

Kenneth Clayton McKell

California Polytechnic State University
Electrical Engineering Department
Building 14, Room 115E
1 Grand Ave.
San Luis Obispo, CA 93407-0355

Office: (805) 756-5689
kmckell@calpoly.edu

Education

- University of Hawai'i at Mānoa** Honolulu, HI
Doctor of Philosophy in Electrical Engineering 2018
– Title: Game Theoretic Communication Strategies over MIMO Interference Channels in the Presence of a Malicious Jammer
– Advisor: Prof. Gürdal Arslan
- University of California Los Angeles** Los Angeles, CA
Master of Science in Mechanical Engineering 2007
– Advisor: Prof. Jeff Shamma
- University of California Los Angeles** Los Angeles, CA
Bachelor of Science Summa Cum Laude in Mechanical Engineering 2006

Work Experience

- California Polytechnic State University** San Luis Obispo, CA
Assistant Professor 2026 - Present
- California Polytechnic State University** San Luis Obispo, CA
Lecturer 2014 – 2026
- Akamai Workforce Initiative** Honolulu, HI
Educational Specialist Jun. - Aug. 2014

Honors and Awards

- Cal Poly Northrop Grumman Excellence in Teaching Award 2019
Cal Poly Engineering Student Council Award for Outstanding Faculty 2019
Cal Poly Engineering Student Council Award for Outstanding Lecturer 2019
UH Mānoa College of Engineering Outstanding Teaching Assistant Award 2014
ARCS-Honolulu Kresser Award in Engineering 2010

Teaching Experience

An asterisk (*) denotes courses for which I am the departmental course coordinator. A WiFi symbol (📶) denotes that a course was taught remotely online.

- Electric Circuit Analysis I** Winter, Spring (4×), Fall (3×) 2015
Cal Poly EE 112 Fall (3×) 2014
- Electric Circuit Analysis I*** Fall 2025
Cal Poly EE 113 Spring 2024
Spring (2×), Fall (2×) 2023
Spring 2022

Electronics Manufacturing and Circuit Analysis Laboratory*

Cal Poly EE 143

Spring (4×), Fall (2×) 2025

Spring 2024

Spring (2×), Fall (3×) 2023

Spring (2×) 2022

Introduction to Electrical Engineering Laboratory

Cal Poly EE 151

Fall (2×) 2025

Electric Circuit Theory

Cal Poly EE 201

Spring (2×), Fall (2×) 2016

Continuous Time Signals and Systems

Cal Poly EE 228

Spring 2025

Winter 2024

Spring 2023

Spring 2022

Spring (2×) ☞, Fall (2×) 2021

Spring ☞ 2020

Spring (2×), Fall (3×) 2019

Winter, Spring, Fall (2×) 2018

Spring (2×), Fall (3×) 2017

Winter, Fall (2×) 2016

Electric Circuit Analysis Laboratory II

Cal Poly EE 241

Winter 2023

Electric Circuits Laboratory

Cal Poly EE 251

Summer 2023

Classical Control Systems

Cal Poly EE 302

Winter 2026

Winter 2025

Spring 2024

Winter 2023

Winter, Spring, Fall 2022

Winter ☞, Spring ☞ 2021

Winter (2×), Spring ☞ 2020

Winter (2×), Spring 2019

Winter, Spring (2×) 2018

Winter (3×), Spring 2017

Winter, Spring 2016

Winter, Spring 2015

Discrete Time Signals and Systems

Cal Poly EE 328

Fall (2×) 2024

Fall (2×) ☞ 2020

Fall (2×) 2015

Microcontroller-based Systems Design

Cal Poly EE 329

Spring (2×) 2026

Classical Control Systems Laboratory

Cal Poly EE 342

Winter (3×) 2026
Winter (3×), Spring 2025
Winter (4×), Spring (2×) 2024
Winter (2×) 2023
Winter (6×) 2022
Winter (3×) 📶, Spring 📶 2021
Winter (4×), Spring (3×) 📶 2020
Winter (4×), Spring 2019
Winter (4×), Spring (2×) 2018
Winter (3×), Spring (2×) 2017
Winter (4×), Spring (2×) 2016
Winter (5×), Spring (2×) 2015

Semiconductor Device Electronics Laboratory

Cal Poly EE 346

Fall 2015
Fall (4×) 2014

Signals and Systems Laboratory

Cal Poly EE 368

Fall 2024
Fall (2×) 2021
Fall (3×) 📶 2020
Fall (2×) 2018

Modern Communication Systems*

Cal Poly EE 415

Fall 2025
Fall 2023
Fall 2021
Fall 2019
Fall 2017

Digital Communications Systems*

Cal Poly EE 416

Fall 2024
Fall 2022
Fall 📶 2020
Fall 2018
Fall (co-taught) 2016

Senior Project Design Lab I

Cal Poly EE 463

Winter 2026
Winter, Spring (both co-taught) 2025
Spring (co-taught) 2024
Winter (co-taught) 2024
Winter (co-taught) 2023

Senior Project Design Lab II

Cal Poly EE 464

Spring 2026
Spring (co-taught), Summer 2025
Spring (co-taught) 2024
Spring (co-taught) 2023

Advanced Topics in Automatic Control

Cal Poly EE 514

Spring 📶 2021

Stochastic Processes

Cal Poly EE 525

Fall 2024

Advanced Digital Communications*
Cal Poly EE 526

Winter 2025
Winter 2023
Winter 📶 2021

Modern Control Systems
Cal Poly EE 5513

Fall 2026

Comprehensive Examination
Cal Poly EE 5597

Fall 2026

Peer-Reviewed Publications

F. W. Depiero, **K. C. McKell**, D. J. Dal Bello, "Assessment and Integration of CATE, the 'Circuit Analysis Tool for Education,' into a Course Using Canvas," ASEE Annual Conference, 2026.

F. W. Depiero, **K. C. McKell**, D. J. Dal Bello, "Using CATE, the 'Circuit Analysis Tool for Education,' to Facilitate and Complement Peer Learning," ASEE Annual Conference, 2026.

K. C. McKell and G. Arslan, "On the Existence and Uniqueness of Nash Equilibria in MIMO Communication Games with a Jammer," 10th International Conference on Network Games, Control and Optimization (NetGCoOp'20), 2021. doi: 10.1007/978-3-030-87473-5_1

A. Danowitz, A. F. Asfaw, B. Benson, P. Hummel, **K. C. McKell**, "Assessing the Effects of Master Slave Terminology on Inclusivity in Engineering Education," Collaborative Network for Engineering and Computing Diversity (CoNECD), 2021. doi: 10.18260/1-2-36069

K. C. McKell and A. Danowitz, "Exploring the Effect of Standards-Based Grading on Student Learning," IEEE Frontiers in Education (FIE), 2020.

A. Danowitz, B. Benson, P. Hummel, J. Callenes, **K. C. McKell**, "In Depth Exploration of Added Course Expenses on Students of Various Socioeconomic Status," IEEE Frontiers in Education (FIE), 2020.

A. Danowitz, **K. C. McKell**, B. Benson, J. Callenes, P. Hummel, and R. Randall, "Repurposing Retired Faculty Laptops to Make Engineering More Accessible," in IEEE Frontiers in Education (FIE), 2019.

F. W. DePiero, B. Benson, and **K. C. McKell**, "Learner-centered Design of a Web-based Teaching Tool for Circuit Analysis with Embedded Assessment Features," in ASEE Annual Conference, 2017.

F. W. DePiero, **K. C. McKell**, and B. Benson, "CATE: A Circuit Analysis Tool for Education," in ASEE Annual Conference, 2016.

Professional Development

Creating Accessible PowerPoint. Online via Cal Poly CTLT, Jul. 2025

Creating Accessible Canvas Pages. Online via Cal Poly CTLT, Jul. 2025

Introduction to Online Teaching and Learning. Online via Cal Poly CTLT, Aug. 2020.

Building Capacity Workshop. Institute for Scientist and Engineer Educators. Monterey, CA, Nov. 2015.

Professional Development Program. Institute for Scientist and Engineer Educators and Akamai Workforce Initiative. Hawaii, 2012.

Workshop: Rethinking Science and Engineering Learning and Teaching. Institute for Scientist and Engineer Educators. Pukalani, HI. Jan, 2009.

Professional Activities

Member of the Institute of Electrical and Electronics Engineers (IEEE)

Member of the American Society for Engineering Education (ASEE)

Professional Service

Referee, ASEE Annual Conference 2022–2025

Referee, IEEE Frontiers in Education Conference 2020

Referee, 10th International Conference on Network Games, Control and Optimization (NetGCoOp'20)

Referee, First Annual Collaborative Network for Engineering and Computing Diversity Conference (CoNECD)

Volunteer, 51st IEEE Conference on Decision and Control

Referee, 3rd IFAC Workshop on Distributed Estimation and Control in Networked Systems

Referee, 2011 International Conference on Network Games, Control and Optimization

Referee, 2011 International Conference on Social Computing, Behavior-Cultural Modeling & Prediction

Referee, 49th IEEE Conference on Decision and Control

Referee, 2009 IEEE International Conference on Communications

University Service

Member, Systems Technical Area Committee, Cal Poly Electrical Engineering Dept. 2014 - Present.

Member, Circuits Technical Area Committee, Cal Poly Electrical Engineering Dept. 2025 - Present.

Advisor, Audio Engineering Society, 2026 - Present.

Lecturer Coordinator, Cal Poly Electrical Engineering Dept. 2021 - 2025.

Masters Thesis Supervised

K. Schmutz, "A novel all wheel drive torque vectoring control system applied to four wheel independent drive electric motor vehicles utilizing super twisting and linear quadratic regulator methods," 2018.

Senior Projects Supervised (selected)

An asterisk (*) indicates that a project received a departmental Outstanding Senior Project award.

B. Alexander, "Elevate Grill," 2026.

C. Chavez and M. Hernandez, "LoRa Radio Propagation & Antenna Design for Freight Trains," 2026.

B. Tavares, D. Benedetti, N. Heil, "Autonomous Vision-Based Litter Collection Rover," 2026.

C. Babian, "Optimizing Object Detection for Remote Monitoring with OWL DuckLink Radios," 2025.

D. Loudon, "ExOPG Maturation and OWL Interface," 2025.

B. Loya, I. Martinez, E. Nicoletta, M. Weber, “Marine Energy Collegiate Competition - PolyWave Energy,” 2025.

J. Tran, S. Williams, “OWL Solar-Powered Link: Duck Radio Mesh for Autonomous Monitoring,” 2025.

N. A. Maley, J. M. Heeren, A. Peña, “CubiCom: Noisy Office Environment Communication Device,” 2023.

S. Roksic*, “Controller Area Network (CAN) Bus Simulator and Data-logger for In-Vehicle Infotainment Testing,” 2020.

C. Aguirre, “Underwater Remotely Operated Vehicle Controller with PID Stability Regulation,” 2019.

A. Bailey, “Remote Cable Gantry,” 2017.

B. Michener and D. Tsuker, “Make Scents,” 2017.