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Elementy wiedzy o radiotechnice we wczesnych polskich publikacjach.

Przyczynek do historii radiotechniki

Elements of knowledge about radio engineering in early Polish publications.

A contribution to the history of radio technology

SUMMARY

History of experimental and practical radio engineering started from Heinrich Hertz's experiments in the years 1887–1888, whose purpose was to test the accuracy of Maxwell's theory. Until the end of the 19th century, practical trials of communication on longer and longer distances were performed by several discoverers from many countries and in different parts of the world. This whole technological development going on with tremendous speed must have found its reflexion in Polish technical publications and research works. Development of Polish radio engineering after regaining independence is quite well documented, so its beginnings are worth to be dealt with. The author assumed the year 1918 as a symbolic date.

At the beginning, the question of electromagnetic waves was the subject for physicists and only later it was dealt with by practitioners. Also in Poland the pioneer of research into radio waves was a physicist, professor and lecturer at the Wawelberg and Rotwand Technical School and Warsaw Polytechnic Institute – Wiktor Biernacki (1869–1918). In a book published in 1898 entitled *Nowe dziedziny widma* devoted to the wide range of waves, in three chapters he thoroughly discussed electromagnetic waves called by the author Hertzian rays and their practical application in radio communication. In 1905, a physicist Stanisław Bouffał (1865–1938) published a book *Telegraf bez drutu*, which was also printed in parts in *Przegląd Techniczny*. In this publication the author presented the state of radio engineering and its accomplishments, together with its theoretical aspects, in the most comprehensive, clear and transparent way. Dr. Witold Rybczyński (1881–1949) was a theoretical physicist, mathematician and associate professor at the Polytechnic School of Lvov. He published in Polish and in German three scientific works in theoretical physics. The third one (submitted to *Annalen der Physik* in March 1913) *Über die Ausbreitung der Wellen in der drahtlosen Thelegraphie auf der Erdkugel* (“On spreading of radio waves on the surface of the Earth”), written under Sommerfeld, was of purely mathematical character. It is considered as the first Polish scientific work on propagation of radio waves, and its results were quoted by several physicists dealing with this subject.

Radio engineering was also the subject of many articles published in scientific and technical press – i.a. *Przegląd Techniczny*, *Prace matematyczno-fizyczne* – and also popular – *Wszechświat*, and others. The 1st world war provoked a quick development of radio communication and publications of Polish author at that time assumed a practical, not theoretical character.