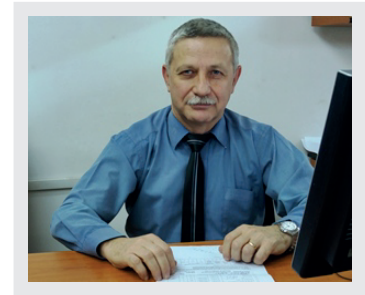


Forward about Gheorghe Sebestyen-Pal, professor at the Technical University of Cluj-Napoca (TUCN), vice-dean of the Faculty of Automation and Computers, Romania:

Gheorghe Sebestyen-Pal was born in Sarmas, Romania, in 1960. He graduated the Computers section of the Faculty of Electrical Engineering at TUCN, Romania in 1985. He received his Ph.D. degree in Computer Science in 2003. After graduation he worked as a researcher and project manager at the National Research Institute in Computers (Romania, Cluj-Napoca dep.) until 1996, when he became lecturer and later professor at the Computers Department of the TUCN. Since 2011 he is the vice-dean of the Faculty of Automation and Computers at TUCN. His main teaching areas are related with computer hardware, embedded systems, industrial informatics and assembly language programming techniques. In the research area he is interested in the following topics: distributed computer control, embedded and dedicated computer systems, real-time scheduling, industrial communication networks and real-time communications.



Gheorghe Sebestyen-Pal

Professor Sebestyen is member of IEEE (Institute of Electrical and Electronics Engineers) and coordinator of the Computers section of the Hungarian Technical Scientific Society of Transylvania. During his career he published more than 120 articles most of them in international conferences and journals. He is also member of the technical committee of some international conferences and journals. He published six books and had contributions in two other books.

Dear Readers,

I consider me and my generation a fortunate one because in the last 30 years we had the opportunity to be part of some exceptional innovations in the fields of electrical engineering, electronics and computer science. These engineering branches changed our society as a whole, every aspect of today's life being somehow influenced by technologies developed in these areas.

In my opinion the most interesting and also challenging research area is at the confluence of the above mentioned domains. As a computer specialist, I am mainly interested in the development of products and services that combines and integrate ICT (Information and Communication Technologies) with other engineering technologies in order to obtain a more efficient and friendly working or living environment.

Therefore most of my research activity was oriented toward development of computer-based process control systems, embedded systems and intelligent monitoring and measuring devices. In this area it is important to analyze the special requirements imposed for computer systems working in safety critical conditions and give solutions that can guarantee a given level of safety and reliability. In my opinion huge steps were made in the last years in the direction of increasing computer performance, but we still have a lot to work on computers' dependability, predictability and safety.

As part of the predictability and dependability problem a challenging sub-domain is that of real-time computing. The goal is to develop real-time scheduling strategies and algorithms, which can guarantee that all the tasks of a complex application will finish their execution before their imposed deadlines. Software parts must synchronize with mechanical or electrical parts and computing tasks must be correlated with communication protocols in order to fulfill some global real-time restrictions.

Last but not least, the new wave of IoT (Internet of Things) and the IIoT (Industrial IoT) launches new challenges and new research opportunities for those who work in areas like electrical engineering, electronics, computing and communications. In my opinion, solutions for the new IoT must come as an integration of multiple technologies from different engineering areas.

I consider that "Advances in Electrical and Electronic Engineering" journal have played and will play an important role in spreading valuable information and knowledge regarding all the subjects mentioned above. Therefore I recommend everyone interested in these areas and subjects to follow this publication and contribute with articles describing their research work.