

SAMUEL A. BONET OLIVENCIA

Curriculum Vitae

INSTITUTIONAL ADDRESS: 2529 BLVD. ALFONSO VALDEZ COBIAN, MAYAGUEZ, PR 00681
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A. EDUCATION

- 2017-2022 **Ph.D., Industrial & Systems Engineering**
Specialization in Health and Human Systems Engineering
Texas A&M University, College Station, TX
- 2014-2016 **M.S., Industrial Engineering**
Specialization in Systems Management
University of Puerto Rico, Mayaguez, PR
- 2009-2013 **B.S., Industrial Engineering**
University of Puerto Rico, Mayaguez, PR

B. WORK EXPERIENCE

Instructor of Record & Assistant Professor-University of Puerto Rico, Mayaguez

ININ 4077: Work Systems Design - Fall 2022, Spring 2023

ININ 4040: Facility Layout Planning - Fall 2022, Spring 2023

ININ 4071: Ergonomics and Human Factors in Work Systems Design - Fall 2023, Spring 2024

Instructor of Record-Texas A&M University

ISEN 330: Human Systems Interaction - Spring 2022

Graduate Teaching Assistant-Texas A&M University

ISEN 330: Human Systems Interaction - Spring 2019 & Spring 2020

ISEN 355: Systems Simulation - Fall 2016, Spring 2017, Fall 2017, Spring 2018

Graduate Teaching Assistant-University of Puerto Rico, Mayaguez

ININ 4077: Work Systems Design - Spring 2016

ININ 6026: Systems Simulation - Spring 2014

ININ 4040: Facility Layout Planning - Fall 2013, Spring 2014, Fall 2014, Spring 2015 & Fall 2015

C. RESEARCH EXPERIENCE

- 2023-Present **Ergonomics Awareness Training for High Risk and Hard-to-Reach Workers in Puerto Rico**
Sponsor: Occupational Safety and Health Administration (OSHA)
- 2018-2023 **Developing a Framework for Telehealth Integration into Clinical Workflow**
Doctoral Dissertation Work
- 2018-2023 **PATHS_UP: The Precise Advanced Technology and Health Systems for Underserved Populations**
Sponsor/Partner: NSF
- 2018-2021 **DfD-SEUC: Design for Diabetes Through Stakeholder Engagement in Underserved Communities**
Sponsor/Partner: Kleberg Foundation
- 2019-2021 **The assessment of virtual ICU technology in Houston Methodist Hospital**
Sponsor/Partner: Houston Methodist Hospital
- 2019-2020 **Avoidable Re-admissions: The Role of Non-Urgent Emergency Visits**
Sponsor/Partner: NSF CHOT, Mainline Health
- 2019-2020 **Adoption of Telemedicine for Post-Surgical Follow-Up Visits**
Sponsor/Partner: Houston Methodist Hospital

2018-2019	Investigating the Integration of a Novel Telehealth Solution to Clinicians' Workflow Sponsor/Partner: NSF & Coordination Centric
2014-2016	Probabilistic Cost Model to Estimate the Cost Expected Value of No-Show in Outpatient Clinics – Master's Thesis Work
2012-2013	Development of an Application to Support Decision-Making in the Value-for-Money Analysis for Highway Projects in Puerto Rico – Undergraduate Researcher

D. PUBLICATIONS

Journal Articles Published

1. **Bonet-Olivencia, S.**, Carrillo-Leal, J., Rao, A., & Sasangohar, F. (2024). User-Centered Design of a Diabetes Self-Management Tool for Underserved Populations. *Journal of Diabetes Science and Technology*, 18(1), 22-29.
2. Dvir, R., Goldsmith, C., Seavey, I., Vedlitz, A., Hammett, J., **Bonet, S.**, ... & Sasangohar, F. (2023). The policy environment of remote patient monitoring: evaluating stakeholders' views. *International Journal of Healthcare Technology and Management*, 20(3), 249-275.
3. **Bonet, S.**, Sasangohar, F. (2022). A Sociotechnical Framework for Integration of Telehealth into Clinical Workflow. *IISE Transaction on Healthcare Systems Engineering*, 1-12. † *Editors' Choice for ISE magazine article of the month (November 2023)*
4. **Bonet Olivencia, S.**, Rao, A. H., Smith, A., & Sasangohar, F. (2021). Eliciting Requirements for a Diabetes Self-Management Application for Underserved Populations: A Multi-Stakeholder Analysis, *International Journal of Environmental Research and Public Health*, 19(1), 127. <https://doi.org/10.3390/ijerph19010127>
5. **Bonet, S.**, Sasangohar, F. (2021). Investigating the Food and Drug Administration (FDA) Biotherapeutics Review and Approval Process: A Narrative Review. *JMIR Formative Research*, 5(3): e14563. DOI: 10.2196/14563
6. **Bonet, S.**, Hegde, S., Sasangohar, F. (2020). A multi-level stakeholder-centered approach to investigate unnecessary readmissions in emergency departments. *IISE Transactions in Health Systems Engineering*, 11(1): 24-37. DOI: 10.1080/24725579.2020.1834033 † *Editors' Choice for ISE magazine article of the month (May 2021)*
7. **Bonet, S.**, Sasangohar, F. (2020). Investigating the Integration of Telemedicine into Clinicians' Workflow: A Review of Methods, *Ergonomics International Journal.*, 4(3). DOI: 10.23880/eoj-16000243

Conference Proceedings (* Presenter):

1. **Bonet, S.A.***, Sasangohar, F. (2020). The Integration of Telemedicine into Clinicians' Workflow: A Scoping Review. In *Proceedings of the Human Factors and Ergonomics Society Annual Meeting* (Vol. 64, No. 1, pp. 620-621). Sage CA: Los Angeles, CA: SAGE Publications.
2. **Bonet, S.A.***, Sasangohar, F. (2020). Developing a Framework for Telehealth Integration into Clinical Workflow. In *Proceedings of the Human Factors and Ergonomics Society Annual Meeting* (Vol. 64, No. 1, pp. 618-619). Sage CA: Los Angeles, CA: SAGE Publications.
3. **Bonet, S.A.***, Sasangohar, F. (2019, November). A Systems Approach into Unnecessary Admissions and Readmissions in Emergency Departments. In *Proceedings of the Human Factors and Ergonomics Society Annual Meeting* (Vol. 63, No. 1, pp. 782-783). Sage CA: Los Angeles, CA: SAGE Publications.
4. **Bonet Olivencia, S.***, Sasangohar, F., Lawley, M. (2018). Investigating the Food and Drug Administration (FDA) Biotherapeutics Review and Approval Process: A Scoping Review. In *Proceedings of the Human Factors and Ergonomics Society Annual Meeting* (Vol. 62, No. 1, pp. 632-633). Sage CA: Los Angeles, CA: SAGE Publications.
5. **Bonet Olivencia, S.***, Mendez-Pinero, M. (2015). Estimating the Patients Waiting Time Cost to an Outpatient Clinic Using Overflow Probabilities. In *Proceedings of the 4th Annual World Conference of the Society for Industrial and Systems Engineering* (Vol. 1, No. 1). Society for Industrial and Systems Engineering (SISE). † *Best Student Paper Award*

Technical Reports:

1. Larsen, E., **Bonet, S.**, Sultana, I., Zheng, F., Sasangohar, F., Kash B. (2019). COR project report: Adoption of telemedicine for post-surgical follow-up visits. Internal report of the Houston Methodist Center for Outcomes Research, Houston, TX.

2. T1) Park, S., Wagle, N., Hammett, J., **Bonet Olivencia, S.**, Lawley, M., Sasangohar, F., Kum HK. (2019). Telemonitoring in Texas. Population Informatics Lab, Applied Cognitive Ergonomics Lab, Texas A&M University.

Master's Thesis:

1. **Bonet, S.A.** (2016) Probabilistic Cost Model to Estimate the Cost Expected Value of No-Show in Outpatient Clinics. Master's Thesis. University of Puerto Rico, Mayaguez, Puerto Rico.

E. STUDENTS MENTORED

Undergraduate Research Students:

University of Puerto Rico, Mayaguez

2024-Present	Alejandra Morales, Industrial Engineering
2024-Present	Yamieleny Meléndez, Industrial Engineering
2024-Present	Alondra Collazo, Industrial Engineering
2024-Present	Valerie Morales, Industrial Engineering
2024-Present	Andrea Vélez, Industrial Engineering
2024-Present	Gianinna Maldonado, Industrial Engineering
2024-Present	Iván Carrión, Industrial Engineering
2023-Present	Carla Troche, Industrial Engineering
2023-Present	Fabiola Andino, Industrial Engineering
2023-Present	André Morales, Industrial Engineering
2023-Present	Jaime Negrón, Industrial Engineering
2023-Present	Yaniel Cruz, Industrial Engineering
2015	Gabriela Salvat, Industrial Engineering

Texas A&M University

2022	Roque Pena, Industrial and Systems Engineering
2022	Alberto Gutierrez, Biomedical Engineering † Summer term mentee as part of the PATHS-UP Research Experience for Undergraduate Students
2022	Abigail Byrd, Industrial and Systems Engineering
2022	Rachel Stacey, Industrial and Systems Engineering
2021	Jorge Tolentino, Industrial and Systems Engineering
2021	Jesus Carrillo, Industrial and Systems Engineering
2021	Hector Ariza, Industrial and Systems Engineering
2021	Magdalena Nino, Chemical Engineering
2021	Dhakshin Subbaiah, Industrial and Systems Engineering
2021	Juan Hernandez, Computer Science † Summer term visitor from the University of Puerto Rico as part of the PATHS-UP Research Experience for Undergraduate Students
2019	Lanise Williams, Industrial and Systems Engineering
2019	Mackenzie Gaona, Industrial and Systems Engineering

F. AWARDS AND HONORS

National/International:

2023	Editor's Choice Article, Institute of Industrial and Systems Engineering (IISE) Transactions on Healthcare Systems Engineering
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2021 **Student Member with Honors Award, Human Factors and Ergonomics Society (HFES)**
 2021 **Editor's Choice Article, Institute of Industrial and Systems Engineering (IISE) Transactions on Healthcare Systems Engineering**
 2019 **Healthcare Technical Group Travel Award, Human Factors and Ergonomics Society (HFES)**
 2019 **Fellow, NSF Advancing Careers in Academics with Diversity Education and Mentorship in Engineering (ACADEME)**
 2018 **Third Place, Simio Student Competition, Simio LLC**
 2015 **Best Student Paper Award, Society for Industrial and Systems Engineering (SISE)**

Regional:

2019-Present **Visiting Graduate Research Fellow, Houston Methodist Hospital, Houston, TX**

College-level:

2022 **Fellow, Graduate Teaching Fellows Program, College of Engineering, Texas A&M University**
 2018-2022 **Fellow, NSF Engineering Research Center PATHS-UP**
 2021 **Sigma Xi Interdisciplinary Award [with mentees Hector Ariza, Magdalena Nino, Jorge Tolentino], Student Research Week, Texas A&M University**
 2020 **Seed Grant Award, NSF Engineering Research Center PATHS-UP**

G. PROPOSAL WRITING EXPERIENCE

Dates of the Award	Funding Entity	Funded? Y/N	My Role:	Names of PIs/Co-PIs	Title of Proposal
2023-2024	Susan Harwood Training Grant-Occupational Safety and Health Administration (OSHA)	Y	Principal Investigator	Viviana Cesani (Co-PI)	Ergonomics Awareness Training for High Risk and Hard-to-Reach Workers in Puerto Rico
2021-2022	NSF Engineering Research Center PATHS-UP	Y	Proposal Writer & Graduate Research Team Member	Farzan Sasangohar	Investigating Clinical and Testing Workflows for Remote Health Technologies
2020-2021	Student Seed Fund NSF PATHS-UP ERC	Y	Proposal Writer & Graduate Research Team Member	Nandita Chaturvedi (lead) Andres Rodríguez	Stakeholder Engagement to Guide the Design Enhancement of Paper Fluidic for Congestive Heart Failure
2019-2020	Houston Methodist Hospital	Y	Proposal Writer & Graduate Research Team Member	Farzan Sasangohar Ethan Larsen Bita Kash Feibi Zheng	Adoption of Telemedicine for Post-Surgical Follow-Up Visits
2018-2019	NSF Engineering Research Center PATHS-UP	Y	Proposal Writer & Graduate Research Team Member	Farzan Sasangohar	Investigating the Integration of a Novel Telehealth Solution to Clinicians' Workflow

H. SERVICE TO PROFESSION

2023-Present **Editorial Board Member, Human Factors in Healthcare Journal**
2020-Present **Student Chapters Liaison, Chapter Affairs, Human Factors and Ergonomics Society**
2020 **Reviewer, Healthcare and Macroergonomics Technical Groups, HFES Annual Meeting**
2016 **Assistant of the University of UPRM Campus Director, PR-LSAMP**

H. SERVICE TO THE INSTITUTION

2023-Present **Member of the Graduate Studies Committee, Industrial Engineering Department, UPRM**
2023-Present **Faculty Mentor – Biotech Engineering Society, UPRM Student Chapter**

I. PROFESSIONAL MEMBERSHIPS/AFFILIATIONS

2018-Present **Member, HFES**
2013-Present **Member, IISE**
2010-Present **Golden Key Honor Member**

J. PROFESSIONAL DEVELOPMENT / OTHER EDUCATION

2023 **Virtual Education Certification, University of Puerto Rico, Mayaguez Campus**
2019 **NSF ACADEME FUTURE FACULTY workshop, Mississippi State University**