NEWS and VIEWS

Institution of Electrical Engineers Awards

THE Council of the Institution of Electrical Engineers has elected Prof. E. W. Marchant to be an honorary member of the Institution in recognition of his services to the Institution and for the outstanding contributions he has made to the advancement of electrical knowledge.

The Faraday Medal of the Institution has been awarded to Sir James Chadwick, for his contributions to science generally and more particularly for his distinguished work in nuclear physics.

Prof. E. W. Marchant

PROF. MARCHANT is a past-president of the Institution and has given long and distinguished service on the Council. He is now emeritus professor of electrical engineering in the University of Liverpool. At an early stage in his career, Prof. Marchant worked with W. Duddell on the development of the bifilar oscillograph and with Lord Blythswood on the absorption of X-rays by aqueous solutions of metallic salts, establishing the dependence of this absorption of the solution on the atomic content. In 1900 he made experimental tests on the oscillatory discharge of condensers, from which the ohmic resistances of spark discharge carrying currents up to 2,000 amp. were estimated. He became senior lecturer under Silvanus Thompson at Finsbury Technical College and in 1901 went to University College, Liverpool. When in 1903 the College achieved university status, Prof. Marchant was appointed to the David Jardine chair of electrical engineering, which he held until his retirement in 1941. He devised equipment for the accurate measurement of the strength of radio signals, and also designed a new high-voltage laboratory for the impulse testing of high-voltage cables which was opened in 1940. Prof. Marchant's long association with the Institution commenced in 1898 when he was elected an associate.

Sir James Chadwick, F.R.S.

SIR JAMES CHADWICK collaborated in the 'twenties with Lord Rutherford in research work at the Cavendish Laboratory; the fundamental researches they then conducted laid the foundations on which the structure of modern nuclear physics rests. In 1935 he went to the University of Liverpool, where he was Lyon Jones professor of physics until 1948, when he returned to Cambridge as master of Caius College (see *Nature*, **161**, 964; 1948). For his work in investigating α-, β- and γ-rays, and particularly for his discovery in 1932 of the neutron, Sir James was in that year awarded the Hughes Medal of the Royal Society; this last-named discovery was further recognized in 1935 when he received the Nobel Prize for Physics. His services during the Second World War in connexion with the developments in the use and control of nuclear energy were honoured in America when he was awarded the United States Medal of Merit. He was knighted in 1945.

International Exchange of Students for Technical Experience

THE second annual report of the International Association for the Exchange of Students for Technical Experience (Pp. 28. London: J. Newby, General Secretary, Imperial College of Science and Technology, 1949) covers the period January–October 1949, inclusive. The numbers exchanged increased from 920 in 1948 to 1,236, and of these Great Britain supplied 285, Finland 171, Netherlands 140, Sweden 137, France 132, Denmark 89, Norway 88, Switzerland 80, Austria 68 and Belgium 46. Great Britain received 314 of these students, Sweden 288, France and the Netherlands 123 each, Norway 86, Switzerland 85, Denmark 73, Austria 53, Finland 49 and Belgium 42. During the summer vacation of 1949 the students were distributed in almost every branch of industry, but mechanical (408), electrical (216), chemical (187) and civil engineering (182) claimed by far the greater number, mining (75) and chemistry (44), which came next, being far behind. In some countries the industrial distribution was better balanced, but in others it should be possible to provide a wider range of industrial experience for students of science and technology. In September the Association was approved by the executive board of the United Nations Educational, Scientific and Cultural Organisation for consultative arrangements. The Brussels Treaty Permanent Commission appointed a liaison officer between the Association and its cultural committee, and the exchanges made by the Association were highly praised by the mixed commission under the Cultural Convention between the United Kingdom and Norway at its meeting at Edinburgh in June. Austria participated for the first time in 1949, and it is hoped that Italian students will participate fully in the 1950 exchanges. Details are given in the report of the participating institutions and firms; in Great Britain students from the Universities of Cambridge, Durham, Oxford, Birmingham, Bristol, Edinburgh, Glasgow and London, the Manchester College of Technology and the School of Metalliferous Mining (Cornwall) participated. Reports on work by foreign students visiting Great Britain show a keen appreciation of the facilities provided.

Science and International Relations

THE fifteenth Robert Boyle Lecture delivered by Dr. J. Needham before the Oxford University Scientific Club on June 1, 1948, on "Science and International Relations" (pp. 30. Oxford: Blackwell's Scientific Publications, 1949; 2*s*. 6*d*.), has now been published. Dr. Needham devotes the first part of his lecture to a brief but lucid survey of the international unions and their inter-relations as well as of their relations with Unesco, before proceeding through a survey of international government scientific organisations of the scientific liaison offices, and of the United Nations Organisation and its specialized agencies to outline the origin and structure of Unesco. In the course of this useful survey Dr. Needham notes that the International Bureau of Physico-Chemical Standards is enlarging its work by a grant from Unesco and accumulating samples of chemicals which are rare or unobtainable in commerce. Among new unions in process of formation are the International Union of Nutritional Sciences, the International Union of Ethnology, Pre-History and Anthropology, the International Union for the Preservation of Nature, and possibly an International Union or Council of Agricultural Sciences.

Much of the value of Dr. Needham's lecture lies in the clear picture he gives of these inter-relations, but he concludes with a most opportune survey of the scientific programme and achievements of Unesco in which, emphasizing the necessity in international intercourse for the point of view of the man of science, he pleads for an end to parochialism among