

**Contributions of Tesla, Herz and Marconi**

Electrical engineer and inventor Nikola Tesla was of Serbian-American descent and made a significant impact on the development of the alternating current (AC) power supply system. He invented the first wireless transfer of power through the air in 1901 and was a pioneer in the field of wireless communications. The radio, and later the telephone and television, were all developed as a result of Tesla's wireless technology research. Numerous inventions, such as the induction motor, the polyphase system, and the Tesla coil, are attributed to him. The world as we know it now and contemporary technology have both benefited greatly from his contributions.

Early on, Tesla developed a keen interest in electricity and electromagnetism, studying the writings of luminaries in the field of physics including Michael Faraday and James Clerk Maxwell. The induction motor, his first significant creation, is still widely utilized today. The polyphase system, a multi-phase AC power supply system that can carry electricity over great distances without experiencing considerable power loss, was the next invention he made. This technology has made it feasible to transport electrical energy across the globe and has significantly influenced the creation of contemporary electrical grids.

Guglielmo Marconi is regarded as one of the most significant individuals in the history of communications, and he made some absolutely amazing contributions to the discipline of electromagnetic. Although Marconi is likely most recognized for his revolutionary contributions to wireless communication, particularly in the creation of the radio, his accomplishments span much further than that. In truth, Marconi's contributions ushered in the modern era of wireless communication, and his legacy has had a significant influence on how we live our lives today.

Early wireless telegraphy experiments by Marconi inspired him to create a system that could send and receive messages between two stations without the need for a direct physical link. In 1895, Marconi performed the first public demonstration of his radio system, sending messages over a two-kilometer distance. This revealed that radio waves could be used to transport messages across great distances without requiring a physical connection, which was a significant advancement in the history of wireless communication.

In 1901, Marconi's experiments led to the first transatlantic wireless transmission, as he successfully transmitted the letter "S" across the Atlantic from Poldhu in Cornwall, England, to St. Johns, Newfoundland. This achievement marked a pivotal moment in the history of telecommunications, as it demonstrated that radio waves could be used to transmit messages across vast distances, opening up the possibilities for global communication.

Finally, Heinrich Hertz is often referred to as the "father of electromagnetism" for his groundbreaking experimental work in the field. Hertz was the first to provide experimental evidence of the existence of electromagnetic waves, by conducting a series of experiments that proved the existence of electromagnetic waves at different frequencies. His work led to the development of the theory of electromagnetism, and paved the way for further research and applications in the field. Hertz's work was instrumental in the development of radio communications, radar and the microwave oven, among other things, and his contributions to the field of electromagnetism have had a lasting impact on our understanding of the universe.

