

Kazi Rashed

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ENGINEERING EDUCATOR/TRAINER

Problem Solver | Communication | Time management

A dedicated and exceptionally competent Engineering Educator with more than 15 years of experience in both teaching and administration. Extremely capable at explaining complex engineering theories and practices in a clear and accessible way to a variety of audiences. Committed to motivating interested audiences to help achieve their academic and professional goals.

CORE COMPETENCIES

- Extensive breadth of experience in engineering instruction at the college level
- Excellent presentation and communication skills
- Superior creative and critical thinking abilities
- Great multitasking ability to balance teaching and administrative duties
- Outstanding proficiency in using technologies delivering lecture/training both onsite and online platform (zoom, team, WebEx, Kaltura)
- Strong ability to deliver course material through a variety of teaching methods (onsite, online, hybrid)

KEY ACCOMPLISHMENT

- Worked on numerous post graduate research projects in world class NASA radiation laboratories (Las Alamos National Laboratory, Brook Haven National Laboratory, TAMU cyclotron) on terrestrial and space radiation effects on semiconductor devices. Published research outcomes in IEEE peer reviewed conferences.
- 15+ years of teaching (activity-based learning) experience. Recognized by students and administrators (awarded numerous superior teaching awards) and maintained reputable teaching evaluation score (3.8/4.0) in the system.
- Selected as one of the key team members to recommend lab equipment for the labs. Delivered report and recommended state of art lab equipment from renowned vendors (National Instrument, Free Scale, and Rockwell Automation). Saved lab budget by 25% across the university systems.
- Contributed to student enrollment growth by 20% in 2010-2012 by working as one of the key team members at local schools by creating STEM related lab activities, robotic club, IEEE student chapter, college fair, science fair judge.
- Conducted numerous technology awareness workshops (Multisim, AutoCAD and Matlab) to the local high school and community college educators to be implemented in their classroom activities.

EDUCATION

- PhD in Electrical Engineering, Prairie View A&M University, 2012-2015 (GPA- 3.87/4.0)
Thesis Title: "The Analysis of Electrical Characteristics of Silicon Carbide Power MOSFET due to Terrestrial and Space Radiation Effects". Supervised by Dr. Richard Wilkins.
- Master of Science in Electrical Engineering, Tuskegee University, 2001-2004 (GPA-4.0/4.0)

Thesis Title: “Design, simulation and performance analysis of a 40 Gbps transimpedance amplifier for optical communication fiber links”. Supervised by Dr. Christian Madubata.

• Bachelor of Science in Electrical & Electronics Engineering, Chittagong University of Engineering and Technology, Bangladesh, 1993-1998 (GPA-3.57/4.0)

SOFTWARE SKILLS

Multisim, LT Spice, Ladder Logic, LogixPro, Allen Bradley RSlogix500, Matlab, Quartus,II, Tutor Tims, VHDL, FORTRAN 77, Assembly & C Programming, MPLAB and Code WarriorIDE, AutoCAD, LabView, ICS, ELVIS, Flowcode, Automation Studio 6, Cisco Packet Tracer.

WORK EXPERIENCE

Adjunct Professor, Houston Community College, Houston, TX.....2007-Present

- Teaching undergraduate courses like Introduction to Engineering, Engineering Statics & Dynamics, Programming for engineers, Engineering graphics and Electrical circuits & systems, providing office hours for mentoring and advising undergraduate students, revising student learning outcomes for courses like programming, statics, engineering graphics as subject matter expert, attending conferences and actively looking for opportunities to continue research /publications

Senior Lecturer, The University of Texas at Tyler.....09/2019-05/2021

- Prepared and delivered undergraduate courses such as Automatic Control, Digital Design, Circuits, Communication, power electronics, FPGA design, VLSI design, Microprocessor, etc.
- Supervised and evaluated senior design projects on various areas such as PLC, Instrumentation, Electronics, Renewable Energy, Electronics & digital circuit design.
- Performed administrative duties such as student advisor, Digital lab coordinator.
- Served various committees like program outcome, ETAC of ABET, curriculum etc.
- Planned and prepared project proposals to bring external funding to help develop research infrastructure and encourage undergraduate to pursue research-based project in future.
- actively looking for opportunities to continue research /publications

Instructor, Houston Community College Systems08/2017-08/2019

- Teaching undergraduate courses like Introduction to Engineering, Engineering Statics & Dynamics, Programming for engineers, Engineering graphics and Electrical circuits & systems, providing office hours for mentoring and advising undergraduate students, revising student learning outcomes for courses like programming, statics, engineering graphics as subject matter expert, attending conferences and actively looking for opportunities to continue research /publications.

Associate Professor (Tenure Track), Grambling State University.....08/2016-08/2017

- Prepared and delivered undergraduate courses such as Programming microcontrollers, Digital logics, Circuits, Communication, Safety engineering, etc.
- Supervised and evaluated senior design projects on various areas such as PLC, Instrumentation, Electronics, Renewable Energy, Electronics & digital circuit design.
- Performed administrative duties such as student advisor, Network lab coordinator.
- Planned and prepared project proposals to bring external funding to help develop research infrastructure and encourage undergraduate to pursue research-based project in future.
- Working on CCNA1 certification, Cisco Networking Academy, Region 11.

Professor, DeVry University, Houston, TX.....08/2012- 08/2016

- Prepared and delivered undergraduate courses (online and onsite) such as automation & control, Instrumentation, Microprocessor architecture, Programming various microcontrollers, Digital logics, Electrical Circuits, Communication, Signal processing etc.

- Conducted experiment-based research, analyzed data on semiconductor effects due to space and terrestrial radiation. Published research findings in peer reviewed IEEE symposiums and conferences, newsletter and data workshop.
- Design, implement, maintain, or improve lab instruments, equipment, facilities, components, products, or systems for educational purposes.
- Supervised and evaluated senior design projects on various areas such as PLC, Instrumentation, Electronics & digital design, Renewable Energy, Embedded systems.
- Performed administrative duties such as course evaluator, lab administrator, and mentor.
- Counsel students on course and academic matters and career decisions.
- Attended professional development workshops, conferences, training.

Associate Professor, DeVry University, Houston, TX.....06/2010- 08/2012
 Started teaching online and onsite courses. Started working on PhD research work at various NASA research facilities.

Assistant Professor, DeVry University, Houston, TX.....06/2008- 06/2010
 Taught undergraduate courses along with Design, implement, maintain, or improve lab instruments, equipment, facilities, components, products, or systems for educational purposes. Attended and conducted training for best practices, professional development workshops, conferences, training.

Instructor, DeVry University, Houston, TX.....06/2006- 06/2008
 Taught undergraduate onsite courses such as electrical circuit, Digital design automation & control, Instrumentation, Programming microcontrollers, Digital logics, Electrical Circuits, Communication, Signal processing etc. Attended professional development workshops, conferences, training.

Math Teacher, Elsik High School, Houston, TX.....01/2005-01/2006
 -With ACP provisional certificate taught 9-12 grade math courses like Algebra II, Geometry, Math Model
 - Completed all the ACP course work with University of St. Thomas.

RESEARCH AND INTERN EXPERIENCE

Research Faculty, LSAMP funded Project.....06/2021-Present
 Research program offers undergraduate scholars currently enrolled at HCC to join a community of undergraduate researchers and receive a financial award over the course of the program. Student scholars conduct research under the direction of a faculty mentor.

Principal Investigator, NASA funded Project.....09/2019-Present
 The object of the grant is Undergraduate Research on High Pressure Combustion in Microgravity. HCC students are working with Prairie View A&M university students and faculty and getting research experience. This is an ongoing Summer Research program.

Intech Process Automation, Houston, TX.....05/2015-05/2016
 Received PLC (Programmable logic controllers) related training at this facility which helped me to improve the quality of teaching, planned senior design projects and worked as an advisor to send students who are looking for internship opportunities.

Research Activities at various NASA labs.....2012-2015

- Certified radiology worker 1 at Los Alamos National Lab (LANSCE), New Mexico 2013-2014.
- Certified radiology worker 1 at Brookhaven National Lab (BNL), Long Island, New York 2013-2015.
- Certified X-ray (X-Rad 160) operator 2012-2015.
- Research Associate, NASA-Center for Radiation Engg. Science for Space Exploration, PVAMU, 2012-2015.
- Research Assistant, Tuskegee University, AL 2002-2003.

Engineering Intern, Energy Pac Limited (Ltd), Bangladesh.....1996-1999

- worked as engineer (intern)
- assisted designing high voltage transformers, troubleshooting & servicing transformers, worked on marketing strategies of the products.

COMMITTEE SERVED

- Chair, ETAC of ABET accreditation committee, DeVry University, 2010-2012.
- Curriculum development committee, 2008-2015.
- Course development committee, 2008-present.
- Organizer, Industry Advisory Committee, 2013-2015.
- President, IEEE DeVry Houston chapter, 2015.
- Advisor, Robotics club, DeVry University, Houston campus. 2013-2015.
- Advisor, IEEE, Grambling State University student chapter, 2016
- Program development committee, Grambling State University, 2016
- ETAC of ABET accreditation committee, UT Tyler, 2019-2021.

PUBLICATIONS

- [1] K. Rashed, R. Wilkins, A. Akturk , “Terrestrial Neutron Induced Failure in Silicon Carbide Power MOSFETs” Radiation Effects Data Workshop (REDW), IEEE ,Paris, France, 14-18 July, 2014.
- [2] K. Rashed, R. Wilkins, “X-ray Induced Total Ionizing Dose Effect Analysis of Commercial SiC Power MOSFET Devices” submitted IEEE Transaction of Nuclear Science, December 10, 2015.
- [3]M. Rashed, C. Madubata, “ Design, simulation and performance analysis of a 40 Gbps transimpedance amplifier for optical communication fiber links”, 36th IEEE South Eastern Symposium on System Theory, Atlanta, GA, 14 –16th March 2004.

POSTER PRESENTATION

- [1] K. Rashed, “Pre irradiation characterization analysis of wide band gap semiconductor power MOSFET devices”10th annual pathways student Symposium, Texas A&M, Galveston, NOV.9-10,2012.
- [2] K. Rashed, “Terrestrial and space radiation effects on SiC power MOSFET”, STEAM symposium, Prairie View A&M University, March 24, 2014.
- [3] K. Rashed, R. Wilkins, “Terrestrial neutron induced failure in SiC power MOSFETS”, Nuclear and space radiation effects conference (NSREC), Paris, France, July 14-18, 2014.

DISTICTION & AWARDS

Certified Active Learning Champion, 2014; Certified Onsite & Online (Blended) Champion, 2010; Employee/faculty of the semester award, DeVry University, August 2011; TEACH value recognition award, DeVry University, December 2011; Teaching Excellence Award DeVry University June 28, 2006.

PROFESSIONAL AFFILIATION

Member IEEE

REFERENCES

Dr. Richard Wilkins
Professor, Dept. of Electrical and Computer Engg.
Director, NASA-Center for Radiation Engg.
Science for Space Exploration (CRESSE)
Prairie View, TX 77446
Tel 936-261-9913, Email: rtwilkins@pvamu.edu

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