African Americans in the Sciences

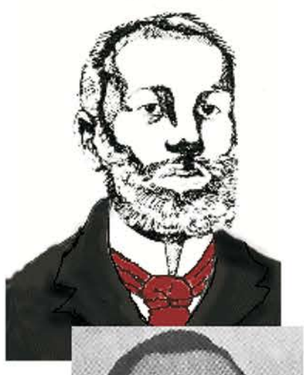
Profiled here are some of the African American men and women who have contributed to the advancement of science and engineering. The accomplishments of the past and present can serve as pathfinders to present and future engineers and scientists. African American chemists, biologists, inventors, engineers, and mathematicians have contributed in both large and small ways that can be overlooked when chronicling the history of science. By describing the scientific history of selected African American men and women we can see how the efforts of individuals have advanced human understanding in the world around us.

Benjamin Banneker, Mathematician and Astronomer, (1731-1806)

Appointed by George Washington to the commission that planned the construction of Washington, D.C. and helped survey the site of the national capital. He was also an early antislavery publicist who worked to improve the lot of black people in the U.S.

Norbert Rillieux, Chemist and Inventor, (1806-1894)

Revolutionized the sugar industry by inventing a process that reduced the time, cost and safety risk involved in producing sugar from cane and beets.



Elijah McCoy, Engineer and Inventor, (1844-1929)

Patented 57 inventions, including a lubricator for steam engines that revolutionized heavy industry. He also invented the ironing board and lawn sprinkler. His name is the source of the term "the real McCoy."

Granville T. Woods, Inventor, (1856-1910)

Patented more than 35 electrical and mechanical inventions. His railway telegraph system allowed communications between train stations and moving trains, speeding up train movement and preventing many accidents.

George Washington Carver, Jr., Scientist, (1860-1943)

Developed industrial and consumer applications for agricultural products -- mainly peanuts, sweet potatoes and pecans. His inventions included a rubber substitute, dyes, pigments and paints

Charles Henry Turner, Zoologist and Entomologist, (1867-1923)

Authority on insect learning systems. He was the first researcher to prove that insects can hear and distinguish pitch, and that roaches learn by trial and error.

Madame C. J. Walker, Inventor and Businesswoman, (1867-1919)

Invented a conditioning treatment for straightening hair. She built a factory to make her cosmetics and was one of the first American women to become a millionaire.

Garrett A. Morgan, Traffic Engineer, (1877-1963)

Invented safety helmets and gas masks for firefighters. He also created the concept of changing traffic signals that regulates traffic all over the world today.

Frederick M. Jones, Inventor, (1893-1961)

Patented more than60 inventions, including the first refrigeration for long haul trucks. That system allowed perishable items like fruits and vegetables to be moved long distances.

Lloyd Augustus Hall, Chemist and Inventor, (1894-1971)

Pioneered additives that keep food fresh and flavorful without ruining the taste. He also developed processes to sterilize spices, cereals, other foods and medicines that are still used today.

Charles Richard Drew, Physician, (1904-1950)

Conducted blood plasma research. He organized the concept of the blood bank and set up the first full time blood bank for american soldiers serving in Europe during World War 2.

Katherine G. Johnson, Physicist and Mathematician, (1918-)

NASA researcher whose pioneering studies of space navigation problems earned her the Group Achievement Award for NASA's Lunar Spacecraft and Operations Team.

Otis Boykin, Inventor, (1920-1982)

Invented resistors used in guided missles and computers. His innovations reduced the cost of producing radios and televisions. He also invented a burglar proof cash register.

O.S. (Ozzie) Williams, Aeronautical Engineer, (1921-)

In charge of developing and producing rocket control systems used to guide lunar landing modules during NASA's Apollo moon missions. He also helped to develop the first airborne radar beacon, used to locate crashed airplanes.

Ernest Wilkins, Jr. , Physicist, Mathematician and Engineer, (1923-)

Earned a Ph. D. in mathematics at age 19. Worked on the Manhattan Project, which created the atomic bomb. His mathematical models are used by researchers on space and nuclear science projects.

Meredith C. Gourdine, Physicist and Engineer, (1929-)

Pioneered research in electrogasdynamics. He is responsible for creating techniques to remove smoke from buildings and fog from airport runways.