

# ABOUT AUTHORS

## FLORIN-GHEORGHE FILIP

Dr. Florin-Gheorghe Filip graduated in Control Engineering and took his Dr. Engng. Sci. degree from the Polytechnical Institute of Bucharest in 1970 and 1981, respectively. In December 1991, dr. Filip was elected as a corresponding member of the Romanian Academy. He is a member of the IT Section of the Romanian Academy.

In 1974 he was invited research fellow at Swedish universities (Chalmers TH Göteborg, Uppsala Universitat, TH i Lund, KTH Stockholm). In 1974 dr. Filip joined the Research Institute for Informatics, Bucharest. He was the head of Advanced Decision Support Systems Research Laboratory. He is now a research professor.

Since May 1991 dr. Filip has been the general director of the institute. In November 1991 he was elected as a vice-president of the Romanian Society for Automation and Technical Informatics-SRAIT.

Dr. Filip is the author/co-author of some hundred technical papers published in contribution books and international scientific journals such as: IFAC J. Automatica, Large Scale Systems, Computers in Industry, Modelling & Simulation, Systems Analysis, Modelling and Simulation, etc. He is the co-author of two books: "Cybernetics, Automation and Informatics in the Chemical Industry" (1979), and "Hierarchical Real-Time Systems" (1986). Dr. Filip was a session chairman and/or IPC member at several international scientific conferences such as IEEE International Conference on System Man and Cybernetics (1988), Systems Analysis and Simulation (1988), IFAC/IFORS Symposium on Large Scale Systems (1992), etc. He was invited to deliver lectures and participate in conferences in China, Czecho-Slovakia, England, France, Germany, Kuwait, Poland and Sweden. He is the editor-in-chief of the journal "Studies in Informatics and Control". Dr. Filip's main current scientific interests include: hierarchical optimization and control of large scale systems, decision support systems, integrated plant control in the process industries and discrete part manufacturing and information systems in public administration.

## PETER DAVID ROBERTS

Peter D. Roberts received his B.Eng. in Electrical Engineering from the University of Sheffield in 1961, his Ph.D in Control Engineering in the Department of Electrical Engineering at the Queen's University of Belfast in 1964, and his D.Sc. in Control Engineering from City University, London in 1983. He was an Engineering Assistant Lecturer and then a Lecturer in the Department of Electrical Engineering, Queen's University of Belfast from 1963 to 1966. He was employed as a Technical Officer in the Central Instrument Research Laboratories of Imperial Chemical Industries from 1966 to 1970, working on computer control and mathematical modelling of chemical processes. Since 1970 he has been employed at City University, London as Reader and from 1980 as Professor of Control Engineering and Head of the Control Engineering Centre. He is a Senior Member of the Institute of Electrical and Electronic Engineers, a Fellow of the Institution of Electrical Engineers and a Fellow of the Institute of Measurement and Control. His main research interests are hierarchical control and optimisation of industrial processes, integrated systems optimisation and parameter estimation, optimal control, model validation, fault diagnosis, and robotics. He has published over 140 technical papers.

## JIE ZHANG

Jie Zhang was born in Hebei, China, on June 5, 1965. He obtained his B.Sc. degree in Control Engineering from Hebei Institute of Technology, Tianjin, China, in 1986 and his Ph.D

degree in Control Engineering from City University, London, in 1991. His Ph.D research topic is on using Artificial Intelligence in on-line process control and fault diagnosis. He has more than a dozen publications and most of them are about on-line process fault diagnosis. Currently, Dr.Zhang is a Research Associate in Department of Chemical & Process Engineering, University of Newcastle upon Tyne, United Kingdom. His research interests include knowledge based control systems, on-line process fault detection and diagnosis, qualitative modelling, neural networks, genetic algorithms, and robust process control.

#### **EUGENE J.H.KERCKHOFFS**

Dr.Eugene J.H. Kerckhoffs holds a MSc. in Physical Engineering from Delft University of Technology (The Netherlands) and a Ph.D in Computer Science from the University of Ghent (Belgium). Currently, he is a professor at Delft University of Technology. He is the author of over 150 technical articles and papers in the fields of computer simulation, parallel processing, AI and neural networks. He presented over 120 lectures world-wide (Western and Eastern Europe, USA, Canada, Malaysia, R.P.China).

Dr.Kerckhoffs is especially active in the field of computer simulation. He organized numerous international simulation conferences and was co-editor of 7 Conference Proceedings. He is a Fellow of the Society for Computer Simulation International (SCS) and currently the Vice-President for Europe of this Society.

#### **JERZY A.BARCHANSKI**

Dr.J.A.Barchanski obtained his MSc. and Ph.D degrees in Computer Science from Silesian Technical University in Poland in 1969 and 1977. Upon receiving a scholarship from the Japanese Government he spent 3 years in Japan as a researcher at Osaka University and Kyoto University. After returning to Poland in 1976 he worked as an Assistant Professor at the Silesian Technical University and the Technical University of Wroclaw. In 1982 he was invited to Canada to work as a research associate at the University of Montreal and in 1983 he accepted a position of Associate Professor of Computer Science at Brock University in St.Catharines where he works until now. During his tenure at Brock he was moreover a Visiting Professor at the University of Ottawa. His main areas of interest are computer networks and their protocols, distributed and object-oriented simulation, parallel logic programming and expert systems. He has published over 40 papers in these areas.

#### **OCTAVIAN PASTRAVANU**

Octavian Pastravanu was born in Jassy, Romania, in 1957. He received his MSc degree in Electrical Engineering from the Polytechnical Institute of Jassy in 1982. From September 1982 through February 1986 he worked as research engineer at the Institute for Automation, Bucharest. Since March 1986 he has been with the Department of Automatic Control and Industrial Informatics, the Polytechnical Institute of Jassy, teaching courses on Computer-Controlled Systems and Applied Numerical Analysis. He received his Ph.D degree in Automatic Control from the Polytechnical Institute of Jassy in 1992. He was granted a postdoctoral fellowship at the University of Ghent, Belgium, due for the academic year 1992/1993. He has published in Romania and abroad more than 50 scientific papers and co-authored a textbook. He is member of the Editorial Boards of the Romanian Journals: "Revista Romana de Informatica si Automatica" (Romanian Journal of Information Technology and Automatic Control) and "Buletinul Institutului Politehnic din Jasi" (Newsletter of the Polytechnical Institute of Jassy). His current interests include new trends in CACSD and the impact of modern control theory and artificial intelligence methods on the practice of control engineering.

### **MIHAIL VOICU**

Prof.Dr.Mihail Voicu graduated in Electrical Engineering in 1966 and obtained his Doctor Engineer degree in Automatic Control in 1974.

In 1977 he graduated in Mathematics. At present he is the Dean of the Faculty of Automatic Control and Computers, the Polytechnical Institute of Jassy and teaches in Fundamentals of Automatic Control and Systems Theory. His didactic and scientific activities materialized in over 120 publications (9 textbooks, 1 monograph, more than 90 papers, 10 patents, etc.) covering the following topics: system dynamics, identification, optimal and adaptive control, interconnected systems, systems stability and stabilization, and analysis and synthesis based on non-recursive mathematical models. He was awarded the "Aurel Vlaicu" Prize of the Romanian Academy for two papers on developing and applying the concept of component wise asymptotic (absolute) stability. As a specialist, he takes an active part in: Automatic Control Section of the Romanian Academy, Romanian Society of Automatic Control and Technical Informatics, IEEE-Control Systems Society, American Mathematical Society, and the reviewer groups of Zentralblatt für Mathematik and Mathematical Reviews.

### **LAURENTIU ISOPESCU**

Laurentiu Isopescu was born in Jassy, Romania, in 1967. He received his MSc. degree in Electrical Engineering from the Polytechnical Institute of Jassy in 1991. As an undergraduate student he was awarded several prizes at the students' contests on Mathematics and Systems Theory. He was granted a DAAD (the German Academic Exchange Service) research scholarship at the University of Duisburg, Germany.

### **VASILE DRAGAN**

Dr.Vasile Dragan was born at Valea Bolvasnita, Caras-Severin, Romania in 1950. He studied mathematics at Bucharest University between 1969-1974. In 1979 he received his Ph.D degree from the University of Bucharest. He works at the Institute of Mathematics of the Romanian Academy, in Bucharest.

His main research activity is devoted to differential equations, especially to singular perturbations and control. He authored several papers on these subjects and published them in Romanian and international journals.

### **VASILE SIMA**

Vasile Sima was born at Lita, Romania, on October 21, 1949.

He graduated the Polytechnical Institute of Bucharest in Control Engineering in 1972, and the Department of Mathematics at the University of Bucharest, in 1978. He obtained his doctoral degree in Control Engineering (adaptive control) at the Polytechnical Institute of Bucharest, in 1983.

Since 1972 he has held several research positions at the Research Institute for Informatics in Bucharest. He is senior research worker and the Secretary of the Scientific Board of the institute. He is also an associate professor at the Polytechnical Institute of Bucharest.

Dr.Vasile Sima published more than 60 scientific papers (twenty six of them were published in international journals and symposia proceedings). He is also co-author of the books: "Computer-Aided Optimization Practice" and "Adaptive and Flexible Control of Industrial Processes", both written in Romanian. His research interests include automatic control theory, adaptive and optimal control, computer-aided control systems design, non-linear programming, numerical linear algebra and scientific computations.

#### **DAN TUFIS**

Dr. Dan Tufis is a senior researcher and head of Natural Language Processing Laboratory at the Research Institute for Informatics in Bucharest. Born in 1954 in Bucharest, Romania, he graduated from the Polytechnical Institute of Bucharest in 1979. He received his Ph.D in Computer Science from the Department of Computer Science of the Polytechnical Institute of Bucharest, in 1992.

His main interests are computational linguistics, artificial intelligence perspective of natural language processing, machine translation. He is a member of several scientific bodies (ECACL, GLDV, EAMT, DECUS, AOSR) and authored more than 50 papers, published in national and international journals and in the Proceedings of the national and international conferences as well.

In 1989 he was awarded the "Traian Vuia" Prize of the Romanian Academy.

#### **DAN NICOLAITA**

Dan Nicolaita is a senior researcher at the Research Institute for Informatics in Bucharest and graduated the Faculty of Mathematics from the University of Bucharest in 1981.

His research activity which started right after the graduation is dedicated to the field of Automated Theorem-Proving. The results obtained by Dan Nicolaita concern both the fundamental and applicative areas of this research field.

His special interest is related to the design of term indexing schemes for speeding-up several basic algorithms in automated reasoning systems.

#### **GABRIEL NEAGU**

Gabriel Neagu was born in Bucharest in 1949. In 1973 he received his MSc. in Control Engineering from the Energetic Institute of Moscow and joined the Research Institute for Informatics in Bucharest. His major Research and Development activities have been related to: complex informatic systems for steel works and aluminium plants, pipe factories, electronic industries; real-time discrete production control systems at the shopfloor level; management information systems at micro-and macroeconomic level. He is author/co-author of some 20 papers, mainly dedicated to industrial informatic systems design. Currently, he is senior researcher and head of Operative Information and Control Systems Laboratory at the Research Institute for Informatics. He is a candidate to doctoral degree in Applied Informatics. His research interests include knowledge-based production control systems, modelling and qualitative simulation of discrete processes, decision support systems, societal informatics, advanced informatic systems engineering.