

Curriculum Vitae et Studiorum

Rocco De Nicola

Short Biography

De Nicola is a full professor of Computer Science at IMT School for Advanced Studies, Lucca and collaborates with the Gran Sasso Science Institute (GSSI) in L'Aquila where he has coordinated for the first four years the PhD program in Computer Science. De Nicola received the Laurea degree in Computer Science from the University of Pisa (Italy) in 1978 and the PhD degree in Computer Science from the University of Edinburgh (UK) in 1985.

From 1995 till 2011, he has been a full professor at Dipartimento di Sistemi e Informatica of the University of Florence (Italy). From 1990 till 1995, a full professor at the Dipartimento di Scienze dell'Informazione of the University of Rome "La Sapienza" (Italy). Before that, he was a full-time researcher at IEI-CNR in Pisa, worked at Edinburgh University and for Italtel in Milano, and held two research grants from Olivetti Ivrea.

De Nicola has been a *visiting professor* at *Technical Universität of Berlin* in 1996, at *Ecole Normale Supérieure* de Paris in 2004 and at *Ludwig-Maximilians-Universität* in Munich in 2004 and in 2013; he has also been a *visiting researcher* at *Microsoft Research Laboratories* in Cambridge (UK) in 1999 and 2003.

Education

- PhD in Computer Science from Department of Computer Science of University of Edinburgh (UK) - May 1985.
- Laurea (*magna cum laude*) in Scienze dell'Informazione at Pisa University - December 1978.

Working Experiences

- *July 2011- today*. Full Professor of Computer Science at IMT - School for Advanced Studies, Lucca.
- *November 1995 - June 2011*. Full Professor of Computer Science at the University of Florence.
- *November 1990 - October 1995*. Full Professor of Computer Science at University "La Sapienza" in Rome.
- *October 1982 - October 1990*. Researcher at Istituto di Elaborazione dell'Informazione of CNR in Pisa.
- *March 1981 - September 1983*. PhD student at University of Edinburgh.
- *May 1980 - February 1981*. Researcher at ITALTEL in Milan.
- *April 1978 - April 1980*. Grant from Olivetti to work on a joint project with Istituto di Elaborazione dell'Informazione (IEI) at CNR in Pisa.

Research and its outcomes

De Nicola's research aims at understanding the foundations of distributed computing and at applying the formal techniques based on these foundational studies to the development and the analysis of concurrent distributed systems. Current research concentrates on

- Models and Languages for Open Distributed Systems
- Network Aware Programming
- Service-Oriented Computing
- Specification of Qualitative and Quantitative Properties of Distributed Systems
- Abstract Models for Security and Cryptographic Process Calculi
- Types for Access Control
- Cybersecurity

On these topics, De Nicola collaborates with researchers from many national and international institutions and is the author of more than 200 publications in international refereed journals and conference proceedings. De Nicola has also edited books and special issues of journals. The list of the main research-related publications is reported at the end of this document. Here we report some important recognitions:

Titles: De Nicola has been honored with the title of "Commendatore al Merito della Repubblica Italiana".

Honors: De Nicola is a member of Academia Europaea and a fellow of EATCS.

Citations: De Nicola is one the ISI-Thomson highly cited researchers.

A United States Patent 6751619 "Methods and apparatus for tuple management in data processing system" has been registered with Rocco De Nicola and Antony Rowstron as inventors.

De Nicola is a member of IFIP Working Groups 2.2 , 1.6 and 1.8. He is also a member of Gruppo 2003 (an association of leading Italian scientists) and has served in the executive board of the association.

Teaching

At Florence and/or Rome University, De Nicola has taught: Concurrent Programming, Specification and Analysis of Concurrent Systems, Computer Security, Operating Systems, Algorithms and Data Structures, Computer Architectures, Computability and Formal Languages, Foundations of Programming Languages.

De Nicola has supervised the PhD or master work of several students. Some of them (Luca Aceto, Lorenzo Bettini, Michele Boreale, Flavio Corradini, Daniele Gorla, Michele Loret, Rosario Pugliese, Roberto Segala, Emilio Tuosto, Francesco Tiezzi) are currently playing an important active role in international research and in Italian or European Universities.

Professional Services and Activities

De Nicola is currently:

- Editor in chief for the Journal of Logical and Algebraic Methods in Programming (Elsevier)

- Member of the editorial board of Mathematical Structures in Computer Science (Cambridge University Press).
- Member of the editorial board of
 - Electronics Proceedings in Theoretical Computer Science.
 - Springer Nature in Computer Science
- Member of the Steering Committee of
 - COORDINATION - International Conference on Coordination Models and Languages.
 - DISCOTEC - International Federated Conference on Distributed Computing Techniques.
 - SEFM - International Conference on Software Engineering and Formal Methods
- Chair of the Steering Committee of ITASEC - The Italian Conference on CyberSecurity.
- Member of the "Giunta Amministrativa" of CINI, a consortium of Italian universities for research in Informatics.
- Deputy director of Cyber Security National Lab of CINI.
- Member of Senato Accademico of IMT School
- Coordinator of the Working Group defining the Research Challenges on Cybersecurity for Piano Nazionale della Ricerca 2021-2027.

De Nicola has been

- Member of the advisory board of CITI: The Research Center for Informatics and Information Technologies (Portugal).
- Member of the advisory board of MT-LAB: Modelling of Information Technology (Denmark).
- Coordinator of the PhD Program in Computer Science at Gran Sasso Science Institute (GSSI) in L'Aquila.
- Coordinator of the PhD Program in Computer Science and Applications at IMT.
- Coordinator of the PhD Program in Informatica ed Applicazioni at University of Florence.
- Director of Studies of the Bachelor (Diploma) and Master (laurea) Curriculae in Informatics at University of Florence.
- Deputy Rector for the management of Information System of University of Florence.
- Vice-President of the board of (5) professors leading CSIAF, the center for computer-based services of University of Florence.
- Deputy Director of Dipartimento di Sistemi ed Informatica at University of Florence.
- Vice-president (Coordinator of the Scientific Committee) of GRIN, the association of all researchers in Computer Science at Italian Universities.
- Chairman of the Steering Committees of the International Conference on Coordination Models and Languages.

- Chairman of the Steering Committees of the International Symposium on Trustworthy Global Computing.
- Member of the Consiglio Accademico of IMT.
- Member of the "Consiglio Direttivo" of IMT, Lucca.
- Member of the Consiglio Consortile of CINECA, a consortium of Italian universities for IT services Committees.
- Member of the "Consiglio di Amministrazione" of LUCENSE, a research company in Lucca.

Moreover, De Nicola has served as General Chair of PLI 2001, Conference Chair of PPDP 2001, Program Chair of COORDINATION 2004, TGC 2005 and ESOP 2007, member of the Steering Committee of ETAPS. He has also been a member of the program committee of important international conferences, such as AMAST, CAAP, CONCUR, COORDINATION, FCT, ICALP, LICS, MA, MFCS, PROCOMET, PPDP.

De Nicola has also been *invited speaker* for many international conferences and schools among which IFIP World Congress 1986, COORDINATION 1999, CONCUR 2000, EXPRESS 2004, FMCO 2004, DAIS-FMOODS 2005, QAPL 2006, FSEN 2019.

Recent Research Project

De Nicola is or has recently been principal investigator in projects funded by MIUR, CNR, Microsoft and European Union:

AGILE: *Architectures for Mobility*

2001-2004 IST FET Global Computing - EU 150.000 Euro (Site Coordinator)

MIKADO: *Models and Calculi for Mobility*

2001-2004 IST FET Global Computing - EU 500.000 Euro (Site Coordinator)

NAPI: *Network Aware Programming in Italy*

2001-2004 Microsoft Research Cambridge 400.000 Euro (Project Leader)

NAPOLI: *Network Aware Programming: Objects Languages and Implementations*

2002-2003 MIUR - Italy 300.000 Euro (National Coordinator)

SP4: *Architetture Software ad Alta Qualità di Servizio per Global Computing su Cooperative Wide Area Networks*

2002-2005 Progetto SP4 - CNR 110.000 Euro (Site Coordinator)

SENSORIA: *Software Engineering for Service Oriented Architectures*

2005-2008 IST FET Global Computing - EU 400.000 Euro (Site Coordinator)

PaCo: *Performability-Aware Computing: Logics, Models, and Languages*

2008-2010 MIUR - Italy 20.000 Euro (Site Coordinator).

ASCENS: *Autonomic Service-Component Ensembles*

2010-2014 IST FET Self-Awareness in Autonomic Systems - EU 400.000 Euro (Site Coordinator)

CINA: *Compositionality, Interaction, Negotiation, Autonomicity*

2013-2016 MIUR - Italy 600.000 Euro (National Coordinator)

WILIFE: *WiReLess and Ict technologies For Emergency management*

2013-2016 Regione Toscana - Italy 200.000 Euro (Site Coordinator)

QUANTICOL: *A Quantitative Approach to Management and Design of Collective and Adaptive Behaviours*, EU 400.000 Euro (Site Coordinator)
2013-2017 IST FET Foundations of Collective Adaptive Systems - EU 400.000 Euro (Site Coordinator)

IT-MATTERS: *Methods and Tools for Trustworthy Systems*
2019-2021 MIUR - Italy 700.000 Euro (National Coordinator)

SPARTA: *Re-imagining the way cybersecurity research, innovation, and training are performed in the European Union* - 2019-2022 EU 220.000 Euro (Site Coordinator)

TOFFEE: *Tools for Fighting Fakes* - 2019-2022 IMT Internal PAI project 320.000 Euro (Coordinator)