

## **A PRESTIGIOUS ANNIVERSARY FOR ROMANIAN GEODESY**

**Professor Ph.D. Eng. AUREL RUSU is 100 years old**

In the work of edification of a modern society there are people whose dedication, tireless work, spirit of initiative and talent contribute to the permanent building of Romanian science and education, to the synchronization of Romanian spirituality with the great European and world cultures. Such a person is Ph.D. Eng. Aurel Rusu, a grand personality of geodetic and forestry higher education, a prestigious authority in the top fields of geodesy, topography, photogrammetry and remote sensing in our country, since the birth of which 100 years have passed.

At this anniversary moment, „Transilvania” University of Brasov, the Faculty of Forestry and Forest Exploitation, numerous forest engineer promotions that he has been an eminent teacher and mentor to, have brought a warm tribute, adressing wishes of appreciation to the Professor celebrated on the 100th anniversary of his life and over six decades devoted to education, science and forestry practice.



Professor Aurel Rusu was born on the 9th of June 1917 in Bărboși, Mureș County, being the 12th son of the country teacher Andrei Rusu. From his parents he inherited vigor and longevity, formed himself in the cult of work, discipline, love, and respect for others, rigor, order and exigency for himself and for those around him. He followed primary and high school courses in Turda, obtaining a baccalaureate diploma in 1935 in Cluj-Napoca. He attended the courses of the Faculty of Forestry at Bucharest Polytechnics, between 1935-1940, attending also the courses of the Faculty of Geodesy, obtaining in 1941 the second bachelor's degree, as a cadastral-geodesic engineer. As a student, he benefited from a two-month practice in Germany where he discovered Photogrammetry.

After obtaining the bachelor's degree as a forest engineer in December 1940, he was employed by the Office of Photogrammetry and Hydrology in Bucharest in January 1941, where he had Gheorghe Nicolau-Bârlad as consultant, who had the most modern photogrammetric equipment. This Office will become the prestigious Institute of Photogrammetry. Major needs for surveys, in domains as mining prospects, agriculture and silviculture, led to endowment with own photogrammetric services, mainly with the help of forest engineers N. Dumitrescu, D. Stoicescu and N. Oprescu. During the period 1941-1948, he worked in the main top-of-the-field areas of ground measurement science: photogrammetry, geodesy and cadastre. At the same time, he was a university assistant, teaching Photogrammetry at the Faculty of Civil Engineering for 5 years, with the outstanding teacher and adviser, professor Gheorghe Nicolau-Bârlad.

During the war he participates on the Caucasus front, as a specialist in photogrammetry. In 1942, as head of the Photogrammetry Service, he performs stereorestitution and photoreduction works at 1: 2000 and 1: 5000 scales for many localities in the country. He developed the work "Photogrammetric Methods in Cadastre".

In 1946 he was transferred at the request of the Cadastre Department, for the design and proposal of the organigram of a National Photogrammetry Institute. He joined the geodesic service, as a geodetic and cadastral operator, performing geodesic works of great complexity.

In parallel with the productive activity, he worked as a teacher at the Technical School of Cadastral and Photogrammetric Operators, between 1943-1945 and as a university assistant at the Photogrammetry course, within Bucharest Polytechnics.

In 1948, during education reform, being an acknowledged remarkable personality, he was appointed professor of geodesy, topography and photogrammetry at the Faculty of Forestry in Brasov on 01.01.1949, becoming a colleague with some of his former professors: C.C. Georgescu, Gr. Eliescu, N. Rucăreanu, G. Popescu Zeletin, from research: T. Bălănică, A. Haralamb, and from production: E. Negulescu, Șt. Munteanu, C. Păunescu.

In 1972, he defended his Ph.D thesis., under the scientific direction of prof. Nicolae Rucăreanu, with a remarkable work of photogrammetry. In 1976, he was awarded the title of doctoral supervisor in the field of topography-photogrammetry. In the affirmation of the Faculty of Forestry in Brasov, in the team headed by Professor Aurel Rusu, the contribution of the colleagues in the chair: N. Boș, A. Kiss and Gh. Chițea was remarkable. At present, they are consultant professors. Professor N. Boș is a member of ASAS, Forestry department and Doctor Honoris Causa of "Ștefan cel Mare" University of Suceava.

The research and collective work focused on topographical calculations, the effect of atmospheric refraction on large distances trigonometric levels, photogrammetry and remote sensing applications in the forest economy, for the assessment of forest structures in their geographic configuration, including wood, this occurring when taking pictures with different sensors and different scales.

Professor Aurel Rusu honored his teacher's obligations with the brilliance and scientific rigor of the lectures given to the students, as well as the effort to elaborate as a single author or in collaboration a number of 16 discourses and university textbooks, representing over 5500 pages.

The first great achievement of the professor, who received a unanimous appreciation of the specialists, was the „TOPOGRAPHY” discourse, published in 1955 in the Technical Publishing House, having 625 pages. This discourse was the only accepted of the 13 submitted by other authors, and approved for publication, with the recommendation of the Ministry of Education as a unique manual for higher education in our country. He has made with competence the chapters of geodesy, topography and photogrammetry in the "Forest Engineer's Manual", published in the Technical Publishing House.

Thanks to the passionate work of expert in field measurements, Professor Aurel Rusu has solved numerous problems of the theory and practice of land measurements in the forestry field, especially the applications of photogrammetry and remote sensing, for the first time in our country. These remarkable contributions are contained in two reference works: "Forest Photogrammetry" (Ceres Publishing House, 1978) and "Air Photography and Remote Sensing in the Forest Economy" (Ceres Publishing House, 1988), which come to top the prestigious didactic and scientific activity. Also, the scientific activity of the teacher has materialized in more than 90 scientific papers published in prestigious magazines, as well as in the scientific bulletins of the University of Brasov. He participated with scientific papers at international scientific events.

For the rich activity in the fields of production, scientific research and education, of the outstanding results obtained, in 1990 he was elected as a corresponding member, and in 1994 he was assigned member of the Academy of Agricultural and Forestry Sciences. He is a member of the Association of Scientists, of the „Forestry Progress” Society and a Honorary Member of the Romanian Society of Photogrammetry and Remote Sensing.

Professor Aurel Rusu conscientiously and rigorously acquitted himself of a number of administrative functions which were entrusted to him: the head of the Topography Department, the Dean of the Faculty of Forestry and Forest Exploitation (1972-1976), a member of the Scientific Council of the Faculty and the Senate of the University.

Professor Aurel Rusu also performed a prestigious activity, imposing himself as a significant personality, becoming a school creator. He worked until retirement in 1983, and since 1991 as a consultant teacher.

During his years of work with strictness, abnegation and professionalism in higher education, Professor Aurel Rusu has imposed himself as a valuable personality not only in the field of land measurement science, but also in Romanian forestry.

For the entire activity of Professor Aurel Rusu, for the remarkable contributions to the assertion of the superior forestry school in Brașov, the Senate of "Transilvania" University, the teachers, graduates and students organized the 100th anniversary of the eminent professor's birth on his birthday, June 9th, 2017, as well as over six decades dedicated to school, science and practice. This glorious anniversary was attended also by guests from other major university centers, disciples and admirers of the master. From the presidium of the assembly, several personalities, such as: the Vice President of the Romanian Academy, Cristian Hera, the President of the Academy of Agricultural and Forestry Sciences, Alexandru Sin, the president of the Forestry Department, Ioan Seceleanu, the rector, Ioan Vasile Abrudan, the dean of the Faculty Alexandru Lucian Curtu, and others, delivered moving speeches.

The most sincere wishes for health and happiness are addressed to Mrs. Prof. Clara-Liliana Dragoș, wife of the professor.

For his lifetime work, which has contributed decisively to the assertion of ground measurements science and forestry science, in the context of Romanian and international technical sciences, the community of geodesic and forestry specialists in Romania is warmly paying tribute to the eminent Prof. Dr. Aurel Rusu, on the beautiful 100th anniversary, the wish for full health and happiness, along with his loved ones.

HAPPY BIRTHDAY, LOVED AND ESTEEMED PROFESSOR!

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