

**PERSONAL INFORMATION** Ion Necoară



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Sex: M | Date of birth: 20/09/1977 | Nationality: Romanian

**POSITION**

Professor

**WORK EXPERIENCE**

February 2009 - Present

Assistant Professor, Associate Professor, Professor  
 University Politehnica Bucharest, Faculty of Automatic Control and Computers

- Teaching and research activities
- Head of *Distributed Optimization and Control Lab*

**EDUCATION**

April 2007 – March 2009

Postdoc (Research Assistant): *Numerical optimization for large-scale problems*  
 KU Leuven, Belgium

November 2002 – October 2006

Doctor in *Applied Mathematics*  
 TU Delft, Netherlands

October 2000 - July 2002

Master in Statistics and Optimization  
 University of Bucharest – Faculty of Mathematics and Computer Science

October 1996- July 2000

BA Mathematics  
 University of Bucharest – Faculty of Mathematics and Computer Science

- Mathematics
- Systems theory
- Numerical methods
- Optimization and probabilities

**PERSONAL SKILLS**

Organisational/managerial skills

Director for several national and international research projects (FP7 – EU, UEFISCDI)

Competences

Supervising several bachelor students, 6 master students, and 4 Ph.D. students (Dr. Q. Tran-Dinh assist. professor at University of North Carolina, Dr. A. Patrascu assist. professor at Univ. Bucharest, Dr. V. Nedelcu manager at Asssystem Romania).

**RECOGNITION**

Awards

*Excellence in Research Award*, in Engineering Sciences, Ad Astra, 2016  
*Grigore Moisil Award*, in Information Technology, Romanian Academy, 2015  
 Best Paper Award in Journal of Global Optimization 2015, and Best Paper Award in International Conference on System Theory, Control and Computing 2014.

**COMPETENTE PERSO**

**ADDITIONAL INFORMATION**

## Publications

Author of more than 100 research papers (32 ISI journal articles with cumulative impact factor larger than 60). Available at: [www.acse.pub.ro/person/ion-necoara](http://www.acse.pub.ro/person/ion-necoara)

## Projects

Director of 6 research grants.

**FIELDS OF INTEREST**

## Current research topics

- Theory and methods for Convex – Distributed - Big Data Optimization.
- Developing optimization algorithms with a focus on structure exploiting.
- Mathematical guarantees about performance of numerical optimization algorithms.
- Applying optimization techniques for developing new advanced controller design algorithms for complex systems (Embedded and Distributed Control / Model Predictive Control).
- Practical applications include: Big Data Models, Mining and Data Analytics (smart electricity grids, traffic networks, weather forecasts, distributed control, compressive sensing, image / signal processing, machine learning), Embedded Control, Control of Robots, Automotive Industry.