

DERYA “IPEK” EROGLU

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EDUCATION

Ph.D. in Business Information Technology, June 2023

Virginia Tech, Blacksburg, VA

Dissertation: *Medium is the Message: Unraveling the Social Media Platforms' Effects on Communication and Opinions*

Committee: Dr. Onur Seref (chair), Dr. Michelle Seref, Dr. Paul Lowry, Dr. Alan Wang

GPA: 3.91/4.00

M.S. in Industrial Engineering, January 2019

Middle East Technical University (METU), Ankara, Turkey

Thesis: *A Unified Approach for Center-Based Clustering Problems on Networks*

Advisor: Dr. Cem Iyigun

B.S. in Industrial Engineering, *magna cum laude*, June 2015

Middle East Technical University (METU), Ankara, Turkey

RESEARCH INTERESTS

Social Media Platforms and Societies, Persuasion in Social Media, Natural Language Processing and Representation Learning in Text Analytics, Computational Social Science, Machine Learning – Unsupervised Learning and Clustering, Genetic Algorithms for Heuristic Optimization

PUBLICATIONS

Published

Eroglu, D.I., Kamal, M., & Green, M. L. (2026). Generative AI for microenterprises: A process model for growth. *19th LADIS (International Association for the Development of the Information Society) Conference*. Forthcoming.

Eroglu, D. I., & Pamukcu, D. (2025). An evolutionary AI approach for hub-location decisions: Leveraging genetic algorithms for sustainable supply chains. *AMCIS 2025 Proceedings*, 20. https://aisel.aisnet.org/amcis2025/data_science/sig_dsa/20

Toal, G. & **Eroglu, D.I.** (2025). The Many Semantic Lives of Geopolitics: Evidence from the *New York Times* Archive 1900-2023. *Geopolitics*, 30(3), 1173–1197. <https://doi.org/10.1080/14650045.2024.2411331>

Eroglu, D. I., Seref, O., & Seref, M. M.H.. (2021). Changing Views: Pre-suasion in a Reddit Discussion Community. *AMCIS 2021 Proceedings*, 15. **Won AMCIS 2021 ERF Top 25% Papers Award.**

Szczyrba, L., Zhang, Y., Pamukcu, D., & **Eroglu, D.I.** (2021). Quantifying The Role Of Vulnerability In Hurricane Damage Via A Machine Learning Case Study. *Natural Hazards Review*, 22(3). [https://doi.org/10.1061/\(ASCE\)NH.1527-6996.0000460](https://doi.org/10.1061/(ASCE)NH.1527-6996.0000460)

Eroglu, D.I., Pamukcu, D., Szczyrba, L., & Zhang, Y. (2020). Analyzing and contextualizing social vulnerability to natural disasters in Puerto Rico. *ISCRAM 2020 Conference Proceedings–17th International Conference on Information Systems for Crisis Response and Management*, Virtual.

Szczyrba, L., Zhang, Y., & Pamukcu, D., **Eroglu, D.I.** (2020). A Machine Learning Method to Quantify the Role of Vulnerability in Hurricane Damage. *ISCRAM 2020 Conference Proceedings–17th International Conference on Information Systems for Crisis Response and Management*, Virtual.

Under Review

Eroglu, D.I., & Iyigun, C. A Foundational Perspective for Partitional Clustering on Networks. Under review at *Annals of Operations Research*.

Eroglu, D.I., Seref, O., & Seref, M. M. H. Signals That Disarm: Persuasion Acknowledgments, Popularity Cues, and Audience Resistance in Online Discourse. Under Review at *Information & Management*.

WORK EXPERIENCE

Assistant Professor (Full-time), Department of Computing Sciences, SUNY Brockport, 08/11/2023 to present.

Address: 350 New Campus Drive, Brockport, NY 14420

Phone: (585) 395-2211

Position Details, Teaching

CSC 602 – Deep Learning

- CSC 602 is a graduate-level course introducing the fundamental principles of neural networks and contemporary approaches to deep learning, with emphasis on both theoretical foundations and practical implementation.
- Covers the design, training, evaluation, and application of neural network architectures, progressing from foundational feedforward networks to selected modern deep learning models.
- Students develop an understanding of the mathematical foundations underlying deep learning, including optimization, backpropagation, gradient-based learning, and loss functions.
- Course emphasizes hands-on implementation of deep learning models using contemporary software tools and computational frameworks, including GPU-enabled training workflows.
- Students examine selected neural network architectures and their applications, including feedforward networks, convolutional neural networks, and modern attention-based models.
- Integrates discussion of recent deep learning research through student-led analysis and presentation of scholarly papers, developing students' ability to critically evaluate emerging methods and research contributions.
- Course emphasizes experiential and research-oriented learning through a collaborative semester project in which students design, implement, evaluate, and communicate a deep learning solution to a research or applied problem.
- Includes focused treatment of contemporary developments in deep learning and generative artificial intelligence, connecting foundational neural network concepts with current research and applications.

- Course delivered in an in-person modality combining lectures, conceptual and mathematical foundations, hands-on computational activities, research-paper discussions, and collaborative project development.
- Course materials developed using Deep Learning (Goodfellow, Bengio & Courville) together with selected scholarly literature and contemporary deep learning resources.
- Topics Covered: Neural Network Foundations, Backpropagation and Optimization, Model Training and Regularization, Feedforward and Convolutional Neural Networks, Attention and Transformers, Deep Learning Tools and Applications, and Contemporary Deep Learning Research.

CIS 427/527 – Information Systems Project Management and Practice

- CIS 427/527 is a senior-level undergraduate and graduate course focusing on software development processes and the management of information systems projects across the system development life cycle (SDLC).
- Covers planning, execution, and management of technology projects, integrating technical system design with organizational, behavioral, and managerial considerations.
- Students apply structured, event-driven, and object-oriented design approaches to analyze requirements and develop system design models using UML methodologies.
- Course emphasizes experiential learning through team-based projects requiring project planning, scheduling, resource allocation, risk management, and stakeholder communication.
- Students utilize industry-standard project management tools, including Microsoft Project, to develop work breakdown structures, schedules, and performance metrics.
- Integrated into a SUNY-wide pilot initiative incorporating the Google Project Management Professional Certificate (Coursera), providing students with exposure to industry-aligned project management practices and professional credential opportunities.
- Course delivered in an in-person modality combining lectures, applied workshops, and collaborative project implementation activities across undergraduate and graduate cohorts.
- Course materials developed using Information Technology Project Management (Marchewka, 5th ed.) and Systems Analysis and Design (Dennis, Wixom & Roth, 6th ed.).
- Topics Covered: Systems Development Life Cycle, Requirements Analysis, UML Modeling, Project Scheduling and Estimation, Risk and Change Management, Software Quality Assurance, Team Leadership, Stakeholder Communication, Cost Analysis, System Implementation, Testing, and Deployment.

CIS 422 – Database Management Systems

- CIS 422 is an upper-division undergraduate course focusing on database design, implementation, and management within organizational information systems.
- Introduces the full database development lifecycle, guiding students from requirements analysis and conceptual modeling to physical database implementation using industry-standard database management systems.
- Course integrates lecture-based instruction with hands-on laboratory activities emphasizing applied database development and real-world business problem solving.
- Students complete a semester-long team capstone project involving the design and implementation of a substantial database application.

- Taught in an in-person modality with structured lab components supporting experiential learning and collaborative system development.
- Course materials developed using *Fundamentals of Database Systems* (7th ed.) by Elmasri & Navathe.
- Topics Covered: Requirements Analysis, Entity–Relationship (ER/EER) Modeling, Relational Schema Design, Normalization (3NF, BCNF, 4NF), SQL Query Development, Database Implementation, Forms and Reports, Application–Database Connectivity, and Team-Based Database Projects.

Topics Covered: .

GEP 100 – Academic Planning Seminar (First-Year Experience)

- GEP 100 is a first-year seminar designed to support the academic success, transition, and personal development of first-time undergraduate students entering the university.
- Facilitates student adjustment to university-level learning through structured development of study strategies, time management, metacognitive skills, and self-regulated learning practices.
- Delivered in a small, discussion-based learning community emphasizing peer connection, faculty mentorship, and engagement with campus resources.
- Guides students in academic planning, goal setting, and degree navigation, including preparation for course registration and long-term educational planning.
- Introduces students to institutional support services such as the Learning Assistance Center, Career Design Center, and library research resources to promote student persistence and retention.
- Integrates university-wide training modules including BADASS (Be Aware, Decide to Act, Say Something) and foundational information literacy programming.
- Promotes personal growth through reflection activities focused on resilience, habit formation, financial literacy, and community engagement.
- Course delivered in an in-person seminar format emphasizing active participation, reflection, and individualized student support.

CSC 120 – Introduction to Computing

- CSC 120 is a foundational undergraduate course required by departments including Computer Science, Computer Information Systems, Cybersecurity, Physics, Mathematics, Mathematics Education, and Adolescence Education.
- Introduces programming using Java, with a majority of students starting their programming education in this course.
- The course includes lectures that cover key concepts and demonstrations, along with lab sessions providing hands-on exercises.
- Taught 30 students per semester in an in-person modality; IAS Effectiveness score: 4.4/5.0.
- Course and lab materials were designed using *Introduction to Java Programming and Data Structures, 13th edition* by Daniel Liang.
- Topics Covered: Variables, Selection Statements, Characters and Strings, Methods, Arrays.

CIS 102 – Fundamentals of Information Systems

- CIS 102 is a required undergraduate course for majors in Computer Information Systems and Cybersecurity.
- Focuses on the strategic importance of Information Systems in organizations, emphasizing system design, ethical use, and data management.
- Taught 40 students in an in-person modality; IAS Effectiveness score: 4.2/5.0.
- Curriculum developed using *Essentials of MIS, 15th edition* by Kenneth C. Laudon, Jane P. Laudon, and Carol Guercio Traver.
- Coursework designed to develop critical skills in analyzing and designing information systems for enhanced organizational productivity.
- Guided students through complex concepts such as system types, network infrastructures, and ethical/legal challenges in IT.
- Topics covered: Information Systems, E-business, Competitive Advantage, Systems Development Life Cycle, IT Infrastructure, Database Management, Telecommunications, E-commerce.

CIS 117 – Introduction to Web Development

- CIS 117 is an undergraduate course that introduces the fundamentals of web development, essential for Computer Information Systems and Cybersecurity majors.
- Taught 20 students in an in-person modality; IAS Effectiveness Score: 4.6/5.0.
- Implemented a hands-on curriculum using "Programming the World Wide Web, 8th edition" by Robert W. Sebesta, focusing on XHTML, HTML5, and CSS.
- Designed course assessments, including two midterm exams and a final project where students developed their personal websites.
- Covered topics included basic syntax, advanced design elements like `<span>` and `<div>` tags, focusing on real-world application and quality maintenance.

Position Details, Research Projects

Developer-AI Augmentation in Software Development (Spring 2026 - Present)

- Examine AI-augmented software development as a shift from code-centric programming to intent-driven interaction, where developers specify high-level goals and AI systems generate implementations.
- Analyze human-AI collaboration models and their implications for developer cognition, workflows, and role reconfiguration.
- Investigate trade-offs between efficiency gains and risks such as overreliance, reduced code comprehension, and security vulnerabilities in AI-generated outputs.
- Synthesize empirical and conceptual insights to develop a research agenda on effective supervision, reliability, and governance of AI-assisted programming.

Edge AI vs. Cloud AI: Performance, Latency, and Hybrid System Design (Spring 2026)

- Conduct a comparative analysis of Edge AI and Cloud AI architectures, evaluating trade-offs in latency, scalability, bandwidth usage, and data privacy across distributed systems.
- Implement and analyze a real-world Remaining Useful Life (RUL) prediction task using the NASA C-MAPSS dataset, incorporating edge-side feature engineering and normalization techniques.

- Quantify system efficiency through metrics such as latency modeling and data reduction ratio, demonstrating ~30% reduction in data transmission via edge filtering.
- Synthesize findings to propose hybrid edge–cloud architectures that balance real-time responsiveness with computational power, including optimization strategies such as model compression and task distribution.

Pre-Hoc Grounding in LLM Decision Support: An Honesty Architecture for Collegiate Athletics (Fall 2025 – Present)

- Analyzed match-level data from Brockport women's soccer across 48 matches and three seasons, evaluating possession, territorial control, and attacking output to identify key performance factors differentiating wins vs. non-wins.
- Identified critical performance thresholds (e.g., attacking third share, shots on target rate) associated with higher observed win rates, and developed a structured analytical framework linking style of play to success, highlighting attacking presence as a stronger predictor than efficiency metrics in this phase.
- Extended the framework into a working decision-support system combining deterministic analysis with a large language model, establishing pre-hoc grounding as its honesty mechanism: match facts are computed in Python and injected as fixed premises the model cannot contradict, so the coach receives not only what happened but why, and what to train next.
- Delivered a working prototype to the coaching staff, developed with the head coach as design informant, and framed the contribution as transferable beyond athletics: pre-hoc grounding offers a general pattern for any domain where a language model must advise a practitioner over structured operational data without fabricating evidence.

Analyzing Engagement and Growth in YouTube's Creator Economy (Fall 2023 - Present)

- Focused on the significant impact of digital creators, analyzing their interactions with viewers, businesses, and platforms in a market of \$104.2 billion.
- Explored how over 300 million creators globally, including 85 million Americans, utilize creativity and skills to monetize social capital across various digital platforms.
- Investigated brand-building strategies of YouTubers, their business collaborations, and influence on viewer perceptions.
- Utilized YouTube video data, analyzing video descriptions, comments, and community engagement to build a framework for content creators to inform data-driven strategies.

Graduate Research and Teaching Assistantship (Full-time), Business Information Technology, Pamplin School of Business, Virginia Polytechnic Institute and State University, 08/10/2018 to 05/09/2023

Address: Pamplin Hall, 880 W Campus Drive Suite 1007, Blacksburg, VA 24061

Phone: (540) 231-6596

Email: bit@vt.edu

Position Details, Teaching

Instructor of Record (Fall 2021)

BIT 2406 – Business Statistics, Analytics & Modeling (Hybrid)

- BIT 2406 is an undergraduate core (required) course that is required by various programs in the Pamplin College of Business, such as Business Information Technology, Accounting, Finance, and Marketing. Therefore, students have diverse backgrounds and interests, which creates the need to tailor the course content and delivery accordingly. Furthermore, this is the first class in which the concept of modeling and optimization is introduced to the students.
- The two sections (in-person and online) combined were approximately 67 students, 60 in-person and 7 online, which is consistent with the average class size of the course. The course is mostly taken by sophomores.
- Designed the entire course based on the course textbook and its supplementing materials. The course textbook is *Introduction to Management Science, 13th Edition by Bernard Taylor, III*.
- Received monthly feedback from the students and made adjustments to the course design to respond to their needs better.
- Topics Covered: Linear Programming, Optimization, Mathematical Models (Assignment, Transportation, Portfolio Optimization, Scheduling, Production Planning, Blending Problems), Network Optimization Models and Algorithms, Multicriteria Decision Making, Decision Analysis, Forecasting Methods.
- SPOT Feedback for Overall Effectiveness: 4.46/6.00 (In-Person) and 5.25/6.00 (Online)

Graduate Teaching Assistant (Fall 2018 – Fall 2021)

- BIT 5534 – Applied Business Intelligence and Analytics (Dr. Onur Seref) – 3 semesters
- BIT 4984 – Fair Data (Dr. Idris Adjerid) – 1 semester
- BIT 4464 – Advanced Supply Chain Management (Dr. Barbara Fraticelli) – 1 semester
- BIT 3444 – Advanced Business Computing and Applications (Dr. Onur Seref and Dr. Ralph Badinelli) – 2 semesters
- BIT 2406 – Business Statistics, Analytics & Modeling (Dr. Barbara Fraticelli) – 1 semester
- BIT 4984 – Security Analytics (Dr. Idris Adjerid) – 1 semester

Position Details, Research Projects

Digital Platforms and Echo Chambers: An Analysis of Bias and Toxicity of News Platforms (Fall 2021 – Present)

- Formulated a research idea based on the news platforms' media bias and platform features
- Analyzed over 50 news platforms categorized by media bias in terms of commenting features
- Collected comment data from a sample of selected news platforms using Python Selenium
- Analyzed the collected data using Doc2Vec and dimension reduction techniques, which indicated discursive differences in different platforms' comments

Social Media Platforms From a Decision Science Lens: A Data-Driven Typology (Fall 2021 – Present)

- Developed a research design to build a typology of social media platforms based on how social media platforms are grouped and how are the social media platform features used
- Performed a digital ethnographic analysis on over 60 different social media platforms to collect which features exist in the platforms
- Designed a survey from an inductive epistemological perspective
- The analysis will be based on Analytical Hierarchical Processing which is a technique from Marketing and Decision Sciences fields

When the Views Change: Design-Motivated Persuasive Communication on a Reddit Community (Fall 2020 – Present)

- Formulated research questions with the objective of having a better understanding of a particular discussion community
- Built a theoretical model which is grounded on a cognitive psychology theory called Elaboration Likelihood Model
- Designed a Mixed-Methods approach that has Qualitative and Quantitative components to test the research model, which includes a qualitative and quantitative study
 - Qualitative study is a content analysis that entails categorizing the social media posts
 - Quantitative study is a survey methodology to test the theoretical model, which incorporates the Qualitative Study

Summer Research Assistantship for Dr. Viswanath Venkatesh (May-August 2021)

- Developed 5 different ideas on a project about coping with stress during COVID-19 and social media in India, and developed paper outlines
- Worked on ways to analyze WhatsApp data using text analytics techniques
- Read coping theories in the IS and Psychology literature
- Analyzed personality and coping realms of the social media literature in the IS discourse

Project Member, SBE-RCUK: The Geopolitical Orientations of People in Borderland States (Principal Investigator: Dr. Gerard Toal), National Science Foundation, (May 2021 – July 2021)

- Worked on a number of datasets and employed exploratory text analytics methods for the following purposes:
- Analyzing multiple corpora to understand the media perception about international politics and hybrid warfare
- Collecting and analyzing news outlet data from 1900 to 2020 to analyze the evolution of media discourse on international politics over time

Project Member, Exploring Social Media Misinformation and the COVID-19 Vaccine in Southwest Virginia (Investigators: Dr. Onur Seref and Dr. Michelle Seref), National Science Foundation (December 2020 – February 2021)

- Collected text data from Twitter, Reddit, and Fox News to analyze social media discourse about opinions on COVID-19 vaccine and understand drivers of vaccine hesitancy

Associate Collaborator, Statistical Applications and Innovations Group, College of Science, Statistics Department, Virginia Tech, Blacksburg, VA (January 2020 – May 2021)

- Guided students from any Virginia Tech graduate program on their data collection, analysis, and method interpretation. The primary focus of the projects was multivariate methods and machine learning

Graduate Research and Teaching Assistantship (Full-time), Industrial Engineering, Middle East Technical University (METU), Ankara, Turkey, 08/30/2015 to 08/07/2018

Address: Üniversiteler Mahallesi, Dumlupınar Bulvarı No: 1, Çankaya, Ankara, Turkey 06800
Phone: +90 (312) 210-2296

ie@metu.edu.tr

Position Details, Teaching

Graduate Teaching Assistant, Industrial Engineering, METU (Fall 2015– Spring 2018)

Industrial Engineering Courses Assisted

- IE251 – Linear Programming (Dr. Omer Kirca and Dr. Sinan Gurel) – 3 semesters
- IE206 – Scientific Computing for Industrial Engineering (Dr. Cem Iyigun) – 3 semesters
- IE323 – Production and Service Operations Planning
- IE333 – Work Systems Analysis and Design (Dr. Melih Celik and Dr. Sakine Batun) – 1 semester
- IE4903 – Special Topics in IE: Introduction to Data Mining (Dr. Cem Iyigun) – 3 semesters
- IE4907 – Special Topics in IE: Multi-Objective Combinatorial Optimization (Dr. Banu Lokman) – 1 semester

Engineering Management Graduate Courses Assisted

- EM522 – Data Mining for Business Intelligence (Dr. Cem Iyigun) – 1 semester
- EM523 – Monte Carlo Simulation for Operations Analysis (Dr. Mustafa Kemal Tural) – 1 semester
- EM501 – Management Accounting and Engineering Economics (Dr. Canan Sepil) – 1 semester

Student Assistant, Industrial Engineering, METU (Spring 2015)

- IE304 – Production and Service Information Systems (Dr. Cem Iyigun) – 1 semester

Position Details, Research Projects

A Unified Approach for Center-Based Clustering Problems on Networks, Fall 2017 – Fall 2018

- Worked on Network Clustering problems' theoretical properties under different distance metrics (Euclidean and squared Euclidean) and objective functions (fuzzy assignment and hard assignment)
- Built a framework based on the similarities and differences of different Network Clustering problems and explored properties of objective functions
- Developed mathematical proofs for objective functions' properties and cluster centroid locations at optimality
- Generated problem instances to test the developed solution method
- Built a Genetic Algorithm to solve the problem on MATLAB. The algorithm solved the models within the time limits and outperformed the problems in the literature.

A Genetic Algorithm for Capacitated Single Allocation Planar Hub Location Problem, Spring 2017

- Developed a solution method for the Capacitated Single Allocation Planar Hub Problem, which is an NP-hard problem
- Developed a Genetic Algorithm on MATLAB which is able to provide good solutions (2% deviation to the known optimal solutions) within seconds

- The solution method is applicable to strategic decision-making problems such as airline hub location, telecommunication network hub location, and courier network distribution center location

Stochastic Extension of a Debris Collection Problem, Spring 2016 – Fall 2016

- Debris collection problem is studied as it is a substantial step in the aftermath of a disaster
- Stochastic extension to a deterministic debris collection formulation is developed. The formulation included decisions for collection, transportation, reduction, recycle, and disposal of debris in the aftermath of disaster, as well as location of debris processing sites, selection of processes to make available at each site, and capacities of processing facilities.
- The stochasticity nature of the problem comes from the debris material that will need processing after disasters of varying types and magnitudes.
- The solution method, which is an L-Shaped Method (a decomposition algorithm for stochastic programs), is implemented on Java. The analysis shows that there is a significant value the stochastic solution brings, which increases with the type of potential disasters that can be observed.

Project Member, Recommendation System for Evaluation and Allocation of Hisar Systems, Aselsan, Ankara, Turkey with Dr. Omer Kirca, Dr. Ismail Bakal, and Dr. Derya Dinler (October 2015 – April 2018)

- Worked at a project contracted by the government
- Developed a recommendation algorithm and interface to aid decision-making of logistics operations

Senior Project, Leveraging Digital Channels to Maintain Loyalty of University Students as Is Bank Customers After Their Graduation, Is Bank, Istanbul, Turkey with Dr. Murat Koksalan and Dr. Cem Iyigun (June 2014 – May 2015)

- Performed market research to understand existing products and potential product opportunities for college students
- Analyzed millions of customers' data using Machine Learning algorithms (primarily classification trees) to understand their current technology use and drivers of discontinuity
- Performed a survey to understand customers' bank preferences after graduation and potential drivers
- Made suggestions to Digital Banking department based on gained insights and market research

TALKS & PRESENTATIONS

Eroglu, D.I., Kamal, M., & Green, M. L. (2026). Generative AI for microenterprises: A process model for growth. *19th LADIS (International Association for the Development of the Information Society) Conference*. Forthcoming.

Eroglu, D.I., (February 16, 2026). Guest Panelist for BIT Doctoral Colloquium at Virginia Tech.

- Eroglu, D. I., & Pamukcu, D.** (2025). An evolutionary AI approach for hub-location decisions: Leveraging genetic algorithms for sustainable supply chains. AMCIS 2025.
https://aisel.aisnet.org/amcis2025/data_science/sig_dsa/20
- Eroglu, D.I.,** (November 22, 2023). Guest Speaker for Graduate Seminar at Middle East Technical University.
- Eroglu, D.I.,** Seref, O., Seref, M.M.H. (2022). When the Views Change: Design-Motivated Persuasive Communication on a Reddit Community, 2023 INFORMS Annual Meeting, Phoenix, AZ, USA, October 15-18.
- Eroglu, D.I.,** Seref, O., Seref, M.M.H. (2021). Digital Platforms and Echo Chambers: A Comparison of News Platforms and Social Media, 2021 INFORMS Annual Meeting, Anaheim, CA, USA, October 24-27.
- Seref, O., Seref, M.M.H., **Eroglu, D. I.** (2021). An Analysis Of Social Media Posts On Covid-19 Vaccine Using Context Maps, 2021 INFORMS Annual Meeting, Anaheim, CA, USA, October 24-27.
- Eroglu, D.I.,** Seref, O., Seref, M.M.H. (2021). Changing Views: Pre-suasion in a Reddit Discussion Community, 2021 AMCIS (Americas Conference on Information Systems), Virtual.
- Eroglu, D.I.,** Seref, O., Seref, M.M.H. (2020) “I Agree, But”: A Study On Persuasion In Online Debate Platforms, 2020 INFORMS Annual Meeting, Virtual.
- Eroglu, D.I.,** Seref, O., Seref, M.M.H. (2020) Bridging Classification and Visualization for Persuasion Detection on an Online Discussion Platform, INFORMS Data Science Workshop, 2020.
- Eroglu, D.I.,** Seref, O. (2019) A Simulation-Based Framework to Study Opinion Dynamics in Social Networks. 2018 INFORMS Annual Meeting, Seattle, WA, USA, October 20-23.
- Iyigun, C., **Eroglu, D. I.** (2018) Soft Clustering Problems on Networks. 2018 INFORMS Annual Meeting, Phoenix, AZ, USA, November 4-7.
- Eroglu, D. I.,** Pamukcu, D., Iyigun, C. (2018) Genetic Algorithm for Capacitated Single Allocation Hub Location Problem. 2018 INFORMS Annual Meeting, Phoenix, AZ, USA, November 4-7.
- Eroglu, D. I.,** Pamukcu, D. (2016) A Stochastic Program for Debris Collection Problem. 2016 INFORMS Annual Meeting, Nashville, TN, USA, November 13-16.
- Pamukcu, D., **Eroglu, D. I.,** Iyigun, C., (2017) A Stochastic Program for Debris Collection Problem. 37th National Congress on Operations Research and Industrial Engineering, Istanbul, Turkey, July 5-7.

AWARDS & GRANTS

- Teacher of the Year Award,** College of Arts & Sciences, SUNY Brockport, February 2026
- Provost Faculty Fellowship for Project-Based Learning,** SUNY Brockport, November 2025
- Summer Undergraduate Research Program,** SUNY Brockport, June-August 2025

Outstanding Reviewer Award, 30th European Conference on Information Systems (ECIS), 2022

Summer Research Grant, Business Information Technology, Virginia Tech, May-August 2019, 2020, and 2022

Pathways Grant for Program Assessment and Data Review, Virginia Tech, 2022

Research Grant, SBE-RCUK: The Geopolitical Orientations of People in Borderland States (Principal Investigator: Gerard Toal), National Science Foundation, May 2021 – July 2021

Summer Project Grant with Dr. Viswanath Venkatesh, Business Information Technology, Virginia Tech, May-August 2021

Research Grant, Exploring Social Media Misinformation and the COVID-19 Vaccine in Southwest Virginia (Investigators: Dr. Onur Seref and Dr. Michelle Seref), National Science Foundation, December 2020 – February 2021

Graduate Student Scholarship, METU, Fall 2015 – Spring 2018

Dean's High Honor and Honor List, METU, 2011 – 2015

PROFESSIONAL CREDENTIALS & CERTIFICATION

Evidence Based Teaching with AI, Lumen Learning, May 2026

Awarding Academic Credit for Industry Certifications in Courses and Programs Summer Institute Completion, SUNY CPD, August 2025

Google IT Support, Google, June 2025

Outstanding Reviewer Award, 30th European Conference on Information Systems (ECIS), 2022

Future Professoriate Certificate, Virginia Tech, Spring 2021

Social and Behavioral Research Certificate, CITI, Virginia Tech, Spring 2021

COMPUTER SKILLS

Programming

Python - Advanced

- Generative AI-powered Automation
- Data Collection with API
- Web Crawling with Automated Browser
- HTML Processing
- Natural Language Processing
- Visualization with matplotlib and dash plotly
- Machine Learning Implementations
- Deep Learning Implementations with Tensorflow

MATLAB - Advanced

- Data Processing

- Scientific Computation
- Heuristic Optimization

Java – Intermediate

- Optimization with CPLEX
- Object-Oriented Programming
- Scientific Computation

Other Languages: GAMS (Intermediate), Cplex (Intermediate), Visual Basic for Applications (Intermediate), C# (Basic), R (Basic), MySQL (Intermediate), C (Basic), Visual Basic (Basic)

Package Software and Platforms

Qualtrics, Amazon Mechanical Turk, Prolific, WordPress, Minitab Statistical Software, SAS JMP, Cplex OPL, ARENA Simulation Software

SERVICE TO PROFESSION

Paper Reviews

Academy of Management (AOM) – 2024, 2025
The European Conference of Information Systems (ECIS) – 2020, 2022
Information Systems for Crisis Response and Management (ISCRAM) – 2020-2026
The Conference on Information Systems & Technology (CIST) – 2021
Americas Conference on Information Systems (AMCIS) – 2021
Heliyon – 2018

Memberships

Association for Information Systems (AIS), 2020 – Present
The Institute for Operations Research and the Management Sciences (INFORMS) – Data Mining Section, 2015 – Present
Association for Computing Machinery (ACM), 2022 – Present

Service to Conferences

The Institute for Operations Research and the Management Sciences (INFORMS), 2021, 2022, and 2023 Session Co-Chair
Information Systems for Crisis Response and Management (ISCRAM) 2021, Poster Track Co-Chair
The Institute for Operations Research and the Management Sciences (INFORMS) 2020, Volunteer for Virtual Support

Service to Institution, SUNY Brockport, 2023 – Present

- Served on the AI committee, contributing to the design and development of a new AI major and minor curricula.
- Served on the curriculum committee, contributing to the design and development of program curricula.
- Acted as the club advisor of Brockport Women in Technology club, planning events and providing guidance to the club members.

- Acted as the library coordinator, liaising with the library to communicate resource needs from our department.
- Mentored two students under the Green Leadership Development program, focusing on professional growth within the diversity sphere.
- Mentored 8 students in an advisement capacity, culminating in 4 students presenting their research.
- Managed the departmental Instagram account, planning and creating content according to a strategic content calendar.
- Participated in recruitment efforts aimed at increasing department enrollment, enhancing promotional strategies.

Service to Institution, Virginia Tech, 2018 – 2022

Book Editor and Publishing Assistant

- Formatted and/or reformatted Dr. Venkatesh's manuscripts
- Collected information about copyright licensing and Creative Commons licensing
- Managed open-access publication process of the book *Road to Success: A Guide for Doctoral Students and Junior Faculty Members in the Behavioral and Social Sciences*
- Supported open-access publication of the book *Conducting Mixed-Methods Research: From Classical Social Sciences to the Age of Big Data and Analytics*

Website Developer and Manager

- Built and documented Dr. Venkatesh's personal website on WordPress
- Maintained the website in terms of keeping functionality and keeping the content up-to-date
- Supported managing his online presence in various research platforms
- Assisted him in his public communication

Service to Institution, METU, 2015 – 2018

Senior Project (Systems Design) Committee Member

Systems Design Committee manages various stages of the senior project process and guides students for potential problems along the way. The committee performed a wide variety of tasks every year, which are listed below.

- Formed 5-people project groups by collecting requests and preferences
- Contacted companies for projects and setting the scope of the projects with company stakeholders
- Matched project groups with the projects
- Collected preferences of the faculty and matching faculty with the projects
- Guided the project groups for the midsemester and end-of-semester deliverables (presentations and reports)
- Resolved conflicts in case there are problems within the group

Senior Elective Course Committee Member

Elective Course Committee manages the elective course selection and allocation process of the senior students. The committee performed a variety of tasks every year, which are listed below.

- Collected elective course information (syllabus and student quota) from the faculty

- Provided the course information to the students and collecting their preferences
- Ran an assignment model that automatically allocates students to the preferred elective courses within the student quota limits

INDUSTRY EXPERIENCE

SAP WM Business Analyst (Full-time), Information Technologies, Enerjisa, Ankara, Turkey,
June 2015 - August 2015

Software Developer (Part-time), Information Technologies, Deloitte Consulting, Ankara, Turkey,
March 2015 - June 2015

Intern (Full-time), Digital Banking, Turkiye Is Bankasi, Istanbul, Turkey, August 2014 – Sept. 2014

Intern (Full-time), Information Technologies, Enerjisa, Ankara, Turkey, July 2014 - August 2014

Intern (Full-time), Press Department, Oyak Renault Automobile Factory, Bursa, Turkey, July 2013
– Sept. 2013

Intern (Full-time), Lean Management Department, Karsan Automobile Factory, Bursa, Turkey,
July 2012 - August 2012