

## Division of Vehicle, Driver, & System Safety



**Lois Cooper** overcame gender and color barriers to become the first female African American transportation engineer hired by the California Department of Transportation. Born in Vicksburg, Mississippi in 1931, Cooper pursued a law degree at Tougaloo College before relocating to California to study mathematics at Los Angeles City College. Cooper passed the Professional Engineer's licensure exam on her first attempt, becoming the first African American woman to earn the P.E. distinction. Her aptitude in mathematics served her well when she was confronted with the challenge of figuring out the alignment of freeways without the benefit of calculators or computers. The San Diego Freeway and the San Gabriel River Freeway are among the projects she supervised during her tenure as a project manager at Caltrans.

Additionally, Cooper served as the first female director of the First Diamond Lane, the precursor to carpool lanes.

## Division of Data & Analytics (DDA)

**Mark E. Dean** is a computer scientist engineer helping develop groundbreaking technologies at IBM. He was credited for such inventions as the color PC monitor, gigahertz chip, and the Industry Standard Architecture (ISA) bus. The ISA system allowed peripheral devices like disk drives, printers, and monitors to be plugged directly into computers. These landmark technologies



led him to receive recognition for these inventions such as becoming the first African American to be named an IBM Fellow, Black Engineer of the Year President's Award, National Inventors Hall of Fame, and more.

## Division of Technology Development and Deployment



**Lewis Latimer** was a son of fugitive slaves who later became an inventor and electrical pioneer with no access to formal education. While in the Union Navy he taught himself mechanical drawing and became a chief draftsman, patent expert, and inventor. He assisted in the development of the telephone and invented the carbon filaments for the incandescent bulb. These filaments increased the life span of the bulbs and made them more practical for everyday use. Latimer's invention is largely responsible for the bulbs to become cheaper for everyday use. This invention was made in 1881.

## Division for Technology Implementation (DTI)



**Jesse Russell** was the first African American to be hired by AT&T Bell Laboratories directly from a Historically Black College or University (HBCU). He pioneered the field of digital cellular communications in the 1980s and 1992 he obtained a patent for his design of the first digital cellular base station and fiber optic microcell utilizing high power linear amplifier technology and digital modulation techniques. His innovations in wireless communication systems, architectures, and technology related to radio access networks, end-user devices, and in-building wireless communications systems have fundamentally changed the wireless communications industry.

## Center for Sustainable Mobility (CSM)

**Dr. Norman Garrick** is a Professor Emeritus at the University of Connecticut. Graduating from the University of the West Indies in Trinidad, he got his Ph.D. from Purdue University in 1986. His work has been advancing our understanding of sustainable places to equip students from across the globe with the wherewithal to plan, design, and build better, more attractive, more efficient, more livable, and yes, more lovable places. He believes that in this era of mega-cities, urban decay, and suburban sprawl - along with global climate crisis and energy insecurity - the issue of how we create more sustainable places is the fundamental challenge facing transportation professionals.



## The Division of Freight, Transit, & Heavy Vehicle Safety (DHVY)



**Red Ball Express:** During World War II, truck drivers were needed to deliver supplies to U.S. troops on the front lines. A large team of American drivers, known as the Red Ball Express, stepped in for 83 days during the war. Black truck drivers made up 75% of the Red Ball Express team. Their shifts were long, with little rest, and their routes took them through enemy fire over damaged roadways. The drivers were essential and to stay hidden from enemy attack, they often drove at night with “blackout headlights.” At one point, the drivers

were delivering 12,500 tons of supplies per day. The job was incredibly dangerous, and the Red Ball Express truck drivers were American WWII heroes.

**Harvey F. Morgan & The Safe Bus Company** : The late 1890s saw enormous growth in city transportation options through streetcars or trolleys. However, these systems did not serve all city residents equally. In Winston-Salem, North Carolina, a group of drivers banded together to create transportation routes for Black residents. Safe, reliable city-provided transportation was not available to many Black residents. In 1926, Harvey F. Morgan worked with others to form the Safe Bus Company. The Safe Bus Company transitioned from jitneys to a “safe and organized bus system.” The bus system included 35 buses serving the city of Winston-Salem. Over time, the Safe Bus Company grew larger, until 1968 when the Safe Bus Company became the leading city transportation service in Winston-Salem and the “largest African-American owned and operated transportation business in the world.”



**Dr. Martin Luther King Jr. & the Memphis sanitation workers’ strike:**

Heavy vehicles involve more than just drivers and logistics, there are other workers involved in the process. In 1968, Black sanitation workers in Memphis formed a union to seek better pay and working conditions, and the city refused to recognize the union. Black workers had the most difficult jobs and were subject to degrading treatment.

Leading up to the strike, two Black sanitation workers, Echol Cole and Robert Walker, had been killed on the job by seeking shelter from the rain inside the back of a garbage truck, something management encouraged because they did not want Black workers in the cab of the truck. The key slogan of the strike, “I am a man,” hit on the inhumane treatment these workers faced. The union organizing drive gained little traction until Dr. Martin Luther King Jr showed up to support the striking workers. The day after Dr. King spoke in support of these workers, he was assassinated. President Lyndon B Johnson ordered labor negotiations, and Coretta Scott King, the United Auto Workers (UAW), and the Southern Christian Leadership Conference (SCLC) continued to speak on behalf of the workers. Weeks after Dr. King’s assassination, the city of Memphis recognized the American Federation of State, County, and Municipal Employees (AFSCME) union, which led to improvements in wages and working conditions, although only under continued pressure from the union for the city to honor the commitments they made.