

The history of the research-development activity of PKI dates back to the renewal of postal and telegraph services at the end of the last century. The modernization was initiated by Gábor Baross, Minister of Commerce. In 1891 PKI was founded by a decree issued by the minister and was the second Post Office Research Station to open in Europe with the task of testing materials used in telegraph and telephone networks to introduce advanced equipment and provide high level services. Its staff included dr. György Békésy, a physicist who worked for twenty years for the institute to earn undying merits in acoustics and ultimately to deserve the Nobel prize. In appreciation of its past the Institute, now the development centre of Magyar Telekom, Hungary's leading telecommunications company, uses the abbreviation of its original name.

The Institute in 1891 was operating in the Main Office Building of the Hungarian Royal Post Office in Párizsi Street, then in 1903 moved to the building of a telephone exchange in Nagymező utca. The Institute in 1912 moved in the building in Zombori utca where it operated for 88 years. Network planning activities from 1994 to 2000 were however carried out at a different place, in the former building of the Postal Network Planning Directorate, in Róna utca.

As it is well known, György Békésy worked in the Institute between 1927 and 1947, where he developed a new method for the location of the errors in telephone lines, dealt with studio construction and last but not least, it was where he started his research associated with the enhancement of the telephone receiver and into the ways the inner ear works which earned him the Nobel prize in medical physiology in 1961.

In the basement of the Institute, György Békésy designed and built an anechoic chamber. It was the result of his experiments here that he designed the acoustics of Studio 6 of the Hungarian Radio, applying several original solutions of his own. Among others it was possible to change the reverberation time of the studio, thereby ensuring the best acoustics for the musical pieces performed. The aquarium continued to be used until 2000 for measuring the features of telephone sets, for example, for electro-acoustics research, the measurement of speech recognition, as these all require a room insulated from external noise. Other specially equipped laboratories were used for environmental resistivity, reliability, radio frequency tests. The engineers working in the Institute had various achievements that had determined telecommunications development in Hungary. They had essential role in the introduction of radio and TV broadcasting services, in updating telephone transmission techniques, network planning an operation. As an example, the engineers in the Institute designed and put into operation the first carrier frequency amplifiers elaborating also an adequate remote power supply system. Wave propagation done by the Institute was of international significance. The World Radiocommunication Conference decided on the frequency band assignment with considering and applying our contributions concerning the assignment principles. Computer aided microwave network planning and dimensioning was aided by the digital terrain model, a tool we have developed. The Institute was engaged in defining the location of the satellite earth station in Hungary and also in designing its connection to the wire network. Network operation was greatly improved by network analyser, a device developed by a group of engineers and awarded by the State of Hungary. Network analyser by the means of trial calls could evaluate the transmission properties, noise conditions, accuracy of billing, and after gathering a great number of data it could provide a characteristic picture of the functioning of the exchanges and of transmission paths. Measurement methodologies were worked out for the telephone sets as well, studies of intelligibility, loudness and noise were carried out conforming to the CCITT recommendations. Speech associated studies were launched to improve intelligibility, which led to studies on artificial speech then pilots of speech synthesis. Telephone sets tests was a related area and type approvals and specifications was an exclusive responsibility of the Institute. Development of the transmission paths involved investigations and improvements in coaxial cable technologies, The Institute had remarkable results in the field of wood impregnation of cable poles, then in cable insulation technologies, corrosion protection, EMC tests and protection of telecom networks from disturbances.

In the past 114 years in PKI there were a number of outstanding experts who had excellent instructive abilities and young gifted engineers were glad to work under their guidance. Thus a special culture was formed creating a tradition in sharing knowledge and experience of the most important development fields of work in the Institute.

We cherish the memory of some prominent personalities working in PKI

- Endre Kolossváry, the first Chief Technical Officer of the Hungarian Post Office,
- Bernát Paskay, the first director of the Research Station
- dr. György Békésy, the Nobel Prize winner physicist
- dr. Endre Magyari, the pioneer of domestic radio broadcasting,
- dr. Nemes Tihamer the founder of domestic TV broadcasting and IT technology,
- dr. Tomits Iván, an international expert of telephony,
- dr. Lajos Horváth, designer of the domestic TV broadcasting network
- Béla Marschalkó, a far sighted director, inventor of a modern viscosity meter
- Szilárd Ocskay, founder of modern network planning
- Károly Ipolyi, an outstanding cable technology expert
- Rezső Tarján, a constructor of the first analogue computers in 1950s
- dr. Géza Bognár, member of the Hungarian Academy of Sciences, an eminent microwave transmission expert.

In the summer of 2000 PKI moved to a modern building in the Infopark. In the new laboratories our engineers keep up with latest technology achievements to be realized in new services and products. Pilot service tests are also performed in the frame of Eurescom or university project tasks to realize the inter-operating of new technologies, to efficiently design the technical solutions for new products and services, and to ensure their suitability.