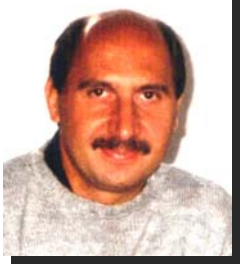
Dan Stefanoiu



Professor

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Personal data: single, born on July 25, 1961 in Piatra Neamt, ROMANIA (RO); Romanian citizenship, Canadian residency.

Education:

April 1995: **Ph.D. in Automatic Systems**, at "Politehnica" University of Bucharest/RO.
Thesis subject: ***"Signal Analysis by Time-Frequency Methods"***.
Advisor: **Professor Petre STOICA** (from Uppsala University, Sweden).

February 1993: **Master of Science in Mathematics** at University of Bucharest/RO.
Graduation project: ***"Characteristics of Continuous Functions Space"***.
Advisor: **Professor Gheorghe GRIGORE**.

June 1986: **Master of Science in Automatics & Computer Science**
at "Politehnica" University of Bucharest/RO.
Graduation project:
"Control System of Robots Based on Non Linear Models".
Advisor: **Professor Vlad IONESCU**.

Professional background:

1986 – 1989: **Young Researcher** at IIRUCEP – Company of Professional Electronics for Computers Maintenance, Bucharest/RO.

1989 – 1990: **Researcher** at IPA – Research Institute for Automatics, Bucharest/RO.

1990 – today: Faculty member at "Politehnica" University of Bucharest/RO, Dept. of Automatics and Computer Science.
Positions: **assistant-professor** (1990-1995);
lecturer (1995-1999);
associate professor (1999-2005).
(full) professor (since 2005).

Main taught courses:

- ***Signal Processing*** (fundamental discipline, 7-th semester).
- ***System Identification*** (fundamental discipline, 6-th semester).
- ***Mathematics and Signal Processing (Wavelets)*** (fundamental discipline, M.S.).
- ***System Identification and Automatic Control*** (optional discipline, 6-th semester, French Department).

Main research topics:

- Signal Processing: time-frequency and time-scale methods, wavelets (discrete-time, parametric), speech and image processing, filter banks, vibrations analysis.
- Data and Signal Compression.
- System Identification: fast recursive algorithms and new techniques, data prediction.
- Functional Analysis: applications of Operators Theory in digital filtering.
- Applied Mathematics in Informatics: algorithms convergence and complexity analysis.
- Artificial Intelligence: mathematical models for multi-agent systems based on Fuzzy Sets and Evidence Theories.
- Fuzzy Sets, Systems and Measures.
- Evolutionary programming and strategies: genetic algorithms, simulated annealing.
- Robotic systems.

Publications: Author and co-author of **10 books** and over **100 papers**.

International research and teaching experience:

Every year: **Visiting Professor** at the Universities of Annecy and Lille (FRANCE) within the framework of SOCRATES-ERASMUS European Project.

2007: **Visiting Research Fellow** of Alexander von Humboldt Foundation at the University of Applied Sciences in Konstanz, GERMANY.

Research directions:

- Timer series modeling and prediction by using time-frequency-methods.

2003, 2005, 2006: **Visiting Research Fellow** of National German Research Council (DFG) and Steinbeis Transfer Center at the University of Applied Sciences in Konstanz, GERMANY.

Research directions:

- Simulation techniques for industrial robots applications.
- Artificial Intelligence methods for generating the best trajectories of robots arms.
- Improvement and enhancement of HYPAS Simulation Environment.

Taught course (in English):

- ***"Introduction to MATLAB & SIMULINK"*** (III-rd year, Mechatronics).

2001 – 2002: **Postdoctoral Fellow** of Alexander von Humboldt Foundation at the University of Applied Sciences in Konstanz, GERMANY.

Research directions:

- Faults classifications from (mechanical) vibrations by using fuzzy-statistics.
- Faults diagnosis and diagnosis by representing (mechanical) vibrations inside a time-frequency dictionary.

Taught courses (in English):

- ***"Signal Processing & Telecommunications – Historical Notes"*** (post-doctoral level).
- ***"Introduction to MATLAB & SIMULINK"*** (III-rd year, Mechatronics).

Mar-Jun 2001: **Visiting Research Fellow** at Technical University of Tampere, FINLAND.

Research directions:

- Lossless signal compression through adaptive lifting schemes.
- New classifiers for sampled data.

1999 – 2000: **Visiting Professor** at the University of Calgary, CANADA.

Research directions:

- Fuzzy modeling of multi-agent systems global behavior.
- Comparison between Theory of Evidence and Probability Theory.

Jan-Jun 1999: **Visiting Research Fellow** at Technical University of Tampere, FINLAND.

Research directions:

- Adaptive filtering of acoustic signals by discrete-time orthogonal wavelets.
- Author of ***Degenerated Eigenvalues Method***.

May 1997: **Member of Scientific and Organizing boards** at SSC'97 IFAC Conference held by "Politehnica" University of Bucharest/RO.

1992-1996: **Several doctoral stages** (about 2 years in total) at l'Institut National Polytechnique de Grenoble, FRANCE.

Taught course (in French):

- ***"Signal Processing with Wavelets and Applications to Speech Coding"*** (Advanced topics in Electrical Engineering M.S. program).

1994-2007: **Involved in organizing and conferencing** at 8 French-Romanian Summer Schools in Automatics, held by "Politehnica" University of Bucharest/RO, in collaboration with French Universities from Grenoble, Annecy, Lille and French Embassy from Bucharest.

Taught courses (in French):

- ***"Identification and Identifiability – Fast Algorithms"***
- ***"Signal Processing by Adaptive Wavelets"***

Awards and affiliations:

1996-1997 and 1998-1999: **Awards for outstanding teaching and research activity** granted by "Politehnica" University of Bucharest/RO.

Since 2002: **Full Member of ARA – The American-Romanian Academy.**

Since 1990: **Member of SRAIT – The Romanian Association of Engineering in Automatics and Informatics.**

Operating systems and computer languages background:

- **Operating systems:** Unix, Linux, MS-DOS/Windows, MacIntosh, RT-11, RSX*.
- **Assembly languages:** ASM 8080, Z80, 8085, 80*86.
- **High level languages:** MATLAB*, C*, PASCAL*, FORTRAN*.
- **Document processing tools:** L_AT^EX, Microsoft Office, (Mac)Word, RunOff.

Tongues proficiency:

- **Romanian:** mother tongue.
- **French:** currently speaking, speech understanding, reading and writing.
- **English:** currently speaking, speech understanding, reading and writing.
- **German:** middle level (graduate of a 2-month intensive course at Goethe Institute in Mannheim, Germany, 2001).
- **Italian:** speaking, speech understanding – good enough; reading, writing – not very bad.
- **Spanish:** speaking, speech understanding, reading, writing – satisfactory level.
- **Russian:** speaking, speech understanding, reading, writing – forgetting process.

Sports and extravagances:

- **Motion sports:** cycling, tennis, swimming, athletics (jogging), mountaineering (long hiking), ski, fitness.
- **Reasoning sports:** chess, go.
- **Extravagances:** traveling, photographic art, music, poetry, theater, (exquisite) movies.

Some references:

- ***Professor Petre STOICA / Sweden*** ..... **ps@SysCon.uu.se**
- ***Professor Octavian STANASILA / Romania*** ..... **ostanasila@hotmail.com**
- ***Professor Florin IONESCU / Germany*** ..... **ionescu@fh-konstanz.de**
- ***Professor Ioan TABUS / Finland*** ..... **tabus@cs.tut.fi**
- ***Professor Theodor BORANGIU / Romania*** ..... **borangiu@cimr.pub.ro**
- ***Professor Dumitru POPESCU / Romania*** ..... **dpopescu@router.indinf.pub.ro**
- ***Professor Mihaela ULIERU / Canada*** ..... **ulieru@unb.ca**
- ***Professor Douglas NORRIE / Canada*** ..... **norried@shaw.ca**
- ***Professor Nadine MARTIN / France*** ..... **nadine.martin@inpg.fr**
- ***Professor Gang FENG / France*** ..... **feng@icp.inpg.fr**