

## EKU College of STEM Announces First Female Iconic Professor

Dr. Barbara Ramey Room in the Science Building Unveiled



*Dean Otieno, Dr. Ramey, President McFaddin*

Eastern Kentucky University's (EKU) College of Science, Technology, Engineering, and Mathematics (STEM) recognized retired faculty member, Dr. Barbara Ramey, as part of the college's Iconic Professor initiative. Dr. Ramey joins the ranks of Dr. Sanford L. Jones Sr., the late Dr. John L. Meisenheimer Sr. and the late Professor Meredith J. Cox, who were honored as Iconic Professors in 2020.

During the college's Celebration of STEM week Sept. 11-16, 2023, the Dr. Barbara Ramey Room in the Science Building, Room 3206, was unveiled.

"In consideration of the influence of past faculty on the history and trajectory of EKU and our college, we established the Iconic Professor initiative to permanently honor the legacy of professors who positively impacted the lives of our students," said Dr. Tom Otieno, dean of EKU's College of STEM. "It is a privilege to bestow the distinction of Iconic Professor upon Dr. Barbara Ramey. For each Iconic Professor, a prominent space in our state-of-the-art Science Building is named, ensuring their impact in the field of science and the teaching profession continues for generations to come."

Dr. Ramey joined EKU's faculty in 1983 and became the first female department chair of Biological Sciences in 1998. During her tenure, she taught classes in zoology, cell biology, histology and embryology. As chair, she was heavily involved in the design of the Science Building. Dr. Ramey actively participated on university committees, serving as a member of the EKU Honors faculty and an advisor to pre-professional program students. She was awarded the Outstanding College Teacher of the Year Award by both EKU and the Kentucky Academy of Science.

"Our people at EKU are the lifeblood of this university," said EKU President David McFaddin. "Faculty, past and present, impact the lives of students every day and leave a lasting mark on this institution and within their fields of study. It's only fitting that we name the Dr. Barbara Ramey Room in the Science Building and formally recognize her as the College of STEM's first female Iconic Professor."

Dr. Ramey said, "I am overcome with joy at this recognition, and I wish to thank everyone who helped me on my journey to this point. Without the support and friendship of family, colleagues and friends, I could not have achieved this honor. I especially wish to thank Dr. Stacey Tarvin and her family for her generous gift and continued support."

As a researcher and educator, Dr. Ramey mentored graduate and undergraduate students in aquatic toxicology research. She served as president of the Kentucky Academy of Science and was instrumental

in the development, implementation and continued growth of the state-wide middle and high school science fair. She made the scientific method tangible to thousands of students throughout the Commonwealth, influencing science scholars for years to come.

Throughout her career, Dr. Ramey brought science to life for learners at all levels of education, many of whom went on to have impactful careers in STEM fields. She was a committed mentor to students as they pursued their academic and professional careers, even after they graduated.

“I’ve had the good fortune of being a student, mentee and friend of Dr. Ramey for 25 years. She’s a tireless advocate, educator and leader. She’s in the top five most resilient people I know,” said Dr. Tarvin, an ECU alumna and academic physician at Riley Children’s Hospital and Indiana University School of Medicine in Indianapolis, Indiana. “Dr. Ramey’s advice to me when I graduated, ‘Put your head down and do the work, you will be noticed,’ exemplifies her resiliency,” Dr. Tarvin added.

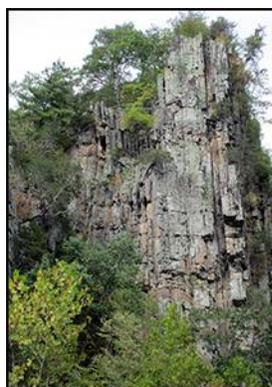
The Iconic Professor initiative is supported by members of the College of STEM Dean’s Development Cabinet, the honorees and their families, current and retired faculty and staff, and alumni. The College of STEM Endowment for Faculty Success Fund provides the opportunity for former students, alumni and friends to support the next generation of Iconic Professors.

At the Dr. Barbara Ramey Room unveiling, the College of STEM also announced the Dr. Suzanne Byrd Endowed Scholarship Fund, which will be awarded to an ECU senior majoring in biomedical sciences or occupational science. Dr. Byrd joined the faculty in the Department of Biological Sciences at ECU in 1991. She taught courses in the biological sciences department, and in occupational therapy, nursing and ECU Honors. Dr. Byrd passed away in a tragic accident on November 5, 2021. The Dr. Suzanne Byrd Endowed Scholarship Fund was established by family and friends in her memory.

## PLACES AND PROGRAMS

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### Geosciences Field Trip – West Virginia



*Eagle Rock, Smoke Hole, W.Va.*

Learning in the sciences is rarely confined to a classroom or laboratory setting, this is especially true for the geosciences. As part of their training at ECU, geoscience majors participate in a variety of field trips on and around the campus and surrounding areas in Kentucky. This field training is exemplified by a four-day trip to West Virginia in late September that is a cornerstone of the program. All Geology majors participate in this trip as a requirement for their Applied and Environmental Geology degree.

Professors Walter S. Borowski and John C. White led 17 Geology majors on a trip near Smoke Hole, West Virginia, deep in the heart of the Appalachian Mountains, from September 28 – October 1.

The trip has two main components, the first being an investigation of sedimentary rocks. “The internal composition and architecture of these rocks inform scientists as to how

sediments were deposited in their depositional environments such as rivers, floodplains, deltas, and on the seabeds of the oceans,” said Dr. White

With burial, individual particles of sediments are cemented to one another and then form the sedimentary rocks. These rocks are then laid down in layers and the layers stack upon one another to create a record of Earth history. In the field the students learn to “read the rocks” to help them understand how Earth’s environments change with the passage of geological time.

Though similar sedimentary rocks crop out in Kentucky, the layers in northeast West Virginia have been deformed through folding and faulting which has formed long, linear parallel valleys and ridges.

The second component of the trip requires the students to map the distribution and orientation of these rocks, and in so doing interpret their geologic structure, discovering the interior structure of mountain belts in general and of the Appalachian range in particular. This information is useful in a range of endeavors that include proper siting of buildings, avoidance of geological hazards, finding and producing petroleum and natural gas, and in locating and drilling successful water wells.



*Students Study the Helderberg Fold*

According to Dr. Borowski, “The geology field trips are renowned for their camaraderie. Students learn teamwork through aiding one another in understanding the geological concepts and principles as they map the field during the day, and while they work on their field notes and maps in the evening.” When asked about his experience on the fieldtrip Mr. Simon Christian said, “My experience on the trip showed me what true field geology is and how exciting it can be and it helped the current geology majors connect on a level deeper than being just classmates.”

When asked about their experiences on the field trip Mr. Simon Christian, an applied and environmental geology senior said, “My experience on the trip showed me what true field geology is and how exciting it can be and it helped the current geology majors connect on a level deeper than being just classmates.” Another geosciences senior, Mr. Thomas Schell, said, “The trip to West Virginia was an opportunity to grow as a geologist. We we’re able to use knowledge we had gained from the classroom over the last semester and previous, and apply those skills in the field. There is nothing like getting hands on experience in the field, and no better way to improve your knowledge.”

For more information about the geosciences please visit our webpage at:  
<https://www.eku.edu/phygeosast/>

## FACULTY/STAFF AND STUDENT SPOTLIGHTS

### Dr. Vigyan Chandra: Department of Computer Science and Information Technology



Dr. Vigyan "Vigs" Chandra

*"It makes me realize every single time – looking at their shining faces, each with special stories to tell and family behind them, basking in their achievement – the vital role my colleagues and I play in this treasured moment."* - Dr. Vigyan Chandra.

Dr. Vigyan (Vigs) J. Chandra, a professor in the Department of Computer Science and Information Technology (CSIT) was born in the coastal city of Mangalore, India. He holds several degrees including Bachelor of Engineering in Electrical and Electronics Engineering from the Birla Institute of Technology, M.S. and Ph.D. degrees in Electrical and Computer Engineering from the University of Kentucky, M.S. in Manufacturing Systems Engineering from the University of Kentucky, and M.S. in Career and Technical Education from Eastern Kentucky University (EKU).

Dr. Chandra joined EKU as an Assistant Professor in the Department of Technology (now, the School of Engineering, Aviation, Construction, and Technology) in August 2002. "The decision to join EKU was an easy one," said Dr. Chandra, "especially after seeing how students milled around my hiring committee chair, Foundation Professor, Dr. Steve Fardo, for academic guidance. I saw this as evidence of the close student-faculty interaction I aim to foster in my classes."

Dr. Chandra was an outstanding addition to the faculty and made an immediate impact on the department," said Dr. Tim Ross, former chair of Technology and current associate dean of the College of Science, Technology, Engineering, and Mathematics (CSTEM). "He has a wealth of knowledge on a wide range of subjects, the desire to learn, and most importantly, the desire to see his students succeed. Dr. Chandra is an exceptional person and we are very fortunate to have him as part of the faculty in Computer Science and Information Technology (CSIT)."

Teaching is Dr. Chandra's top priority. Some of his teaching strategies derive from his own learning background as he explains, "The challenges I faced learning as a youngster and into college, have led me to develop a visual understanding of technical content using annotated visuals for drawing connections between different parts and the whole, maintaining a picture-in-picture perspective. It is something I actively try to include in the classroom, building on queries, examples, and analogies often provided by students – from pizzas and hamburgers to gremlins and pirates."

Dr. Chandra's love of teaching serves his students well as they prepare for the workforce. "In our classes, we aim to integrate the two pillars of safety and usefulness, while emphasizing the quality of the overall experience for students with attention to critical thinking and creativity. Students are then equipped to effectively design, implement, and manage IT systems, as well as to create their own

professional pathways. Dr. Chandra challenges his students to integrate classroom and laboratory exercises to produce innovative projects. When discussing the capstone course, Dr. Chandra commented, “Through the capstone experience, students create inventive and potentially marketable projects that showcase their knowledge, skills, and work-ready practices and inspire their engagement in the field.”

Conversations with Dr. Chandra usually return to teaching and learning, his contentment practice, “I regard teaching, my calling, and just about every experience that comes my way, with thankfulness,” said Dr. Chandra. His dedication to teaching at Eastern has been recognized with the 2020 Critical Thinking Award, Critical Reading Teacher Award, and the 2013 Golden Apple Award for Teaching Excellence. Dr. Chandra especially values the Golden Apple Award because candidates were nominated by students themselves. “It’s so meaningful to me, the idea of making a difference in the life of a student, and a Golden Apple nomination is a heartfelt expression of gratitude for that. It means a lot.”

While at ECU, Dr. Chandra has authored or co-authored over 85 nationally peer-reviewed presentations, and several technical conference and journal papers. His latest publications, a textbook, DC/AC Electrical Fundamentals, Electronic Devices and Circuit Fundamentals, and Electronic Digital System Fundamentals, was released this fall. Dr. Chandra regularly involves students and junior faculty in conference presentations to enrich their academic and professional experiences

According to Dr. Chandra the most moving moments for him are those during graduation ceremonies when the president calls on graduating candidates who are the first in their family to earn a college degree to rise and be recognized. “It makes me realize every single time – looking at their shining faces, each with special stories to tell and family behind them, basking in their achievement – the vital role my colleagues and I play in this treasured moment. It really does take a village to raise a child. A village that, in turn, depends on that person’s development for its own growth.”

“I became a naturalized US citizen in October 2010. The citizenship ceremony was one of the most memorable occasions of my life, Kentucky is my home state. It has offered me delightful opportunities to grow where I am planted,” Dr. Chandra declared with pride.

When away from work, Dr. Chandra enjoys traveling and hiking Kentucky’s scenic outdoors with his wife, Judy. They love walks with their Cowboy Corgi dog, Tucker and tending their garden and its colorful nutritious bounty. Dr. Chandra works on growing a forest on their small plot of land, Waggintail Woods, a fledgling paradise of oaks, maples, walnuts, sassafras (amidst insistent squatters of honeysuckle and wintercreeper); and he recently built a hillside three-circuit Chartres labyrinth that visitors are welcome to walk.

### Ms. Rosalie Richburg



Ms. Rosalie Richburg

Ms. Rosalie Richburg was born in San Antonio, TX. In the summer of 2010, when she was 8 years old, she moved to Richmond, KY, with her parents and 6 siblings. She was homeschooled up until high school and always had a joy of learning.

Ms. Richburg's 4 older siblings all attended ECU and she always knew she would do the same. She decided to major in mathematics and minor in statistics. She earned a merit-based scholarship from ECU (The Pioneer Scholar) as well as the ECU Honors Scholarship.

Ms. Richburg works in the Math and Statistics Tutoring center 19 hours a week and loves to help students with Calculus. She is a member of the Statistics club at ECU and Mu Sigma Rho. She also is engaged with the Algebra seminar and the Math Club at ECU. She is a co-founder of the Little Muffins Kitten Rescue, along with her sisters. "I spend a lot of time with the kitty cats and doing cat-related things," she said. Little Muffins Kitten Rescue is a small foster-based 501(c)(3) cat/kitten rescue in Richmond, KY.

During her time at ECU Ms. Richburg has experienced many hardships including the COVID-19 pandemic, a fire at her family's home, her father's passing, among others. She remarked, "What I learned through those experiences is that I can do whatever I put my mind to. Although the world can sometimes feel like it is working against you, it can't stop you."

Ms. Richburg expects to graduate in December 2023 and hopes to pursue a job in mathematics or statistics, continue rescuing cats, and apply the skills and knowledge she has acquired during her time at ECU.

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### ALUMNI AND FRIENDS

#### Mr. Vincent Aduda



Mr. Vincent Aduda

*"There are a lot of fond memories. However, the Richmond college town experience is perhaps the fondest. As a TA, it was very rewarding to bump into my students outside school in Richmond or elsewhere in Lexington and get recognized for helping them pass Organic Chemistry I/II labs."* – Mr. Vincent Aduda

Mr. Vincent Aduda, an Eastern Kentucky University (EKU) alumnus, is the Director of CMC (Chemistry, Manufacturing and Controls) and Oligonucleotides Process Technology Services at Wave Life Sciences (Wave), a Biotech company in greater Boston, Massachusetts.

Mr. Aduda was born in Kisumu, Kenya, and holds a Bachelor of Science (Hon) degree in chemistry from the University of Nairobi (1998) and a Master of Science degree in chemistry from ECU (2003).

When asked how he learned about ECU, Mr. Aduda replied, "ECU was recommended to me by a former college mate at the University of Nairobi who had recently enrolled at ECU. Upon exploration, I discovered that the coordinator of the graduate program in the Department of Chemistry was Dr. Tom Otieno, who was himself a former student at the University of Nairobi. This revelation increased my confidence in the institution."

As a graduate student, Mr. Aduda worked as a graduate teaching assistant, a position he appreciated very much. "Being a TA lifted a big financial burden for me. In addition to the stipend, we also had the out-of-state tuition waived, and we were only responsible for half the tuition. Those days, it was common to see international students drop out of school, because they could not afford tuition and accommodation. The TA gave me the peace of mind needed to focus on my studies."

When asked to comment on his fondest memories of ECU, Mr. Aduda had this to say, "I have so many! My journey in America started at ECU...first winter, first car, first paycheck. There are a lot of fond memories. However, the Richmond college town experience is perhaps the fondest. As a TA, it was very rewarding to bump into my students outside school in Richmond or elsewhere in Lexington and get recognized for helping them pass Organic Chemistry I/II labs."

Upon graduating from ECU, Mr. Aduda worked for Procter & Gamble, Girindus America, and Nitto Denko AVECIA, all in Cincinnati, Ohio, before taking a position with Wave Life Sciences, in Lexington, Massachusetts. Wave is a genetic medicines company focused on delivering life-changing treatments for people battling devastating diseases, some of which have few or no treatment options. Mr. Aduda is a proven industry expert in Oligonucleotides lead optimization, process cycle optimization, design of experiment (DoE) and Quality by Design (QbD) approaches to process development and characterization. At Wave, he leads a team of scientists responsible for continuous innovation in the manufacture of synthetic oligonucleotides.

Mr. Aduda has always excelled in physical sciences since he was a child, following in his father's footsteps, who was himself a chemist. Career-wise he describes himself as a Synthetic Organic Chemist by training, and a Process Development Scientist by practice and offers the following advice to students aspiring to major in chemistry, "Chemistry is the central science. In industry today, it is how we link medical and engineering sciences. Yet, it all starts with the good old Periodic Table. Today, chemistry is at the core of the Biotechnology industry explosion, with more job openings than the industry can fill. Therefore, majoring in Chemistry guarantees you a fulfilling scientific career, at whatever level you desire. Chemistry saves lives. The Pharmaceutical Industry is worth \$1.5 trillion, per 2022 estimations, all of which is generated and spent to keep us healthy. Chemistry Sustains Life. The value-added consumer goods market, which includes soaps, detergents, clothes, plastics, paper, electronic parts/components, cars, food and beverages, etc. all which rely heavily on chemistry, is worth at least \$3.0 trillion. Chemistry is Life. Currently, we spend over \$100 billion annually, just on water supply and wastewater treatment alone. Simply put, a career in chemistry provides a versatile, fulfilling and sustainable path towards solving the world's problems, all, with good pay!"

## **UPCOMING EVENTS**

**Fall Commencement:** Saturday, December 2, 2023, 9:00 am  
Baptist Health Arena at Alumni Coliseum

**ECU Thanksgiving Break:** November 25th-28th, 2023