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**ACADEMICIAN MYKOLA PAVLOVYCH PETROV (1836-1920): LIFE AND  
ACTIVITIES**

**Summary**

The article describes the life and activities of the formidable scientist, engineer, statesman, Academician Mykola Pavlovych Petrov (1836-1920). He was widely known as a reformer of the railway transport and at the same time, as one of the core founders of the technical education in Russian Empire.

Solid knowledge and experience gained abroad in mechanics were successfully used by M. P. Petrov in his further practical scientific activities. He played a considerable role in solving the vast variety of railway issues. Among those should be mentioned the following ones: achieving the concessions for railway building, taking part in the formation process of the democratic joint stock railway partnerships, countless researches dedicated to the lowering of spendings for the railway in general

and rolling stock in particular. Due to M. P. Petrov all the foreign experience which that he was able to gather used for the railway in a practical way that made the work of the railway engineers easier and more efficient.

The track record of Academician M. P. Petrov is just amazing. Various activities on railways show us that M. P. Petrov had indisputable authority among the scientists, engineers and statesmen of his time, in particular in the Railway Ministry. All the tasks that performed M. P. Petrov were closely connected to the hardest and most important issues of the railways and building mechanic.

The article also describes the most important researches which were carried out by M. P. Petrov. First of all, his hydrodynamic lubrication theory should be mentioned. He was the first scientist in the world that implemented the totally new concept of friction between the solid materials with usage of the lubricating fluids. He evaluated the characteristics of the lubricating fluids depending on the pressure and temperature and their influence on the friction process. One more important research conducted by M. P. Petrov was his work on the question about the braking systems for the locomotives. It helped the engineers all over the world to have the understanding how the ideal braking system should look like and work.

In addition to the statesman work and performing the engineering tasks on the railway, M. P. Petrov was also a Professor of the Engineer Academy and Technological Institute and could be considered as one of the founders of the technical education, combining not only the theoretical knowledge, but also the practical experience. M. P. Petrov started a lot of new courses, wrote huge amount of books and manuals.

In addition, the article provides information about the awards of N. P. Petrov, as well as detailed description about his career.

***Key words:*** *M. P. Petrov, railway transport, hydrodynamic lubricating theory, engineer education.*