Sir Jagadish Chandra Bose was a polymath, physicist, biologist, biophysicist, botanist, and archaeologist, who pioneered the investigation of radio and microwave optics, made significant contributions to plant science, and laid the foundations of experimental science in the Indian subcontinent. Born on November 30, 1858, in Mymensingh, which is now part of Bangladesh, Bose had a diverse educational background, studying physics at Calcutta University before traveling to London to study medicine, though he had to return due to illness. He eventually received a degree from the University of London and went on to study Natural Science at Cambridge. In the late 1890s, Jagadish Chandra Bose invented the Crescograph, an instrument that measures growth in plants. It was capable of magnifying the motion of plant tissues to a degree of 10 million times, enabling Bose to detect minute responses in living organisms. His work in plant physiology displayed a remarkable sensitivity to the subtle physical responses of plants to external stimuli, such as light, chemicals, and temperature. His research demonstrated that plants could feel pain, understand affection, and even react to various human emotions. Jagadish Chandra Bose was a pioneer in the field of wireless telecommunications. He was the first to use semiconductor junctions to detect radio signals, thus demonstrating wireless communication for the first time in 1895, two years before Marconi's wireless signaling experiment. During a public demonstration at Town Hall of Kolkata, he ignited gunpowder and rang a bell at a distance using millimeter range wavelength microwaves. Bose's work in radio microwaves was seminal and presaged the development of modern wireless communication. Bose's contributions to physics include the demonstration of the commonality of electrical waves in various materials. He researched the behavior of radio waves, particularly their transmission through the atmosphere and their properties, which included refraction, polarization, and double refraction. Bose was also the first to use a crystal for detecting radio waves, and he invented various now-commonplace devices for the detection and measurement of light and electromagnetic waves, such as the galena detector. Despite his groundbreaking work, Jagadish Chandra Bose was not interested in commercial telegraphy and did not patent his inventions. He made his inventions and work public in order to allow others to further develop his research. His lack of interest in the financial aspect of his work was such that he made his inventions public with the intention of allowing others to develop his research freely. He was more interested in pure science and the pursuit of knowledge than in recognition or wealth. In addition to his scientific pursuits, Jagadish Chandra Bose was a science fiction writer and an early writer of Bengali science fiction. He is credited with writing 'Niruddesher Kahini' (The Story of the Missing One), the first major work in Bengali science fiction, in 1896. It was later expanded and added to a collection of essays and short stories titled 'Abyakta' in 1921. His literary works are noted for intertwining scientific principles with storytelling. Jagadish Chandra Bose's contributions to science were recognized internationally. He was knighted in 1917 for his contributions to science, becoming the first non-white person to be honored in this way by the British Crown. He was also elected Fellow of the Royal Society in 1920, becoming the first Indian to be honored by the Royal Society in the field of science. His legacy includes the Bose Institute in Kolkata, which he founded in 1917, and which remains one of the premier research institutes in India. Bose was also an advocate for the use of scientific knowledge for the benefit of society. He founded the Bose Institute in Kolkata, a multidisciplinary research institute, with the intention of advancing the knowledge of sciences in India and bridging the gap between scientific research and industrial development. The institute was unique at the time for being the first to be founded by a person of Indian origin and for being entirely funded by Indians. Bose's interdisciplinary approach to science was far ahead of his time. He made pioneering discoveries in plant physiology and electromagnetic waves simultaneously. His work in plant physiology led him to hypothesize that plants can experience pain and exhibit electrical responses similar to those of animal tissues, suggesting a degree of sentience. This was a revolutionary idea that challenged existing notions of plant and animal life and has influenced subsequent studies on plant neurobiology. Despite facing racial discrimination and funding constraints, Jagadish Chandra Bose's determination and passion for science allowed him to overcome these challenges and make seminal contributions to multiple fields of science. His legacy is not only evident in the scientific community through the numerous instruments and theories he developed but also in inspiring generations of scientists in India and around the world. His life story is a testament to the power of perseverance and the pursuit of knowledge for the betterment of humanity.