

# Universitatea din Craiova

## Facultatea de Automatică, Calculatoare și Electronică



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Către, Senatul Universității din Craiova

Vă înaintăm spre aprobare propunerea Consiliului Facultății de Automatică, Calculatoare și Electronică, adoptată prin Hotărârea Consiliului Facultății din data de 28.06.2016, de conferire a titlului academic de DOCTOR HONORIS CAUSA, Excelenței sale Domnului Silviu Iulian NICULESCU, Director de cercetare CNRS la CentraleSupélec (L'École Centrale Paris et Supélec), Franța, în luna octombrie 2016.

Anexăm Curriculum vitae al Domnului Director de cercetare doctor Silviu Iulian NICULESCU.

Cu aleasă considerație,

Decan.

Prof. mrv. dr. ing Dan SELISTEANU

# Biographical Sketch of Silviu-Iulian Niculescu (June 29<sup>th</sup>, 2016)

### **Mailing Address:**

Laboratory of Signals and Systems (L2S, UMR CNRS 8506),

CNRS - CentraleSupélec - Université Paris-Sud 3 rue Joliot Curie, 91192, Gif-sur-Yvette, FRANCE.

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#### **Education:**

- HDR (habilitation) in Automatic Control, Université de Technologie de Compiègne, October 2003.
- Ph.D. and DEA (French M.Sc.) degrees in *Automatic Control*, Institut National Polytechnique de Grenoble in February 1996 and July 1993, respectively.

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- B.S. in *Automatic Control*, National Polytechnic Institute, Bucharest (Romania), September 1992 **Appointments:**
- Research Director ("Directeur de Recherche") at CNRS (since 09/2005)
- Young Researcher ("Chargé de Recherche") at CNRS (09/1997-09/2005): HEUDIASYC, Compiègne
- Teaching Assistant at University "Politehnica" of Bucharest (Romania) (09/1992-09/1997)

#### Honors/Awards:

- CNRS Silver (May 2011) and Bronze medals (October 2001) for scientific research;
- "Best Paper Presentation Award" at American Control Conference, Chicago, IL, 2000;
- Ph.D. Thesis Award, Institut National Polytechnique de Grenoble, 1996.
- NATO Fellowship for young researcher, Institut National Polytechnique de Grenoble, 1993-1994.

#### **Recent Professional Activities:**

- Head of L2S (more than 220 people January 2016) 2010-2019,
- Founding Editor and Editor-in-Chief of the Springer series ADD@S ("Advances in Delays and Dynamics at Springer") since its creation in August 2012
- Co-founding member (with Catherine BONNET, DR at Inria) of the *Inria team "Dynamics of Interconnected Systems in Complex Environments" DISCO* (2010-)
- Responsible of the IFAC TC 2.2 Research Group on Time-Delay Systems since its creation (2007-),, member of the "IFAC Automatica best paper" award committee (2009-2012) and of the IFAC Technical Committee on Linear Systems (2002-); vice-head of the TC (2011-).
- Member of the EUCA Council (European Union Control Association) (29 people, 2009-2016)
- Associate Editor of several international journals (*IEEE Transactions on Automatic Control*, 2004-2006; *Journal of Control Science and Engineering*, since its creation, 2004-; *European Journal of Control*, 2011-; *IMA Journal of Mathematical Control and Information*, 2011-).
- Guest Editor of 5 special issues devoted to time-delay systems (Kybernetica, 2001; IMA Journal of Mathematical Control and Information, 2002 and 2010; Asian Journal of Control, 2006, Journal of Mathematical Modelling of Natural Phenomena, 2009).
- Organizer of a mini-symposium at the 6<sup>th</sup> SIAM Conference on Control Theory and Its Applications (CTA), New Orleans, USA as well as of 12 Invited Sessions at various control conferences.
- Initiator of a series of 3 CNRS-NSF Workshops devoted to delay systems (2003; 2005; 2006) and Co-responsible and Co-organizer of the 1<sup>st</sup> CNRS-NSF Workshop (Paris, La Défense, 2003), CNRS-INRIA-SIAM Workshop on LMI Methods in Identification, Optimization and Control (Compiègne, 1999) and co-responsible of 2 Summer Schools devoted to time-delay systems (Grenoble, 2000, 2013).
- Co-responsible of an European CNRS GDRI Network Time-Delay Systems (51 people, 2011-2015)
- Member of the IPC for 42 International Conferences; among them, 18<sup>th</sup> IFAC World Congress 2011, IEEE Conference Decision and Control (CDC) 2008, 2004 and 2003, IEEE Conference on Control Applications (CCA) 2009, IFAC Symposium on System Structure and Control 2010; Chair of the IPC of 2 IFAC Workshops on Time-Delay Systems: Sinaia (Romania) 2009 and Santa Fe (USA) 2001 and of European Control Conference: Strasbourg (France) 2014;
- Principal Investigator (PI) of 20 International Research Cooperation Projects (IRCP) and Scientific Responsible of 14 IRCP; among them, a CNRS-NSF Cooperation Project (11 people, 1999-2002), PICS CNRS-USA (25 people, 2002-2005) and a ECO-NET Project including France and 3 Eastern European countries (43 people, 2007-2008).

#### **Domains of interest:**

- delay systems, robust control, operator theory, numerical methods in optimization

#### **Publications:**

- 9 books (Diderot: Paris, 1997, in French; Springer: Heidelberg, 2001; Springer: London, 2014, 2015: 3 volumes, 2016, SIAM: Philadelphia, 2007, 2014).
- 6 edited volumes (SIAM, 1999; Pergamon, 2002; Springer: 2004, 2006, 2009, 2011).
- 36 book chapters, 120 publications in international journals, 296 papers in international conferences. **Most cited publication**: Delay effects on stability. A robust control approach (2001, <u>1.946 citations</u> Google Scholar, by June 29<sup>th</sup> 2016).

#### **Five Relevant Publications to Delay Area:**

- 1. W. Michiels, <u>S.-I. Niculescu</u>: Stability, control and computation for time-delay systems. An eigenvalue based approach, (SIAM: Philadelphia, Advances in Design and Control, vol. 27, 2014).
- 2. M.E. Ahsen, H.Özbay, <u>S.-I. Niculescu</u>: Analysis of deterministic cyclic gene regulatory network models with delays, Series "SpringerBriefs in Electrical and Computer Engineering (Control, Automation and Robotics)", Birkhäuser: Boston, 2015.
- 3. J. Cheong, <u>S.-I. Niculescu</u>, C. Kim: "Motion synchronization control of distributed multi-subsystems with invariant local natural dynamics," *IEEE Transactions on Robotics*, vol. 25, pp. 382-398, 2009.
- 4. K. Gu, <u>S.-I. Niculescu</u>, J. Chen: "On stability crossing curves for general systems with two delays" in *Journal of Mathematical Analysis and Applications* vol. 311, no. 1, pp. 231-253, 2005.
- 5. <u>S.-I. Niculescu</u>: Delay effects on stability. A robust control approach (Springer-Verlag: Heidelberg, Germany, LNCIS, vol. 269, 2001).

#### **Five Other Relevant Publications:**

- 1. A. Çela, T. Jurik, R. Hamouche, R. Natowicz, A. Reama, <u>S.-l. Niculescu</u>, J. Julien: "Energy optimal real-time navigation system," in *IEEE Intelligent Transportation Systems Magazine*, vol. 6, p. 66-79, 2014.
- 2. F. Chatté, B. Ducourthial, <u>S.-I. Niculescu</u>: "Study of a simple preventive transport protocol," *Annals of Telecommunications* (Special Issue on *Transport Protocols*), vol. 61, No. 1-2, pp. 72-91, 2006.
- 3. B. Bradu, Ph. Gayet, <u>S.-I. Niculescu</u>, E. Witrant: "Modeling of the very low pressure helium flow in the LHC cryogenic distribution line after a quench", *Cryogenics*, vol. 50, pp. 71-77, 2010.
- 4. B. Brogliato, <u>S.-I. Niculescu</u>, P. Orhant: "On the control of finite-dimensional mechanical systems with unilateral constraints," *IEEE Transactions on Automatic Control*, vol. 42, pp. 200-215,1997.
- 5. L. El Ghaoui, <u>S.-I. Niculescu</u>: "Robust decision problems in engineering: An LMI approach," in *Advances in LMI methods in control* (L. El Ghaoui, S.-I. Niculescu, Eds.), SIAM, pp. 3-37, 1999.

#### Five Collaborators (total number: 136), alphabetic order:

- Prof. Chaouki T. ABDALLAH, University of New Mexico at Albuquerque, USA
- Prof. Anuradha M. ANNASWAMY, MIT at Cambridge, USA
- Prof. Vladimir L. KHARITONOV, Saint Petersburg State University, Saint Petersburg, Russia
- Prof. Vladimir RASVAN, University of Craiova, Romania
- Prof. Rifat SIPAHI, NorthEastern University at Boston, USA

#### **Graduate Advisors:**

- Jean-Michel DION, DR at CNRS & Luc DUGARD, DR at CNRS (GIPSA-Lab, Grenoble, France)

## Five Graduate Advisees (total number: 20 PhD students, 15 graduated, 5 in progress):

- Chi JIN (in progress, since July 2015)
- Dina IROFTI (in progress, since October 2014)
- Ionela PRODAN (graduated in 2012): now Associated Professor at Grenoble INP Esisar, LCIS
- Bogdan LIACU (graduated in 2012): now R&D Engineer at SNECMA, Villaroche, France
- Benjamin BRADU (graduated in 2010): now R&D Engineer at CERN, Genève, Switzerland

#### **Postdoctoral Advisor**

- Prof. Laurent EL GHAOUI (ENSTA Paris, now UC at Berkeley, USA).

## Five Postdoctoral Advisees (total number: 10, 1 in progress):

- Hakki Unal Ulas (2015-2016): PhD from Andalou University (Turkey)
- Luca di CICCO (2012-2013): now, Researcher at Télécoms SudParis (France)
- Islam BOUSSADA (2010-2013): now, Associate Professor at IPSA Paris (France)
- Xu-Guang LI (2008-2009); now, Assistant Professor at Northeastern University, Shenyang (China)
- Peter S. KIM (2007-2008): now, Lecturer at University of Sydney (Australia)