NECROLOGY

For

BRANKO POPOVIC

Dr. Branko Popovic, Professor Emeritus of the School of Electrical Engineering, University of Belgrade,Yugoslavia, and Member of the Serbian Academy of Sciences and Arts, passed away on August 25, 2002, loosing a hard and long battle with cancer.

He was born in Belgrade, on February 24, 1934. He completed the secondary school (gymnasium) in Belgrade as one of the best students.

He graduated from the School of Electrical Engineering, University of Belgrade, in 1958, at the Department of Telecommunications and Electronics, with a very high average grade of 9.41. He obtained his Masters of Science Degree from the same school in 1963, after defending his master's thesis "On two problems of electromagnetic induction and their solution from the standpoint of the special relativity theory".

He obtained his Doctor of Science degree from the same school in 1967, after defending his doctoral thesis "On theory of antenna systems with long linear radiating elements".

He spent most of his career at the School of Electrical Engineering, University of Belgrade. He began in 1959 as a part-time employee. From 1960 until 1966, he was a Teaching Assistant for Theoretical Electromagnetics, then an Assistant Professor from 1966 until 1971, an Associate professor from 1971 until 1977, and a full Professor since 1977. He stood up against the politics of the school management, so that from 1998 until he was forced to retire in 1999, he was not allowed to teach classes, or even enter the school building.

At this school, he was teaching primarily Theoretical Electromagnetics (later called Electromagnetics) and Fundamentals of Electrical Engineering. He also gave lectures at the Faculty of Technical Sciences in Novi Sad, Faculty of Electronics in Nis, and the Technical Faculty in Podgorica.

In 1968 and 1969, as well as during the school year 1981/82, he was a Visiting Professor at the Virginia Polytechnic Institute, Blacksburg, VA, USA, and in the first half of 1973 at the McGill University, Montreal, Canada. In 1998, he lectured at the University of Colorado, Boulder, CO, USA. He spent the summer of 1972 at the Technical University of Denmark, and in 1977 he lectured at the Universities in Delft and Eindhoven in the Netherlands. He also lectured in Libya. In all these countries, he predominantly gave lectures in Electromagnetics, but also in Microwaves, Antennas,

Electronics, and Mathematics.

He gave many lectures about his work in Denmark, England, Italy, Canada, China, USA, Turkey, the Netherlands, Greece, and Israel. In 1995, he was invited to Brazil to give a short course for the designers of wire antennas.

He supervised many masters' theses and about ten doctoral theses. Several of his students have already become well known in the world science community.

At the School of Electrical Engineering in Belgrade, he created, together with Professor Jovan Surutka, a strong and worldwide well-known Electromagnetics Group.

He is the author of several textbooks, published in Serbian, on Electromagnetics and Fundamentals of Electrical Engineering. In the USA, he published two textbooks, "Introductory Engineering Electromagnetics" and "Introductory Electromagnetics" (the latter with his daughter Zoya).

He is the co-author of four monographs on antennas, published in England: "Analysis and Synthesis of Wire Antennas", "CAD of Wire Antennas and Related Structures", "Analysis of Metallic Antennas and Scatterers", and "Modern design tools of wire antennas".

His textbooks have been published in several editions. The total number of copies of his textbooks and monographs exceeds 100,000.

He is the author or co-author of more than 150 papers, more than half of which was published in leading international periodicals. He is the founder of the modern Serbian school of numerical electromagnetics, as well as the modern approach to the analysis and design of antennas and other radiating structure. Many papers and masters and doctoral theses emerged worldwide from his work.

His scientific opus is primarily theoretical in nature and oriented towards computer applications. His papers have are recognized not only among scientists, but also among practitioners, because most of the papers deal with problems associated with real-world engineering tasks.

His papers deal with several aspects of the electromagnetic-field theory. Most of them are related to wire (linear) antennas, where he gave several major contributions. His approximate solution of the integral equation for the current distribution using a power series was adopted by several researchers worldwide.

The corresponding polynomials are known as "Popovic's polynomials". Also important are his papers that deal with wire antennas with capacitive and resistive loadings, as well as the approximation of the antenna excitation by the belt generator.

He was a pioneer of introducing optimization methods as the modern tool for the design of wire antennas.

His papers also deal with the distribution of a.c. current in cylindrical conductors and power cables, levitation using superconducting magnets (applied to levitation trains), demagnetization of ferromagnetic bodies, influence of water layer on reflector antennas, etc.

He is the author of about 50 projects in Applied Electromagnetics, most of them dealing with antennas. He designed many professional and commercial antennas (in Yugoslavia, USA, and Israel). Some of them have been manufactured in large series (100,000 pieces). Airborne and terrestrial antennas that he designed became standard equipment of Yugoslav army.

He is the author of a powerful program for the analysis and design of wire antennas (WireZeus) and a co-author of the program GEM (General Electro-Magnetic Code) for the analysis of electromagnetic structures that consist of wires, metallic surfaces, and dielectric bodies. These programs are used by several institutes worldwide, and they were successfully used to design many antennas.

He is an Honorary Professor of a Chinese university and the only Yugoslav who is the fellow of the British IEE Society (since 1992).

For his work, he won several prizes, including the Belgrade October Prize (1967), the Radio-Television Belgrade Prize (1971), the Heinrich Hertz Prize awarded by The Radio and Electronic Engineer (1973), the Nikola Tesla Prize (1985), the James Clerk Maxwell and the Marconi Prize of The Institution of Electrical Engineers, etc.

In 1978, he was elected an associate member of the Serbian Academy of Sciences and Arts, and a full member in 1988. He is also a member of the Yugoslav Engineering Academy.

At the School of Electrical Engineering, University of Belgrade, he was the member of many committees, the Chairman of the Chair for Theoretical Electrotechnics, and the Vice-Dean for studies and scientific work.

He was also politically engaged in the Democratic Movement of Serbia, a member of the parliament, and the Counselor to the Serbian Crown.

He was famous for his sports activities. He won several tennis tournaments, and he was excellent in skiing, diving, and table tennis.

He was highly respected by his colleagues. He was highly evaluated by his students. Several times, he was given the best teacher award. With his teaching and

scientific activities, he significantly contributed to the high rank of the School of Electrical Engineering, University of Belgrade.

His death is a great loss to his family, friends, school, and the international scientific community.