Electrifying Women: Hertha Ayrton

Elizabeth Bruton
Elizabeth.bruton@sciencemuseum.ac.uk

@ElectrifyingWmn
#electrifyingwomen
FIRST FEMALE ELECTRICAL ENGINEER IN UK

• **1899**: Hertha Ayrton (1854–1923) elected first female member of the Institution of Electrical Engineers

• Feminist, mathematician, inventor, patent holder physicist, electrical engineer, and suffragist

Right: Portrait of Hertha Ayrton, Girton College, University of Cambridge painted by Hélène Arsène Darmesteter (nee Hartog) [Ayrton’s first cousin once removed]; supplied by The Public Catalogue Foundation
1854: Born Phoebe Sarah Marks

1863: Invited by her maternal aunt Marion Hartog to live with her cousins and to be educated with them

1870: Working independently as a governess

1876: Began studying at Girton College, Cambridge University

1881: Receives external BSc from University of London

1884: Granted first patent for line divider
PHYSICIST & ELECTRICAL ENGINEER

1884: Studies Physics at Finsbury Technical College, meets Professor William Ayrton

Early 1890s: Begins researching electrical arcs – powerful outdoor and indoor lighting

1899: Elected first female member of the Institution of Electrical Engineers for her work on electrical arcs

Right: Hertha Ayrton in her home laboratory, date unknown.
1899: HERTHA AYRTON

Top Left: Moonlight lamps aka electric arc lighting, late 19th century; top right: Ayrton flapper fan, courtesy of IWM.

Right: Illustration of Hertha Ayrton from STEM: The Game by George Doutsiopoulos, freelance illustrator.
1919: WOMEN’S ENGINEERING SOCIETY

- Lady Katharine Parsons: wife of Sir Charles Parsons and a keen amateur naval engineer
- Rachel M Parsons: Qualified mechanical engineer and first WES President
- Margaret Lady Moir: Women Engineering Relief Workers and ‘engineer by marriage’
- Verena Holmes: propeller gluer became centre lathe turner
- Margaret Partridge: electrical engineer who owned and ran a power station
- Caroline Haslett: “Organising secretary” from 1919; eventually became President in 1941. Received engineering training in First World War, working for the Cochran Boiler Company
- Hertha Ayrton: Early member and supporter

Mrs Hertha Ayrton was I think the first member of the fair, but no longer frail sex, to distinguish herself in the engineering world, though perhaps the woman engineer would not have arrived yet, had not the war, which upset so many masculine traditions, proved that woman was capable of doing many things which had hitherto been considered strictly within the provenience of the more assertive male...

Stewart, A, 1923, ‘On Making the Best of It’, The Woman Engineer 1, pp 284–286