

**Po-Jen Bono Shih**  
**PhD Candidate**  
**Department of Science, Technology and Society**  
**Virginia Tech, Blacksburg, Virginia 24061**  
**Email: [bonoshi@vt.edu](mailto:bonoshi@vt.edu)**  
**Website: <http://bonoshi.weebly.com/>**

## Education

- 2013-present    PhD Student *Science and Technology Studies*, Virginia Tech.  
Adviser: Dr. Gary Downey.
- 2015-2018    Graduate Certificate in Engineering Education, Virginia Tech
- 2013-2016    M.S. *Science and Technology Studies*, Virginia Tech.  
Adviser: Dr. Gary Downey.
- 2008-2012    B.S. *Electrical Engineering*, National Taiwan University.

## Honors and Awards

- June, 2017    Government Scholarship to Study Abroad, The Ministry of Education, Taiwan  
(\$16,000 each year, up to two years)

## Research Experience

- 2017-2019    **Lead Researcher of the Task Force on International Graduate Student Enrollment, Graduate Student Association, Virginia Tech.** I researched on enrollment policies related to international graduate students among Virginia Tech's twenty-five SCHEV-approved peers. My research was requested by Karen P. DePauw, Vice President and Dean for Graduate Education. The research result was instrumental in helping the Graduate School pass a resolution that establishes “candidacy status” at the University Council in early March 2019.
- 2014-2019    **Research Assistant, Virginia Tech.** I researched and coauthored with Gary Downey and Chang Kuo-Hui on the forthcoming book *Engineers for Taiwan*.

## Teaching Experience

- 2019-2021    **Teaching Assistant, Department of Engineering Education, Virginia Tech.**  
I assisted Prof. Matthew James with two or three sections of ENGE-1215/1216 *Foundations of Engineering* from Spring 2019 to Spring 2021. My duty was to develop course materials, lead student design teams, grade student work, and help with course logistics.
- 2017-2018    **Instructor, Department of Engineering Education, Virginia Tech.**  
I taught two sections of ENGE-1215 *Foundations of Engineering* for three semesters, from Fall 2017 to Fall 2018. I also worked with senior instructors of ENGE-1215 and constructively engaged with and improved the common materials.

- 2016           **Instructor, Department of Science, Technology, and Society, Virginia Tech.**  
I taught STS-2054 *Engineering Cultures* for the entire year and experimented with my own course materials. I also personally assisted four new graduate student instructors from my department and oriented them for teaching the same course.
- 2013-2014      **Teaching Assistant, Department of Science, Technology, and Society, Virginia Tech.**  
I taught STS-2054 *Engineering Cultures* for two semesters as a TA under the supervision of Gary Downey.

### **Selected Publications in STS and Related Fields**

- (forthcoming) Shih, Bono Po-Jen.** ““Technology of Technology” and Subjugated Technical Practice.” In *The Necessity of Critique: Andrew Feenberg's Philosophy of Technology*, edited by Cressman, Darryl. Switzerland: Springer, 2021.
- (forthcoming) Shih, Bono Po-Jen.** “Towards an Engineering Ethics with Non-engineers: How Western Engineering Ethics May Learn from Taiwan.” In *Philosophy and Engineering: Reimagining Technology and Social Progress*, edited by Pirtle, Zachary et al. Switzerland: Springer, 2021.
- Chang, Kuo-Hui, Gary Lee Downey and **Bono Po-Jen Shih.** "Talents First!: Wu Ta-You and Science Policy Infrastructures in the Republic of China (1927-1970)." *The Korean Journal for the History of Science* 42, no. 2 (2020): 449-473.
- Shih, Po-Jen.** “To Critique and Deconstruct Network Neutrality: An Interdisciplinary Analysis.” In *Technology, Society, and Humans: A New Path towards Interdisciplinarity (科技社會人3：跨領域新驛路)*, edited by Lin, Wen-Yuan, et al, 236-244. Hsinchu: National Chiao Tung University Press, 2018.

### **Peer-review Publications in Engineering**

- Shih, Po-Jen,** Chia-Han Lee, Ping-Cheng Yeh and Kwang-Cheng Chen. 2013. “Channel Codes for Reliability Enhancement in Molecular Communication.” *IEEE Journal on Selected Areas in Communications* 31, no. 12: 857-867.
- Shih, Po-Jen,** Chia-Han Lee and Ping-Cheng Yeh. Dec 2012. “Channel Codes for Mitigating Intersymbol Interference in Diffusion-Based Molecular Communications.” Paper presented at the Proceedings of IEEE GLOBECOM: 4228-4232, Anaheim, California.
- Hsieh, Ya-Ping, **Po-Jen Shih,** Yen-Chi Lee, Ping-Cheng Yeh and Kwang-Cheng Chen. June 2012. “An Asynchronous Communication Scheme for Molecular Communication.” Paper presented at the Proceedings of IEEE ICC: 6177-6182, Ottawa, Canada.

### **Conference Presentations in STS and Related Fields**

- Shih, Po-Jen Bono.** May 20<sup>th</sup>, 2019. “Walking a Fine Line between Engineering and Technology: A Perspective of Engineering Ethics from Taiwan and Japan.” Paper presented at the Twenty-First Biannual Conference of the Society for Philosophy and Technology (SPT), College Station, Texas.
- Shih, Po-Jen Bono.** May 31<sup>st</sup>, 2018. “Engineering Ethics without Engineers? How Western Philosophy Might Learn from Engineering Ethics in Taiwan.” Paper presented at the Forum on

Philosophy, Engineering and Technology (fPET), College Park, Maryland.

**Shih, Po-Jen Bono.** April 15<sup>th</sup>, 2018. “A Study of Technical Origins of Overwork Phenomena in the Electrical Engineering and Information Technology Industry, and the Revival of Technological Determinism.” Paper presented at the Annual Meeting of Taiwan STS Association, Tainan, Taiwan.

**Shih, Po-Jen Bono.** October 27<sup>th</sup>, 2017. “Opening Up the Internet and Finding It Discriminatory: The Public Discourse on Network Neutrality in the US.” Paper presented at the Society for the History of Technology (SHOT) Conference, Philadelphia.

**Shih, Po-Jen Bono.** September 23<sup>rd</sup>, 2017. “Are Engineering Skills Gendered? A Conversation with Philosophy of Technology.” Paper presented at the Southeastern Ethics and Philosophy of Technology (SEPOT) Workshop, Charlotte, North Carolina.

**Shih, Po-Jen Bono.** September 1<sup>st</sup>, 2017. “Modern Engineering Technologies and Their Impact on Contemporary Engineering Work.” Paper presented at the Society for Social Studies of Science (4S) Conference, Boston.

Kuo-Hui Chang, Gary Downey and **Po-Jen Shih.** June 23<sup>rd</sup>, 2017 “Demise of a Y-shaped Dream: Engineers for the Repatriated Province of Taiwan, 1945-1950.” Presentation given at International Workshop: Science, Technology, and Modern Dictatorship in Asia, Hanyang University, South Korea.

**Shih, Po-Jen Bono.** September 10<sup>th</sup>, 2016. “Yet Another Pragmatic Turn of Philosophy of Technology? The Pragmatism of Philosophy of Technology to Engage with Stakeholders in Engineering.” Paper presented at the Southeastern Ethics and Philosophy of Technology (SEPOT) Workshop, Charlotte, North Carolina.

**Shih, Po-Jen Bono,** Kuo-Hui Chang and Gary Downey. June 25<sup>th</sup>, 2016. “Industrial Education Becoming Chinese: National Identity, Political Visions and Colonial Legacy in Early Postcolonial Taiwan (1945–1949).” Paper presented at the Society for the History of Technology (SHOT) Conference, Singapore.

**Shih, Po-Jen Bono.** November 13<sup>th</sup>, 2015. “Engineering Overworking: Practice, Technologies and More Work in Engineering.” Paper presented at the Society for Social Studies of Science (4S) Conference, Denver, Colorado.

**Shih, Po-Jen Bono.** April 4<sup>th</sup>, 2014. “How Electrical Engineering Students Work Long and Late: Machines and Software in Engineering Practice.” Paper presented at the STGlobal Conference, Washington, D.C.

### **Invited Presentations/Sessions Organized in STS and Related Fields**

Kuo-Hui Chang, Gary Downey and **Po-Jen Shih.** November 15<sup>th</sup>, 2017. “Engineers and KMT Regime: 1950-1980.” Invited presentation given at Chonbuk National University, Jeonju, South Korea.

Kuo-Hui Chang, Gary Downey and **Po-Jen Shih.** November 14<sup>th</sup>, 2017. “Taiwan’s High-tech Engineers and Economic Growth: 1980-2000.” Invited presentation given at Chonbuk National University, Jeonju, South Korea, November 14.

Kuo-Hui Chang, Gary Downey and **Po-Jen Shih.** November 13<sup>th</sup>, 2017 “Engineers for Taiwan and Formosa, 1925-1950: Directionalities in Engineering Expertise.” Invited presentation given at University of Science and Technology, Daejeon, South Korea.

Commentator for Gary Downey, “Making and Doing: Engagement and Reflexive Learning in STS,”

the STS Seminar, Virginia Tech, February 3<sup>rd</sup>, 2017.

Commentator for Sarah Ovink, “‘Some People have an Upper Hand’: Science and Privilege at Southern U,” the STS Seminar, Virginia Tech, September 23<sup>rd</sup>, 2016.

Session organizer and panel chair for “The Engineering Workplace in Global Perspective” (5 presentations) at the Society for Social Studies of Science (4S) Conference, Denver, Colorado: November 13<sup>th</sup>, 2015.

### **Leadership and Service**

2016-2018 Graduate Student Representative of the STS program, Virginia Tech

2014-2015 President, Taiwanese Student Association, Virginia Tech.

2010-2011 Chair of the Academic Department, Electrical Engineering Student Association, National Taiwan University