



An IEEE co-sponsored Symposium



International Symposium on Fundamentals of Electrical Engineering 2020

BUCHAREST, NOVEMBER 5-7, 2020



ELECTRICAL ENGINEERING DEPARTMENT

ELECTRICAL ENGINEERING FACULTY
UNIVERSITY POLITEHNICA OF BUCHAREST

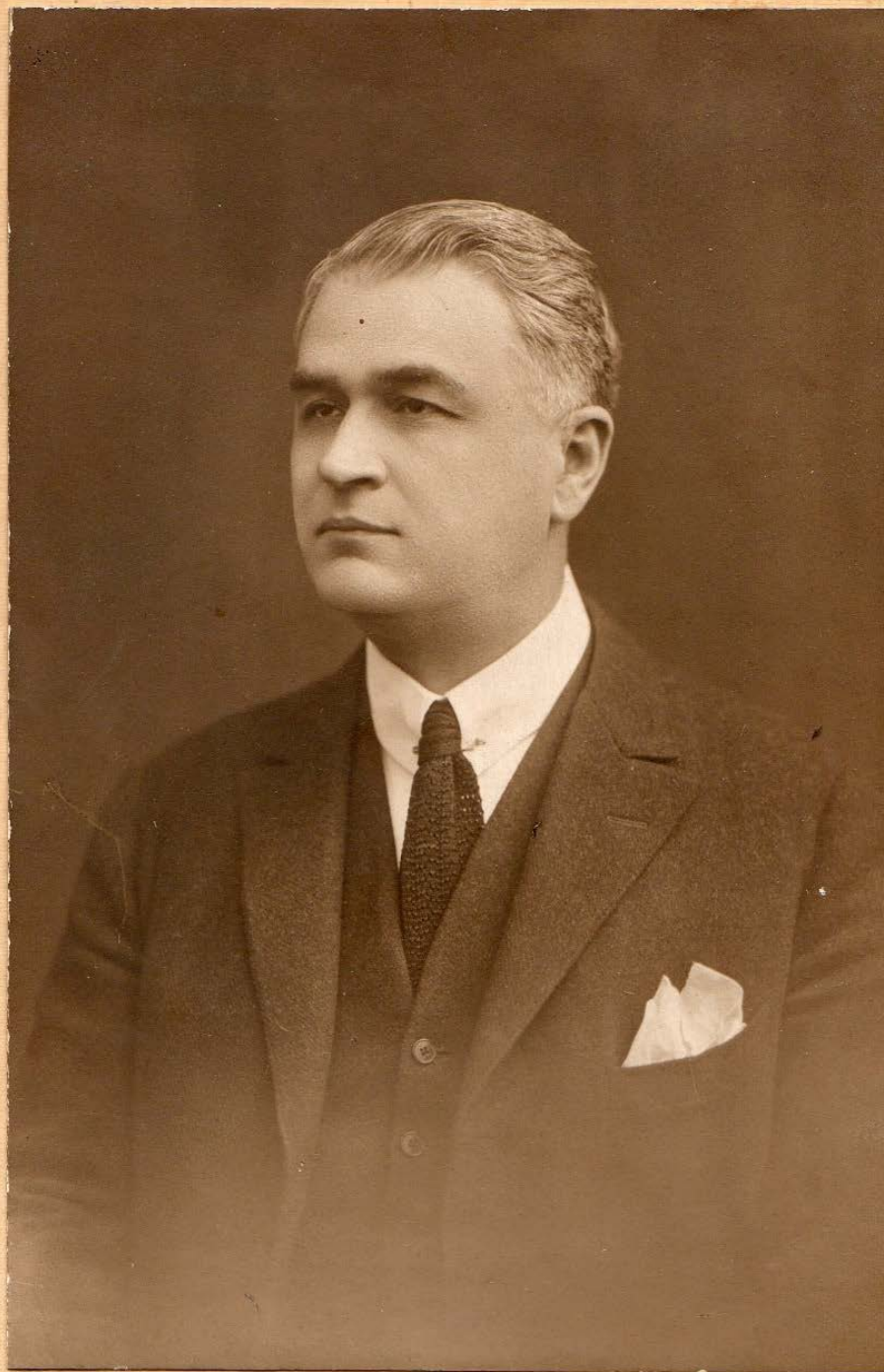
organizers



International Symposium on Fundamentals of Electrical Engineering 2020

Dedicated to

- the 100th anniversary of our Faculty of Electrical Engineering in the University Politehnica of Bucharest,
- the 115th years of our Department of Electrical Engineering founded by Professor Nicolae Vasilescu-Karpen
- 150 years from the birthdate of Nicolae Vasilescu-Karpen.



Professor Nicolae Vasilescu-Karpen (1870-1964)

He was born on November 28, 1870, in Craiova. After completing his secondary education in Craiova and Bucharest, he attended the courses of the National School of Bridges and Roads in Bucharest.

From 1900 he continued his training in Paris, at the *École Supérieure de Electricité* and at the Faculty of Science, and in 1904 he obtained his Phd title at Sorbonne, with the thesis "Recherches sur l'effect magnétique des corps électrisés en mouvement".

He worked as an **engineer** at the Ministry of Public Works (1891-1894), was head of the Technical Division of PTT (1906-1907), member of the Superior Technical Council (1904-1938), and between 1931-1932 was Minister of Industry and Trade.

Professor Nicolae Vasilescu-Karpen

Karpen has begun his academic career in France, as professor of electrical engineering at the University of Lille (1901-1902). He refused the offer to remain abroad, at a French university and returned home. Here he taught electricity and electrical engineering from 1905 to 1940, until his retirement. He was a long time Director of Department of Electrical Engineering in the National School of Bridges and Highways (since 1905), then rector of the Polytechnic School of Bucharest between years 1920-1940.

In 1909 he proposed, for the first time, in a note to the Paris Academy of Sciences, the use of high-frequency carrier currents for long-distance cable telephony.

Engineer Nicolae Vasilescu-Karpen has carried out intense research work for 55 years and has published works in the field of electricity and electrical engineering, electric batteries, elasticity, aerodynamics, thermodynamics, electrostatics, electromagnetism, electrochemistry.



Professor Nicolae Vasilescu-Karpen

He is the one who made the "**Karpen Pile**", which work exclusively using the heat of the environment.

As an engineer he took care of the **construction** of the tunnel from Berești, on the Bârlad-Galați line, and in 1915 he built a large wireless telegraphy station in Băneasa. He also took care of the **design of power plants and the electrification** of some cities, including Câmpina and Constanța.



Professor Nicolae Vasilescu-Karpen

Nicolae Vasilescu-Karpen was a member of the French Society of Electricians. In 1941 he was awarded the title of Doctor Honoris Causa of the Polytechnic Institute of Bucharest.

He was elected a **corresponding member of the Romanian Academy** on **June 5, 1919**, then became a **full member (June 6, 1923)** and an **active full member (July 2, 1955)** of this high scientific and cultural forum. He was also **vice-president of the Romanian Academy** (June 1, 1929 - May 30, 1932; June 2, 1942 - June 2, 1944), as well as **president of the Scientific Section of the Romanian Academy (1945-1948)**.

The Karpen pile



The Karpen pile, a technical wonder up to this day, which generates power out of apparently nothing, can still be found at the "Dimitrie Leonida" Technical Museum and is still producing electricity.

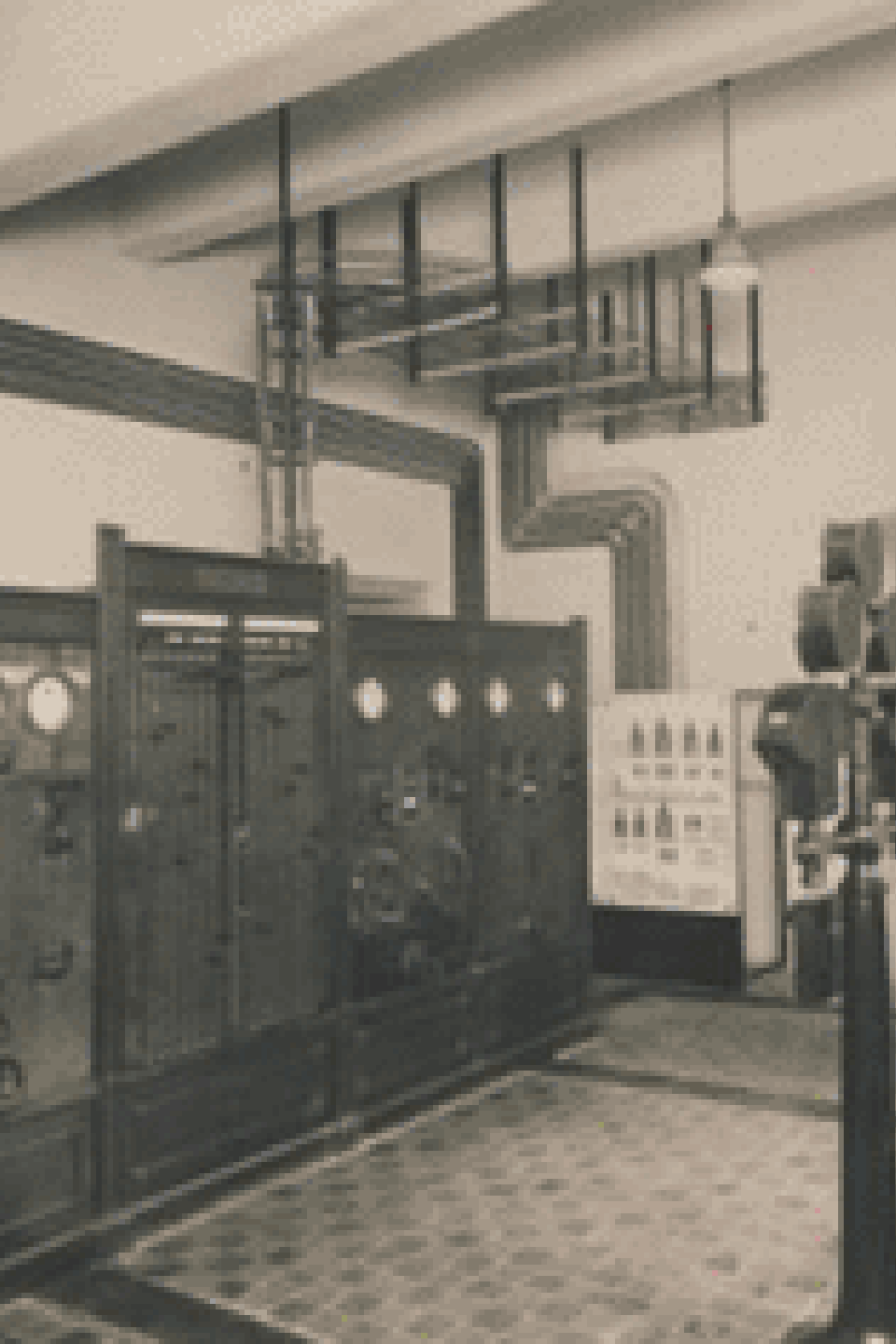


The 115th anniversary of the Department of Electrical Engineering

The Department of Electrical Engineering in the The School of Bridges and Roads, Mines and Architecture has been **established** in **1905**.

Nicolae Vasilescu-Karpen, an associate professor at the University of Lille, France, has been appointed as the **Director of this department**. As a result of his efforts, this School has been transformed **later into the Politehnica School of Bucharest**. Vasilescu Karpen was the **first rector of this university**, serving in that capacity until **1940**.

This year we celebrate the **115th** anniversary of this event.



The 100th anniversary of our Faculty of Electrical Engineering in the University Politehnica of Bucharest

On 10 June, 1920, King Ferdinand signed and authorized the **Decree 2521**, based on which the National School for Bridges and Roads became the POLITECHNIC School. The document **written by Nicolae Vasilescu-Karpen** extended the legal frame for opening polytechnic schools across the country.

Politehnica School of Bucharest has been founded, having four departments:

Electromechanic, Civil Engineering, Mines and Metallurgy, Industrial Engineering.

MINISTERUL LUCRĂRILOR PUBLICE

DECRET-LEGE

RELATIV LA

ÎNFIINȚAREA ȘI ORGANIZAREA ȘCOALELOR
POLITECNICE DIN ROMÂNIA

(Publicat în Monitorul Oficial No. 61 din 18 Iunie 1920)



BUCUREȘTI

IMPRIMERIA STATULUI

1920

The 100th anniversary of our Faculty of Electrical Engineering in the University Politehnica of Bucharest

As a result of the report of the management and opinions of the teaching council of the National School of Bridges and Roads, the decree no. 2521 of 10th June 1920 was approving the establishment and organization of polytechnic schools in Romania, designed as higher education institutions similar to universities, aimed at training engineers and subordinated to the the Ministry of Public Works. **Article 2** states that the first polytechnic school is established by transforming the current National School of Bridges and Roads which will become the Polytechnic School of Bucharest.

FERDINAND I,

Prin grația lui Dumnezeu și voința națională, Rege al României,

La toți de față și viitori săndăte.

Asupra raportului ministrului Nostru secretar de Stat ad-interim la departamentul lucrărilor publice sub No. 17.286 din 10 Iunie 1920.

Având în vedere jurnalul consiliului de miniștri cu No. 1.465 din 9 Iunie 1920, Am decretat și decretăm.

Art. 1. Se aprobă de Noi, sub rezerva ratificării ulterioare a Corpurilor Legiuitoare, înființarea și organizarea școalelor politecnice din România, așa după cum se specifică mai jos.

CAP. I

Dispozițiuni generale

Art. 1. Școlile politecnice sunt institute de învățământ tehnic superior asemănate ca grad de cultură universităților.

dul de specializare al celor 4 secțiuni ale școlii.

Art. 52. Actualii profesori, repetitori de cursuri și asistenți titulari ai școlii de poduri și șosele, vor trece ca profesori, conferențari și asistenți definitivi ai școlii politecnice, potrivit specialității lor; iar actualii profesori suplinitori cari au predat un curs mai mult de 5 ani, vor trece ca profesori provizorii.

Art. 53. Directorul școlii naționale de poduri și șosele și întreg personalul administrativ ca și personalul laboratoarelor și atelierelor acestei școli, în funcțiune la promulgarea acestui decret-lege, își vor păstra funcțiunile în viitoarea școală politecnică din București.

Art. 54. Până la reforma învățământului secundar și la unificarea acestui învățământ în teritoriile de curând alipite țării, va funcționa pe lângă Școala politecnică din București o diviziune pregătitoare, în care se vor predă cunoștințele cerute la examenul de admitere în școală.

Vor fi primiți în diviziunea pregătitoare toți acei cari posedă actele necesare pentru a se putea prezenta la acest examen.

Nimeni nu va fi admis a urma cursurile acestei diviziuni mai mult de un an.

Art. II. Ministrul Nostru Secretar de Stat ad-interim la departamentul lucrărilor publice este însărcinat cu aducerea la îndeplinire a acestui decret-lege.

Dat în București la 10 Iunie 1920.

FERDINAND

Ministrul lucrărilor publice
ad-interim,

C. Argetoianu.

Ministrul justiției,

M. B. Cantacuzino.

No. 2.521.