Andre Marie Ampere

1775-1836

On September 11, 1820, the exciting announcement was read to the French Academy of Sciences of the discovery by the Danish physicist Hans Christian Oersted that an electric current produces a magnetic effect. One member of the Academy, Andre Marie Ampere, a French mathematics professor, was highly impressed and within 1 week had repeated Oersted's experiment, given a mathematical explanation of it, and – in addition – discovered that electric currents in parallel wires exert a magnetic force on each other.

Ampere was born in Lyon, France, and at an early age had read all the great works in his father's library. At age 12 he was introduced to the Lyon library and because many of its best mathematical works were in Latin, he mastered that language in a few weeks. In spite of two crushing personal tragedies – at age 18 he witnessed his father's execution on the guillotine by the French Revolutionaries and later his young, beloved wife died suddenly after only 4 years of marriage – Ampere was a brilliant and prolific scientist. He formulated many of the laws of electricity and magnetism and was the father of electrodynamics. The unit of electric current, the *ampere*, was chosen in his honor in 1881.

(Source: D. Johnson, J. Johnson and J. Hilborn, *Electric Circuit Analysis*, Prentice-Hall, 1989)