. Liang*, **W. Chaovalitwongse**, T.Y. Berger-Wolf, B. DasGupta, M.V. Ashley, S. Sheikh, and I.C. Caballero. Column Generation Framework of Combinatorial and Statistical Approaches for Full-Sibling Group Reconstruction. To appear in *INFORMS Journal on Computing* (*IF* = 1.318)
- **Honorable Mention of the 2009 NJ INFORMS Student Operations Research Contest**
- [J3] Z. Liang*, **W. Chaovalitwongse**, and E.A. Elsayed. Sequence Assignment Model for the Flight Conflict Resolution Problem. To appear in *Transportation Science*. (*IF* = 1.479)
- [J4] S. Wang*, Y. Zhang, C. Wu, F. Darvas, and **W. Chaovalitwongse**. Online Prediction of Driver Distraction Based on Brain Activity Patterns. To appear in *IEEE Transactions on Intelligent Transportation Systems*.
- [J5] Y. Zhang, **W. Chaovalitwongse**, and T. Zhang. A Hybrid Ant Colony System and Tabu Search Algorithm for Time Dependent Vehicle Routing Problems with Simultaneous Pickup and Delivery. To appear in *Journal of Combinatorial Optimization*. (*IF* = 0.867)
- [J6] K. Kampa*, S.H. Mehta, C.A. Chou*, **W. Chaovalitwongse**, and T.J. Grabowski. Sparse Optimization in Feature Selection: Application in Neuroimaging. To appear in *Journal of Global Optimization*. (*IF* = 1.062)
- [J7] O. Seref, Y.J. Fan*, E. Borenstein, and **W. Chaovalitwongse**. Information-Theoretic Feature Selection with Discrete k-Median Clustering. To appear in *Annals of Operations Research*. (*IF* = 0.961)
- [J8] C.-J. Lin, C. Wu, and **W. Chaovalitwongse**. Integrated Behavioral and Brain Activity Modeling to Predict Human Errors in Numerical Typing. To appear in *IEEE Transactions on Human Machine Systems*.
- [J9] S. Wang*, S. Bowen, **W. Chaovalitwongse**, G. Sandison, T.J. Grabowski, and P. Kinahan. Respiratory Trace Feature Analysis for Prediction of Respiratory-Gated PET Quantification. *Physics in Biology and Medicine*, 59, 1027–1045, 2014. (*IF* = 2.701)
- **Featured in MedicalPhysicsWeb.org, PET/CT: will respiratory gating help? (Mar 19, 2014)**
- [J10] C.A. Chou*, K. Kampa*, S.H. Mehta, R.F. Tungaraza, **W. Chaovalitwongse**, and T.J. Grabowski. Voxel Selection Framework in Multi-Voxel Pattern Analysis of fMRI Data for Prediction of Neural Response to Visual Stimuli. *IEEE Transactions on Medical Imaging*, 33(4), 925-934, 2014. (*IF* = 4.027)
- [J11] O. Seref, Y.J. Fan*, and **W. Chaovalitwongse**. Mathematical Programming Formulations and Algorithms for Discrete k-Median Clustering with Time Series Data. *INFORMS Journal on Computing*, 26(1), 160-172, 2014. (*IF* = 1.318)

- [J12] T. Madhyastha, Y. Cao*, S. Sujitnapitsatham*, G. Presnyakov*, **W. Chaovalitwongse**, and T.J. Grabowski. Link Clustering to Explore Brain Dynamics Using Resting State Functional MRI. *Journal of Radiology and Radiation Therapy*, 1(2): 1012, 2014.
- [J13] O. Seref, **W. Chaovalitwongse**, and J.P. Brooks. Relaxing Support Vectors for Classification. *Annals of Operations Research*, 216(1), 229-255, 2014. (*IF = 0.961*)
- [J14] S. Wang*, **W. Chaovalitwongse**, and S. Wong. A Gradient-Based Adaptive Learning Framework for Online Seizure Prediction. *International Journal of Data Mining and Bioinformatics*, 10(1), 49-64, 2014. (*IF = 0.933*)
- **Featured in *eHealth: The Enterprise of Healthcare*, “Software for Seizure Prediction” (Oct 2013)**
 - **Featured in *ScienceNewsline: Biology*, “Getting to Grips with Seizure Prediction” (Nov 2013)**
 - **Featured in *Health ArmMed Media*, “Getting to Grips with Seizure Prediction” (Nov 2013)**
- [J15] S. Wang*, **W. Chaovalitwongse**, and S. Wong. Online Seizure Prediction Using Adaptive Learning Approach. *IEEE Transactions on Knowledge and Data Engineering*, 25(12), 2854-2866, 2013. (*IF = 2.285*)
- **Finalist of the 2012 INFORMS Data Mining Student Paper Competition**
 - **Featured in *United Neurodiagnostic Professionals of America (UNPO)*, “Computer Model to Predict Epilepsy With 70% + Accuracy Within 30 Minutes Before Seizure Onset” (Nov 2013)**
 - **Featured in *ScienceDaily*, “Better Prediction for Epileptic Seizures Through Adaptive Learning Approach” (Nov 2013)**
 - **Featured in *MedicalNewsToday*, “New Computer Model Can Accurately Predict Epileptic Seizures” (Nov 2013)**
 - **Featured in *Scicasts*, “Study Looks at Better Prediction for Epileptic Seizures Through Adaptive Learning Approach” (Nov 2013)**
 - **Featured in *Epilepsy Research UK*, “US Researchers Develop New Algorithm to Predict Seizures” (Nov 2013)**
 - **Featured in *BioNewsTexas*, “UT Arlington Researcher Part of Emerging Technology for Better Understanding Seizure Activity” (Oct 2013)**
- [J16] Z. Liang* and **W. Chaovalitwongse**. A Network-Based Model for the Integrated Weekly Aircraft Maintenance Routing and Fleet Assignment Problem. *Transportation Science*, 47(4), 493-507, 2013. (*IF = 1.479*)
- **Winner of the 2010 NJ INFORMS Student Operations Research Contest**
- [J17] K. Weaver, **W. Chaovalitwongse**, E.J. Novotny, A.D. Poliakov, T.J. Grabowski, and J. Ojemann. Local Functional Connectivity as a Pre-Surgical Tool for Seizure Focus Identification in Non-Lesion, Focal Epilepsy. *Frontiers in Neurology*, 4(43), 1-14, 2013.
- [J18] Z. Liang*, C. Lee, and **W. Chaovalitwongse**. Mathematical Programming Approaches for Dual Multicast Routing Problem with Multilayer Risk Cost. *Annals of Operations Research*, 203(1), 101-118, 2013. (*IF = 0.961*)
- [J19] S. Wang*, **W. Chaovalitwongse**, and R. Babuska. Survey of Learning Algorithms for Bipedal Robot Control Application. *IEEE Transactions on Systems, Man, and Cybernetics, Part C: Applications and Reviews*, 42(5), 728-743, 2012. (*IF = 2.016*)
- [J20] **W. Chaovalitwongse**, W. Wang*, T.P. Williams, and P. Chaovalitwongse. Data Mining Framework to Optimize the Bid Selection Policy for Competitively Bid Highway Construction Projects. *ASCE Journal of Construction Engineering and Management*, 138, 277-286, 2012. (*IF = 0.583*)
- [J21] T. Zhang, **W. Chaovalitwongse**, and Y. Zhang. Scatter search for the stochastic travel-time vehicle routing problem with simultaneous pick-ups and deliveries. *Computers and Operations Research*, 39(10), 2277-2290, 2012. (*IF = 2.116*)
- [J22] Z. Liang* and **W. Chaovalitwongse**. A Multicast Problem with Shared-Risk Cost. *Optimization Letters*, 6, 571-584, 2012. (*IF = 0.926*)
- [J23] M.J. Anzanello, S.L. Albin, and **W. Chaovalitwongse**. Multicriteria Variable Selection for Classification of Production Batches. *European Journal of Operational Research*, 218, 97-105, 2012. (*IF = 2.158*)

- [J24] C.-A. Chou*, **W. Chaovalitwongse**, T.Y. Berger-Wolf, B. DasGupta, and M.V. Ashley. Capacitated Clustering Problem in Computational Biology: Combinatorial and Statistical Approach for Sibling Reconstruction. *Computers and Operations Research*, 39, 609-619, 2012. (*IF* = 2.116)
- [J25] X. He, A. Chen, **W. Chaovalitwongse**, and H. Liu. An Improved Linearization Technique for a Class of Quadratic 0-1 Programming Problems. *Optimization Letters*, 6(1), 31-41, 2012. (*IF* = 0.926)
- [J26] S. Wang*, C.J. Lin, C. Wu, and **W. Chaovalitwongse**. Early Detection of Numerical Typing Errors Using Data Mining Techniques. *IEEE Transactions on Systems, Man, and Cybernetics, Part A: Systems and Humans*, 41(6), 1199-1212, 2011. (*IF* = 2.033)
- [J27] **W. Chaovalitwongse**, C.A.S. Oliviera, B. Chiarini, P.M. Pardalos, and M.G.C. Resende. Revised GRASP with Path-Relinking for the Linear Ordering Problem. *Journal of Combinatorial Optimization*, 22, 572-593, 2011. (*IF* = 0.867)
- [J28] **W. Chaovalitwongse**, Y.S. Jeong, M.K. Jeong, S.F. Danish, and S. Wong. Pattern Recognition Approaches for Identifying Subcortical Targets During Deep Brain Stimulation Surgery. *IEEE Intelligent Systems*, 26(5), 54-63, 2011. (*IF* = 3.144)
- [J29] Z. Liang*, **W. Chaovalitwongse**, H.C. Huang, and E.L. Johnson. On a New Rotation Tour Network Model for Aircraft Maintenance Routing Problem. *Transportation Science*, 45(1), 109-120, 2011. (*IF* = 1.479)
- [J30] **W. Chaovalitwongse**, R.S. Pottenger*, S. Wang*, Y.J. Fan*, and L.D. Iasemidis. Pattern-Based and Network-Based Classification Techniques for Multichannel Medical Data Signals to Improve Brain Diagnosis. *IEEE Transactions on Systems, Man, and Cybernetics, Part A: Systems and Humans*, 41(5), 977-988, 2011. (*IF* = 2.033)
- [J31] Z. Liang* and **W. Chaovalitwongse**. Bounds of Redundant Multicast Routing Problem with SRLG-diverse Constraints: Edge, Path and Tree Models. *Journal of Global Optimization*, 48(2), 335-345, 2010. (*IF* = 1.454)
- [J32] A. Rodriguez*, **W. Chaovalitwongse**, Z. Liang*, H. Singhal*, and H. Pham. Master Defect Record Retrieval Using Network-Based Feature Association. *IEEE Transactions on Systems, Man, and Cybernetics, Part C: Applications and Reviews*, 40(3): 319-329, 2010. (*IF* = 2.016)
- [J33] M.V. Ashley, T.Y. Berger-Wolf, **W. Chaovalitwongse**, B. DasGupta, A. Khokhar and S. Sheikh. On Approximating An Implicit Cover Problem in Wild Population Study. *Discrete Mathematics, Algorithms and Applications*, 2 (2): 1-11, 2010. (*IF* = N/A)
- [J34] S.I. Sheikh, T.Y. Berger-Wolf, A. Khokar, C.-A. Chou*, **W. Chaovalitwongse**, M.V. Ashley, I.C. Caballero, and B. DasGupta. Combinatorial Reconstruction of Half-Sibling Groups: Models and Algorithms. *Journal of Bioinformatics and Computational Biology*, 8(2): 337-356, 2010. (*IF* = N/A)
- [J35] Z. Liang*, **W. Chaovalitwongse**, M. Cha, and S.B. Moon. Redundant Multicast in Multilayer Networks with Shared Risk Resource Groups: Complexity, Models and Algorithms. *Computers and Operations Research*, 37: 1731-1739, 2010. (*IF* = 2.116)
- [J36] **W. Chaovalitwongse**, C.-A. Chou*, T.Y. Berger-Wolf, B. DasGupta, M.V. Ashley, S. Sheikh, and I.C. Caballero. New Optimization Model and Algorithm for Sibling Reconstruction from Genetic Markers. *INFORMS Journal on Computing*, 22(2): 179-193, 2010. (*IF* = 1.318)
- [J37] Z. Liang*, **W. Chaovalitwongse**, A.D. Rodriguez*, D.E. Jeffcoat, D.A. Grundel, and J.K. O'Neil. Optimization in Target Tracking From Multi-Sensor Data in Battle Space. *IEEE Transactions on Systems, Man, and Cybernetics, Part C: Applications and Reviews*, 40(2): 176 - 188, 2010. (*IF* = 2.016)
- [J38] Y.J. Fan* and **W. Chaovalitwongse**. Optimizing Feature Selection to Improve Medical Diagnosis. *Annals of Operations Research*, 174(1): 169-183, 2010. (*IF* = 0.961)
- [J39] **W. Chaovalitwongse**. Comment on: Optimization and data mining in biomedicine. *TOP: An Official Journal of the Spanish Society of Statistics and Operations Research*, 17: 247-249, 2009. (*IF* = 0.694)
- [J40] L. Lei, H. Zhong, and **W. Chaovalitwongse**. On the Integrated Production and Distribution Problem with Bi-directional Flows. *INFORMS Journal on Computing*, 21(4): 585-598, 2009. (*IF* = 1.318)
- [J41] M. Cha, **W. Chaovalitwongse**, J. Yates, A. Shaikh, and S.B. Moon. Efficient and Scalable Provisioning Solutions for Always-On Multicast streaming Services. *Computer Networks*, 53: 2825-2839, 2009. (*IF* = 1.201)

- [J42] T. Zhang, **W. Chaovallitwongse**, Y. Zhang and P. Pardalos. The Hot-rolling Batch Scheduling Method based on the Prize Collecting Vehicle Routing Problem. *Journal of Industrial and Management Optimization*, 5 (4): 749–765, 2009. (*IF* = 1.120)
- [J43] M.V. Ashley, I.C. Caballero, **W. Chaovallitwongse**, B. DasGupta, P. Govindan, S.I. Sheikh, and T.Y. Berger-Wolf. KINALYZER: A Computer Program for Reconstructing Sibling Groups. *Molecular Ecology Resources*, 9(4): 1127–1131, 2009. (*IF* = 1.251)
- [J44] M.J. Anzanello, S.L. Albin, and **W. Chaovallitwongse**. Selecting the Best Variables for Classifying Production Batches into Two Quality Levels. *Chemometrics and Intelligent Laboratory Systems*, 97(2): 111-117, 2009. (*IF* = 2.111)
- **Featured in ScienceDirect, Ranked 10th in Top 25 Hottest Articles in Chemometrics and Intelligent Laboratory Systems (2nd quarter of 2009)**
- [J45] M.V. Ashley, T.Y. Berger-Wolf, P. Berman, **W. Chaovallitwongse**, B. DasGupta, and M.-Y. Kao. On Approximating Four Covering and Packing Problems. *Journal of Computer and System Sciences*, 75(5), 287-302, 2009. (*IF* = 1.304)
- **Featured in ScienceDirect, Ranked 2nd in Top 25 Hottest Articles in Journal of Computer and System Sciences (2nd quarter of 2009)**
- [J46] Y.J. Fan*, **W. Chaovallitwongse**, C.C. Liu, R.C. Sachdeo, L.D. Iasemidis, and P.M. Pardalos. Optimization and Data Mining Techniques for the Screening of Epileptic Patients. *International Journal of Bioinformatics Research and Applications*, 5(2): 187-196, 2009. (*IF* = N/A)
- [J47] **W. Chaovallitwongse**, Y.J. Fan*, and R.C. Sachdeo. Novel Optimization Models for Abnormal Brain Activity Classification. *Operations Research*, 56(6): 1450-1460, 2008. (*IF* = 1.576)
- **Winner of the 2008 INFORMS Pierskalla best paper award**
- [J48] **W. Chaovallitwongse**, W. Suharitdamrong, C.C. Liu, and M.L. Anderson. Graph-Based Data Mining Techniques to Study Brain Connectivity in Epilepsy Patients. *Annales Zoologici Fennici*, 45(5): 402-414, 2008. (*IF* = 0.772)
- [J49] **W. Chaovallitwongse**. Novel Quadratic Programming Approach for Time Series Clustering with Biomedical Application. *Journal of Combinatorial Optimization*, 15(3): 225-241, 2008. (*IF* = 0.867)
- [J50] **W. Chaovallitwongse** and P.M. Pardalos. On the Time Series Support Vector Machine using Dynamic Time Warping Kernel for Brain Activity Classification. *Cybernetics and Systems Analysis*, 44(1): 125-138, 2008. (*IF* = 0.780)
- [J51] C.C. Liu, P.M. Pardalos, **W. Chaovallitwongse**, D.S. Shiau, G.A. Ghacibeh, W. Suharitdamrong, and J.C. Sackellares. Quantitative Complexity Analysis in Multi-Channel Intracranial EEG Recordings from Epilepsy Brains. *Journal of Combinatorial Optimization*, 15(3): 276-286, 2008. (*IF* = 0.867)
- [J52] **W. Chaovallitwongse**, Y.J. Fan*, and R. Sachdeo. On the Time Series K-Nearest Neighbor Classification of Abnormal Brain Activity. *IEEE Transactions on Systems, Man, and Cybernetics, Part A: Systems and Humans*, 37(6): 1005-1016, 2007. (*IF* = 2.033)
- [J53] T.Y. Berger-Wolf, S. Sheikh, B. DasGupta, M.V. Ashley, I.C. Caballero, **W. Chaovallitwongse**, and S.L. Putrevu. Reconstructing Sibling Relationships in Wild Populations. *Bioinformatics*, 23: 49-56, 2007. (*IF* = 4.926)
- [J54] **W. Chaovallitwongse**, T.Y. Berger-Wolf, B. DasGupta, and M.V. Ashley. A Robust Combinatorial Approach for Sibling Relationships Reconstruction. *Optimization Methods and Software*, 22(1): 11-24, 2007. (*IF* = 0.866)
- [J55] **W. Chaovallitwongse**, P.M. Pardalos, and O.A. Prokopyev. Electroencephalogram (EEG) Time Series Classification: Applications in Epilepsy. *Annals of Operations Research*, 148: 227-250, 2006. (*IF* = 0.961)
- [J56] J.C. Sackellares, D.-S. Shiau, J.C. Principe, M.C.K. Yang, L.K. Dance, W. Suharitdamrong, **W. Chaovallitwongse**, P.M. Pardalos, and L.D. Iasemidis. Predictability Analysis for an Automated Seizure Prediction Algorithm. *Journal of Clinical Neurophysiology*, 23(6): 509-520, 2006. (*IF* = 1.472)
- [J57] **W. Chaovallitwongse**, P.M. Pardalos, and O.A. Prokopyev. Optimization Approaches to Characterize the Hidden Dynamics of the Epileptic Brain: Seizure Prediction and Localization. *SIAG/OPT Views-and-News*, 17(2): 9-19, 2006. (*the SIAM Activity Group on Optimization*)
- [J58] **W. Chaovallitwongse**, L.D. Iasemidis, P.M. Pardalos, P.R. Carney, D.S. Shiau, and J.C. Sackellares. Reply to comments on “Performance of a seizure warning algorithm based on the dynamics of

intracranial EEG” by F. Mormann, C.E. Elger, and K. Lehnertz. *Epilepsy Research*, 72: 85-87, 2006. (*IF* = 2.479)

- [J59] **W. Chaovallitwongse**, L.D. Iasemidis, P.M. Pardalos, P.R. Carney, D.S. Shiau, and J.C. Sackellares. Reply to comments on “Performance of a seizure warning algorithm based on the dynamics of intracranial EEG” by M. Winterhalder, B. Schelter, A. Achulze-Bonhage, and J. Timmer. *Epilepsy Research*, 72: 82-84, 2006. (*IF* = 2.479)
- [J60] **W. Chaovallitwongse**, P.M. Pardalos, L.D. Iasemidis, D.-S. Shiau, and J.C. Sackellares. Dynamical Approaches and Multi-Quadratic Integer Programming for Seizure Prediction. *Optimization Methods and Software*, 20(2-3): 383-394, 2005. (*IF* = 0.866)
- [J61] **W. Chaovallitwongse**, L.D. Iasemidis, P.M. Pardalos, P.R. Carney, D.-S. Shiau, and J.C. Sackellares. Performance of a Seizure Warning Algorithm based on the Dynamics of Intracranial EEG. *Epilepsy Research*, 64: 93-133, 2005. (*IF* = 2.479)
- [J62] L.D. Iasemidis, P.M. Pardalos, D.-S. Shiau, **W. Chaovallitwongse**, K. Narayanan, A. Prasad, K. Tsakalis, P.R. Carney, and J.C. Sackellares. Long Term Prospective On-Line Real-Time Seizure Prediction. *Journal of Clinical Neurophysiology*, 116(3): 532-544, 2005. (*IF* = 1.472)
- [J63] **W. Chaovallitwongse**, P.M. Pardalos, and O.A. Prokopyev. A New Linearization Technique for Multi-Quadratic 0-1 Programming Problems. *Operations Research Letters*, 32(6): 517-522, 2004. (*IF* = 0.681)
- **Featured in ScienceDirect, Ranked 5th in Top 25 Hottest Articles in Operations Research Letters (1st quarter of 2005)**
- [J64] P.M. Pardalos, **W. Chaovallitwongse**, L.D. Iasemidis, J.C. Sackellares, D.-S. Shiau, P.R. Carney, O.A. Prokopyev, and V.A. Yatsenko. Seizure Warning Algorithm Based on Optimization and Nonlinear Dynamics. *Mathematical Programming*, 101(2): 365-385, 2004. (*IF* = 2.048)
- **Winner of the 2004 INFORMS Pierskalla best paper award**
 - **Featured in TV20, Central Florida local TV channel, “Predicting Attacks” (Jun 2003)**
 - **Featured in Alligator, University of Florida’s newspaper, “UF Research Seeks to Combat Seizures” (Apr 2003)**
- [J65] **W. Chaovallitwongse**, D.K. Kim, and P.M. Pardalos. GRASP with a New Local Search Scheme for Vehicle Routing Problems with Time Windows. *Journal of Combinatorial Optimization*, 7: 179-207, 2003. (*IF* = 0.867)
- [J66] L.D. Iasemidis, D.-S. Shiau, **W. Chaovallitwongse**, J.C. Sackellares, P.M. Pardalos, P.R. Carney, J.C. Principe, A. Prasad, B. Veeramani, and K. Tsakalis. Adaptive Epileptic Seizure Prediction System. *IEEE Transactions on Bio-medical Engineering*, 50(5): 616-627, 2003. (*IF* = 2.154)
- [J67] L.D. Iasemidis, P.M. Pardalos, D.-S. Shiau, **W. Chaovallitwongse**, K. Narayanan, S. Kumar, P.R. Carney, and J.C. Sackellares. Prediction of Human Epileptic Seizures based on Optimization and Phase Changes of Brain Electrical Activity. *Optimization Methods and Software*, 18(1): 81-104, 2003. (*IF* = 0.866)
- [J68] P.M. Pardalos, J.C. Sackellares, V.A. Yatsenko, M.C.K. Yang, D.-S. Shiau, and **W. Chaovallitwongse**. Statistical Information Approaches to Modeling and Detection of the Epileptic Human Brain. *Computational Statistics & Data Analysis*, 43(1): 79-108, 2003. (*IF* = 1.228)
- [J69] P.M. Pardalos, V.A. Yatsenko, J.C. Sackellares, D.-S. Shiau, **W. Chaovallitwongse**, and L.D. Iasemidis. Analysis of EEG Data Using Optimization, Statistics, and Dynamical System Techniques. *Computational Statistics & Data Analysis*, 44(1-2): 391-408, 2003. (*IF* = 1.228)
- **Book Chapters:**
- [B1] D. Won, C.-A. Chou, and **W. Chaovallitwongse**. Brain Network Modeling of Functional Connectivity with fMRI: Emerging Approaches and Applications. In E.K. Lee (Ed.), *Operations Research for Medical Decision Making*, Springer, 2014.
- [B2] G. Gazzola*, C.A. Chou*, M.K. Jeong, and **W. Chaovallitwongse**. An Introduction to the Analysis of Functional Magnetic Resonance Imaging Data. In P. Xanthopoulos, P.M. Pardalos, and T. Coleman (Eds.), *Optimization and Data Analysis in Biomedical Informatics*, pp. 131-152, Fields Institute Communications, Springer, 2012.
- [B3] O. Seref and **W. Chaovallitwongse**. Clustering Time Series Data with Distance Matrices. In P. Xanthopoulos, P.M. Pardalos, and T. Coleman (Eds.), *Optimization and Data Analysis in Biomedical Informatics*, pp. 41-66, Fields Institute Communications, Springer, 2012.

- [B4] S. Wang* and **W. Chaovalitwongse**. Evaluating and Comparing Forecasting Models. In *Encyclopedia of Operations Research and Management Science*, Wiley, 2011.
- [B5] S. Wang*, O. Seref and **W. Chaovalitwongse**. Operations Research in Data Mining. In *Encyclopedia of Operations Research and Management Science*, Wiley, 2011.
- [B6] M.V. Ashley, T.Y. Berger-Wolf, I.C. Caballero, **W. Chaovalitwongse**, C.-A. Chou*, B. DasGupta, and S. Sheikh. Full Sibling Reconstruction in Wild Populations from Microsatellite Genetic Markers. In *Computational Biology: New Research*, pp. 231-258, Nova Publisher, 2009.
- [B7] S. Ji, **W. Chaovalitwongse**, N. Fefferman, W. Yoo, and J.E. Perez-Ortin. Mechanism-Based Clustering of Genome-Wide mRNA Levels: Roles of Transcription and Transcript-Degradation Rates. In S. Butenko, W. Chaovalitwongse, and P.M. Pardalos (Eds.), *Clustering Challenges in Biological Networks*, pp. 237-256, World Scientific, Singapore, 2009.
- [B8] C.C. Liu, W. Suharitdamrong, **W. Chaovalitwongse**, G.A. Ghacibeh, and P.M. Pardalos. Clustering Neurophysiological Signals to Study Brain Disorders. In S. Butenko, W. Chaovalitwongse, and P.M. Pardalos (Eds.), *Clustering Challenges in Biological Networks*, pp. 267-280, World Scientific, Singapore, 2009.
- [B9] X. He, A. Chen, **W. Chaovalitwongse**, and H. Liu. On the Quadratic Programming Approach for Uncapacitated Single Allocation p-Hub Median Problem. In W. Chaovalitwongse, K.C. Furman and P.M. Pardalos (Eds.), *Optimization and Logistics Challenges in the Enterprise*, pp. 211-228, Springer, New York, 2009.
- [B10] Z. Liang* and **W. Chaovalitwongse**. A Review on Mathematical Models for Airline Crew Pairing and Maintenance Routing Problems. In W. Chaovalitwongse, K.C. Furman and P.M. Pardalos (Eds.), *Optimization and Logistics Challenges in the Enterprise*, pp. 327-348, Springer, New York, 2009.
- [B11] **W. Chaovalitwongse**. Optimization and Data Mining in Epilepsy Research: A Review and Prospective. In P.M. Pardalos and H.E. Romeijn (Eds.), *Handbook of Optimization in Medicine*, pp. 325-356, Springer, New York, 2009.
- [B12] **W. Chaovalitwongse**, X. He, and A. Chen. Multi-Quadratic Zero-One Programming. In C.A. Floudas and P.M. Pardalos (Eds.), *Encyclopedia of Optimization*, Vol. II, pp. 2513-2520, Springer, New York, 2009.
- [B13] Y.J. Fan* and **W. Chaovalitwongse**. Deterministic and Probabilistic Optimization Models for Data Classification. In C.A. Floudas and P.M. Pardalos (Eds.), *Encyclopedia of Optimization*, Vol. II, pp. 694-702, Springer, New York, 2009.
- [B14] M. Cha, **W. Chaovalitwongse**, Z. Liang*, J. Yates, A. Shaikh, and S.B. Moon. Integer Linear Programs for Routing and Protection Problems in Optical Networks. In C.A. Floudas and P.M. Pardalos (Eds.), *Encyclopedia of Optimization*, Vol. II, pp. 1610-1617, Springer, New York, 2009.
- [B15] **W. Chaovalitwongse**, I.P. Androulakis, and P.M. Pardalos. Quadratic Integer Programming: Complexity and Equivalent Forms. In C.A. Floudas and P.M. Pardalos (Eds.), *Encyclopedia of Optimization*, Vol. II, pp. 3153-3159, Springer, New York, 2009.
- [B16] I.P. Androulakis and **W. Chaovalitwongse**. Mathematical Programming for Data Mining. In C.A. Floudas and P.M. Pardalos (Eds.), *Encyclopedia of Optimization*, Vol. II, pp. 1955-1959, Springer, New York, 2009.
- [B17] C.C. Liu, **W. Chaovalitwongse**, B.M. Uthman, and P.M. Pardalos. Data Mining in Electroencephalogram: Dynamical Future extraction. In J. Wang (Ed), *Encyclopedia of Data Warehousing and Mining*, pp. 729-735, Idea Group Reference, Hershey, PA, 2008.
- [B18] **W. Chaovalitwongse**, H. Pham, S. Hwang, Z. Liang*, and C.H. Pham. Recent Advances in Data Mining for Categorizing Text Records. In H. Pham (Ed.), *Recent Advances in Reliability*, pp. 223-240, Springer, New York, 2008.
- [B19] Y.J. Fan*, C. Iyigun, and **W. Chaovalitwongse**. Recent Advances in Optimization Models for Data Mining: Clustering and Classification. *CRM Proceedings & Lecture Notes of the American Mathematical Society (AMS)*, pp. 67-94, 2008.
- [B20] **W. Chaovalitwongse**, W. Suharitdamrong, and P.M. Pardalos. Time-Frequency Analysis of Brain Neuro-dynamics. In D.Y. Gao and H.D. Sherali (Eds.), *Advances in Applied Mathematics and Global Optimization vol. III*, pp. 107-136, Springer, New York, 2008.

- [B21] **W. Chaovallitwongse**, L.D. Iasemidis, J.C. Sackellares, P.R. Carney, D.-S. Shiau, L.K. Dance, O.A. Prokopyev, V.L. Boginski, and P.M. Pardalos. Data Mining in EEG: Application to Epileptic Brain Disorders. In P.M. Pardalos, V.L. Boginski, and A. Vazacopoulos (Eds.), *Data Mining in Biomedicine*, pp. 459-482, Springer, New York, 2007.
- [B22] O.A. Prokopyev, V. Boginski, **W. Chaovallitwongse**, P.M. Pardalos, J.C. Sackellares, and P.R. Carney. Network-Based Techniques in EEG Data Analysis and Epileptic Brain Modeling. In P.M. Pardalos, V.L. Boginski, and A. Vazacopoulos (Eds.), *Data Mining in Biomedicine*, pp. 559-574, Springer, New York, 2007.
- [B23] D.-S. Shiau, L.D. Iasemidis, P.M. Pardalos, P.R. Carney, L.K. Dance, **W. Chaovallitwongse**, and J.C. Sackellares. Automated Seizure Prediction Algorithm and Its Statistical Assessment: A Report From Ten Patients. In P.M. Pardalos, V.L. Boginski, and A. Vazacopoulos (Eds.), *Data Mining in Biomedicine*, pp. 517-534, Springer, New York, 2007.
- [B24] P.M. Pardalos, V.L. Boginski, O.A. Prokopyev, W. Sudharidamrong, P.R. Carney, **W. Chaovallitwongse**, and A. Vazacopoulos. Optimization Techniques in Medicine. In C. Audet, P. Hansen, and G. Savard (Eds.), *Essays and Surveys in Global Optimization*, pp. 211-232, Springer, New York, 2005.
- [B25] **W. Chaovallitwongse**, P.M. Pardalos, L.D. Iasemidis, D.-S. Shiau, and J.C. Sackellares. Applications of Global Optimization and Dynamical Systems to Prediction of Epileptic Seizures. In P.M. Pardalos, and J.C. Sackellares (Eds.), *Quantitative Neuroscience*, pp. 1-36, Kluwer Academic Publishers, Netherland, 2004.
- [B26] B. Chiarini, **W. Chaovallitwongse**, and P.M. Pardalos. A New Algorithm for the Triangulation of Input-Output Tables. In: P.M. Pardalos, A. Migdalas, and G. Baourakis (Eds.), *Supply Chain and Finance*, pp. 254-273, World Scientific, Singapore, 2004.
- [B27] D.-S. Shiau, L.D. Iasemidis, J.C. Sackellares, P.M. Pardalos, P.R. Carney, and **W. Chaovallitwongse**. Nonlinear Dynamics and Global Optimization Approaches to Investigate Dynamical Transitions Before and After Epileptic Seizures. In P.M. Pardalos and J.C. Sackellares (Eds.), *Quantitative Neuroscience*, pp. 239-250, Kluwer Academic Publishers, Netherland, 2004.
- [B28] P.R. Carney, D.-S. Shiau, L.D. Iasemidis, **W. Chaovallitwongse**, and J.C. Sackellares. Nonlinear Neurodynamical Features in an Animal Model of Generalized Epilepsy. In P.M. Pardalos and J.C. Sackellares (Eds.), *Quantitative Neuroscience*, pp. 37-52, Kluwer Academic Publishers, Netherland, 2004.
- **Peer-Reviewed Conference Proceedings:**
- [C1] C.-J. Lin, C. Wu, and **W. Chaovallitwongse**. Integrating Behavior Modeling with Data Mining to Improve Human Error Prediction in Numerical Data Entry. *Proceedings of the Human Factors and Ergonomics Society International Annual Meeting (HFES '14)*, 2014.
- [C2] C. Lee, M. Pham, N. Kim, M.K. Jeong, D.K.J. Lin, and **W. Chavallitwongse**. A Novel Link Prediction Approach for Scale-free Networks. *Proceedings of the 23rd International World Wide Web Conference (WWW '14)*, pp. 1333-1338, 2014.
- [C3] S. Bora, L. Lei, E. Boros, and **W. Chaovallitwongse**. A Case of the Container-Vessel Scheduling Problem. *Proceedings of the 3rd International Conference on Operations Research and Enterprise Systems (ICORES)*, 2014.
- [C4] C. Opornsawad*, R. Srinon, and **W. Chaovallitwongse**. Competing Suppliers under Price Sensitive Demand with a Common Retailer. *Proceedings of the World Congress on Engineering (WCE)*, 2013.
- [C5] S.H. Mehta, C.A. Chou*, K. Kampa*, R.F. Tungaraza, **W. Chaovallitwongse**, and T.J. Grabowski. Categorical Representation in Bilateral Occipitotemporal Cortex. *Proceedings of the 19th Annual Meeting of the Organization for Human Brain Mapping (OHBM)*, 2013.
- [C6] K. Kampa*, C.A. Chou*, S.H. Mehta, R.F. Tungaraza, **W. Chaovallitwongse**, and T.J. Grabowski. Voxel Selection Framework for Predicting Visual Representation from fMRI. *Proceedings of the 19th Annual Meeting of the Organization for Human Brain Mapping (OHBM)*, 2013.
- [C7] Y. Cao*, W. Li, W. Song, and **W. Chaovallitwongse**. Collaborative Material and Production Tracking in Toy Manufacturing. *Proceedings of the 2013 17th IEEE International Conference on Computer Supported Cooperative Work in Design (CSCWD 2013)*, pp. 645-650, 2013.

- [C8] C.A. Chou*, K. Kampa*, S.H. Mehta, R.F. Tungaraza, **W. Chaovalitwongse**, and T.J. Grabowski. Information Theoretic based Feature Selection for Multi-Voxel Pattern Analysis of fMRI Data. *Proceedings of 2012 Brain Informatics, Lecture Notes in Computer Science (LNCS)*, 7670, pp. 196-208, 2012.
- [C9] D. Won*, C.A. Chou*, T.Y. Berger-Wolf, B. Dasgupta, A.A. Khokhar, M. Maggioni, M.V. Ashley, J. Palagi, and **W. Chaovalitwongse**. An Integrated Optimization Framework for Inferring Two-Generation Kinships and Parental Genotypes from Microsatellite Samples. *Proceedings of the ACM Conference on Bioinformatics, Computational Biology and Biomedicine*, pp. 392-399, 2012. (Acceptance rate: 40%)
- [C10] P.R. Borghesani, G. Presnyakov*, **W. Chaovalitwongse**, S. Willis, and T. Grabowski. Network Modeling Approach to Investigate Local Connectivity of the Default Mode Network in Aging. *The Third Biennial Conference on Resting State Brain Connectivity*, Sep 2012.
- [C11] S. Wang*, **W. Chaovalitwongse**, and S. Wong. A Novel Reinforcement Learning Framework for Online Adaptive Seizure Prediction. *Proceedings of the IEEE International Conference on Bioinformatics & Biomedicine (BIBM 2010)*, pp. 499-504, Dec 2010. (Acceptance rate: 17%)
- [C12] S.S. Leondopoulos*, **W. Chaovalitwongse**, E. Micheli-Tzanakou, S. Wong and B.Y. Wu. Feature Selection of Linear Predictors at Spectral Bands of Interest. *Proceedings of the 31st Annual International Conference of the IEEE Engineering in Medicine and Biology Society (EMBS 2009)*, pp. 2612-2616, Sep 2009.
- [C13] S.I. Sheikh, T.Y. Berger-Wolf, A. Khokhar, I.C. Caballero, M.V. Ashley, **W. Chaovalitwongse**, and B. DasGupta. Combinatorial Reconstruction of Half-Sibling Groups. *Proceedings of the 8th Annual International Conference on Computational Systems Bioinformatics (CSB 2009)*, pp. 59-67, 2009. (Acceptance rate: 23%)
- [C14] M.V. Ashley, T.Y. Berger-Wolf, **W. Chaovalitwongse**, B. DasGupta, A. Khokhar, and S. Sheikh. On Approximating an Implicit Cover Problem in Biology. *Proceedings of the 5th International Conference on Algorithmic Aspects in Information and Management (AAIM)*, A. Goldberg and Y. Zhou (Eds.), *Lecture Notes in Computer Science (LNCS)*, 5564, pp. 43-54, 2009.
- [C15] S.I. Sheikh, T.Y. Berger-Wolf, M.V. Ashley, I.C. Caballero, **W. Chaovalitwongse**, and B. DasGupta. Error Tolerant Sibship Reconstruction in Wild Populations. *Proceedings of the 7th Annual International Conference on Computational Systems Bioinformatics (CSB 2008)*, pp. 273-284, 2009. (Acceptance rate: 22%)
- [C16] C.-C. Liu, P. Xanthopoulos, **W. Chaovalitwongse**, P.M. Pardalos, and B.M. Uthman. Antiepileptic Drug Intervention Decouples Electroencephalogram (EEG) Signals: A case study in Unverricht-Lundborg Disease. *Proceedings of the 30th Annual International Conference of the IEEE Engineering in Medicine and Biology Society (EMBS 2008)*, pp. 2108-2111, 2008.
- [C17] **W. Chaovalitwongse**, Y.J. Fan*, and R.C. Sachdeo. Support Feature Machine for Classification of Abnormal Brain Activity. *Proceedings of the 13th ACM SIGKDD International Conference on Knowledge Discovery and Data Mining (SIGKDD)*, pp. 113-122, 2007. (Full presentation acceptance rate: 8%, Overall acceptance rate: 16%)
- [C18] T. Y. Berger-Wolf, S. Sheikh, M. Ashley, I. C. Caballero, **W. Chaovalitwongse**, B. DasGupta and S. P. Lahari. Reconstructing Sibling Relationships in Wild Populations, *Proceedings of 15th Annual International Conference on Intelligent Systems for Molecular Biology (ISMB)*, Vienna, pp. 49-56, 2007. (Acceptance rate: 15%)
- [C19] Y.J. Fan*, **W. Chaovalitwongse**, C.C. Liu, R.C. Sachdeo, L.D. Iasemidis, and P.M. Pardalos. Optimization and Data Mining Techniques for the Screening of Epileptic Patients. *BIOMAT*, 2007.
- [C20] C.C. Liu, **W. Chaovalitwongse**, P.M. Pardalos, O. Seref, P. Xanthopoulos, J.C. Sackellares, and F.M. Skidmore. Quantitative Analysis for Electrooculography (EOG) for Neurodegenerative Disease. *Proceedings of the International Conference on Data Mining, Systems Analysis, and Optimization in Biomedicine, American Institute of Physics*, Vol. 953, pp. 246-253, 2007.
- [C21] C.C. Liu, D.S. Shiau, **W. Chaovalitwongse**, P.M. Pardalos, and J.C. Sackellares. Presence of Nonlinearity in Intracranial EEG Recordings: Detected by Lyapunov Exponents. *Proceedings of the International Conference on Data Mining, Systems Analysis, and Optimization in Biomedicine, American Institute of Physics*, Vol. 953, pp. 197-205, 2007.

- [C22] T.P. Williams and **W. Chaovallitwongse**. Using Classification Rules to Develop a Predictive Indicator of Project Cost Overruns from Bidding Patterns. *Proceedings of the 9th International Conference on the Application of Artificial Intelligence to Civil, Structural and Environmental Engineering*, Sep 2007.
- [C23] L. Lei, **W. Chaovallitwongse**, and S. Bora. Scheduling the Operations of an Integrated Production-Distribution Process. *Proceedings of the 3rd Multidisciplinary International Scheduling Conference: Theory and Applications (MISTA)*, Aug 2007.
- [C24] S. Sheikh, T.Y. Berger-Wolf, **W. Chaovallitwongse**, B. DasGupta, and M.V. Ashley. Reconstructing Sibling Relationships from Microsatellite Data. *Proceedings of the 5th European Conference on Computational Biology*, Jan 2007.
- [C25] M. Cha, **W. Chaovallitwongse**, Z. Ge, J. Yates, and S. Moon. Path Protection Routing with SRLG Constraints to Support IPTV in WDM Mesh Networks. *Proceedings of the 25th IEEE International Conference on Computer Communications (INFOCOM)*, pp. 134-138, Apr 2006.
- [C26] **W. Chaovallitwongse**, R.C. Sachdeo, P.M. Pardalos, L.D. Iasemidis, and J.C. Sackellares. Automated Brain Activity Classifier. *Epilepsia*, 46 (S8): 312, Dec 2005.
- [C27] **W. Chaovallitwongse**. Novel Quadratic Programming Approaches for Feature Selection and Clustering with Applications. *Proceedings of IEEE International Conference on Data Mining, Optimization-based Data Mining Techniques with Applications Workshop*, pp. 1-7, Dec 2005.
- [C28] T.Y. Berger-Wolf, B. DasGupta, **W. Chaovallitwongse**, and M.V. Ashley. Combinatorial Reconstruction of Sibling Relationships. *Proceedings of the 6th International Symposium on Computational Biology and Genome Informatics (CBGI)*, pp. 1252-1255, Jul 2005.
- [C29] **W. Chaovallitwongse**, P.M. Pardalos, J.C. Sackellares, L.D. Iasemidis, D.-S. Shiau, and P.R. Carney. Automated Real-Time Seizure Detection Algorithm. *Epilepsia*, 44 (S9): 227, Oct 2003.
- [C30] D.-S. Shiau, L.D. Iasemidis, W. Suharitdamrong, L.K. Dance, **W. Chaovallitwongse**, P.M. Pardalos, P.R. Carney, and J.C. Sackellares. Detection of the Preictal Period by Dynamical Analysis of Scalp EEG. *Epilepsia*, 44 (S9): 233, Oct 2003.
- [C31] P.R. Carney, J.C. Sackellares, D.-S. Shiau, L.D. Iasemidis, **W. Chaovallitwongse**, W. Suharitdamrong, and P.M. Pardalos. Detection of Seizures in Newborns by Quantitative EEG Signal Analyses. *Epilepsia*, 44 (S9): 54, Oct 2003.
- [C32] J.C. Sackellares, L.D. Iasemidis, D.-S. Shiau, W. Suharitdamrong L.K. Dance, **W. Chaovallitwongse**, P.M. Pardalos, and P.R. Carney. An Automated Seizure Warning Algorithm for Scalp EEG. *Epilepsia*, 44 (S9): 228, Oct 2003.
- [C33] D.-S. Shiau, J.C. Sackellares, L.D. Iasemidis, P.M. Pardalos, P.R. Carney, and **W. Chaovallitwongse**. Dynamical Entrainment among Epileptic Brain Areas. *Annals of Neurology*, 54 (7): S55 Suppl. 2003.
- [C34] **W. Chaovallitwongse**, L.D. Iasemidis, A. Prasad, D.-S. Shiau, J.C. Sackellares, P.M. Pardalos, and P.R. Carney. Seizure Prediction by Dynamical Phase Information from the EEG. *Epilepsia*, 43 (7): S45, Oct 2002.
- [C35] J.C. Sackellares, L.D. Iasemidis, D.-S. Shiau, **W. Chaovallitwongse**, P.M. Pardalos, and P.R. Carney. Dynamical Dependence of Seizure Prediction on Preceding Seizures. *Epilepsia*, 43 (7): S50, Oct 2002.
- [C36] L.D. Iasemidis, D.-S. Shiau, **W. Chaovallitwongse**, P.M. Pardalos, P.R. Carney, and J.C. Sackellares. Adaptive Seizure Prediction System. *Epilepsia*, 43 (7): S264-S265, Oct 2002.
- [C37] J.C. Sackellares, L.D. Iasemidis, D.-S. Shiau, P.M. Pardalos, **W. Chaovallitwongse**, and P.R. Carney. Can knowledge of cortical site dynamics in a preceding seizure be used to improve prediction of the next seizure? *Annals of Neurology*, 52 (3): S65-S66 Suppl., Sep 2002.
- [C38] J.C. Sackellares, L.D. Iasemidis, P.M. Pardalos, **W. Chaovallitwongse**, D.-S. Shiau, S.N. Roper, R.L. Gilmore, and J.C. Principe. Performance Characteristics of an Automated Seizure Warning Algorithm (ASWA) Utilizing Dynamical Measures of the EEG Signal and Global Optimization Techniques. *Epilepsia*, 42 (7): S40, Nov 2001.
- **Technical Reports:**
- [T1] M.V. Ashley, T.Y. Berger-Wolf, P. Berman, **W. Chaovallitwongse**, B. DasGupta, and M.-Y. Kao. On Approximating Four Covering/Packing Problems with Applications to Bioinformatics. *DIMACS Technical Report, 2007-14*.

[T2] T.Y. Berger-Wolf, B. DasGupta, **W. Chaovallitwongse**, and M.V. Ashley. A Combinatorial Reconstruction of Sibling Relationships in Absence of Parental Data. *DIMACS Technical Report, 2005-27*.

○ **In Review:**

[S1] C.A. Chou*, **W. Chaovallitwongse**, C. Lee, and T.O. Bonates. Improved Pattern Generation Approaches in Logical Analysis of Medical Data. Revision submitted to *Computers and Operations Research*. (Mar 2014, Jun 2014)

▪ **Finalist of the 2011 INFORMS Data Mining Student Paper Competition**

[S2] C. Lee, M. Pham, D. Kim, M.K. Jeong, and **W. Chaovallitwongse**. A Network Structural Approach to the Link Prediction Problem. Revision submitted to *INFORMS Journal on Computing*. (Sep 2011, Sep 2012, Sep 2013)

[S3] Z. Liang*, Y. Feng, T. Wu, and **W. Chaovallitwongse**. Robust Weekly Aircraft Maintenance Routing Problem: Tactical and Operational Solutions. Submitted to *Operations Research*. (May 2014)

[S4] S. Wang*, J. Gwizdka, and **W. Chaovallitwongse**. Using Brain Activity to Classify Mental Workload on Human-Computer Interaction Tasks. Submitted to *IEEE Transactions on Human-Machine Systems*. (May 2014)

[S5] C. Xiao* and **W. Chaovallitwongse**. Optimization Models for Feature Selection of Decomposed Nearest Neighbor. Submitted to *NIPS 2014*. (Jun 2014)

[S6] C. Xiao*, J. Bledsoe, **W. Chaovallitwongse**, S. Mehta, M. Semrud-Clikeman, and T.G. Grabowski. An Integrated Feature Ranking and Selection Framework for ADHD Diagnosis. Submitted to *NIPS 2014*. (Jun 2014)

[S7] S. Wang*, **W. Chaovallitwongse**, L.D. Iasemidis, and S. Wong. An Adaptive Pattern Learning Framework to Personalize Online Seizure Prediction. Submitted to *IEEE Transactions on Neural Networks and Learning Systems*. (Oct 2013)

[S8] S. Wang* and **W. Chaovallitwongse**. Piecewise Linear Segmentation of Time Series Using a Data-Driven Threshold With Guaranteed Accuracy. Submitted to *Pattern Recognition Letters*. (Oct 2013)

[S9] S. Wang*, S. Wong and **W. Chaovallitwongse**. A Novel Probabilistic Framework to Personalize Online Epileptic Seizure Prediction. Submitted to *Brain KDD*. (Jun 2014)

[S10] S. Wang*, C. Xiao*, D. Won*, **W. Chaovallitwongse**, T.J. Grabowski, and J.J. Tsai. A Novel Information-Integrated Sparse Feature Selection Approach with An Application to Epilepsy Diagnosis. Submitted to *ICDM*. (Jun 2014)

[S11] K. Kam, S. Wang*, S. Bowen, and **W. Chaovallitwongse**. A Robust and Efficient Approach for Real-Time Prediction of Semi-periodic and Nonstationary Time Series. Submitted to *ICDM*. (Jun 2014)

[S12] D. Won*, O. Seref, and **W. Chaovallitwongse**. K-Cardinality Tree Model: Single-Flow and Multi-Flow Formulations and Valid Inequality Cuts. Submitted to *INFORMS Journal on Computing*. (Jul 2014)

[S13] J.C. Bledsoe, C. Xiao*, **W. Chaovallitwongse**, S. Mehta, T.J. Grabowski, M. Semrud-Clikeman, S.R. Pliszka, and D. Breiger. Diagnostic Classification of Attention-Deficit/Hyperactivity Disorder vs. Control: Support Vector Machine Classification Using Brief Neuropsychological Assessment. Submitted to *Journal of the American Medical Association (JAMA) – Psychiatry*. (Jul 2014)

○ **In Preparation:**

[P1] C. Opornsawad*, R. Srinon, and **W. Chaovallitwongse**. Competing Suppliers under Price Sensitive Demand with a Common Retailer. To be submitted to *IEEM*.

[P2] S. Deechongkit*, R. Srinon, and **W. Chaovallitwongse**. The Facility Layout Design Comparing Formal Methods and New Method. To be submitted to *J. Flexible Manufacturing*.

[P3] **W. Chaovallitwongse**, D. Won*, O. Seref, P. Borghesani, S. Willis, and T.J. Grabowski. Optimization of Local Network Connectivity of Functional Brain Imaging to Detect Biomarkers of Cognitive Decline. To be submitted to *Operations Research*.

[P4] G. Gazzola*, M.K. Jeong, P. Borghesani, **W. Chaovallitwongse**, S. Willis, and T.J. Grabowski. To be submitted to *IEEE Transactions on Bio-medical Engineering*.

[P5] S. Wang and **W. Chaovallitwongse**. An Efficient and Robust Approach for Automated Online Segmentation of Time Series Streams. To be submitted to *IEEE Transactions on Neural Networks and Learning Systems*.

- [P6] **W. Chaovallitwongse**, P. Borghesani, S. Willis, and T.J. Grabowski. Graph Theory Analysis of Functional Connectivity MRI for Early Detection of Midlife Cognitive Decline. To be submitted to *IEEE Transactions of Biomedical Engineering*.
- [P7] Y. Zhang*, **W. Chaovallitwongse**, and J. Brodtkin. Predicting the Dosage Level. To be submitted to *IEEE Transactions on Biomedical Engineering*.
- [P8] **W. Chaovallitwongse** and J. Brodtkin. Prediction the Drug Class Based on New Data Mining Framework for Behavioral Profiling. To be submitted to *IEEE Transactions on Biomedical Engineering*.

Invited Lectures

- *Automated Seizure Warning System Utilizing Nonlinear Dynamics and Optimization.*
 - Neuroscience Research seminar series by The Centers for Alcohol, Aging and Neurobiological Sciences, Brain Institute, **University of Florida**, Gainesville, FL, Jun 2002.
 - Quantitative Neuroscience/Neural Engineering Seminar, Department of Biomedical Engineering, **University of Florida**, Gainesville, FL, Jan 2003.
- *Automated Real-Time Seizure Detection Algorithm.*
 - Celebration of Research, College of Medicine, **University of Florida**, Gainesville, FL, Apr 2003.
 - Quantitative Neuroscience/Neural Engineering Seminar, Department of Biomedical Engineering, **University of Florida**, Gainesville, FL, Oct 2003.
- *Optimization and Data Mining for Time Series Analysis with Applications in Bioengineering.*
 - Department of Industrial Engineering, **Arizona State University**, Tempe, AZ, Apr 2003.
 - Corporate Strategic Research, **ExxonMobil Research & Engineering**, Annandale, NJ, Sep 2003.
 - Department of Industrial and Systems Engineering, **University of Florida**, Gainesville, FL, Oct 2003.
 - Department of Industrial and Systems Engineering, **Rutgers University**, Piscataway, NJ, Nov 2003.
- *Optimization and Data Mining in Epilepsy Research.*
 - International Topical Meeting on Environmental Reliability and Risk Studies, **Seoul National University**, Seoul, Korea, Feb 2005.
 - Department of Industrial and Manufacturing Engineering, **New Jersey Institute of Technology (NJIT)**, Newark, NJ, Oct 2005.
 - DIMACS Computational and Mathematical Epidemiology Seminar, **Rutgers University**, Piscataway, NJ, Dec 2005.
 - Program in Integrative Information, Computer and Application Sciences (PICASso), Department of Computer Science, **Princeton University**, Princeton, NJ, Sep 2006.
 - Centre de recherches mathematiques (CRM), **Universite de Montreal**, Montreal, Canada, Oct 2006.
 - Department of Computer Science, **University of Illinois at Chicago**, Chicago, IL, Nov 2006.
 - Department of Industrial and Systems Engineering, **Lehigh University**, Bethlehem, PA, Nov 2006.
- *Current Trends and Prospective Outlooks of Long-Term Inventory Routing Problem in the Enterprise.*
 - Supply Chain Management Research Seminar, **Rutgers Business School**, Newark, NJ, Mar 2006.
 - School of Industrial Engineering and Management, **Oklahoma State University**, Stillwater, OK, Apr 2006.
- *Recent Advances and Applications of Optimization and Data Mining in Healthcare and Biology.*
 - Division of Computer Science, **Korea Advanced Institute of Science and Technology (KAIST)**, Daejeon, Korea, Jun 2006.
 - Edward P. Fitts Department of Industrial and Systems Engineering, **North Carolina State University**, Raleigh, NC, Oct 2006.
- *Optimizing the Sibling Relationship Reconstruction to Better Understand Evolutionary Mechanisms.*
 - U.S.- Korea Workshop: Understanding Bioenvironmental Complexity, **Seoul National University**, Seoul, Korea, Jul 2007.
 - **The National Science and Technology Development Agency of Thailand**, Thailand, Jul 2009.
- *Optimization and Data Mining in Medical Diagnosis and Other Fields.*
 - Department of Industrial and Operations Engineering, **University of Michigan**, Ann Arbor, MI, Mar 2008.
 - Department of Industrial Engineering, **University of Houston**, Houston, TX, Mar 2008.
 - National Science Foundation Workshop on Bridges to Engineering Research 2020, **North Carolina A&T State University**, Greensboro, NC, Mar 2008.
 - Faculty of Medical Technology, **Mahidol University**, Thailand, Jun 2008.
 - **Keynote Presentation:** IEEE Educational Activities Board Annual Meeting, Piscataway, NJ, Nov 2008.

- *Optimizing Feature Selection to Improve Pattern Recognition: From Medical Diagnosis to Information Retrieval.*
 - School of Computer Science and Information Systems, Birkbeck College, **University of London**, UK, Mar 2008.
 - Engineering Systems Division, **Massachusetts Institute of Technology (MIT)**, Cambridge, MA, Feb 2009.
 - Department of Statistics, **Rutgers University**, Piscataway, NJ, Sep 2009.
 - Department of Industrial and Systems Engineering, **SUNY – University at Buffalo**, Buffalo, NY, Oct 2009
- Medical Decision-Support System: Optimizing Pattern Recognition of Medical Signal Data.
 - Department of Industrial and Systems Engineering, **University of Washington**, Seattle, WA, Mar 2010
 - Faculty of Medical Technology, **Mahidol University**, Thailand, Aug 2010
 - Yahoo! Seminar Series, Department of Computer Science, **Rutgers University**, Piscataway, NJ, Nov 2010
 - Integrated Brain Imaging Center (IBIC), **University of Washington**, Seattle, WA, Oct 2011
 - Imaging Research Laboratory, **University of Washington**, Seattle, WA, Apr 2012
- Computational Challenges in Logistics Optimization.
 - Department of Logistics Engineering, **University of Thai Chamber of Commerce**, Thailand, Jun 2010
 - Department of Management Technology, **Sirindhorn International Institute of Technology**, Thammasat University, Thailand, Jun 2010
 - Department of Management Technology, **Suranaree University of Technology**, Thailand, Jul 2010
 - **Keynote Presentation:** Workshop on Industrial Logistics and Transportation in Thailand: Challenges, Research, and Practical Solutions, **Chulalongkorn University**, Thailand, Jun 2011
 - School of Information Management and Engineering, **Shanghai University of Finance and Economics**, Shanghai, P.R. China, Jun 2012
- Optimization in Pattern Recognition of Neurophysiological Signal and Neuroimaging Data.
 - Institute of Psychology, **Chinese Academy of Sciences**, Beijing, P.R. China, Jun 2012
 - Department of Industrial Engineering & Management, **Peking University**, Beijing, P.R. China, Jun 2012
- Machine Learning Framework for Multi-Voxel Pattern Analysis of fMRI Data.
 - Department of Radiology, **University of Washington**, Seattle, WA, Sep 2012
 - Department of Industrial Engineering, **University of Houston**, TX, Apr 2013
- Decision Models of Medical Signal and Imaging Data to Improve Medical Diagnoses.
 - Department of Systems and Industrial Engineering, **University of Arizona**, AZ, Mar 2014
 - **Keynote Presentation:** The 3rd International Conference on Database and Data Mining, Thailand, Jun 2014

Professional Activities

- **The Association of Thai Professionals in America and Canada**
 - President-Elect, 2014-present
 - Executive Vice President, 2007-2014
- **Omega Rho International Honor Society**
 - Secretary, 2013-present
 - Director of Northeast Region, 2006-2011
- **Institute for Operations Research and the Management Sciences (INFORMS)**
 - President-Elect, Data Mining Section, 2013-present
 - Treasurer, Health Applications Section (HAS), 2005-2007
 - Newsletter Editor, Optimization Society, 2005-2006
 - Chair of *INFORMS HAS Pierskalla Award* Committee, 2005
 - Member of *INFORMS HAS Bonder Scholarship* Committee, 2006
 - Chair of *INFORMS HAS Pierskalla Award* Committee, 2009
 - Member of *INFORMS Healthcare Best Student Paper Award* Committee, 2013
- **Area Editor**
 - Annals of Operations Research [*Springer*], 2012-present
- **Associate Editor/Editorial Board Member:**
 - Brain Informatics: Brain Data Computing and Health Studies [*Springer*], 2014-present
 - IEEE Transactions on Human-Machine Systems, 2013-present
 - IIE Transactions on Healthcare Systems Engineering, 2014-present

- Journal of Combinatorial Optimization [*Springer*], 2005-present
- Journal of Global Optimization [*Springer*], 2010-present
- Journal of Radiology & Radiation Therapy, 2013-present
- Journal of Supply Chain and Operations Management, 2013-present
- Optimization Letters [*Springer*], 2006-present
- Suranaree Journal of Social Science, 2014-present
- Annals of Operations Research [*Springer*], 2011-2012
- International Journal of Electronic Transport (IJET) [*Inderscience*], 2009-present
- Recent Patents on Computer Science [*Bentham Science Publishers*], 2009-present
- International Journal of Engineering and Management [*Serial Publications*], 2008-2011
- International Journal of Data Mining, Modelling and Management (IJDMMM) [*Inderscience*], 2008-2010
- **National Science Foundation (NSF) Panelist:**
 - Computer and Information Science and Engineering (CISE), March 2005
 - Computer and Information Science and Engineering (CISE), June 2005
 - Computer and Information Science and Engineering (CISE), September 2005 @ NASA Ames
 - Biological Sciences (BS), November 2008
 - Cyber-Enabled Discovery and Innovation (CDI), March 2009
 - NSF/NIH: Collaborative Research in Computational Neuroscience (CRCNS), February 2010
 - NSF/NIH: Collaborative Research in Computational Neuroscience (CRCNS), March 2011
 - Software Infrastructure for Sustained Innovation (SI2), November 2011
 - Postdoctoral Research Fellowship in Biology, February 2013
 - Smart and Connected Health, August 2013
 - Smart and Connected Health – Integrative, April 2014
 - BIGDATA, July 2014
- **External Grant Reviewer:**
 - Wiener Wissenschafts-, Forschungs- und Technologiefonds (WWTF), Vienna Science and Technology Fund, 2007
 - The Grants to Enhance and Advance Research (GEAR), University of Houston, 2007
 - NSF: Chemical, Bioengineering, Environmental, and Transport Systems (CBET), 2009
 - NSF: CAREER, Information & Intelligent Systems (IIS), 2009
 - NSF: CAREER, Computing & Communication Foundation (CCF), 2009
 - Alzheimer's Association: International Research Grant Program, 2010
 - The Center for Multimodal Solutions for Congestion Mitigation (CMS), University of Florida, 2010
 - The National Medical Research Council, Singapore, 2010
 - Alzheimer's Association: International Research Grant Program, 2012
 - Czech Science Foundation, 2013
 - Czech Science Foundation, 2014
- **Conference Organizer:**
 - *Workshop on Secure Knowledge Management*, Rutgers University, Piscataway, NJ, Oct 21-22, 2010
 - *Conference on Computational Neuroscience*, University of Florida, Gainesville, FL, Feb 20-21, 2008
 - *Conference on Data Mining, Systems Analysis and Optimization in Neuroscience*, University of Florida, Gainesville, FL, Feb 15-17, 2006
 - *DIMACS and ExxonMobil Joint Workshop on Computational Optimization and Logistics Challenges in the Enterprise*, ExxonMobil Research & Engineering, Annandale, NJ, Apr 19-20, 2006
 - *Conference on Clustering in Biological Networks*, DIMACS, Rutgers University, Piscataway, NJ, May 9-11, 2006
- **Conference Program Committee Member:**
 - *The 2014 International Conference on Brain Informatics and Health*, Warsaw, Poland, Aug 11-14, 2014
 - *The 9th Annual Symposium on Information Assurance (ASIA '14)*, Albany, NY, Jun 3-4, 2014
 - *The 7th International Conference on Health Informatics*, Loire Valley, France, Mar 3-6, 2014
 - *The 2013 IEEE International Conference on Granular Computing (GrC 2013)*, Beijing, China, Dec 13-15, 2013
 - *The 8th Annual Symposium on Information Assurance (ASIA '13)*, Albany, NY, Jun 4-5, 2013.
 - *The 2013 World Congress on Global Optimization (WCGO 2013)*, Yellow Mountain, China, Jul 8-10, 2013.

- *The 2012 International Conference on Brain Informatics*, World Intelligence Congress, Macau SAR, China, Dec 4-7, 2012
- *IEEE International Conference on Computational Intelligence for Measurement Systems and Applications (CIMSA 2012)*, Tianjin, China, Jul 2-4, 2012
- *The 2012 International Symposium on Foundations and Frontiers of Data Mining (FFDM2012)*, Hangzhou, China, Aug 11-13, 2012
- *The 16th Pacific-Asia Conference on Knowledge Discovery and Data Mining*, Kuala Lumpur, Malaysia, May 29-June 1, 2012
- *The 2011 IEEE International Conference on Quality and Reliability (ICQR2011)*, Bangkok, Thailand, Sep 14-17, 2011
- *The 2011 IEEE International Conference on Granular Computing (GrC 2011)*, Kaohsiung, Taiwan, Nov 8-10, 2011
- *IEEE International Conference on Industrial Engineering and Engineering Management (IEEM 2010)*, Macao, Dec 7-10 2010
- *IEEE International Conference on Computational Intelligence for Measurement Systems and Applications (CIMSA 2010)*, Taranto, Italy, Sep 6-8, 2010
- *The 2010 IEEE International Conference on Granular Computing (GrC 2010)*, San Jose, CA, Aug 14-16, 2010
- *International Conference on Biomedical Data & Knowledge Mining: Towards Biomarker Discovery*, Chania, Greece, Jul 7-9, 2010
- *International Conference on Systems Analysis Tools for Better Health Care Delivery: A New Engineering/Health Care Partnership*, Gainesville, Florida, Mar 24-26, 2010
- *IEEE International Conference on Industrial Engineering and Engineering Management (IEEM 2009)*, Hong Kong, Dec 8-11 2009
- *The 2009 IEEE International Conference on Granular Computing (GrC 2009)*, Nanchang, China, Aug 17-19, 2009
- *The 3rd Annual International Conference on Combinatorial Optimization and Applications (COCOA'09)*, Yellow Mountains, China, Jun 10-12, 2009
- *The First World Congress on Global Optimization (WCGO-2009)*, Hunan, China, Jun 1-5, 2009
- *Data Mining in Bio-medicine*, Athens, Greece May 7-8, 2009
- *IEEE/WIC/ACM International Conference on Web Intelligence, Workshop on Optimization-based Data Mining and Web Intelligence*, Sydney, Australia, Dec 9-12, 2008
- *IEEE International Conference on Data Mining (ICDM 2008)*, Pisa, Italy, Dec 15-19, 2008
- *IEEE International Conference on Industrial Engineering and Engineering Management (IEEM 2008)*, Singapore, Dec 8-11 2008
- *The 2008 IEEE International Conference on Granular Computing (GrC 2008)*, Hangzhou, China, Aug 26-28, 2008
- *Workshop of Computational Finance and Business Intelligence, International Conference on Computational Science (ICCS 2008)*, AGH University of Science and Technology, Krakow, Poland, Jun 23-25, 2008
- *The 2007 IEEE International Conference on Granular Computing (GrC 2007)*, San Jose, CA, Nov 2-4, 2007
- *Workshop on Optimization-based Data Mining Techniques with Applications, The Seventh IEEE International Conference on Data Mining (ICDM'07)*, Omaha, NE, Oct 28-31, 2007
- *Workshop on Computational Finance and Business Intelligence, International Conference on Computational Science (ICCS 2007)*, Graduate University of the Chinese Academy of Sciences, Beijing, China, May 27-30, 2007
- *Conference on Data Mining, Systems Analysis and Optimization in Biomedicine*, University of Florida, Gainesville, FL, Mar 28-30, 2007
- *IEEE International Conference on System Integration and Reliability Improvements*, Hanoi, Vietnam, Dec 13-15, 2006
- *IEEE International Conference on Granular Computing (GrC 2006)*, Atlanta, GA, May 12-16, 2006
- *INFORMS Optimization Society Conference on Optimization and Healthcare*, San Antonio, TX, Feb 3-5, 2006
- **Conference Cluster/Track Chair:**

- *The Industrial and Systems Engineering Research Conference (ISERC) Annual Conference, Production Planning and Scheduling Track*, Montreal, Canada, May 31-June 3, 2014
- *The Industrial and Systems Engineering Research Conference (ISERC) Annual Conference, Production Planning and Scheduling Track*, San Juan, Puerto Rico, May 18-22, 2013
- *The Industrial and Systems Engineering Research Conference (ISERC) Annual Conference, Production Planning and Scheduling Track*, Orlando, FL, May 19-23, 2012
- *INFORMS Healthcare*, Montreal, Canada, Jun 20-22, 2011
- *IERC Annual Conference, Production Planning and Scheduling Track*, Reno, NV, May 21-25, 2011
- *IERC Annual Conference, Production Planning and Scheduling Track*, Cancun, Mexico, May 6-9 2010
- *The Industrial Engineering Research Conference (IERC) Annual Conference, Production Planning and Scheduling Track*, Vancouver, Canada, May 17-21, 2008
- *Second International Conference on Continuous Optimization + Modeling and Optimization: Theory and Applications*, McMaster University, Canada, Aug 13-16, 2007
- *INFORMS Optimization Society Conference on Optimization and Healthcare*, San Antonio, TX, Feb 3-5, 2006
- **Conference Session Chair:**
 - *INFORMS Annual Meeting*, Austin, TX, Nov 2010
 - *INFORMS Annual Meeting*, San Diego, CA, Oct 2009
 - *INFORMS Annual Meeting*, Washington DC, Oct 2008
 - *INFORMS Annual Meeting*, Seattle, WA, Nov 2007
 - *Conference on Data Mining, Systems Analysis and Optimization in Biomedicine*, University of Florida, Gainesville, FL, Mar 28-30, 2007
 - *IERC Annual Conference*, Orlando, FL, May 2006
 - *INFORMS Annual Meeting*, San Francisco, CA, Nov 2005
 - *The 2nd Multidisciplinary International Conference on Scheduling: Theory & Applications*, NYU, Jul 2005
 - *Conference on Systems Analysis, Data Mining, and Optimization in Biomedicine*, U of Florida, Feb 2005
 - *INFORMS Annual Meeting*, Denver, CO, Oct 2004
 - *Conference on Data Mining in Biomedicine*, University of Florida, Feb 2004
 - *International Nonlinear Sciences Conference: Research and Applications in the Life Sciences*, Vienna, Austria, Feb 2003
 - *Conference on Quantitative Neurosciences*, University of Florida, Feb 2003
- **Ad hoc Reviewer (number of reviews):**
 - *Algorithms* (1)
 - *Annals of Biomedical Engineering* (10)
 - *Annals of Operations Research* (8)
 - *Bioinformatics* (1)
 - *Biomedical Signal Processing & Control* (2)
 - *BMC Bioinformatics* (1)
 - *Chemometrics and Intelligent Laboratory Systems* (2)
 - *Computer-Aided Civil and Infrastructure Engineering* (2)
 - *Computational Optimization and Applications* (1)
 - *Computational Statistics and Data Analysis* (2)
 - *Computers and Industrial Engineering* (3)
 - *Computers and Operations Research* (2)
 - *Epilepsy Research* (1)
 - *Epilepsy & Behavior* (1)
 - *European Journal of Operational Research* (6)
 - *Health* (1)
 - *Human Brain Mapping* (1)
 - *IEEE Engineering in Medicine and Biology Magazine* (1)
 - *IEEE Transactions on Biomedical Engineering* (1)
 - *IEEE Transactions on Circuits and Systems I* (1)
 - *IEEE Transactions on Knowledge and Data Engineering* (3)
 - *IEEE Transactions on Information Technology in Biomedicine* (1)
 - *IEEE Transactions on Neural Networks and Learning Systems* (12)

- *IEEE Transactions on Systems, Man and Cybernetics - Part A* (1)
- *IEEE Transactions on Systems, Man and Cybernetics - Part B* (1)
- *IEEE Transactions on Systems, Man and Cybernetics - Part C* (2)
- *IIE Transactions* (3)
- *INFORMS Journal on Computing* (2)
- *International Journal of Systems Science* (2)
- *International Journal of Reliability, Quality and Safety Engineering* (1)
- *Journal of Combinatorial Optimization* (6)
- *Journal of Global Optimization* (4)
- *Journal of Multiple-Valued Logic and Soft Computing* (1)
- *Journal of Neurophysiology* (1)
- *Journal of Neurosurgery* (1)
- *Journal of Statistical Computation and Simulation* (1)
- *Operations Research* (2)
- *Operations Research Letters* (1)
- *Optimization Methods and Software* (3)
- *Networks* (2)
- *Physica A* (1)
- *Proceedings of the IEEE International Conference on Bioinformatics and Bioengineering 2010* (2)
- *Proceedings of the IEEE International Conference on Granular Computing 2006* (4)
- *Proceedings of the IEEE International Conference on Granular Computing 2007* (4)
- *Proceedings of the International Conference on Computational Science 2007* (6)
- *Proceedings of the International Conference on Computational Science 2008* (5)
- *Proceedings of the IEEE International Conference on Granular Computing 2008* (4)
- *Proceedings of the IEEE International Conference on Industrial Engineering and Engineering Management 2008* (6)
- *Proceedings of the IEEE International Conference on Industrial Engineering and Engineering Management 2009* (9)
- *Proceedings of the IEEE International Conference on Industrial Engineering and Engineering Management 2010* (8)
- *Proceedings of the IEEE International Conference on Data Mining 2008* (13)
- *Proceedings of the IEEE International Conference on Data Mining 2010* (7)
- *Proceedings of the 31st Annual International IEEE Engineering in Medicine and Biology Society (EMBS) Conference 2009*
- *Recent Patents on Computer Science* (1)
- *Sensors* (1)
- *Transportation Science* (2)
- *Transportmetrica* (1)
- *TOP: An Official Journal of the Spanish Society of Statistics and Operations Research* (1)

Students and Post Docs

- Ph.D. Students Advised:
 - Ya-Ju Fan [Rutgers], Topic: "Optimization-Based Data Mining with Biomedical Applications" (May 2010), Current position: *Postdoc at Lawrence Livermore National Laboratory*
 - ◇ Winner, INFORMS Pierskalla Best Paper Award 2008
 - ◇ Transportation Coordinating Council/Federal Transit Administration (TCC/FTA) Fellowship, 2007-2008
 - ◇ Kuhl Memorial Engineering Fellowship, 2006-2007
 - Zhe Liang [Rutgers], Topic: "Network and Decomposition Approaches for Practical Logistics Problems" (May 2011), Current position: *Assistant Professor at Peking University*
 - ◇ Winner, Outstanding Graduate Student Award, Rutgers' ISE Department, 2011
 - ◇ Winner, Annual NJ INFORMS Student Operations Research Contest 2010
 - ◇ Honorable Mention, Outstanding Graduate Student Award, Rutgers' ISE Department, 2010
 - ◇ Honorable Mention, Annual NJ INFORMS Student Operations Research Contest 2009

- Chun-An (Joe) Chou [Rutgers], Topic: “Systems Modeling and Optimization in Computational Biology” (Aug 2011), Current position: *Assistant Professor at Binghamton University*
 - ◊ Kuhl Memorial Engineering Fellowship, 2008-2009
 - ◊ Honorable Mention, Annual NJ INFORMS Student Operations Research Contest 2009
 - ◊ Finalist, INFORMS Data Mining Student Paper Competition 2011
- Shouyi Wang [Rutgers], Topic: “Optimization Modeling for Reinforcement Learning with Medical Application” (Aug 2012), Current position: *Assistant Professor at University of Texas, Arlington*
 - ◊ IEEE International Conference on Bioinformatics & Biomedicine Student Travel Award, 2010
 - ◊ Finalist, INFORMS Data Mining Student Paper Competition 2012
- Gianluca Gazzola (RUTCOR) [Rutgers], Topic: TBD [Co-advised with M.K. Jeong]
- Daehan Won [UW], Topic: TBD
- Cao (Danica) Xiao [UW], Topic: TBD
- Sirirat Sujitnapitsatham [UW], Topic: TBD
- Yulian Cao [Wuhan University of Technology], Topic: TBD [Co-advised with W. Li]
- Songwut Deechongkit [University of the Thai Chamber of Commerce, Thailand], Topic: “Robust Design of Assembly Line in Auto Manufacturing” [Co-advised with R. Srinon]
- Chirawan Opornsawad [University of the Thai Chamber of Commerce, Thailand], Topic: TBD [Co-advised with R. Srinon]
- Prat Boonsam [University of the Thai Chamber of Commerce, Thailand], Topic: TBD [Co-advised with N. Suthikarnnarunai]
- Post Doc Advised:
 - Kittipat (Bot) Kampa, Topic: “Machine Learning Techniques in Neuroimaging,” Jan 2012 – May 2013.
 - Shouyi Wang, Topic: “Pattern Analysis of Respiratory Time Series for Predict PET/CT Image Quality,” Sep 2012 – Jul 2013.
 - Chun-An (Joe) Chou, Topic: “Multi-Voxel Pattern Analysis,” Sep 2011 – Jul 2012.
 - Stathis S. Leondopoulos, Topic: “EEG Feature Extraction for Identifying Seizure Precursors,” (Co-advised with E. Micheli-Tzanakou), Aug 2008 – Dec 2009.
- M.S. Students Advised:
 - Georgiy Presnyakov, UW ISE, “Real Time Functional MRI Analysis of Motor Control,” Winter 2013.
 - ◊ UW NSF ERC Center for Sensorimotor Neural Engineering Fellowship, 2011-2013
 - Sirirat Sujitnapitsatham, UW ISE, “Graph Community Approaches for Identification of Brain Disorder,” Spring 2013.
 - Harsh Singhal, Rutgers ISE, “Keyword Weight Optimization in Text Mining,” Spring 2008, Current Position: Data Scientist at LinkedIn.
 - Wanbin Wang, Rutgers ISE, “Data Mining for Decision Making in Construction Industry,” Fall 2008.
- REU (Research Experiences for Undergraduates) Students Advised:
 - Jessica McCoy, North Carolina State University, “Optimization in Flight Scheduling,” Summer 2005
 - Abhinav Jha, Rutgers University, “Marine Logistics: Crude Oil Transportation,” Summer 2005
 - Jai Dhyani, University of Chicago, “Support Vector Machines for Abnormal Brain Activity Classification,” Summer 2006
 - Megan Olson, Winona State University, “Wavelet Approach for Identification of Normal and Epilepsy Patients,” Summer 2006
 - Latoya Clay, Clark Atlanta University, “Statistical Analysis of Abnormal Brainwaves,” Summer 2007
 - Rebecca Pottenger, Princeton University, “Mining EEG Data to Diagnose Epilepsy,” Summer 2008, 2009
 - Marc Fridson, Rutgers University, “Probabilistic Tracking of Targets in Battle Space,” Summer 2009
 - Akira Hada, Rutgers University, “Statistical Analyses of EEG Screening,” Fall 2010
 - Tatiana Shefts, University of Washington, “Probabilistic Approaches to Define Local Brain Regions from fMRI,” Spring 2012
- Ph.D. Students (Committee Member):
 - Hua Zhong, Rutgers Business School, “Models and Algorithms for Supply Chain Network with Bi-Directional Flows,” Spring 2006
 - Su Gao, Rutgers Business School, “A Zero-Inventory Production-Distribution Problem,” expected Spring 2011
 - Seheon Hwang, Rutgers ISE, “Generalized Software Reliability models Considering Time-Delay Removal and Selective Testing Effects,” Fall 2006

- *Abdullah Karaman*, Rutgers ISE, “Performance Analysis of Batch Ordering Policies in Capacitated Supply Chains,” Spring 2007
- *Heidi Arlene Taboada Jimenez*, Rutgers ISE, “Practical Approaches to the Solution of Multi-objective Optimization Problems Considering Objective Preferences and Solution Clusters,” Spring 2007
- *Hang Zhang*, Rutgers ISE, “Analysis of Multivariate Process Control Baseline Data Using Data Mining,” Summer 2007
- *Cem Iyigun*, RUTCOR, “Probabilistic Distance Clustering: Theory, Algorithm and Applications,” Fall 2007
- *Meeyoung Cha*, Computer Science, Korea Advanced Institute of Science and Technology (KAIST), Korea, “Resilient Design of Network Services Exploiting Path Diversity,” Fall 2007
- *Michel J. Anzanello*, Rutgers ISE, “Selecting the Best Variables for Classification of Production Batches into Quality Levels,” Summer 2009
- *Saad Sheikh*, Computer Science, University of Illinois at Chicago, “Combinatorial Methods for Sibling Reconstruction,” Summer 2009
- *Fei Ye*, Rutgers Statistics, “Imputation of Automatic Control Algorithms and Estimation in High-Dimensional Linear Regression,” Fall 2009
- *Yaping Wang*, Rutgers ISE, “Multi-objective Imperfect Preventive Maintenance for Dependent Competing Risk Systems with Multiple Degradation Processes and Random Shocks,” Spring 2012
- *Amy Chen*, Rutgers Business School, “The Impact of Negative Base-Stock Policies in Tree-Structured Supply Chains,”
- *Kian Seyed*, Rutgers ISE, “Process Modeling, Control and Economics of New Drug Development,” Fall 2008
- *Youngseon Jeong*, Rutgers ISE, “Time Series Data Mining-Based Methodology and Its Applications,” Fall 2010
- *David Neu*, RUTCOR, “Feature Selection with Application to Text Classification,” Spring 2012
- *Yao Zhang*, Rutgers ISE, “Modeling the Effects of the Two Stochastic-Processes on the Reliability and Maintenance of k-out-of-n Surveillance Systems,” Spring 2014
- *Yuqing Wu*, UW ISE, “Quantifying Drivers Foot Movements and Pedal Misapplication Errors”
- *Rachel St. John*, UW ISE, “Controlling Width and Length of Paths Across a Landscape in Spatial Optimization Models”
- *Yoonhee Lee*, RUTCOR, TBD
- *Kai Ross*, UW QERM, TBD
- *Hyun-Boo Lee*, UW ME, TBD
- M.S. Students (Committee Member):
 - *Theresa A. Brewer*, Rutgers ISE, “Approaches for Scheduling Flights for Entry into the Northern Pacific Airspace,” Spring 2005
 - *Amanda D. Raven*, UW ISE, “Examining Driver Behavior at Yellow Lights: Findings using Regression and Data Mining Techniques,” Fall 2011
 - *Erika Miller*, UW CEE, “Effects of Roadway on Driver Stress: An On-Road Study using Physiological Measure,” Winter 2013

Service to the University, School, and Department

University of Washington

- Faculty Advisor, Institute of Industrial Engineers UW Chapter, Sep 2011 – Sep 2012
- Graduate Admission Committee, ISE Department, Sep 2011 – present
- Chair of Faculty Search Committee, ISE Department, 2011
- Chair of Faculty Search Committee, ISE Department, 2012
- Chair of Faculty Search Committee, ISE Department, 2013
- Faculty Senate Member, Mar 2013 – present

Rutgers University

- Member, Rutgers Ralph E. Powe Junior Faculty Enhancement Award Committee, 2009
- Acting Director, ISE Department’s Undergraduate Program, Jan – May 2008
- Director, ISE Department’s Microcomputer Laboratory, Sep 2007 – Jun 2011
- Member, ISE Department’s Graduate Program Committee, Sep 2005 – Jun 2011
- Member, ISE Department’s Seminar Organizing Committee, Jan 2005 – Jun 2011
- Member, ISE Department’s Faculty Search Committee, 2008
- Faculty Advisor, ISE Department’s Website, Sep 2005 – Jun 2011

- Faculty Advisor, ISE Department's Undergraduate Classes of 2009, 2012
- Editor, ISE Department's Newsletter, 2009, 2010
- Chair, ISE Department's Student Award Committee, 2008
- Faculty Advisor, Alpha Pi Mu Honor Society, Sep 2005 – Jun 2011
- Member, School of Engineering (SOE)'s Honors Committee, Sep 2006 – Jun 2011
- Member, SOE's Applied Sciences Committee, Sep 2005 – Jun 2011
- Faculty Marshal, SOE Commencement, 2008, 2009
- Alternate Faculty Marshal, SOE Commencement, 2005