

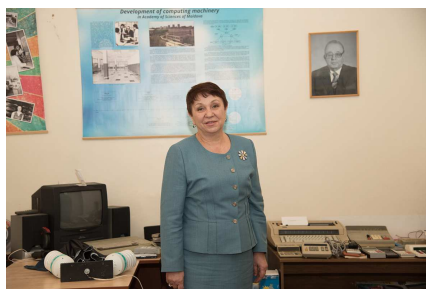


Svetlana Cojocaru – 70th anniversary

Svetlana Cojocaru, born on July 26, 1952, in the village of Butuceni, Râbnîța district, is now a principal scientific researcher of the Vladimir Andrunachievici Institute of Mathematics and Computer Science (IMCS), corresponding member (c.m.), Habilitated doctor in computer science, vice-president of the Academy of Sciences of Moldova.

C.m. Svetlana Cojocaru passed with dignity all the steps of a successful scientific career, being usually characterized with the qualification “first”: the first lady Habilitated doctor in IMCS, the first Habilitated doctor in computer science in the Republic of Moldova, the first and, at the moment, the only corresponding member in computer science, etc.

She is known in the community of computer scientists for serious results, materialized in over 240 valuable scientific publications (5 monographs, 7 chapters in monographs, 2 reprinted) at prestigious publishers, editor of 16 collections of articles, materials of national/international conferences and also in useful applications.



Fields of research in which c.m. S. Cojocaru distinguished herself by important achievements are formal grammars and languages, compiler construction, parallel programming, natural language processing, computational algebra, molecular calculations, intelligent interfaces and Information Society Technologies, digitization of cultural heritage, etc.



Even in the first years of research, S. Cojocaru proposed a grammar class with a dispersed context, which allowed both sequential and parallel processing. It was a nice theoretical result that soon became extremely current because it meets the needs of large-scale use of multiprocessor systems for carrying out high-performance calculations. After a while, the formalism of grammars with a dispersed context also found applications in the processing of natural languages. S. Cojocaru

elaborated a formal grammar to describe the inflection process in Romanian, reaching for the first time in the world, the complete solution to the problem of automatic inflection for inflectional languages. Under her leadership, a series of necessary applications were developed: a computational morphological lexicon for the Romanian language with about one million words (displayed for public access on the website www.math.md/elrr), assisted training system for the study of the Romanian language, spelling correction system, etc. These works have an important role in the technologicalization of the Romanian language – a fact that allows a first step towards solving a major problem – the human-computer interaction in natural language.

The results of Hab.Dr. S. Cojocaru have based the research on intelligent interfaces in our country, intending to create a comfortable environment for users from various areas of activity and skill levels. These interfaces offer opportunities to communicate in a subset of natural language in the professional field of user activity. It is worth mentioning that intelligent communication in information systems is an area of high relevance required in European research programs.



C.m. S. Cojocaru was the IMCS leader of a project aimed at developing the Bergman symbolic computing system with an intelligent interface within 5 grants of the Swedish Royal Academy for over 15 years. The results of Hab.Dr. S.Cojocaru in this field are related to the development of the mathematical performances of the system and the elaboration of the interface procedures. The results of the research

in this field ended with the publication of a collection of articles in IOS Press, the Netherlands, as well as a monograph published in Sweden.

In the composition of a group of researchers from IMCS, she studied the problems of building the Information Society in our country and contributed to the development and promotion of information systems, able to solve various problems specific to the Information Society. The report carried out within a UNDP project (2004) was the first approach in our country to the problem of electronic services in public administration (e-government). At the same time, the much-discussed issue of confidentiality and access to information at the community level is based on the public-private model.

C.m. S. Cojocaru participated in studies in the framework of 25 international projects, 7 of them being the team leader. Among the latest studies, some have a pronounced practical character: projects to promote the music culture of Moldova, science management, medical information systems including those for prevention of strokes, non-alcoholic fatty liver, and management of disasters with multiple victims. The results of these studies are mentioned with medals at the exhibitions Infoinvent and “Made in Moldova”.



At the beginning of computer science applications, when there were too few knowledgeable persons, S. Cojocaru was the one who initiated the dedication of a group of humanitarian professors from Moldova State University to the “secrets of computer science”, giving them

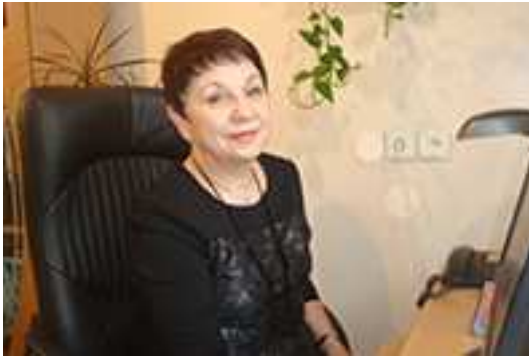
a very inspired course. Also in those times, she published a series of articles in the journal “Femeia Moldovei” in which she acquainted the readers with the first notions of computer science through examples from their practice. This activity of promoting computer science, started many years ago, Hab.Dr. S. Cojocaru successfully continues, expanding the area throughout the world while promoting the image of the country and the science of Moldova – currently being the Vice Editor-in-Chief of the “Computer Science Journal of Moldova”. She is a member of the editorial boards of many scientific journals in the country and abroad, including those reviewed in Scopus and Clarivate Analytics.



Another important aspect is the didactic activity and the training of doctoral students. Under her leadership, six scientists defended their doctoral dissertations.

C.m. S. Cojocaru, through her activity, contributed substantially to the development of computer science in the Republic of Moldova, to the affirmation of the Institute of Mathematics and Computer Science “Vladimir Andrunachievici” as a center of excellence with international recognition, to the promotion of the image of Moldovan science.

We sincerely wish her further creative success, successful implementation of her ideas, strength, inspiration, and good health!



Happy birthday, dear prof. Svetlana Cojocar!

CSJM Editorial Board