CHAD E. KENNEDY, PhD

GILBERT, AZ 85233
PHONE: (480) 444-9172
E-MAIL: DRCHADKENNEDY@GMAIL.COM
LINKEDIN PROFILE: HTTP://WWW.LINKEDIN.COM/PUB/CHAD-KENNEDY/11/858/81

PROFESSIONAL EXPERIENCE

2015 – Pres. **Arizona State University**: TEM Department, Fulton Schools of Engineering Mesa, AZ
Position: ***Lecturer & Faculty***

Helping drive TEM program growth in technology innovation, graduate, and undergraduate Engineering Entrepreneurship programs. Actively involved in Industry Advisory Board Strategy Committee to position ASU to be in top entrepreneurship and innovation rankings (#1 in Innovation) in the country. Teaching and developing hands-on courses for Technology Start-up Development, Engineering Entrepreneurship, Project & Operations Management, Design Methods, Creativity and Innovation, Disruptive Innovation Management, Senior Projects. Helped plan, budget and secure $2.1M in donations to build first cross-collage Multi-disciplinary Masters of Innovation and Venture Development program involving the Fulton Schools of Engineering, WP Carey School of Business, and Herberger Design Institute. Lead program faculty on Joint Venture between ASU and Shanghai Polytechnic University programs in Technology Entrepreneurship. Academic Senator representing the ASU Polytechnic campus.

2014 – 2019. **OraVu, LLC.** Scottsdale, AZ
Position: ***Chief Strategy and Innovation Officer (Ongoing Board Member/Advisor)***

Strategically planning medical device technology design, implementation and integration with management team, third party vendors, and partners. Helped raise over $2.0M in funding via a combination of investment, grants, and initial product sales in 2018. Aided Founder and CEO to build intellectual property portfolio, 1st and 2nd generation system designs, lean start-up MVPs and design cycles, customer/ user feedback, learning and design for manufacturing. Collaborated on Operations, Marketing, and Sales strategies through successful product launch and negotiations with three major distribution partners between $100M and $1B market caps. Developed strategic HR needs and hiring plans for scale up. Helping with scale up and production strategies.

2006 – 2015 **DeVry University**: BMET Department, College of EIS Phoenix, AZ
Position: ***Professor College of Engineering and Informational Sciences; National Chair BMET Program***

Provide local campus administrative and academic duties within the College of Engineering and Information Sciences (CoEIS) including faculty recruitment, industry liaison and partnerships, outreach programs and academic accreditation. Provided leadership and guidance in growing and driving continuous improvement for Biomedical Engineering Technology (BMET) programs across 12 campuses nationwide. Manage continuous curriculum improvement and ongoing ABET accreditation analysis and reporting duties. Oversee faculty across the US with 700 students nationally. Created National awareness of program at over 13 campuses. Represented program with AIMBE, BMES and AAMI on Educational Curriculum committees, Future Forums to direct next gen educational initiatives and National TAC-ABET accreditation planning and implementation through ACI. Worked with team on Engineering World Health student membership drive for DeVry. Advise and oversee numerous biomedical and electromechanical engineering design projects. Lecture and teach multiple courses in the Biomedical Engineering and General Engineering program including Industry Internships, Engineering Design of Automated Systems, Bioinstrumentation, Medical

Imaging, Modern Control Systems, Mechatronics, Measurement systems, Capstone Design, Design Process, Biomedical Sensors, LabVIEW Academy Certification Courses.

2004 - 2010 **Restorative Biosciences Inc.** Chandler, AZ
Position: ***Founding CEO & President***

Oversaw and directed early stage start-up process and business development through capital funding. Secured seed funding stages and negotiated licensing deals with ASU & partnering companies. Founded RBS and oversaw early R&D pre-clinical trials & multiple product development efforts.

2003 - 2005 **Arizona State University**: Bioengineering Tempe, AZ
Position: ***Associate Research Faculty/ Post-Doc***

Directed R&D and developed IP relating to biotherapeutics & biogels. Gave numerous lectures at various international bioengineering conferences including an invited lecture for 1st New Kind of Science Conference. Taught courses with emphasis on Bio-device automation, integration and control.

1997 - 2003 **Arizona State University**: Bioengineering Tempe, AZ
Position: ***Graduate Research Associate***

Developed feedback-control biogel, dynamic micro-flow chamber, and duel heart valve stimulation bioreactor IPs. Managed Research and Teaching labs: Biotherapeutics & Core Imaging Facility. Researched and assessed biotherapies inhibiting pathologic smooth muscle cell invasion and proliferation. Authored Dissertation entitled, "Evaluation of potential intimal hyperplasia therapies on spatial and temporal human coronary artery smooth muscle cell behavior in vitro". Spearheaded and/or assisted in many Bioengineering projects, including medical device, cardiovascular therapeutics, bioreactor/tissue reactor design, rehabilitation engineering and data acquisition and processing control (See Research Projects Below).

1995 - 1997 **VI Technology, Inc.** Sunnyvale, CA
Position: ***Entrepreneur/ Software-Hardware Automation Engineering Consultant***

Helped establish Silicon Valley office start-up and managed multiple client design projects providing systems level hardware and software engineering integration. Managed and worked with a consulting team on projects up to $1M for clients such as Northrop Grumman (Spider Robot), UCSF, Intel, 3-COM, Netro Corporation, Coherent, etc. Engaged in many practical start-up business aspects including business development activities, contract negotiations and bidding and engineering custom automated and autonomous systems.

1992 - 1994 **NASA Johnson Space Center** Houston, TX
Engineering Directorate/ Mission Operations Directorate
Position: ***Analysis Engineer, Test Engineer/Certified Training Engineer***

Worked on various projects from SPIFEX in flight test system design, and the Canadian arm satellite grapple interface to Astronaut training on the Orbital Maneuvering Systems (OMS) and Shuttle landing chute.

EDUCATION

2003 Arizona State University Tempe, Arizona
Ph.D. Bioengineering

2001 Arizona State University Tempe, Arizona
M.S. Bioengineering

1995 The University of Texas at Austin Austin, Texas
B.S. Mechanical Engineering

RESEARCH & DEVELOPMENT PROJECTS

Faculty: Technology Entrepreneurship and Management Program, Arizona State University Polytechnic Campus; Mesa, Arizona, (2015-Present)

- Developed plan and budget to secure $2M in funding for the planning, budgeting, design, development and building of a Multi-collage, multidisciplinary Masters in Innovation and Venture Development program.
- VentureWell funded a Decentralized and Distributed Design Methodology Course for physical product development.
- Re-engineering the SWOT Analysis to minimize group dynamic bias and to make clear quantitative decision outcomes.
- Design and development of passion innovation identification adaptive networking tools for use in engineering education and professional settings.
- Design and development of "Possibility Mindset" activities and tools to expand student ideation space, worldview and possibility landscape.
- Business Mentoring Projects to various University and Non-university technology company start-ups (OraVu, Invoytech, iMODs, Quantified Logic, Hattac, Trans Proventia, others).

Professor & National Chair BMET: Department of Biomedical Engineering Technology, DeVry University; Phoenix Arizona, (2006-2015)

Built BMET program from two campuses to thirteen campuses across the US. Oversight of national curriculum development, compliance with ABET standards, and AAMI recommendations for BMET programs. Mentored Senior Projects such as Automated UVC Room Sanitizer Robot, Automated radar distance detection system, Semi-automated, Ultrasound guided, infusion device, Automated Height, Weight and Fat Composition Device, Integrated Insulin Delivery Leakage Detection Sensor, Automated Urinary Catheter Size Estimator, Haptic Helmet for the Blind, MP3/Hearing Aid Device, Grip Assist Device, Automated Pill Identification Device for the Blind, RFID Detection of Surgical Instruments Post Surgery, EMG controlled arm prosthesis, EEG Stress testing system, EOG controlled environment and speech control system for quadriplegics., Wireless Patient Monitoring system interfaced to PDA/Cell Phone, Optical endoscope quality testing system, Baby Cry Sound Interpretation Software

Associate Research Faculty: Department of Bioengineering, Arizona State University; Tempe Arizona, Advisor: Dr. Stephen Massia (1997-2005); Research Projects:

Design and Development of dynamic flow environmental chamber system (DFLECS)- an automated bioreactor to dynamically control micro fluidic flow and shear profiles at the microscopic level, Design and Development support of artificial heart-valve stimulation and training tissue reactor system for Julie-Anne Burdick, David Miller and Dr. Stephen Massia, Software design support of Hydraulic Control and EMG data acquisition for posture balance perturbation study with Kristy Csavina and Dr. Jiping He., Assistant designer of neuro-electrode-array micro-positioning device with Dr. Gary Yamaguchi, Concept design and development for self-fitting below the knee prosthesis for amputees using pressure feedback measurements and a microprocessor control system to adjust fit settings at Fikes Brace and Limb with owner Ray Fikes, Concept design and development of artificial cartilage tissue culture reactor at Harrington Arthritis through Dr. Vincent Pizziconi, Modeling and development of complex microvascular and tissue patterns for tissue engineering and construction, Cell adhesion study of integrin-receptor modifications with flow dynamics, Developing and comparing therapies for suppressing injury induced intimal hyperplasia in the cardiovascular system, Development and quality control of high throughput biomimetic coating technologies, Developing and comparing therapies for suppressing injury induced intimal hyperplasia in the cardiovascular system in vivo, Vascular smooth muscle cell (VSMC) motility studies and modification via: Cell integrin expression modification, free binding peptide interference and chemotaxis gradient control.

Software and Hardware Consultant: VI Technology, Inc. Sunnyvale CA.

Design and developed SPIDER robotic system integrated into a wireless master/slave measurement and control system to parametrically evaluate nuclear submarine launch tubes for Northrup Grumman 1996-97, Design and developed of manufacturing testing of RF line-of site based communication units and automated look-up table generation via environmental chamber stress testing. Also, implemented UUT record tracking and database integration 1996, Design and developed of EEG, EMG and EKG data acquisition system for rat study on morphine effects on pain at University of San Francisco California, Nursing College in 1995-96, Design and developed of Automated Testing Rack system to perform calibration and quality control testing of 100 Base-T Ethernet cards for 3-Com 1995-96.

RESEARCH INTERESTS

- **Engineering Entrepreneurship Methodologies and Innovation Mindset**
- **Mind/Brain model and tools to advance innovation and creative inspiration for conceptual and physical design.**
- **Decision Sciences related to Engineering and Technology Entrepreneurship**
- **Complex adaptive system principles applied to entrepreneurship corporate development and governance.**
- **Design and development of multidisciplinary, complex integrated devices**
- **Robotics and Automated Systems**
- **Biocomplexity and biosignal measurement, processing and analysis**
- **Cognitive training effects on learning, rehabilitation and design.**

TEACHING EXPERIENCE

Faculty: Arizona State University Poly Campus, Mesa, AZ

Focus on curriculum design and developing courses for Technology Entrepreneurship and Management program in Fulton School of Engineering. Courses Developed and taught include:

- *TMC 470/TMC 570 Enterprise Planning and Implementation (Project Management with applied project planning), advanced graduate course focus with Agile Development and Planning*
- *TMC 480 Senior Project (Business Plan Development, Applied Projects and Applied Research Papers)*
- *TEM 250 Design Methodology (Integrating business, marketing innovation and engineering design processes toward building products via prototypes)*
- *TEM 230 Creativity and Innovation (Integrating cognitive brain science, creativity, worldview, customer empathy and engineering innovation tools and concepts)*
- *TEM 431/531 Disruptive Technologies and Innovation Management (Integrating future trending with design thinking and innovation management tools and concepts)*
- *TMC 410 Enterprise Operations (Operation Management Fundamentals incorporating ERMs, Inventory Management, Process Flow, Facility Location and Layout Design, Productivity, JIT, TQM, Forecasting, etc.)*
- *TEM 494/594 Crowdfunding, Blockchain, and Cryptocurrency Innovations (Exploration and fundamental understanding of modern and future funding models for technology and distributed application enterprises)*

Professor and Chair BMET: DeVry University, Phoenix, AZ

Biomedical Engineering clinical and industry internships, statistical process control (SPC), medical device clinical regulatory & maintenance management, microprocessor applications in Bioengineering, Biomedical Device Design, Introduction to FDA Medical Device Design Regulations & Compliance, Bioethics and Policy, Bioinstrumentation, Introduction to Bioengineering, Biomedical Imaging, Modern Control Systems, Analog & Digital Filter Design, Signals and Systems, LabVIEW Academy Core Courses, Extensive workshops and courses teaching Solidworks, Circuit Design Suite (Multisim), LabVIEW, Matlab software, signal processing techniques, and signal conditioning and control of biological signals, all mathematics through Calculus II. Specific courses listed below:

- *BMET 313- Biomedical Equipment and Instrumentation I w lab*
- *BMET 323- Biomedical Equipment Systems and Instrumentation II w Lab*
- *BMET 433- Introduction to Medical Imaging Systems with Lab*
- *BMET 436- Telemedicine and Medical Informatics with Lab*
- *BMET 453- Biomedical Engineering Professional Topics*
- *BMET 454- Biomedical Engineering Technology Internship*
- *ECET 301 Conservation Equation Principles*
- *ECET 492-3-5L Senior Design and Capstone Project Series*
- *ECET 495- LabVIEW Academy*
- *ECET 210- Electronic Systems II with Lab (AC Circuits)*
- *ECET 402- Mechatronics*
- *ECET 410- Control Systems Analysis and Design with Lab*
- *ECET 492L, 493L 494L- All Engineering Senior Design/ Capstone Project Courses*
- *ECET 350 Signal Processing with Lab*
- *MATH 092, 114, 215 and 216 (Math up through Calculus II)*
- *BIOS 195- Anatomy and Physiology with instrumentation w/Lab*
- *ECET 299 and ECET 497 Technology Integration courses*

Adjunct Associate Research/ Teaching Professor: Arizona State University, Tempe, AZ
Microprocessor applications in Bioengineering- Teach LabVIEW software, signal processing techniques and signal conditioning to senior class. Involved developing lectures, presentations, designing lab setup and group instruction. Also involved designing and setting up various data acquisition and control programs from biological signals (i.e. EKG, EMG, EOG, EEG, etc.). Managed Masters and Bachelors level projects.

PUBLICATIONS AND PATENTS

Books/ National Reports:

- "*Core Competencies for the Biomedical Equipment Technician (BMET): A Guide for Curriculum Development in Academic Institutions*", 1st Edition, AAMI, August 2013 (Generated by our Education Committee, many contributors), ISBN: 1-57020-497-7.
- Kennedy, C., *Spiritual Evolution: How Science Redefines Our Existence,* Author House Publishing, IN, Nov. 2011; ISBN: 978-1467024143.
- Kennedy, C.E., "*Assessment of Targeted Therapies for Inhibition of Vascular Smooth Muscle Cell Invasion and Proliferation*", Dissertation, Arizona State University, 2003

Articles:

- Kennedy, Chad, et al. "Ten-Year Evolution of an Accredited, Multisite Bachelor's Degree in Biomedical Engineering Technology (BBET) Program." *Technology Interface International Journal* 15.2 (2015): 13-21.
- Kennedy, C., Phillips, W., Majumder, A., Cherif, A., Aron, R., "*Ten Year Evolution of an Accredited, Multisite Bachelors in Biomedical Engineering Technology (BBET) Program*", Proceedings of The 2014 IAJC/ISAM Joint International Conference, Sept. 2014. ISBN 978-1-60643-379-9.
- Kennedy, C., "Can Imaging Technology Advances Drive Lower Inpatient Stays and Costs?" 2nd publishing in AAMIs *Horizons*, May/June 2009.
- Kennedy, C., "Can Imaging Technology Advances Drive Lower Inpatient Stays and Costs?" *BI&T Imaging Section*, AAMI, March/April 2009.
- Kennedy, C., "Complex 3D Branching Structure Generation, Analysis and Comparison to Physiological Structure for Tissue Engineering Application", 2nd *Annual New Kind of Science 2004 Conference– Proceedings,* pg 1203-06, April. 2004
- Woods, C, Urbanz, JL., Kennedy, CE., Massia, SP., "Preliminary Report: Effect of A Novel Biomaterial on Refractory Immunogenic Canine Keratoconjunctivitis Sicca", Annual *ACVO Conference– Proceedings,* Nov. 2006
- Kennedy, C., Massia, S., "Optimization of Targeted Therapies to Inhibit Smooth Muscle Cell Invasion In Vitro" *Annual International Conference of the IEEE Engineering in Medicine and Biology – Proceedings,* pg 1215-18, Sept. 2003
- Kennedy, C.E.; Ehteshami, G.R.; Massia, S.P.; "Comparing vascular smooth muscle cell population migration on various surface chemistry modifications", *Annual International Conference of the IEEE Engineering in Medicine and Biology - Proceedings*, v 1, 2002, p 576-577
- Miller, D.J.; Burdick, J.M.; Kennedy, C.E.; Massia, S.P., "Development of a pulsatile-flow tissue engineered heart valve bioreactor system to mimic the physiological function of the human left heart", *Annual International Conference of the IEEE Engineering in Medicine and Biology - Proceedings*, v 1, 2002, p 835-836

- Kennedy, C.E.; Ehteshami, G.R.; Massia, S.P., "Shear Stress Induced Failure Modes of Rat Aorta Smooth Muscle Cells on Model Cell Adhesion Substrates", Annual Spring Society for Biomaterials Conference, 2002
- Kennedy, C.E.; Massia, S.P., "Design and Development of a Dynamic Flow Environmental Chamber System (DFLECS)", Biomedical Engineering Society Annual Fall Conference Proceedings, 2001
- Kennedy, C., Ehteshami, G. and Massia, S. "Development, Application and Evaluation of Dynamic Flow Environmental Cell System (DFLECS)", Ann Biomed Eng, 2001

Patents:

- "Dental Explorer and Holder", Application #US 62/211,879- (2015)
- "Endoscope Sheath Assembly", Application #US 62/211,873- (2015)
- "Ophthalmic Solution", Application #US 60/846,756 (2004)
- "Hydrogel to Modulate Cell Migration and Matrix Deposition" (Initial Filing to US and International) (2003)

External Funding:

- Created proposal design, budget, and plan for securing initial $350K of ~$2M ongoing commitment for Masters of Innovation and Venture Development Program from donor. (2018-Present)
- $30K Awarded VentureWell Faculty Grant #15368-16 titled "Manufacturing and Prototyping Web Resource (M-PWR)". (2017-2019)
- Helped Raise $2.0 M investor and industry partner funding for PerioEndoscopy, LLC dba OraVu. (2016-2019)
- Raised $200,000 in investor and corporate seed funding at Restorative Biosciences, Inc. plus negotiated strategic business partnerships and joint ventures- (2005-2007)
- Received AZ Innovation Grant for $37,500 for early stage start-up development from AzTE- (2004)
- Received academic use grant for $30,000 in Software from SolidWorks (Now owned by Dassault Systems)- 2003

CONFERENCE PROCEEDINGS & PRESENTATIONS

- VentureWell Open 2020, Presenting "*Mashflow: A simple way for small companies to measure and encourage sustainability*.", Salt Lake City, UT, April 2020 (1st Virtual Conference due to COVID-19).
- Invited speaker for Intel -*TEM Social Entrepreneurship Partnership Program* for two different workshops: *Design for Manufacturing* and *Design Process*. Chandler, AZ, Nov-Jan 2019
- Invited Speaker, Seattle ASU Alumni Organization, "*Modern Innovation Trends*", Seattle, WA, May 2019.
- Invited Workshop Facilitator, National Rural Health Resource Center, "*Applied Creativity and Innovation Toward Solving Issues, Problems or Opportunities*.", Mesa, AZ, Feb. 2019.
- VentureWell Open 2018, Presented "*Decentralized Design and Prototyping Course*", Austin, TX, March 2018.
- ASEE PSW Annual Conference-, Chair and Moderator or Industry Panel entitled, - "*How Entrepreneurship is Changing the Practice of Engineering*", Tempe, AZ, April 2017.
- VentureWell Open, Presenting Workshop, "*Mindset, Neuroscience, Entrepreneurship, and Worldview Explorations (MI-NEWs)*", Washington, DC, March 2017.

- ASEE Annual Meeting- Entrepreneurship & Engineering Innovation Division Member, New Orleans, June 2016.
- CEEC Annual Meeting- California Entrepreneurship Educators Conference at the Lavin Entrepreneurship Center, SDSU March 2016.
- AIMBE Annual Meeting, met with members of Congress to promote Biomedical Engineering research and education workforce development, Washington DC, March 15-17th 2015.
- AIMBE Education Committee Meeting at Annual BMES Meeting, San Antonio, TX, October 22, 2014.
- IAJC/ISAM Joint International Conference, "*Ten Year Evolution of an Accredited, Multisite Bachelors in Biomedical Engineering Technology (BBET) Program*", Orlando, FL, Sept. 2014.
- AAMI "*Future Forum III"*, Invited Academic Representative, Arlington, VA, April 2014
- AAMI Education Committee Finalization of "Core Competencies for the Biomedical Engineering Technician (BMET)", Long Beach, CA June 2013
- Faculty Symposium xET Round Table Discussion Panel 2011-2013
- AAMI "*Future Forum II"*, Invited Academic Representative, Arlington, VA, September 2012
- FIME 2009 International Conference, "Economics of Investing in New Diagnostic and Therapeutic Imaging", Miami Beach, FL, 2009
- Regional ASEE 2008 conference, presenting on, "Role Playing Conflict Resolution for BMETs", Albuquerque, NM, 2008.
- Invited Speaker by Czech Republic Consulate, "Arizona-Czech Republic Opportunities in Biotech and Beyond", April 3rd, 2007
- Finalist for Business Presentation, *Invest Southwest*, February 2007
- Panelist for Entrepreneurial Session, *WestBEC Conference*, October 2006
- Finalist for Business Presentation, *BioSouthwest,* April 2006
- Finalist for Business Presentation, *1st Annual Arizona Angel Investment Conference (AAIC),* December 2004
- Invited Lecture, "Business issues with a biotech start-up and potential solutions", various *W.P. Carey MBA Program* courses, throughout spring and fall, 2005.
- Invited Lecture, "Exploring Careers in Bioscience", *Phoenix Department of Workforce Development,* November 2004
- Invited Lecture, "From the Bench to a Biotech Start-up: the Cynexus History", *Arizona Bioindustry Association Breakfast Series,* October 2004

ADDITIONAL PROFESSIONAL ACTIVITIES

Professional Development and Memberships

- Member of ASEE (2009-Present)
- Member of VentureWell (2016-Present)
- CLAD Certified in LabVIEW Developer (2007-Present)
- Former Member of BMES (2001-2016)
- Former Member of AAMI (2007-2015)
- Former Member of National AAMI Educational Committee (2011-2015)
- Former Member of National AIMBE Education Council (2014-2015)
- Formerly on Arizona Bioindustry Association (ABA) Greater Phoenix Board Member and Education & Workforce Committee (Former Co-chair for Workforce Committee)
- Developed LabVIEW Academy on DeVry Phoenix Campus for CLAD Certification training and exams (2013-2015).

- LabVIEW eLab II Development Training, Austin, TX (2010)
- Certified in LabVIEW Real-time Development, San Diego, CA (2010)
- Certified in LabVIEW FPGA Development, San Diego, CA (2010)
- Blended and Active Learning Champion Training, Chicago, IL (2009)
- Graduate of 1st "New Kind of Science" Conference and Summer School Training at Brown University with Stephen Wolfram, creator of Mathematica, Boston, MS (Summer 2003)
- Participated in Biocomplexity and Complex Biosignal Analysis Summer School at Dartmouth with Dr. Metin Akay, (Summer 2001)

Professional Engineering Consulting

- Advisory Board Member/ Acting CINO for PerioEndoscopy, LLC dba OraVu. (2014-Present)
- Consultant for National Rural Health Resource Center, facilitated workshop, "*Applied Creativity and Innovation Toward Solving Issues, Problems or Opportunities*." (2019)
- Advisory Board Member for Quantified Logic, LLC. (2015-2017)
- Advisory Board Member for Picmonic, Inc. (2012-2014)
- Engineering consultant for Invoy Technologies LLC (2012)
- Engineering consultant for Nevada Law Firm in accident reconstruction analysis. (2011)
- LabVIEW users group presenter for professional programmers using National Instruments software and hardware. Presenting fundamentals of implementing PID controls, Fuzzy Logic toolkits and data acquisition. (1997-2014)
- Years of professional consulting experience in hardware and software development for test automation and motion control with various sectors of industry; energy, aerospace, government, academic research, telecommunications, computer and biotechnology. VI Technology, Inc. (1995-1997)

NASA Johnson Space Center Experience

- Performed design analysis of PICS and POVS subsystems in the Space Plume Impingement Force Experiment (SPIFEX) space shuttle payload. Authored Chapter 15 of analysis report. SPIFEX successfully flew in fall of 1994. (Spring 1994)
- Designed and developed material testing setups for proposed NEMA G-11 electrical isolation material. (Summer 1993)
- Certified Trainer of Orbital Maneuvering System (OMS) operations and malfunctions for the single systems trainer (SST) simulator. Trained astronaut candidates in class of 1992. (Fall 1992) RCS certified in operations.
- Developed training presentation and research for the space shuttle landing chute deployment system. (Fall 1992)

AWARDS, VOLUNTEER AND SERVICE WORK

- Serving Academic Senator representing ASU Polytechnic Campus and ASU Facilities Committee
- TPS Contract Faculty Review Committee (2017-Present)
- Reviewer for TGEN Bioscience Leadership Academy (2018-2019)
- Volunteer faculty for E2 Camp for Engineering Freshmen (2015-Present)
- Volunteer workshop for entrepreneurship to ASU 101 students (2015-Present)
- Presenting "Seeing inside the human body" in cooperation with Maricopa County Library system for K-12 and Adults, (Multiple presentations 2012-2014)
- DeVry OWL Awards 2008-2015
- DeVry Outstanding Faculty Award 2010
- DeVry Pride 2009 Award Winner
- Lecturer on Entrepreneurship and Business Plan Development for business students and professionals at DeVry University (Multiple times).
- High School Outreach programs such as "Engineering and Information Sciences Day" (2006-2015)
- Mentor for FIRST ROBOTICS competition for Sunnyslope High School (2010-2014)
- Supporting with students Project Cure (2006-2015)
- Biomedical interactive presenter for "Her World", over 250-300 middle school and high school female students with the purpose of inspiring and exposing the next generation of young women toward the biomedical engineering careers (2006- 2015)