



University of Dayton  
**School of  
Engineering**

# Black History Month: Engineers to Know

February 1-28

# Black History Month

As Black History is among us this month of February, it is important to learn about and remember these incredible engineers who have improved society, medicine and life for Americans and the world. African Americans only make up 3.3% of engineers in the U.S., however their contributions to the world are undeniable and should be recognized!



# Lynton Scotland

Chemical Engineer and alumni of the University of Dayton, Scotland has made it a habit to give back to his alma mater. He served as the University's board of trustees and the School of Engineering's advisory council. He is currently working as an emeritus trustee and a member of the University's campaign cabinet. In addition, he serves as the chief procurement officer at W.L. Gore and Associates and held several senior executive positions with major U.S. corporations. He has used his success to advocate for academically gifted but economically challenged or disadvantaged students of color. He is also a member of the Executive Leadership Council, which is an organization that strengthens the success, contribution and impact of African American corporate leaders. He was recently named in an article by *Savoy Magazine* as one of the 100 most influential African Americans in corporate America.



# Hattie Peterson



The first African American woman to receive a bachelor's degree in civil engineering. She graduated from Howard University with a Bachelor of Science in Civil Engineering. She began working as a survey and cartographic engineer for the U.S. Geological Survey and then joined the local U.S. Army Corps of Engineers where she was the first woman engineer. She encouraged many women to pursue a career in engineering and saw it as a realistic and wonderful profession for women.

# Otis Boykin

African American inventor and engineer whose work is still used today in computers, televisions and radios. Most notably, his research and findings led to the development and success of the first implantable pacemaker. He is also known for his work on the wire precision resistor. The advances he made and incorporated on this invention meant that many electronic devices, including consumer goods and electronic equipment, could be manufactured at a cheaper cost and with greater reliability than the earlier inventions available.



# Elijah McCoy



McCoy was originally born in Canada; his parents being escaped slaves. At the age of 15, he traveled to Scotland for an apprenticeship in mechanical engineering. However, after receiving his degree in mechanical engineering, he was unable to find employment in the states due to racial discrimination. After working for the Michigan Central Railroad, he started developing his first major inventions. He designed a lubricating cup that distributed oil evenly over the engine of the train's moving parts so that it was more efficient in stopping a train. His invention helped revolutionize train travel and helped trains travel longer before they needed maintenance.

# Mae Jemison

An American chemical engineer, physician and former NASA astronaut. She graduated Stanford University with degrees in chemical engineering and African American studies. She then graduated from Cornell with her medical degree. She was a doctor for the Peace Corps in Liberia and Sierra Leone, after which, she applied to NASA. She was the first black woman to travel into space aboard the space shuttle *Endeavor*. After leaving NASA in 1993, Jemison founded her own technology research company and founded a non-profit educational organization. She has also written many books for children and made many TV appearances. She has been inducted into the National Women's Hall of Fame and International Space Hall of Fame for her numerous contributions and accomplishments.



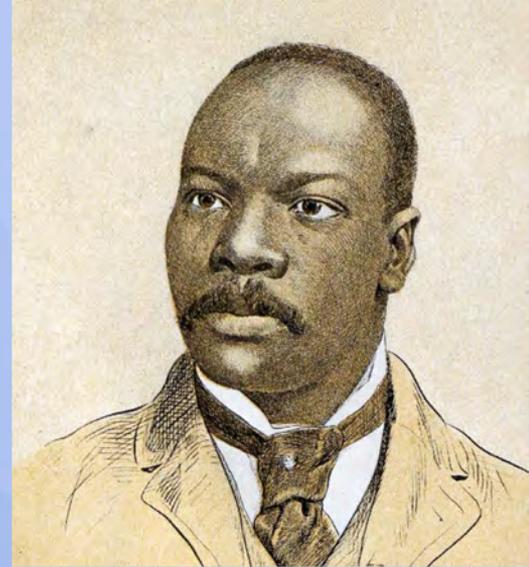
# Ayanna Howard



American robotist, entrepreneur and educator currently serving as the Dean of Engineering at The Ohio State University. She is the first woman to lead the College of engineering. Previously she was the chair of the Georgia Institute of Technology School of Interactive Computing in the College of Computing, as well as the founder of the Human-Automation Systems Lab (HumAnS). Some of her most impressive accomplishments include being recognized by *Forbes* in their article for America's Top 50 Women in Tech list, working in NASA's Jet Propulsion Laboratory and being the founder of a mobile therapy company called Zyrobotics.

## Granville T. Woods

Woods was interested in electrical and mechanical things from a young age and eventually invented 15 appliances for electric railways, including a power pick-up device in the year 1901, this was the basis of the so-called “third rail” that is used by electric powered transit systems in big cities. Some of his other notable inventions include a steam boiler furnace, an automatic air brake and the multiplex telegraph. Over his career, he held over 40 patents for his inventions and he was dubbed the nickname “the Black Edison” and the *Catholic Tribune* referred to him as the “greatest electrician in the world.”



# Kimberly Bryant



Bryant is an electrical engineer, founder and CEO of *Black Girls Code*, a nonprofit designed to empower and encourage young girls, especially those in minority groups, to remain involved in STEM and increase awareness within this field. *Black Girls Code* is essentially a training course that teaches basic programming concepts to girls who are underrepresented or don't have as many opportunities in technology or STEM careers. This nonprofit has already trained over 3,000 girls in seven chapters in the United States and even has one chapter in South Africa where they have plans to add eight more chapters to various cities.

## Lilia A. Abron

Abron was the first woman to earn a PhD in chemical engineering and researched the removal of pesticides from water for her doctoral thesis and founded PEERCP, which is an engineering consultant firm that is mainly focused on environmentally sustainable solutions. All over the country, Abron has worked on aging water infrastructure programs to harbor cleanups all around the country.



# Thank you!



University of Dayton

**School of  
Engineering**