HALUK DAMGACIOGLU, PHD

Assistant Professor, Public Health Sciences
Member, Hollings Cancer Center
Member, Clinical Analytics & Decision Science Lab
Medical University of South Carolina
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RESEARCH AREAS

Methods: Simulation Models; Mixed Integer Linear Optimization; Metaheuristics; Machine Learning; Multi-objective Optimization; Stochastic Optimization.

Applications: Decision science, healthcare analytics and health policy with a particular emphasis on anal and oropharyngeal cancer carcinogenesis, sexual transmitted diseases including HIV/AIDS and HPV infections, cancer prevention and control

APPOINTMENT AND POSITIONS

Research Assistant Professor, Public Health Sciences at Medical University of South Carolina

12/2022 - Present

Affiliated Member, Hollings Cancer Center Cancer Control Program

12/2022 - Present

Affiliated Member, Clinical Analytics and Decision Science (CADSci Lab)

11/2020 - Present

Research Assistant Professor, Management, Policy & Community Health, UTHealth School of Public Health

03/2022 - 12/2022

Affiliated Member, Center for Health Services Research, UTHealth School of Public Health

09/2019 - 12/2022

EDUCATION & TRAINING

UTHealth, Houston, TX, Postdoctoral Fellowship in School of Public Health   *09/2019 - 03/2022*
- Medical Decision Making, Microsimulation Models, Data Analytics

University of Miami, Coral Gables, FL, Ph.D. in Industrial Engineering   *2014 - 2019*
- Research Assistantship at the Simulation and Optimization Research Laboratory (SimLab)
- Dissertation: "Integrated microgrid design and operation optimization using dynamic data-driven approaches"

Middle East Technical University, Ankara, Turkey, M.S. in Industrial Engineering   *2011 - 2014*
- Dissertation: "Solution approaches for solving capacitated multi-facility Weber problem"

Middle East Technical University, Ankara, Turkey, B.S. in Industrial Engineering   *2006 - 2011*
- Dissertation: "Production planning system for a furniture manufacturing firm"

INDUSTRY EXPERIENCE

Turkish Telecom, Ankara, Turkey   *09/2011 - 06/2014*
Industrial Engineer, Revenue Assurance and Fraud Management Systems
- Developed and managed ∼90 subscription, interconnect, internal, and dealer fraud detection rules.

- Analyzed online and batch integration with order management systems and customer relationship management system for over 16 million customers using SQL, Service Oriented Architecture, and Oracle Data Integrator.
- Analyzed information needs, aggregated required information pool, and formatted it for use in the new fraud management system.
- Tested integration accuracy with order management and CRM systems, and developed user acceptance scenarios.
- Coordinated integration of new fraud management system with the legacy system.

Ankara Sandalye Dunyasi, Ankara, Turkey *04/2011 - 09/2011*
Industrial Engineer, Management Information Systems
- Designed a database to track sales to intermediate and end products using MS Access. Also developed production and sales reports according to requirements of the firm and prepared user interface for the reporting tool.

HONORS AND AWARDS

One-time appreciation award *2022*
UTHealth Houston
Awarded to the selected UTHealth Houston employees for recognition of their tremendous service to UTHealth Houston

Lee Lusted Award Finalist *2020*
Society for Medical Decision Making
Our abstract was selected as a finalist at Lee B. Lusted Student Prize Competition at the 2020 SMDM Annual Meeting

Graduate Student of the Year Award *2019*
University of Miami, Toppel Career Center
Awarded to a single graduate student in the entire University of Miami every year for demonstrated excellence in academics, leadership, and service

Data Analytics & Information Systems Best Student Paper Award *2018*
Institute of Industrial and Systems Engineering Annual Conference & Expo
Paper title: "MR2: A two-stage feature selection algorithm in high-throughput methylation data for max-relevance and min-redundancy"

Gilbreth Memorial Fellowship ($3,000) *2017*
Institute of Industrial and Systems Engineering
Awarded to five outstanding graduate industrial engineering students in academic excellence and campus leadership

Academic Excellence, Leadership and Service Award ($1,000) *2016*
University of Miami, Graduate School Association
Awarded to top graduate students excelling in the areas of scholarship, leadership, and service

Dynamic Data Driven Application Systems Best Workshop Paper Award *2015*
International Conference on Computational Science
Paper title: "A dynamic data-driven approach for operation planning of microgrids"

Graduate Activity Fee Allocation Committee Award ($350) *2015*
University of Miami, Graduate Activity Fee Allocation Committee
Awarded to selected graduate students for conference participation
Paper title: "Evaluation of renewable energy policies using agent-based simulation - A case study of the state of Texas"

International Scientific Publication Encouragement Award (1,250 Turkish Liras)   *2015*
Scientific and Technological Research Council of Turkey
Paper title: "A genetic algorithm for the uncapacitated single allocation planar hub location problem"

Graduate Research Assistantship   *2014 - 2019*
University of Miami, Department of Industrial Engineering

RESEARCH AND OTHER EXTERNAL SUPPORT

Current

ACS-IRG GR10000835 $50,000   *06/2023 – 12/2024*
Evaluation of multimorbidity, functional status, and financial toxicity among oropharyngeal cancer survivors
Role: Principal investigator
PI: Haluk Damgacioglu
Project summary: The objective of this study is to evaluate the functional status and multimorbidity among older adults with oropharyngeal cancer (OPC) and to estimate the financial toxicity they experience. Our findings will inform oncologists, enabling them to make more informed treatment decisions that consider the overall health and well-being of older adults with OPC, ultimately aiming to optimize patient outcomes.

NCIR01CA256660 $4,354,448   *09/2021 – 08/2026*
The Effectiveness of Screening Women with Lower Genital Tract Neoplasia or Cancer for Anal Cancer Precursors
Role: Co-investigator
PI: Keith Sigel, Ashish A. Deshmukh, Elizabeth Y. Chiao
Project summary: Anal cancer incidence is rapidly rising in women and preventive measures such as screening have received little study in this group. Therefore, we will conduct a prospective, longitudinal study evaluating screening modalities for anal cancer precursors women with a history of lower genital tract neoplasia or cancer to determine the performance and acceptability of different screening tests and strategies as well as define the natural history of the disease. These data will be used to inform a decision analysis to assess the overall benefits, harms and costs of screening.

NCI R01MD013715 $405,853   *04/2019 – 12/2023*
A randomized controlled trial of mail-self stamped HPV testing to increase cervical cancer screening participation among minority/underserved women in an integrated safety-net healthcare system
Role: Co-Investigator
PI: Jane Montealegre
Project summary: We will evaluate the effectiveness and cost-effectiveness of mailed self-sample cervical HPV testing alone or in combination with patient navigation.

NCI U54-96300 $983,261   *09/2019 – 08/2022*
UPR/MDACC Partnership for Excellence in Cancer Research
Role: Co-Investigator
Project co-leaders: Ashish A. Deshmukh, Ana Patria Ortiz
Project summary: Our overarching goal is to optimize anal cancer prevention for persons living with HIV (PLWH) in PR. We will study the epidemiology of SCCA, and evaluate the cost of and QOL after SCCA treatment to inform a mathematical model that will determine the best screening regimen for PLWH in PR. We also seek to study critical barriers and facilitators necessary to decrease potential uncertainty in screening adoption and adherence to screening recommendations.

Completed

NCI R01CA232888 $1,633,212   *03/2019 – 04/2023*
Optimizing Age-based Anal Cancer Screening among People Living with HIV using Decision Analytic Modeling
Role: Co-Investigator
PI: Ashish A. Deshmukh
Project summary: The objective of this study is to optimize cancer screening algorithms for the prevention of anal cancer among HIV+ men and women. Towards this end, we will develop and validate a mathematical model of anal cancer natural history and treatment that will accurately determine the optimal use of screening tailored to this population. Our results will inform age-specific risk-targeted anal cancer screening regimen to maximize survival and quality of life of HIV+ men and women.

NCI R01 Supplement $58,999   *09/2018 – 08/2020*
AIDS Malignancy Consortium: Determining optimal anal cancer prevention for HIV-infected women.
Role: UTHealth site - Postdoctoral Research Fellow
PI: Ashish A. Deshmukh, Ronald T. Mitsuyasu
Project summary: The objective of this supplement is to determine the risk of anal precancer recurrence among HIV-infected women and evaluate the optimal precaner treatment evaluating harms and benefits.

ACADEMIC PUBLICATIONS

[Reverse chronological order, * authors with equal contribution]

1. Garg, A., **Damgacioglu, H.**, Sigel, K., Nyitray, A. G., Clifford, G. M., Curran, T., ... & Deshmukh, A. A. (2024). Future patterns in burden and incidence of squamous cell carcinoma of the anus in the United States, 2001–2035. *JNCI: Journal of the National Cancer Institute*, djae127.

2. Deshmukh, A. A., Lin, Y. Y., **Damgacioglu, H.**, Shiels, M., Coburn, S. B., Lang, R., ... & Sigel, K. (2024). Recent and projected incidence trends and risk of anal cancer among people with HIV in North America. *JNCI: Journal of the National Cancer Institute*, djae096.

3. Burus, T., **Damgacioglu, H.**, Huang, B., Christian, W. J., Hull, P. C., Ellis, A. R., ... & Kuhs, K. A. L. (2024). Trends in Oral Tongue Cancer Incidence in the US. *JAMA Otolaryngology–Head & Neck Surgery*, 150(5), 436–443.

4. Amboree, T. L., Montealegre, J. R., Parker, S. L., Garg, A., **Damgacioglu, H.**, Schmeler, K. M., ... & Adsul, P. (2024). National breast, cervical, and colorectal cancer screening use in federally qualified health centers. *JAMA Internal Medicine*.

5. Sonawane, K., Zhu, Y., **Damgacioglu, H.**, Garg, A., Graboyes, E. M., Montealegre, J. R., ... & Deshmukh, A. A. (2024). Factors associated with parental human papillomavirus vaccination intentions among adolescents from socioeconomically advantaged versus deprived households: a nationwide, cross-sectional survey. *The Lancet Regional Health–Americas*.

6. Sonawane, K., Garg, A., Meissner, E. G., **Damgacioglu, H.**, Hill, E., Nyitray, A. G., & Deshmukh, A. A. (2024). Human Papillomavirus Vaccination Among Young Adults Before and During the COVID-19 Pandemic. *JAMA Network Open*, 7(2), e2356875-e2356875.

7. Amboree, T. L., **Damgacioglu, H.**, Sonawane, K., Adsul, P., Montealegre, J. R., & Deshmukh, A. A. (2024). Recent trends in cervical cancer incidence, stage at diagnosis, and mortality according to county-level income in the United States, 2000–2019. *International Journal of Cancer*.

8. Garg, A., Nyitray, A. G., Roberts, J. R., Shungu, N., Ruggiero, K. J., Chandler, J., ... & Sonawane, K. (2024). Consumption of Health-Related Videos and Human Papillomavirus Awareness: Cross-Sectional Analyses of a US National Survey and YouTube From the Urban-Rural Context. *Journal of Medical Internet Research*, 26, e49749.

9. **Damgacioglu, H.**, Burus, T., Sonawane, K., Hill, E., Kuhs, K. A. L., & Deshmukh, A. A. (2023). County-Level Trends in Cervical Cancer Incidence, Stage at Diagnosis, and Mortality in Kentucky. *JAMA Network Open*, 6(10), e2338333-e2338333.

10. Runsewe, T., **Damgacioglu, H.**., Perez, L., & Celik, N. (2023). Machine learning models for estimating contamination across different curbside collection strategies. *Journal of environmental management*, 340, 117855.

11. Deshmukh, A. A.*, **Damgacioglu, H.***, Georges, D., Sonawane, K., & Clifford, G. M. (2023). Human Papillomavirus-Associated Anal Cancer Incidence and Burden Among US Men, According to Sexual Orientation, Human Immunodeficiency Virus Status, and Age. Clinical Infectious Diseases *Clinical Infectious Diseases*, 77(3), 419-424.

12. Masurkar, P. P., **Damgacioglu, H.**, Deshmukh, A. A., & Trivedi, M. V. (2023). Cost Effectiveness of CDK4/6 Inhibitors in the First-Line Treatment of HR+/HER2- Metastatic Breast Cancer in Post-menopausal Women in the USA. *PharmacoEconomics*, 1-10.

13. **Damgacioglu, H.**, Lin, Y., Ortiz, A.P., Wu, C., Shahmoradi, Z., Shyu, S. S., Li, R., Nyitray, A. G., Sigel, K., Clifford, G., Jay, N., Lopez, V. C., Barnell, G. M., Chiao, E., Stier, E., Ortiz-Ortiz, K., Ramos-Cartagena, J.M., Sonawane, K., & Deshmukh, A. A. (2022). State variation in squamous cell carcinoma of the anus incidence and mortality, and association with HIV/AIDS and smoking in the United States. *Journal of Clinical Oncology*, JCO-22.
Accompanying Editorial: Hotca, A., & Goodman, K. A. (2023). Trends in Anal Cancer: Leveraging Public Health Efforts to Improve Cancer Care. Journal of Clinical Oncology, JCO-22.

14. Shahmoradi, Z., **Damgacioglu, H.**, Clarke, M., Wentzensen, N., Montealegre, J., Sonawane, K., & Deshmukh, A. A. (2022) Recent rise in cervical cancer incidence among young US women. *JAMA*, 328(22), 2267-2269.

15. Sonawane, K., Shyu, S. S., **Damgacioglu, H.**, Li, R. Chiao, E., Nyitray, A. G., & Deshmukh, A. A. (2023). Prevalence of oral and genital HPV infection by sexual orientation among men in the United States. *JNCI Cancer Spectrum*, 7(1), pkac088.

16. Deshmukh, A. A.*, **Damgacioglu, H.***, Georges, D., Sonawane, K., Ferlay, J., Bray, F., & Clifford, G. M. (2023). Global burden of squamous cell carcinoma of the anus in 2020, according to sex and HIV status. *International Journal of Cancer*, 152(3), 417-428.

17. **Damgacioglu, H.**, Wu, C. F., Lin, Y. Y., Ortiz, A. P., Sonawane, K., & Deshmukh, A. A. (2022). Contemporary patterns in HPV-associated cancer incidence among young US men. *Journal of General Internal Medicine*, 1-3.

18. Shahmoradi, Z., **Damgacioglu, H.**, Montealegre, J., Chiao, E. Y., Sigel, K., Sonawane, K., & Deshmukh, A. A. (2022, August). Prevalence of human papillomavirus infection among women born in the 1990s vs the 1980s and association with HPV vaccination in the US. In *JAMA Health Forum* (Vol. 3, No. 8, pp. e222706-e222706). American Medical Association.

19. Lin, Y.*, **Damgacioglu, H.***, Suk, R., Wu, C. F., Zhu, Y., Ortiz, A. P., ... & Deshmukh, A. A. (2022). Trends in the Incidence of Human Papillomavirus-Associated Cancers by County-Level Income and Smoking Prevalence in the United States, 2000-2018. *JNCI cancer spectrum*, 6(2), pkac004.

20. **Damgacioglu, H.**, & Celik, N. (2022). A two-stage decomposition method for integrated optimization of islanded AC grid operation scheduling and network reconfiguration. *International Journal of Electrical Power & Energy Systems*, 136, 107647.

21. **Damgacioglu, H.**, Sonawane, K., Chhatwal, J., Lairson, D. R., Clifford, G. M., Giuliano, A. R., & Deshmukh, A. A. (2022). Long-term impact of HPV vaccination and COVID-19 pandemic on oropharyngeal cancer incidence and burden among men in the USA: A modeling study. *The Lancet Regional Health-Americas*, 8, 100143.

22. **Damgacioglu, H.**, Sonawane, K., Zhu, Y., Li, R., Balasubramanian, B. A., Lairson, D. R., ... & Deshmukh, A. A. (2022). Oropharyngeal cancer incidence and mortality trends in all 50 states in the US, 2001-2017. *JAMA Otolaryngology–Head & Neck Surgery*, 148(2), 155-165.
Accompanying Editorial: Osazuwa-Peters N and Davies L. Population Trends and Long-term Outlook for Oropharyngeal Cancer: Have We Found a Silver Lining? JAMA Otolaryngology – Head & Neck Surgery.

23. Sonawane, K., Lin, Y., **Damgacioglu, H.**, Zhu, Y., Fernandez, M., Montealegre, J. R., Ganduglia-Cazaban, C., Li, R., Lairson, D. R., Lin, Y., Giuliano, A. R., Deshmukh, A. A. Trends in Human Papillomavirus Vaccine Safety Concerns and Adverse Event Reporting in the United States. *JAMA Network Open* , 4(9), e2124502-e2124502.
Accompanying Editorial: Osazuwa-Peters N, Rohde RL, Boakye EA. HPV Vaccination Is Safe—You Don't Have to Whisper It. JAMA Network Open.

24. Sonawane, K., Zhu, Y., Lin, Y. Y., **Damgacioglu, H.**, Lin, Y., Montealegre, J. R., & Deshmukh, A. A. (2021). HPV Vaccine Recommendations and Parental Intent. *Pediatrics*, 147(3).

25. Deshmukh, A. A., Suk, R., Shiels, MS., **Damgacioglu, H.**, Lin, Y., Stier, E. A., Nyitray, A. G., Chhatwal, J., Nemutlu, G. S., Chiao, E. Y., Schmeler, K., Sigel, K., Sonawane, K. Incidence trends and burden of human papillomavirus-associated cancers among women in the United States, 2001-2017. *JNCI: Journal of the National Cancer Institute*, 113(6), pp.792-796.

26. **Damgacioglu, H.**, Hornilla, M., Bafail, O., & Celik, N. (2020). Recovering value from single stream material recovery facilities–An outbound contamination analysis in Florida. *Waste Management*, 102, 804-814.

27. **Damgacioglu, H.**, Celik, E., & Celik, N. (2020). Intra-Cluster Distance Minimization in DNA Methylation Analysis Using an Advanced Tabu-Based Iterative k k-Medoids Clustering Algorithm (T-CLUST). *IEEE/ACM transactions on computational biology and bioinformatics, 17*(4), 1241-1252.

28. **Damgacioglu, H.**, Celik, E., & Celik, N. (2019). Estimating gene expression from high-dimensional DNA methylation levels in cancer data: a bimodal unsupervised dimension reduction algorithm. *Computers & Industrial Engineering, 130*, 348-357.

29. **Damgacioglu, H.**, Celik, N., & Guller, A. (2018). A route-based network simulation framework for airport ground system disruptions. *Computers & Industrial Engineering*, 124, 449-461.

30. Bastani, M., Thanos, A. E., **Damgacioglu, H.**, Celik, N., & Chen, C. H. (2018). An Evolutionary Simulation Optimization Framework for Interruptible Load Management in the Smart Grid. *Sustainable Cities and Society*, 41, 802-809.

31. Bastani, M., **Damgacioglu, H.**, & Celik, N. (2018). A δ-constraint multi-objective optimization framework for operation planning of smart grids. *Sustainable Cities and Society*, 38, 21-30.

32. Alyamani, T., **Damgacioglu, H.**, Celik, N., Asfour, S., & Feiock, R. (2016). A multiple perspective modeling and simulation approach for renewable energy policy evaluation. *Computers & Industrial Engineering*, 102, 280-293.

33. Bartalos, P., Wei, Y., Blake, M. B., **Damgacioglu, H.**, Saleh, I., & Celik, N. (2016). Modeling energy-aware web services and application. *Journal of Network and Computer Applications*, 67, 86-98.

34. **Damgacioglu, H.**, Dinler, D., Ozdemirel, N. E., & Iyigun, C. (2015). A genetic algorithm for the uncapacitated single allocation planar hub location problem. *Computers & Operations Research*, 62, 224-236.

BOOK CHAPTERS

1. **Damgacioglu, H.**, Bastani, M., & Celik, N. (2018). A dynamic data-driven optimization framework for demand side management in microgrids. In *Handbook of Dynamic Data Driven Applications Systems* (pp. 489-504). Springer, Cham.

2. **Damgacioglu, H.**, Damgacioglu, H., Celik, E., Yuan, C., & Celik, N. (2022). Dynamic data driven application systems for identification of biomarkers in DNA methylation. In *Handbook of Dynamic Data Driven Applications Systems* (pp. 241-261). Springer, Cham.

CONFERENCE PAPERS

1. **Damgacioglu, H.**, Celik, N., & Celik, E. (2018). MR2: A two-stage feature selection algorithm in high-throughput methylation data for max-relevance and min-redundancy. In *2018 Institute of Industrial and Systems Engineers Annual Conference and Expo, IISE 2018*. **This paper received the DAIS (Data Analytics & Information Systems) Best Student Paper Award**.

2. Guller, A., **Damgacioglu, H.**, & Celik, N. A comprehensive network runway simulation model for analyzing runway resilience at airports. Accepted in *2018 Institute of Industrial and Systems Engineers Annual Conference and Expo, IISE 2018*.

3. Fujimoto, R. M., Celik, N., **Damgacioglu, H.**, Hunter, M., Jin, D., Son, Y. J., & Xu, J. (2016). Dynamic data driven application systems for smart cities and urban infrastructures. In *Winter Simulation Conference (WSC), 2016* (pp. 1143-1157). IEEE.

4. **Damgacioglu, H.**, Alyamani, T., & Celik, N. (2015). Evaluation of renewable energy policies using agent-based simulation - A case study of the state of Texas. In *IIE Annual Conference. Proceedings* (p. 154). Institute of Industrial and Systems Engineers (IISE).

5. Shi, X., **Damgacioglu, H.**, & Celik, N. (2015). A dynamic data-driven approach for operation planning of microgrids. *Procedia Computer Science*, 51, 2543-2552. **This paper received the Best Workshop Paper Award**.

6. **Damgacioglu, H.**, & Iyigun, C. (2012). Uncertainty and a new measure for classification uncertainty. In *Uncertainty Modeling in Knowledge Engineering and Decision Making Conference* (pp. 925-930).

TEACHING EXPERIENCE

Guest Lecture, Medical University of South Carolina, Department of Public Health Sciences
- "Introduction to Clinical Decision Science" - BMTRY 748 Foundations of Epidemiology III   *2022*

Guest Lecture, University of Texas Health Science Center at Houston
- "Introduction to Clinical Decision Science" - PHD 3915 Methods for the Economic Evaluation of Health Programs   *2022*

Guest Lecture, University of Texas Health Science Center at Houston
- "Microsimulation" - PHD 3998 Decision Analysis in Public Health   *2020, 2021*

Teaching Assistant, University of Miami, Department of Industrial Engineering
- Responsibilities: Assisting instructors in preparing and giving examinations, supervising students during the non-classroom time, proctoring exams, grading assignments and papers, and organizing Q&A sessions for preparing students to the exams.
  - Computer System Simulation (Undergraduate/Graduate) - Spring 2017 (Teaching assistant evaluations were not performed in this semester)
  - Applied Statistical Methods (Undergraduate) - Spring 2018 (Teaching assistant evaluations were not performed in this semester)

PRESENTATIONS & TALKS

1. **Damgacioglu, H.** The past, present and future of the oropharyngeal cancer in the US. Invited talk at the Health Economics/Health Services Research Seminar, December 17, 2021.

2. **Damgacioglu, H.**, Sonawane, K., Chhatwal, J., Lairson, D. R., Clifford, G. M., Giuliano, A. R., Deshmukh, A. A. Long-term impact of HPV vaccination and covid-19 pandemic on oropharyngeal cancer incidence and burden in the USA, 2009-2100. Presented in the 34th International Papillomavirus Conference (IPVC 2021). November 15-19, 2021, virtual conference presentation.

3. Sonawane, K., Lin, Y. Y., **Damgacioglu, H.**, Zhu, Y., Fernandez, M., Montealegre, J., Ganduglia, C., Li, R., Lairson, D. R., Lin, Y., Giuliano, A. R., Deshmukh, A. A. HPV vaccine safety perceptions and adverse event reporting trends in the United States. EUROGIN 2021.

4. **Damgacioglu, H.**, Sonawane, K., Chhatwal, J., Giuliano, A. R., Deshmukh, A. A. (2020). A Microsimulation Modeling For The Assessment Of Human Papillomavirus Vaccination On The Rising Incidence Of Oropharyngeal Cancer Among Men. Presented in the INFORMS Annual Meeting, November 8-11, 2020, virtual conference presentation.

5. **Damgacioglu, H.**, Sonawane, K., Chhatwal, J., Giuliano, A. R., Deshmukh, A. A. (2020). Making Oropharyngeal Cancer a Rare Cancer Among US Men: The Assessment of Improving Human Papillomavirus Vaccination Coverage. Presented in the SMDM 42nd Annual North American Meeting, October 6-27, 2020, virtual conference presentation.

6. **Damgacioglu, H.** & Celik, N. (2019). Integrated microgrid design and operation optimization using dynamic data-driven approaches. Presented in the University of Miami Graduate School Research Symposium, March 2019, poster presentation.

7. **Damgacioglu, H.** (2018). How the smart grid promotes a cleaner energy future. Presented in the Climate Change Reality Seminar Series at the University of Miami, November 2018, invited talk.

8. **Damgacioglu, H.** (2018). Towards Resilient Microgrid Systems for Smart Cities. Presented in the Research Day - Resilience and Sustainability Session at the University of Miami, March 2018, invited talk.

9. **Damgacioglu, H.**, & Celik, N. (2018). A dynamic data-driven application systems for ınfosymbiotic challenges of solar-powered microgrids. Presented in the INFORMS Annual Meeting, Phoenix, AZ, November 4-7, 2018, conference presentation.

10. **Damgacioglu, H.**, Celik, E., & Celik, N. (2018). MR2: A two-stage feature selection algorithm in high-throughput methylation data for max-relevance and min-redundancy. Presented in the IISE Annual Conference, Orlando, FL, May 19-22, 2018, conference presentation.

11. **Damgacioglu, H.**, & Celik, N. (2017). A Multi-objective energy management model for operation planning in smart grids. Presented in the INFORMS Annual Meeting, Houston, TX, October 22-15, 2017, conference presentation.

12. **Damgacioglu, H.**, Guller, A., & Celik, N. (2017). A Distance-based network simulation for airport runway and priority scheduling. Presented in the INFORMS Annual Meeting, Houston, TX, October 22-15, 2017, conference presentation.

13. **Damgacioglu, H.**, Celik, E., & Celik, N. (2017). Feature selection for biomarker identification in DNA methylation. Presented in the INFORMS Annual Meeting, Houston, TX, October 22-15, 2017, conference presentation.

14. **Damgacioglu, H.**, Guller, A., & Celik, N. (2017). A comprehensive simulation model for airside management operations. Presented in Massachusetts Institute of Technology, Cambridge, MA, February 2017, invited talk.

15. **Damgacioglu, H.**, Bastani, M., & Celik, N. (2017). A dynamic data-driven optimization framework for demand side management in microgrids. Presented in the InfoSymbiotics/DDDAS Conference, Hartford, Connecticut, August 9-12, 2016, conference presentation.

16. **Damgacioglu, H.**, Celik, E., Chongli, Y., & Celik, N. (2017). Dynamic data driven application systems for identification of biomarkers in DNA methylation. Presented in the InfoSymbiotics/DDDAS Conference, Hartford, Connecticut, August 9-12, 2016, conference presentation.

17. **Damgacioglu, H.** (2014). A genetic algorithm for the uncapacitated single allocation planar hub location problem. Presented in the Industrial Engineering Seminar Series at Middle East Technical University, Turkey, April 2014, invited talk.

18. **Damgacioglu, H.**, & Iyigun, C. (2014). New solution approaches for capacitated multi-facility Weber problem. Presented in the 34th National Operations Research and Industrial Engineering Conference, Bursa, Turkey, June 2014, conference presentation.

19. **Damgacioglu, H.**, Dinler, D., Ozdemirel, N.E., & Iyigun, C. (2013). A genetic algorithm for the uncapacitated single allocation planar hub location problem. Presented in the 26th European Conference on Operational Research, Rome, Italy, July 2013, conference presentation.

20. **Damgacioglu, H.**, Dinler, D., Ozdemirel, N.E., & Iyigun, C. (2013). A genetic algorithm for the uncapacitated single allocation planar hub location problem. Presented in the 20th EURO Working Group on Locational Analysis Meeting, Ankara, Turkey, April 2013, conference presentation.

21. **Damgacioglu, H.**, & Iyigun, C. (2012). Uncertainty and a new measure for classification uncertainty. Presented in the 10th International FLINS Conference on Uncertainty Modeling in Knowledge Engineering and Decision Making Istanbul, Turkey, August 2012, conference presentation.

INDUSTRY & RESEARCH PROJECTS

DDDAS for Data- and Computation-aware Power Grid *02/2018 - 08/2019*
- Responsibility: Senior research analyst
- Other project members: Dr. Nurcin Celik (University of Miami, PI), Mizelle Hornilla (University of Miami)

Smart Energy for the Smart Cities: The City of Coral Gables *03/2018 - 12/018*
- Responsibility: Senior research analyst
- Other project members: Dr. Nurcin Celik (University of Miami, Co-PI), Chelsea Granell (City of Coral Gables), Matt Anderson (City of Coral Gables), Raimundo Rodulfo (City of Coral Gables)

Assessment and Evaluation of Contamination in Single Stream Recycling Systems Due to Broken Glass and Other Non-recyclables *03/2017 - 03/2018*
- Responsibility: Senior research analyst
- Other project members: Dr. Nurcin Celik (University of Miami, PI), Lea Perez (University of Miami)

Assessment of the Impact of Single Stream Recycling on Paper Contamination in Recovery Facilities and Paper Mills *02/2016 - 02/2017*
- Responsibility: Data analyst
- Other project members: Dr. Nurcin Celik (University of Miami, PI), Duygu Yasar (University of Miami), Mehrad Bastani (University of Miami)

Data Driven Modeling and Optimization of Airport Airside Operations for Resilience
01/2016 - 09/2016
- Responsibility: Research analyst
- Other project members: Dr. Nurcin Celik (University of Miami, PI), Dr. Sertac Karaman (MIT)

Assessment and Evaluation of Advanced Solid Waste Management Technologies for Improved Recycling Rates *11/2015 - 11/2016*
- Responsibility: Data analyst
- Other project members: Dr. Nurcin Celik (University of Miami, PI), Duygu Yasar (University of Miami), Mehrad Bastani (University of Miami), Gregory Collins (University of Miami)

DDDAMS-based Real-time Assessment and Control of Air Force Base Microgrids *08/014 - 10/2016*
- Responsibility: Research analyst
- Other project members: Dr. Nurcin Celik (University of Miami, PI), Aristotelis E. Thanos (University of Miami), Xiaoran Shi (University of Miami), DeLante E. Moore (University of Miami)

COMPUTER SKILLS

Modeling & Simulation	AMPL, AnyLogic, ARENA, GAMS, Simulink, NetLogo
Statistics	R, SAS, Minitab
Programming	JAVA, MATLAB
Database & Mobile App	Android Studio, MS Access, MySQL, SQL
Text Editor & Office	MS Office, Latex

LANGUAGES

- Turkish (native)
- English (advanced)

PROFESSIONAL SERVICE

- Ad hoc referee
  - American Journal of Preventive Medicine (reviewer: 1)
  - Annals of Internal Medicine (co-reviewer: 1)
  - Annals of Operations Research (reviewer: 1)
  - Applied Mathematical Modelling (reviewer: 1)
  - BMC Health Services Research (reviewer: 1)
  - Cancer Epidemiology Biomarker and Prevention (reviewer: 1)
  - Cancers (reviewer: 1)
  - Computers & Operations Research (reviewer: 1)
  - Frontiers in Public Health (reviewer: 1)
  - JAMA Network Open (reviewer: 2)
  - JNCI (Journal of National Cancer Institute) (co-reviewer: 1)
  - Journal of Optimization (reviewer: 1)
  - Pediatrics (reviewer: 1)
  - Sexually Transmitted Diseases (reviewer: 2)
  - Sustainable Cities & Society (reviewer: 7)
- Working in the registration committee for the 2023 Winter Simulation Conference
- Research, Creativity, and Innovation Forum (RCIF) judge in 2015 and 2019
- Scopus User Feedback Session in 2019

PROFESSIONAL AFFILIATIONS

- International Papillomavirus Society
- Society for Medical Decision Making
- Institute of Industrial and Systems Engineering
- Institute for Operations Research and the Management Sciences

MEDIA COVERAGE

- Medscape (January 3, 2022) Oropharyngeal Cancer Up About 3% Among Men

- HealthDay (December 23, 2021): Oropharyngeal Cancer Incidence, Mortality Up Among U.S. Men

- US News & World Report (December 21, 2021): Throat Cancers Tied to HPV Are Rising Among U.S. Men, Women

- Medical Xpress (December 16, 2021): Oropharyngeal cancer incidence and mortality rising in nearly all 50 states, reports new national study

- News Medical Life Sciences (December 16, 2021): Study reveals rising oropharyngeal cancer incidence and mortality trends in all 50 states

- HealthDay (February 9, 2021): Parental HPV Vaccine Hesitancy Increased During 2012 to 2018