

## DANIEL ERIAN ARMANIOS

Address: 5000 Forbes Avenue, Wean Hall 5120 | Pittsburgh, PA 15213

E-mail: [darmanios@cmu.edu](mailto:darmanios@cmu.edu) | Phone: 1-412-268-7039

URL: <https://www.cmu.edu/epp/people/faculty/daniel-armanios.html>

AUGUST 2021

### EDUCATION

---

PhD, Management Science & Engineering (specialty: Entrepreneurship & Public Policy),  
Stanford University, 2015

Thesis: *What is the role of the state in entrepreneurship and venture performance?*

Committee: Kathleen Eisenhardt and Charles Eesley (co-advisors), Stephen Barley, Riitta Katila

**Winner, Best Dissertation Award, AOM TIM Division, 2016**

**Runner-Up, Best Dissertation Award, Industry Studies Association (ISA), 2016**

**Finalist, ITC-Emerald Best International Dissertation Award, 2016**

**Finalist, INFORMS TIMES Dissertation Award, 2016**

MSc, Water Science, Policy and Management, University of Oxford, 2009

Thesis: *Predicting water availability without ground measurements: an entirely remote-sensing based hydrologic budget model of the Rufiji Basin, Tanzania Using TRMM, GRACE, MODIS, SRB, and AIRS.*

Advisor: Josh B. Fisher

MSc, *with distinction*, Management Research, Saïd Business School, University of Oxford, 2008

Thesis: *Visualization forming organizational fields: Leonardo da Vinci and the onset of aviation.*

Advisor: Paolo Quattrone

BS, *summa cum laude*, Mechanical Engineering, University of Pittsburgh, 2007

BA, *summa cum laude*, Political Science (Economics Minor), University of Pittsburgh, 2007

### ACADEMIC POSITIONS

---

**Department of Engineering and Public Policy, Carnegie Mellon University (USA)**

Associate Professor, 7/1/2021-present

Assistant Professor, 8/31/2015-7/1/2021 (2018-2019 off tenure clock due to parental leave)

- Distinguished Visiting Professor of Leadership, Schwarzman College, Tsinghua University (China), 2018
- LabGov.City Distinguished Visiting Professor, Department of Law, LUISS (Italy), 2020

### HONORS AND AWARDS

---

Academy of Management (AOM) Organizations and Natural Environment (ONE) Division and Network for Business Sustainability (NBS) Research Impact on Practice Award, 2021

AOM Technology and Innovation Management (TIM) Emerging Scholar Award, 2021

Provost's Inclusive Teaching Fellow, 2021

Best Reviewer Award, Academy of Management Discoveries, 2020

Pitt African-American Alumni Council (AAAC) Distinguished Alumni Award, 2019

AOM Organization and Management Theory (OMT) Best Environmental and Social Practices Paper Award, 2019

Arthur J. Boase Endowed Lecture, University of Colorado-Boulder, 2019

Certificate for Patriotic Civilian Service, Department of the Army, 2018

ISA Emerging Scholar in Innovation & Entrepreneurship Award, 2018

ISA Giarratani Rising Star Award Runner-Up, 2018

AOM TIM Best Dissertation Award Winner, 2016

ISA Best Dissertation Award Runner-Up, 2016

INFORMS TIMES Best Dissertation Award Finalist, 2016  
 ITC-Emerald Best International Dissertation Award Finalist, 2016  
 National Science Foundation Graduate Research Fellow (NSF-GRF), 2009-2014  
 Benchmark Stanford Graduate Research Fellow (SGF), 2009-2014  
 Academy of Innovation and Entrepreneurship (AIE), Best Paper Award Finalist, 2012  
 “225 Medallion”, University of Pittsburgh (Honoring the 225 most distinguished alumni as part of the School’s 225<sup>th</sup> Anniversary), 2012  
 Rhodes Scholar, 2007-2009  
 USA Today All-USA College Academic 1<sup>st</sup> Team, 2007  
 American Society of Mechanical Engineers Student Award (Pittsburgh Section), 2007  
 Harry S. Truman Scholar, 2005  
 American Helicopter Society Vertical Flight Scholar, 2005  
 Barry M. Goldwater Scholar, 2004

## **PUBLICATIONS**

---

†undergraduate student

\*PhD Student (culture at Stanford MS&E and CMU EPP is for doctoral students, on their dissertation papers, to be first author and to coauthor with advisors)

### Refereed Journal Publications in Press/ Accepted

1. Dutta, S; **Armanios, DE**; Desai, JD\*. 2021. “Beyond Spatial Proximity: The Impact of Enhanced Spatial Connectedness from New Bridges on Entrepreneurship,” *Organization Science*, forthcoming. [JCR Impact Factor: 2.782]  
**2019 Academy of Management Organization and Management Theory Best Environmental and Social Practices Paper Award**
2. Lanahan, L.; **Armanios, DE** (first two authors equal first coauthorship); Joshi, A. 2021. “Inappropriateness Penalty, Desirability Premium: What Do More Certifications Actually Signal?,” *Organization Science*, <https://doi.org/10.1287/orsc.2021.1463>. [JCR Impact Factor: 2.782]
3. **Armanios, DE.** and Eesley, CE. 2021. “How Do Institutional Carriers Alleviate Normative and Cognitive Barriers to Regulatory Change?,” *Organization Science*, Articles in Advance: <https://doi.org/10.1287/orsc.2021.1434>. [JCR Impact Factor: 2.782]  
**2018 Industry Studies Association Giarratani Rising Star Award Runner-Up**
4. Eberhart, RN; **Armanios, DE.** 2021. “Certification Relics: Entrepreneurship Amidst Discontinued Certifications,” *Organization Science*, Articles in Advance: <https://doi.org/10.1287/orsc.2021.1458>. [JCR Impact Factor: 2.782].
5. Ren, M\*; Branstetter, LG; Kovak, BK; **Armanios, DE**; and Yuan, J. 2021. “Why Has China Overinvested in Coal Power?,” *Energy Journal*, 42(2), 113-134: <https://doi.org/10.5547/01956574.42.2.mren>. [JCR Impact Factor: 2.394]
6. Jones, SH\* and **Armanios, DE** (corresponding author). 2020. “Methodological Framework and Feasibility Study to Assess Social Equity Impacts of the Built Environment,” **Editor’s Choice Article**, *Journal of Construction Engineering and Management*, 146(11): 05020016, [https://doi.org/10.1061/\(ASCE\)CO.1943-7862.0001914](https://doi.org/10.1061/(ASCE)CO.1943-7862.0001914) [JCR Impact Factor: 2.374]  
**Profiled in NextCity: <https://nextcity.org/daily/entry/bridge-the-inequality-divide-build-bridges-where-low-income-people-live>, retweeted by the Mayor of**

**Pittsburgh Bill Peduto here:**

<https://twitter.com/billpeduto/status/1318730149236527104>

7. Rosenberg, M†; **Armanios, DE** (corresponding author); Aklin, M.; Jaramillo, P. 2020. “Evidence of Gender Inequality in Energy Use from a Mixed Methods Study in India,” *Nature Sustainability*, 3(2): 110-118, <https://doi.org/10.1038/s41893-019-0447-3>. [JCR Impact Factor: 12.080]

**2021 AOM ONE and NBS Research Impact on Practice Award**

**Appeared in 22 different news outlets such as IndiaTVnews (India):**

<https://www.indiatvnews.com/news/india/indian-households-electrification-benefits-men-women-574039>, **ScienceNet (China):**

<http://news.sciencenet.cn/htmlnews/2020/1/434444.shtm>, **AAAS EurekAlert:**

[https://eurekalert.org/pub\\_releases/2019-12/coec-boe122019.php](https://eurekalert.org/pub_releases/2019-12/coec-boe122019.php), and **Nature Research Highlights:** <https://www.nature.com/articles/d41586-019-03929-y>.

**Noted as an exemplar that “can help and encourage researchers in preparing their qualitative work for publication in strong interdisciplinary journals”:**

<https://www.nature.com/articles/s41893-020-0482-0>.

8. Reed, L\*; Morgan, MG; Vaishnav, P; and **Armanios, DE**. 2019. “Converting existing transmission corridors to HVDC is an overlooked option for increasing transmission capacity,” *Proceedings of the National Academy of Sciences (PNAS)*, 116(28): 13879-13884, <https://doi.org/10.1073/pnas.1905656116>. [JCR Impact Factor: 9.412]

**Appeared in CMU engineering news (<https://engineering.cmu.edu/news-events/news/2019/10/03-morgan-transmission-lines.html>)**

9. **Armanios, DE**; Lanahan, L.; and Yu, D\* (first two authors have equal first coauthorship). 2019. “Varieties of Local Government Experimentation: U.S. State-led Technology-Based Economic Development Policies, 2000 - 2015,” *Academy of Management Discoveries*, 6(2), 266-299, <https://doi.org/10.5465/amd.2018.0014>.

**Dataset for the article made publicly available as well as replication files here:**

<https://www.cmu.edu/epp/stategovexp/>; **Commentary on the article by the world-renowned sociologist John L. Campbell, which starts by saying, “This is a tantalizing paper! And like an enthralling first-episode in a new Netflix series, it left me wanting more.” (<https://doi.org/10.5465/amd.2019.0097>).**

10. Desai, JD\* and **Armanios, DE** (corresponding author). 2018. “What Cannot be Cured Must be Endured: Understanding Bridges Systems as Institutional Relics,” *Journal of Infrastructure Systems* 24(4): 04018032, [https://doi.org/10.1061/\(ASCE\)IS.1943-555X.0000451](https://doi.org/10.1061/(ASCE)IS.1943-555X.0000451). [JCR Impact Factor: 1.825]

11. Lanahan, L. and **Armanios, DE** (equal first coauthorship). 2018. “Does more certification always benefit a venture?,” *Organization Science*, 29(5): 931-947, <https://doi.org/10.1287/orsc.2018.1211>. [JCR Impact Factor: 2.782]

Media mentions in: CMU engineering (<https://engineering.cmu.edu/news-events/news/2018/06/15-armanios-sbir-program.html>), and *Recalculating* radio show (<https://www.recalculating.biz/radio-shows/beth-haddock-warburton-advisers-daniel-armanios-carnegie-mellon-u-aug-7-2018>).

12. **Armanios, DE**; Eesley, CE; Li, J; Eisenhardt, KM. 2017. “How entrepreneurs leverage institutional intermediaries in emerging economies to acquire public resources,” **Lead Article**, *Strategic Management Journal*, 38(7): 1373-1390, <https://doi.org/10.1002/smj.2575>. [JCR Impact Factor: 5.463]  
*Academy of Innovation and Entrepreneurship (AIE) Best Paper Award Finalist 2012*
- According to the 2020 Journal Citation Reports, this paper was the 7<sup>th</sup> most cited paper in the Strategic Management Journal of all papers published in the journal from 2017-2018.*
- Media mentions in: Stanford eCorner*  
*(<http://ecorner.stanford.edu/articles/4901/How-Chinese-Cities-are-Spurring-Innovation>) and Global Innovation through Science and Technology Network - GIST (<https://www.gistnetwork.org/how-different-types-entrepreneurs-leverage-government-funding>)*
13. De Lange, DE, **Armanios, DE**, Delgado-Ceballos, J, Sandhu, S. 2016. “From Foe to Friend: Complex Mutual Adaptation of Multinational Corporations and Nongovernmental Organizations,” *Business & Society*, 55(8): 1197-1228, <https://doi.org/10.1177%2F0007650314568537>. [JCR Impact Factor: 4.074]
14. **Armanios, DE** and JB Fisher. 2014. “Measuring water availability with limited ground data: An entirely remote-sensing based hydrologic budget model of the Rufiji Basin, Tanzania using TRMM, GRACE, MODIS, SRB and AIRS,” *Hydrological Processes*, 28: 853–867, <https://doi.org/10.1002/hyp.9611>. [JCR Impact Factor: 3.256]
15. **Armanios, DE**. 2012. “Sustainable Development as a Community-of-Practice: Insights from Village Water Projects in Egypt,” *Sustainable Development*, 20(1): 42-57, <https://doi.org/10.1002/sd.463>. [JCR Impact Factor: 4.082]
16. Matros, A. and **DE Armanios**. 2009. “Tullock’s Contests with Reimbursements”, *Public Choice*, 141(1-2): 49–63, <https://doi.org/10.1007/s11127-009-9436-9>. [JCR Impact Factor: 1.035]
17. **Armanios, DE**. 2006. “Parochialism in EU Economic Policy: Case Study between the Boeing Company and the Airbus Company,” *International Journal of Technology, Policy and Management*, 6(1): 66-85, <https://doi.org/10.1504/IJTPM.2006.010073>.
18. Zax, DB; **Armanios, DE**; Horak, S; Brodowski, C; Yang, Z. 2004. “Variation of Mechanical Properties with Amino Acid Content in the Silk of *Nephila Clavipes*,” *Biomacromolecules*, 5(3): 732-738, <https://doi.org/10.1021/bm034309x>. [JCR Impact Factor: 6.092]

*Refereed Conference/Symposia Proceedings in Press/Accepted*

19. Lamba, H; Trockman, A; **Armanios, DE**; Kästner, C; Miller, H; Vasilescu, B. 2020. “Heard it Through the Gitvine: An Empirical Study of Tool Diffusion Across the npm Ecosystem”, *ACM Joint European Software Engineering Conference and Symposium on the Foundations of Software Engineering (ESEC/FSE)*, <https://dl.acm.org/doi/10.1145/3368089.3409705>.

*Invited Publications*

20. Armanios, DE. 2020. “Energy access: Holistically representing women.” *Nature Energy*, 5(12): 939–940, <http://dx.doi.org/10.1038/s41560-020-00729-x>. [JCR Impact Factor: 46.495].
21. Armanios, DE and Zhang, H\*. 2020. “Review: Unleashing the Crowd: Collaborative Solutions to Wicked Business and Societal Problems.” *Administrative Science Quarterly*, 66(1), NP13–NP16, <https://doi.org/10.1177%2F0001839220961275> [JCR Impact Factor: 8.304].

*Policy and National Academies Reports*

22. (Committee Member). 2020. Review of the SBIR and STTR Programs at the Department of Energy, National Academies of Sciences, Engineering, and Medicine: <https://www.nap.edu/catalog/25674/review-of-the-sbir-and-sttr-programs-at-the-department-of-energy>.

**SELECTED WORKING PAPERS**

---

Eberhart, R; Armanios, DE; Kim, S.; Bhargava, V. 2021. “Do Sustained Performance Streaks Justify High CEO Pay?”, *Academy of Management Journal*, revise & resubmit.

Yu, Dian\*; Armanios, DE. 2021. “Leading in Experimental Markets: China’s Market and Institutional Infrastructure in the Commercial UAV (Unmanned Aerial Vehicle) Industry”, *Strategic Management Journal*, revise & resubmit.

Desai, JD\* and **Armanios, DE**. 2021. “Objects of Consecration: The Effects of the National Register of Historic Places on Roadway Bridges,” working paper.

Mongkolsinh, N\* and **Armanios, DE**. 2021. “Firm R&D Choices in the Midst of Political Uncertainty: The Case of Thailand,” working paper.

**Armanios, DE** and AI Adly. 2020. “Revolutions as Regulatory-Disrupting but Infrastructure-Freing: State Entrepreneurial Financing During the Arab Spring”, working paper.

Zheng, Saina; Zhai, Haibo Zhai; Hsu, Shu-Chien Hsu; and **DE Armanios**. 2020. “Uneven Distribution in Energy Conservation Services through Performance Contracts in China”, working paper.

Desai, JD\*; **Armanios, DE**; Akinci, B. 2020. “Determination of Influential Factors on Roadway Bridge Sufficiency Using Inspection Data and LASSO: A Proof-of-Concept”, working paper  
**First author (Desai) won the 2020 Eugene P. Visco Prize from the Military Operations Research Symposium (MORS) for this work**

**MEDIA MENTIONS AND OP-EDS**

---

Armanios, Daniel E. “3 things Biden can do to enforce more equitable infrastructure.” April 25, 2021. *Fortune*, <https://fortune.com/2021/04/25/biden-equitable-infrastructure-development-plan/>

Norwood, Candice. “How infrastructure has historically promoted inequality.” April 23, 2021. *PBSNewsHour*, <https://www.pbs.org/newshour/politics/how-infrastructure-has-historically-promoted-inequality/>

Morrison, Oliver. “With all eyes on Biden in Pittsburgh, 13 local experts diagnose the region’s biggest infrastructure needs.” March 31, 2021. *PublicSource*,

<https://www.publicsource.org/with-biden-in-pittsburgh-13-local-experts-diagnose-the-regions-biggest-infrastructure-needs/>

Hill, Robert. “Daniel Armanios made young Black History.” February 16, 2021. Pittsburgh Post-Gazette, <https://www.post-gazette.com/opinion/Op-Ed/2021/02/16/Robert-Hill-Daniel-Armanios-made-young-Black-history/stories/202102160017>

Srivastava, Deepali. “Want to Bridge the Inequality Divide? Build Bridges Where Low-Income People Live, Study Says.” October 6, 2020. NextCity, <https://nextcity.org/daily/entry/bridge-the-inequality-divide-build-bridges-where-low-income-people-live>

***Retweeted by Pittsburgh Mayor Bill Peduto:***

***<https://twitter.com/billpeduto/status/1318730149236527104>***

Dove, Adam. “Is systemic racism literally built into our cities?” September 8, 2020. CMU Engineering, <https://engineering.cmu.edu/news-events/news/2020/09/11-racial-inequity-infrastructure.html>

Robinson, Ellis. “Gender inequality persists in electricity use.” January 9, 2020. CMU Engineering, <https://engineering.cmu.edu/news-events/news/2020/01/09-gender-electricity-use.html>

December 23, 2019. “Benefits of electrification don't accrue equally for women, finds survey of homes in India.” EurekaAlert (AAAS): [https://www.eurekaalert.org/pub\\_releases/2019-12/coec-boe122019.php](https://www.eurekaalert.org/pub_releases/2019-12/coec-boe122019.php).

***Reposted or discussed in over 22 media outlets including: ScienceNet (in Chinese): <http://news.sciencenet.cn/htmlnews/2020/1/434444.shtml>; Phys.org (<https://phys.org/news/2019-12-benefits-electrification-dont-accrue-equally.html>); OutlookIndia (<https://www.outlookindia.com/newscroll/men-benefit-more-than-women-from-electrification-in-india/1692987>); Times of India (<https://energy.economictimes.indiatimes.com/news/power/men-benefit-more-than-women-from-electrification-in-india/72962655>); IndiaTV (<https://www.indiatvnews.com/news/india/indian-households-electrification-benefits-men-women-574039>); The Hindu (<https://www.thehindu.com/sci-tech/electrification-in-indian-households-benefits-men-more-than-women-study/article30400757.ece>)***

Sykora, Luke. October 30, 2019. “The Rise of Entrepreneurial Policy” Stanford eCorner: <https://ecorner.stanford.edu/articles/the-rise-of-entrepreneurial-policy/>.

Armanios, Daniel. August 7, 2018. Radio Interview (summarizing my work with Lauren Lanahan “Does certification always benefit a venture?” in *Organization Science*), Recalculating: <http://www.recalculating.biz/radio-shows/beth-haddock-warburton-advisers-daniel-armanios-carnegie-mellon-u-aug-7-2018>

Armanios, Daniel. May 1, 2018. “We are facing a fight over intellectual diversity.” The Hechinger Report: <http://hechingerreport.org/opinion-can-you-denounce-female-circumcision-%C2%AD-and-also-extreme-depictions/>

Armanios, Daniel. Mar. 26, 2018. “The West shaped the world with rules, Trump is letting China shape it with roads” TheHill: <http://thehill.com/opinion/international/380354-the-west-shaped-the-world-with-rules-trump-is-letting-china-shape-it>.

Peña, Mike. Jan. 10, 2017. “How Chinese Cities are Spurring Innovation” Stanford eCorner: <http://ecorner.stanford.edu/articles/4901/How-Chinese-Cities-are-Spurring-Innovation>.

Stoltzfus, Justin. Dec. 31, 2016. “Egypt hopes to make progress with renewable energy” Gulf News Journal: <http://gulfnewsjournal.com/stories/511060109-egypt-hopes-to-make-progress-with-renewable-energy>.

## **INVITED SEMINARS**

---

EM-Lyon Business School, France, 2021  
Gender Summit, Munich, Germany, 2021 (plenary speaker)  
University of Oregon, Lundquist School of Business, US, 2021  
University of Porto & Efacec (Portugal) PRIME Talk, 2021  
University of Connecticut, Center for Entrepreneurship and Innovation, 2021  
University of Oxford (Oxford, UK), Department of Engineering Sciences, 2021  
University of Virginia, Dept. of Engineering Systems and Environment, 2020  
USC, Marshall China Workshop, 2020  
Georgia Tech, Dept. of Civil and Environmental Engineering, 2020  
Goethe University of Frankfurt (Germany), Dept. of Management and Microeconomics, 2019  
European Commission-Joint Research Centre (Brussels, Belgium), 2019  
University of Oxford (Oxford, UK), Saïd Business School, 2019  
LUISS (Rome, Italy), Depts. of Political Science, Management, and Law, 2019  
IE Business School (Madrid, Spain), 2019  
MIT, Technology, Innovation, Entrepreneurship, & Strategic Management (TIES) area, 2019  
Cornell University (Ithaca, NY), 2019  
Univ. of Colorado-Boulder (Arthur J. Boase Lecture), Dept. of Civil, Environmental, and Architectural Engineering, 2019  
Tsinghua University (Beijing, China), Dept. of Sociology, 2018  
Tsinghua University (Beijing, China), Dept. of Civil Engineering, 2018  
International Conference for the Integration of Science, Technology and Society (Invited Panel Speaker), KAIST, Daejeon, South Korea, 2017  
KAIST College of Business (Seoul, South Korea), 2017  
University of Oxford (Oxford, UK), Saïd Business School, 2016  
Copenhagen Business School (Copenhagen, Denmark), Dept. of Organization, 2016  
Carnegie Mellon Univ. (Pittsburgh, PA, USA), Dept. of Organizational Behavior & Theory, 2016  
Univ. of South Carolina (Columbia, SC, USA, Dept of International Business, 2015  
Carnegie Mellon Univ. (Pittsburgh, PA, USA), Dept of Engineering & Public Policy, 2015  
Univ. of Alberta (Edmonton, Canada), Dept, of Strategic Management & Organization, 2015  
Nanyang Technological Univ. (Singapore), Dept of Strategy, Management & Organisation, 2015  
Univ. of Pennsylvania-Wharton (Philadelphia, PA, USA), Dept. of Management, 2015  
Univ. of California-Irvine (Irvine, CA, USA), Dept. of Management and Organization, 2014

## **CONFERENCE PRESENTATIONS**

---

Yu, D. and Armanios, DE. “Leading in Experimental Markets: China’s Market and Institutional Infrastructure in the Commercial UAV (Unmanned Aerial Vehicle) Industry”; current or earlier versions presented at:

- Academy of Management, STR Virtual Symposium, 2020
- Academy of Management, STR, TIM, and OMT Divisions, Boston, MA, 2019

Dutta, S.; Armanios, DE; and Desai, JD. “Beyond Spatial Proximity: The Impact of Enhanced Spatial Connectedness from New Bridges on Entrepreneurship”; current or earlier versions presented at:

- Academy of Management, OMT Division, Boston, MA, 2019

Armanios, DE et al. “How entrepreneurs leverage institutional intermediaries in emerging economies to acquire public resources”; current or earlier versions presented at:

- Academy of Management, BPS Division, Philadelphia, PA, 2014
- Academy of Innovation and Entrepreneurship (AIE), Macau, China, 2012  
***Best Paper Award Finalist***

Armanios, DE and Eesley, CE “Scaffolds and Intermediaries: How Changing Institutional Infrastructure Can Alleviate Normative and Cultural-Cognitive Barriers to Regulatory Changes Supporting Entrepreneurship”; current and earlier versions presented at:

- Consortium for Competitiveness and Cooperation, Boston, MA, 2014
- DRUID16 Conference, Copenhagen, Denmark, 2016
- Rice University, 8<sup>th</sup> Strategy Symposium on Emerging Markets, Houston, TX, 2018
- Industry Studies Association Conference, Seattle, WA, 2018

Armanios, DE and A Adly. “How Revolutions Shape (or Rather Blur) Markets: Initial Insights from the Arab Spring”, current and earlier versions presented at:

- Engineering, Projects, and Organizations Conference, Lake Tahoe, CA. 2017
- McCombs School of Business, University of Texas-Austin, Austin, TX, 2017
- Brigham Young University, Informal Economy Summit, Provo, UT, 2017
- Industry Studies Association, Washington, DC, 2017
- Academy of Management Annual Meeting, Chicago, IL 2018 (***part of Showcase Symposium “The Influence of Local Communities on Entrepreneurship in a Globalized World” that was named OMT Best Symposium Runner-Up***)

Desai, JD and DE Armanios. “What Can’t Be Cured Must be Endured: Understanding Bridge Systems as Institutional Relics”; current or earlier versions presented at:

- Engineering, Projects, and Organizations Conference, Lake Tahoe, CA. 2017 (***plenary session on “Theoretical Lens”***)

## **COMMISSIONED REPORTS**

---

Student Movement for Real Change (SMRC, now ThinkImpact) (contributing author and editor). 2009. “Global Development Internship: Training Manual – South Africa and Kenya”.

Oxford Transitional Justice Research (OTJR) (contributing author). 2008. “Victims’ Perceptions of Conflict Reparations in Northern Uganda”, Analytical Memorandum for UN Office for the High Commissioner for Human Rights (UN-OHCHR).

Armanios, DE. 2007 “A Process-Focused Approach to Science Education in Rural Africa: A Case Study in the Mpumalanga Province, South Africa.”, Final Report for SMRC (now ThinkImpact).

Armanios, DE. 2006 “Can Satellites Improve United States Soil Moisture Forecasting?”, Feasibility Study for NASA and NOAA.



## STUDENT EDUCATION

---

### Current PhD Students:

#### *Primary Advisor*

- Dian Yu (2017-), Leading in High-Tech as an Emerging Economy: China's Institutional Infrastructure in the Commercial UAV Industry
- Kam Mongkolsinh (2018-), Firm Innovation Choices in the Midst of Political Uncertainty: The Case of Thailand
- Nikki Ritsch (2020-present), Infrastructure in the Midst of Pandemics: The Case of COVID-19

#### *Co-Advisor*

- Mengjia (Daisy) Ren (Heinz College). “Why Has China Overinvested in Coal Power? A Theoretical and Empirical Analysis”, Co-Advisor (w/Lee Branstetter, Heinz College), 2015-present.
- Zhang, Huiyan (Heinz College). “Patent Litigation in China”, Co-Advisor (w/Lee Branstetter, Heinz College), 2018-present.

#### *Committee Member*

- Allanté Whitmore (2020-present),
- Prithvi Acharya (2020-present),

### PhD Alumni:

#### *Primary Advisor*

- Jaison Desai, “Infrastructure as Institutional Relics: Insights from the United States Bridge System”  
Current Position: Analyst, Data Warfare Division, Technical Warfare Center, United States Army Cyber Command, Fort Belvoir, VA
  - **2016 Gen. Omar N. Bradley Research Fellowship Award in Mathematics**
  - **2017 Herbert L. Toor Award** (best qualifying research paper – “Part A”)
  - **2017 Robert W. Dunlap Award** (best qualifying examination paper – “Part B”)  
(first student in the history of the Department to win both these awards)

#### *Co-Advisor*

- Sam Jones, “Machine Learning for Public Policy: Applications in Infrastructure and Air Pollution”  
Co-Advisor: Kun Zhang, Department of Philosophy, CMU  
Current Position: Senior Policy Advisor, White House Office of Science and Technology Policy
- Ricardo Laverde, “Essays on Innovation and International Competition”  
Co-Advisor: Lee Branstetter, Heinz College.  
Current Position: Assistant Professor, INSPER (Brazil)

#### *Committee Member*

- Travis Carless, “Framing a New Nuclear Renaissance Through Environmental Competitiveness, Community Characteristics, and Cost Mitigation Through Passive Safety”  
Advisor: Paul Fischbeck  
Current Position: President's Postdoctoral Fellow, CMU
- Serban Mogos, “High Growth Entrepreneurship: A Multi-Level Perspective on Firm Growth and Growth Policy”

Advisor: Alex Davis

Current Position: Co-founder & COO, Eyeware

- Liza Reed. “Exploring the role of high voltage direct current transmission in grid decarbonization”, 2016-2020, Committee Member.
  - **2018 Robert W. Dunlap Award** (best qualifying examination paper – “Part B”)

## GRANTS

---

### As Principal Investigator (Total: \$1,639,057 – my direct portion: \$792,158)

D. Armanios and K. Faust (PIs – collaborative research grant so PI for each institution – CMU and UT-Austin) (co-PIs: L. Katz and S. Pierce). “Collaborative Research: NNA Research: Capturing Indigenous Knowledge to Co-Design more Effective Operations, Maintenance and Management of Water Infrastructure.” NSF Navigating the New Arctic Program (NNA), Sept. 2021-Sept. 2024. \$1,179,526 (CMU portion: \$332,627)

D. Armanios (co-PI: D. Yu). “Doctoral Dissertation Research: Do Government Regulations Drive Product Features? The Case of the Global Commercial Drone Industry.”, NSF SoS: DCI Division, April 2021-March 2022, \$15,368

D. Armanios (PI). “RAPID: American Infrastructure and Service Work in the Era of COVID-19 Transmission”, NSF SoS:DCI Division, May 2020-2021 (\$176,574, Grant No: 2028496)

With co-PIs Sean Qian and Burcu Akinci (Carnegie Mellon University). “A Holistic Framework for Prioritizing Investments in Bridge Lifting”, *Pennsylvania Infrastructure Technology Alliance (PITA)*, August 2017-May 2019 (\$95,277, +\$219,318-cost share).

With co-PI Lauren Lanahan (University of Oregon). “The Role of Local Governments in Entrepreneurial Ecosystems: A Cross-Comparison of US States”, *Ewing Marion Kauffman Foundation*, September 2015-December 2017 (\$172,312, Grant No: 20150969).

“How a Single Public Policy Can Implement Competing Effects: The Role of the 2009 Chinese Patent Law on Chinese Firm Patenting and Innovation”, Berkman Faculty Development Fund, Carnegie Mellon University, December 2015-December 2017: \$5,000

### As Co-Principal Investigator (Total: \$838,452)

PI: D. Nock (co-PIs: DE Armanios; A. Davis, CMU). “EAGER: SAI: New Decision Paradigms by Integrating Utility Theory into Infrastructure Investments”, NSF Strengthening America’s Infrastructure (SAI), September 1, 2021 – September 1, 2023, \$299,954.

PI: Burcu Akinci (Co-PIs: **Daniel Armanios**, Sean Qian). “Wearable DSRC devices for work zones”, *CMU University Transportation Center*, August 2017-May 2018 (\$127,500).

PI: J. Michalek (co-PIs: D. Armanios; A. Davis; D. Nock). “Rideharing Service Equity in Normal and Rare Conditions”, *Mobility21: Big Idea Proposal*, January 1, 2021 – June 30, 2022, \$410,998.

## TEACHING EXPERIENCE

---

### Classes and Ratings:

Instructor, Strategic Management of Technological Innovation

- Spring 2016 Ratings: Instructor (4.91/5.00) and Course (4.83/5.00)

- Spring 2017 Ratings: Instructor (4.97/5.00) and Course (4.89/5.00) (CIT); Instructor (5.00/5.00) and Course (4.67/5.00) (Heinz)
- Spring 2018 Ratings: Instructor (4.79/5.00) and Course (4.84/5.00) (CIT); no ratings from Heinz section
- Spring 2019 Ratings: Instructor (4.86/5.00) and Course (4.81/5.00) (CIT); no ratings from Heinz section
- Spring 2020 Ratings: Instructor (4.94/5.00) and Course (4.94/5.00) (CIT); Instructor (5.00/5.00) and Course (5.00/5.00) (Heinz)
- Spring 2021 Rating: Instructor (4.76/5.00) and Course (4.59/5.00) (CIT); Instructor (4.75/5.00) and Course (4.75/5.00) (Heinz)

Instructor, Special Topics: Organizational Theory for Engineers

- Spring 2017 Ratings: Instructor (4.73/5.00) and Course (4.91/5.00) (Undergraduates); Instructor (4.00/5.00) and Course (4.00/5.00) (Graduates)
- Spring 2018 Ratings: Instructor (4.5/5.00) and Course (4.25/5.00) (Undergraduates); Instructor (4.56/5.00) and Course (4.44/5.00) (Graduates)
- Spring 2020 Ratings: Instructor (4.67/5.00) and Course (5.00/5.00) (Graduates); no course ratings from Undergraduates section

Instructor, Engineering and Social Justice

- Spring 2021 Ratings: Instructor (4.75/5.00) and Course (4.81/5.00) (Undergraduates); Instructor (4.88/5.00) and Course (4.83/5.00) (Graduates)

**Teaching Materials (Cases – open source and available upon request for any school’s teaching purposes):**

Armanios, Daniel E. 2014 “How To Give a Bridge a New Coat: The Replace-Repair Decision for the Long Meadow Bridge in Bloomington, MN”

***Used At: Carnegie Mellon University and Tsinghua University (China)***

Armanios, Daniel E. (with contributions from Jamie Furniss, Lecturer in International Development, Department of Social Anthropology, Edinburgh University) 2015. “Garbage Woes or Garbage Dreams?: The Fight for Cairo’s Trash”

***Used At: Carnegie Mellon University, Tsinghua University (China), Oxford Saïd Business School (UK), Harry S. Truman Foundation***

“The State of the Current U.S. Innovation System: Rethinking the Role of the NSF and Lessons that could be Learned from the Chinese Experience”

***Used At: Harry S. Truman Foundation***

Conducted or moderated workshops, executive teaching, and leadership training for the following groups:

- Switchboard Service Academy, Global Solutions Pittsburgh, Pittsburgh, PA
- Social Entrepreneurship Unit, Center for Social Innovation, Graduate School of Business, Stanford University, Stanford, CA
- China National Petroleum Corporation (CNPC), Executive Teaching Program, Arlington, TX
- PPG Industries, Pittsburgh, PA
- Truman Foundation, Truman Scholars Leadership Week

- Rhodes Trust, Character, Service and Leadership Retreat: Serving and Leading, Oxford, UK
- Schwarzman Scholars Program, Leadership Orientation, Tsingua University, Beijing, China

## PROFESSIONAL ACTIVITIES

---

- Committee Member, National Academy of Science's Assessment on the Department of Energy's SBIR/STTR Program
- Editorial Board, *Organization Science* (2021-present)
- Ad-hoc reviewer for: *Academy of Management Journal*, *Academy of Management Discoveries* (**2020 Best Reviewer Award**) *Administrative Science Quarterly*, *Organization Science*, *Water Resources Research*, *Journal of Hydrometeorology*, *Hydrological Processes*, *Strategic Management Journal*, *Strategic Entrepreneurship Journal*, *Journal of International Business Studies*, *Small Business Economics*, *Construction Management and Economics*, *Research Policy*, *Proceedings of the National Academy of Sciences (PNAS)*, *National Science Foundation*
- Academy of Management Conference reviewer for BPS, OMT (**2011 Best Reviewer Award**), TIM (**2013 Best Reviewer Award**), ONE, SIM
- Member of: AOM, INFORMS, SMS, Druid, ISA, EPOS, ASME, AIAA, AHS

## OTHER WORK EXPERIENCE

---

*Researcher*, Oxford Transitional Justice Research (OTJR), University of Oxford, 2008-2009

- Analyzed for the UN the popular perceptions and trends regarding reparations in Northern Uganda

*Head of Science and Technology Education*, Student Movement for Real Change (SMRC), Mpumalanga Province, South Africa, 2007

- Appointed by SMRC (now ThinkImpact) to develop K-12 rural math, science, and technology education infrastructure at the request of the Xitsonga tribe in three villages

*Researcher*, Space Policy Institute, the George Washington Univ., 2006

- Conducted a feasibility study for NASA and NOAA on how satellites could be used to improve soil moisture forecasting

Additional Development Work and Research Experience:

- *Cyprus and Turkey*: analyzed the Cypriot water conflict through interviews with water resource managers, government officials, and executives in Southern and Northern Cyprus and Turkey, 2008

Consultant or Advisor for the following organizations & companies:

- *Zailairen Valeon* (再来人信息技术有限公司)
- *Mirasco International Food Merchants*, Atlanta, GA
- *ThinkImpact*, Denver, Colorado
- *Government of Malaysia*

Leadership positions for the following organizations:

- *VisionArch Consulting Ltd Pte* (Chair of the Board of Advisors), 2015-present
- *Hill District Community Development Corporation* (Board Member), 2017-present
- *COI Energy Services* (Board of Advisors), 2016-present
- *Univ. of Pittsburgh Honors College* (Board of Visitors), 2014-present

- *Univ. of Pittsburgh Alumni Association* (Board of Directors), 2008-2012

## **PROFESSIONAL SKILLS**

---

### Languages

- English (native fluency)
- Chinese (spoken and writing/reading: conversant)
- French (spoken and writing/reading: conversant)
- Arabic (spoken: advanced, writing/reading: basic)
- Xitsonga (spoken: elementary)

Computer Knowledge: ArcGIS, MatLab, Maple, Mathematica, STATA, R, Python