

## The emergence and development of the Electrical Engineering Committee of the Polish Academy of Sciences

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To understand the formation of scientific committees within the structure of the Polish Academy of Sciences (in Polish: Polska Akademia Nauk, abbreviated PAN ), including the Electrical Engineering Committee, it is advisable to recall the atmosphere at the beginning of the early 50's of the last century surrounding the field of science and higher education in Poland. In May of 1950, Adam Rapacki became the Minister of Higher Education. He fully supported of deputy minister Henryk Golański - head of the department for Higher Education since June 1958. At that time, there was a massive increase in investment in all existing institutions of higher education and the emergence of many new schools. For example, during that time in Łódź, six new universities were created. Numerous scientific institutions were also organized, especially departmental. There was a steady increase in spending on education. Earlier, because in January 1946, with the benefits of the then Faculty of Science of the Ministry of Education, a monthly magazine dedicated to the study of the progress of knowledge, *The Life of Science* began appear, while at the same time *The Scientific Conservatory* was founded on the initiative of the Society of Research Assistants of the Jagiellonian University.

The groundbreaking moment, however, arrived along with the first Congress of Polish Science, which took place from the 29 June to the 2 July 1951 in Warsaw. In the name of the Central Commission of Applications of the Congress, Professor Kazimierz Kurnatowski tabled a motion, which was adopted by acclamation, for the establishment of the Polish Academy of Sciences. On the 30.10.1951, the Parliament passed the Law on the Polish Academy of Sciences, which is also its statute. The first members of PAN were appointed on April 9, 1952. In the IV Department – Technical Sciences, 5 full members (W. Budryk, J. Groszkowski, A. Krupkowski, B. Stefanowski, W. Wierzbicki) as well as 41 corresponding members (including St. Fryz) were established. The first Chairman of PAN was J. Dembowski, while K. Nitsch, W. Sierpiński and W. Wierzbicki were appointed as Vice-Chairman.

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In December 1952, the Warsaw Scientific Society and the Polish Academy of Learning (in Polish: Polska Akademia Umiejętności) in Krakow ceased operations. The PAN Electrical Engineering Committee was established by the No. 82 Resolution of the PAN Scientific Secretariat on the 2.12.1952. According to the PAN Act, among the responsibilities of the Academy of Sciences were:

- to consider important issues of the discipline and organize, for this purpose, discussions and conferences,
- co-operation in the implementation and dissemination of research findings,
- to initiate and develop collaboration with international organizations and research centers,
- conducting assessment of the conditions and requirements represented by the discipline as well as the academic institutions, of its own initiative or at the request of the authorities supervising these institutions – preparation of scientific expertise.

In the subsequent acts of PAN there was a continuous expansion of the scope of the tasks of the committee, while at the same time, limiting almost entirely, the resources for this activity. In the IV Department of Technical Sciences, 16 scientific committees with 94 sections were established.

Table 1 summarizes the Presidents, Vice-Presidents and Secretaries of the first 12 terms of the Scientific Committee for Electrical Engineering. In the first term, the Committee consisted of 29 members.

Table 1

Term of office	Years	Chairman	Vice Chairman	Academic Secretary
1	1952-1956	J.L. Jakubowski	J.I. Skowroński	M. Nałęcz, Z. Grunwald
2	1957-1959	J.L. Jakubowski	J.I. Skowroński	Z. Grunwald
3	1960-1962	J.L. Jakubowski	J. Podoki	Z. Grunwald W. Szuman
4	1963-1965	J.L. Jakubowski	J. Podoski, Z. Skoczyński	W. Szuman
5	1966-1968	J. Podoski	T. Cholewicki	A. Horodecki
6	1969-1971	T. Cholewicki	B. Adamski, J.L. Jakubowski J. Podoski, J.I. Skowroński	A. Horodecki
7	1972-1974	T. Cholewicki	J.L. Jakubowski, Z. Jasicki W. Latek, J.I. Skowroński	A. Horodecki
8	1975-1977	J.L. Jakubowski	T. Cholewicki, J.I. Skowroński	A. Horodecki
9	1978-1981	J.L. Jakubowski	T. Cholewicki, J.I. Skowroński	A. Horodecki
10	1981-1983	J. L. Jakubowski	T. Koter, W. Pelczewski J. Podoski	A. Horodecki
11	1984-1986	J.L. Jakubowski	T. Koter, W. Pelczewski J. Podoski	A. Horodecki
12	1987-1989	J.L. Jakubowski	T. Koter, W. Pelczewski J. Podoski	A. Horodecki

Table 2 shows the 14 sections established in the Electrical Engineering Committee in 1954. In addition to this, 3 commissions as well as 7 editorial boards operated within the Committee – including:

- The Progress of High Voltage series – Chairman J.L. Jakubowski,
- The Magnetic Amplifiers and Their Application series – Chairman P.J. Nowacki,
- The Advances of Electrical Drive Technological series – Chairman J. Lando, and after his death, from 1966, L. Szklarski.

An Editorial Board for the quarterly “Electrical Engineering Treatises” (in Polish: *Rozprawy Elektrotechniczne*) was also in operation – Editor in Chief W. Nowicki – the magazine began printing in September 1955.

Between 1990 and 1993, the Committee was chaired by Professor Z. Ciok, while from 1994 to 2001 by Professor T. Śliwiński. In subsequent years Professor Z. Ciok, served two terms as chairman followed by Professor K. Zakrzewski till 2011. Currently, the Committee is chaired by Professor A. Demenko, whose work is marked by an implementation of new initiatives as well as his highly active approach.

Table 2

No.	Section name	Chairman	Number of members
1	Theoretical Electrical Engineering and Metrology	P. J. Nowacki	9
2	Energy Systems	J. Kozuchowski	11
3	Electrical Networks and Switchgear	K. Kolbiński	13
4	Power Plants	R. Ney	5
5	Electrical Machines	E. Jezierski	7
6	High Voltage Technology	Z. Hasterman	9
7	Electrical Material Science	J. I. Skowroński	11
8	Electrical Drives	J. Lando	7
9	Electrical Apparatus	J. Kryński	11
10	Electric Railway	Z. Figurzyński	3
11	Electrical Heating	T. Schwartz	6
12	Light Technology	T. Oleszyński	4
13	Rural Electrification	Z. Jung	6
14	Marine Electrical Engineering	K. Kopecki	6

In subsequent years the number of Committee sections was decreased; in 1994 the number of sections dropped to 11, and in the next 10 years – to 9. The chairman of the sections also changed.

The members of the Committee participated in the development of several surveys, among others in the following:

- Already in its first year of operation – in 1953, the Committee developed “Guidelines for a project research plan which are particularly important for economic development and national culture in electrical engineering”.
- In 1970, the opinion of crucial problem No. 05.2.1. “The development and launch of a series of modern electrical machines with power up to 1000 kW”.
- In 1980, trends in basic research and development in the field of electrical engineering and the future development of the industry.
- In 1985, materials for the Third Congress of Polish Science under the title “The current state and developmental plans of electrical science until the year 2000”.
- In 1989, the development trends represented by the section of the Committee dedicated to the field of electrical engineering.

One of the most important achievements of the Committee is the development of a monograph dedicated to the work of Professor Włodzimierz Krukowski. The drafting committee worked under the direction of Professor J. Groszkowski. The 845 page monograph was published in 1956 by the State Scientific Publishers (in Polish: Państwowe Wydawnictwo Naukowe, PWN).

The Committee has initiated and organized or co-organized more than a hundred conferences and scientific meetings. The most notable are:

- Transformer Conference, organized under the leadership of Professor E. Jeziński. It was held in Łódź in 1955 and 400 participants were involved.
- Raw Materials Conference in Electrical Engineering. It was held in Wrocław in 1955 with about 400 participants.
- Conference on Control Systems of Electric Drive Hoists and Other Mining Equipment, organized under the direction of Professor L. Szklarski in Kraków in 1957.
- Turbogenerator Conference, organized under the direction of Professor Z. Gogolewski in Wrocław in 1964 with 160 participants.
- Second Transformer Conference, organized under the leadership of Professor E. Jeziński in Łódź in 1970 with 369 participants.

The activities of the Committee are primarily the result of community action with very little financial support from the Polish Academy of Sciences or other institutions.