

Mariagrazia Dotoli, SMCS eNewsletter Editor

IEEE Systems, Man, and Cybernetics (SMC) Magazine introduces Mariagrazia Dotoli, associate professor of control systems engineering at Politecnico di Bari, Italy, and editor of the SMC Society (SMCS) eNewsletter (<http://ieeesmc.org/newsletters/>). The eNewsletter was started in 2003 and is published quarterly. It is available on the web and is distributed by e-mail to the members of the Society. The eNewsletter allows the timely publication of information useful to SMCS members on topics including, but not limited to, research ideas and discussions on emerging areas, information about research groups and research activities, reports on SMC-sponsored conferences and workshops, reports on activities of SMC Technical Committees and local Chapters, and information on job openings and research funding opportunities.

SMC Magazine: What is your current position, and what are your research areas and interests?

Dotoli: I am currently an associate professor in control systems engineering at the Department of Electrical and Information Engineering of Politecnico di Bari, which I joined in 1999 as assistant professor. My research interests

include the automation, control, and optimization of discrete event systems, fuzzy systems, manufacturing systems, logistics and transportation systems, and energy systems.

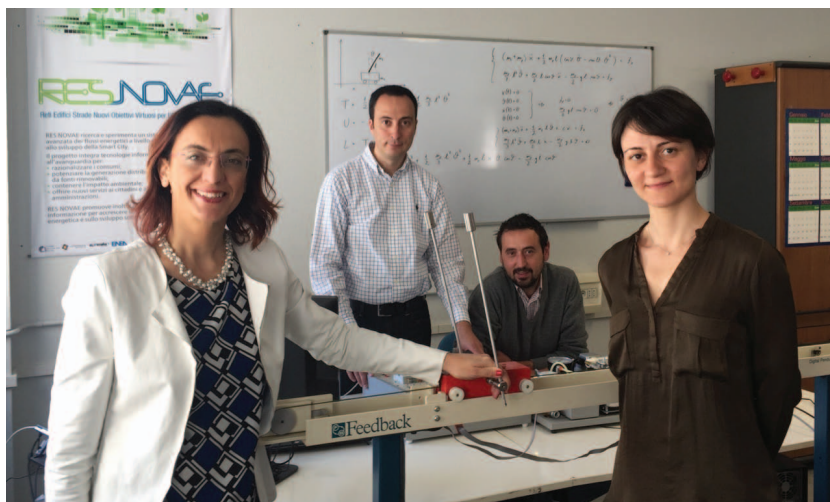
SMC Magazine: What motivates you to do research, teaching, and volunteering?

Dotoli: To me, being a university professor is the best job in the world because it allows me to combine three different jobs: teaching, researching, and volunteering. Teaching allows me to be in close and constant contact with the minds of the future, which is both exciting and inspiring. Re-

search, on the other hand, means being confronted in a foreign environment with new challenges every day rather than working in a comfort zone repeating familiar tasks. Research also allows me to support my research group: helping a young researcher move forward in his or her career is very motivating. Finally, volunteering has allowed me to freely choose new opportunities, which, by lending my skills to our scientific community, at the same time helps develop my career by encouraging me to take on responsibilities and network with global connections.

SMC Magazine: Who are your role models? Why?

Dotoli: I have several. First of all, Marie Skłodowska Curie. She was an endowed woman, researcher, and pioneer, who received two Nobel Prizes in different subjects and was the first woman to ever receive a Nobel. For a woman and researcher like me, working in a science, technology, engineering, and



Dotoli (left) with the research group of the Decision and Control Laboratory of Politecnico di Bari. (From left) Raffaele Carli, Nicola Epicoco, and Graziana Cavone.

math education area, where women are still underrepresented, she is definitely a role model. She was also the mother of a Nobel laureate, Irene Joliot-Curie, and as such, she is also a role model for mothers raising daughters, as myself.

Another role model to me is Leonardo da Vinci. As an Italian and an engineer, I am proud of the incredible achievements of this genius, not only as an engineer but also as an inventor, mathematician, painter, writer, and in many more roles. To me, he has most brilliantly shown that talent together with curiosity and imagination can lead you to unprecedented heights.

Finally, a closer role model to me is my father, Giovanni Dotoli. Being the first of four sons of two poorly educated but very smart farmers, he was able to find his way in life to become a poet, writer, and university professor of French, both in Italy and in France at the prestigious Sorbonne University. In 1999, the French government honored him with the Legion of Honor for French Studies, an achievement that is rarely obtained by nonnative French speakers, most notably in the domain of French literature and language. He is also a dedicated husband, father, and (most recently and importantly) grandfather. I am proud to be his daughter and would consider myself lucky if I have inherited one-tenth of his passion for life.



Dotoli with the user interface of the Urban Control Center, a decision support system developed by the Decision and Control Laboratory of Politecnico di Bari in cooperation with IBM Italy and Enel Distribuzione in the framework of the smart city research project "Res Novae."

SMC Magazine: How did you get started as a volunteer in IEEE and elsewhere?

Dotoli: During my Ph.D. in electrical engineering, I volunteered to be a reviewer for several journals of IEEE and the International Federation of Automatic Control (IFAC) and conference proceedings in the automation and control area. I was also elected president of the IEEE Student Branch of Politecnico di Bari. Then I became a member of various IEEE Societies: the IEEE Systems, Man, and

Cybernetics Society (SMCS), the IEEE Control Systems Society, and the IEEE Robotics and Automation Society, and I started working in some technical committees of the IEEE and IFAC. I have also been active in the organization of several international conferences, serving in various roles: special session chair, workshop and tutorial chair, organizing committee chair, and member, and program committee member. I am currently an associate editor of three IEEE journals: *IEEE Transactions on Control Systems*



Dotoli with Karl Johan Åström at a dinner reception of the 2015 IEEE Conference on Automation Science and Engineering.



Before the ceremony of the 2014 academic year opening at Politecnico di Bari, (from left) Dotoli, David Naso, Astronaut Roberto Vittori, and Riccardo Amirante.



Dotoli between her father, Prof. Giovanni Dotoli, and her husband at their wedding in 2001.



Dotoli with her husband, attorney Antonio Falagario, before the beautiful bay of Ravello, Naples, Italy.



Dotoli with her husband and their two daughters, Francesca (left) and Giovanna (right), preparing for rafting on the Lao River in the Pollino Park, Basilicata, Southern Italy.

Technology, IEEE Transactions on Automation Science and Engineering, and IEEE Robotics and Automation Letters. Last but not least, I have recently been appointed the editor of the SMCS eNewsletter. I find it quite remarkable that volunteering provides you with so many growth opportuni-

ties that definitely outdo the amount of work that you volunteer for.

SMC Magazine: What was your early work for SMCS?

Dotoli: After becoming a member of the SMCS over a decade ago, I was involved in the founding of the

central and southern Italy section of the SMCS, of which I have ever since been an active member. My early work in the SMCS started with performing reviews for scientific papers in my fields of interest that had been submitted to SMC conferences and journals. Later on, my work for SMC extended to becoming a program committee member of several SMC-sponsored conferences and symposia. I have also organized numerous special sessions and workshops in these conferences. All of these were excellent occasions for networking and improvement, both from a scientific and personal standpoint.

SMC Magazine: How and why did you volunteer to serve SMCS?

Dotoli: As I mentioned earlier, volunteering, in particular for SMCS, has given me responsibilities but also challenges and opportunities: a great motivation for a person like myself, full of curiosity, eagerness to



Dotoli during a bright, sunny day on the ski trails in Pila, Italian Alps.

learn, and will to self-improve. It is definitely a win-win situation.

SMC Magazine: What have been the most challenging aspects in your volunteering work for SMCS?

Dotoli: Up to now, the most challenging aspect of my volunteering work for SMCS has definitely been the editor of the Society eNewsletter role that I just recently took over. My first challenge is to increase readership. I would like to share the eNewsletter not only via e-mail and the web (as it currently is) but also via social media to expand our network with new professionals, while keeping members informed in a direct and easy way. The second challenge is to increase content, both from a technical and informative standpoint. We have started including interviews with inspiring members of our community in the eNewsletter and presenting short sections focusing on relevant scientific and technological trends. Moreover, we provide readers with frequent and regular information on upcoming conferences, call for papers, journals and books, workshops and tutorials, graduate schools, and open positions.

SMC Magazine: What is your proudest achievement?

Dotoli: A professional achievement I am very proud of is obtaining the Italian national qualification for full professor in control systems and engineering in 2013. I was still an assistant professor then and only three assistant professors, including myself, in the whole country achieved this award. However, my proudest achievements are two: my daughters Francesca and Giovanna, who surprise me every day with their joy and love for life.

SMC Magazine: Can you tell us something more about your social life?

Dotoli: My husband, Antonio, is a defense attorney, and our two bright and crazy daughters are in third and second grade. We live in Bari, the capital of the Apulia region of Italy, near the seaside. Being a real southerner,

the sea is one of my passions—I go to the beach to swim or simply relax with my family whenever I can. I also like music and go to gigs of my favorite singer, American-Lebanese artist Mika, on every possible occasion. I find his music and lyrics to be very inspiring, and I am one of the two country representatives of the Mika Fan Club. Another hobby of mine is the gym—I am attending a “military walking” class at present. Last but not least, traveling and visiting foreign countries is another passion. Having lived there during my studies, Paris is like a second home to me, and each year I try to spend a few weeks in France with my family.

SMC Magazine: Can you give us some biographical highlights?

Dotoli: I am 44 and earned a degree in electronics engineering when I was 24 at Politecnico di Bari. I spent the last year of my university course at Paris 6 University, where I started my research on fuzzy control with Prof. Bernadette Bouchon-Meunier. I then enrolled for a Ph.D. course in electrical engineering at Politecnico di Bari and spent half of the Ph.D. at the Danish Technical University in Copenhagen, Denmark, where I continued my studies on soft computing and intelligent control under the guidance of Prof. Jan Jantzen. I subsequently won a position of assistant professor in control systems engineering at the Department of Electrical and Information Engineering also at Politecnico di Bari, where I am currently an associate professor.

My interests have recently shifted from control more to automation and optimization, with particular application to energy and transport systems. A recent success was the RES NOVAE Project, financed by the Italian Ministry of University and Research under the Smart Cities Initiative and reputed to be one of the nation's best practices in terms of energy management of smart cities. In RES NOVAE, my research group has been active in the design and development of the Urban Control Center (UCC), a decision

and support system that helps the public administration of a smart city make decisions on energy efficiency. The UCC monitors the smart city performance and implements strategic action programs for the smart city management.

SMC Magazine: How do you see the SMCS of the future?

Dotoli: SMCS is a very multidisciplinary Society, with its three core subjects: systems science and engineering, human-machine systems, and cybernetics. In this context, I believe that SMC will expand from traditional research fields toward emerging areas for example, autonomous systems, social networks, brain modeling, etc. I am also convinced that this process will lead the SMCS to establishing collaborations with related IEEE Societies and extending toward the broader engineering community.

SMC Magazine: What is the most coveted reward that you seek?

Dotoli: Professionally, my most coveted reward is to be able to continue doing research and expanding my young research group at Politecnico di Bari at the recently established Decision and Control Laboratory. From a personal perspective,



Dotoli with her daughters, (from left) Francesca and Giovanna, relaxing on the Bari waterfront.

my wishes are for the health and happiness of my family.

SMC Magazine: What worries keep you up at night?

Dotoli: My anxiety is, of course, related to the future of my kids.

I would like them to be two independent and strong women who will be able to take their future into their own hands. Besides providing my support and that of my husband, I am encouraging them to study, learn languages, travel,

play musical instruments, practice sports, be exposed to art, and, in general, have a passion for life. I must admit I am not having a difficult time, though, since in this aspect they are definitely true Italians!

Prof. Goldgof, Member of the SMC Board of Governors

Dmitry B. Goldgof is an educator and scientist working in the area of medical image analysis, image and video processing, computer vision and pattern recognition, ethics and computing, bioinformatics, and bioengineering. He is currently a professor in the Department of Computer Science and Engineering at the University of South Florida (USF) in Tampa, professor in the Department of Oncological Sciences, USF Health, and a member of the H. Lee Moffitt Cancer Center and Research Institute.

Previously, Goldgof held visiting positions at the Department of Computer Science at the University of California at Santa Barbara, the Department of Computer Science at the University of Bern in Switzerland, and the Moffitt Cancer Center. Goldgof is proud to have graduated 24 Ph.D. and 43 M.S. students. In 2008, he was honored by the USF Theodore and Venette Askounes-Ashford Distinguished Scholar Award. Prior to his academic career, he worked as a systems engineer and developer of early computer graphics software.

He is well known in the field of computer science and engineering,

especially in the research areas of biomedical image analysis, computer vision, and associated biomedical applications. His contributions are many, including five edited volumes, 20 book chapters, and over 85 journal articles and numerous conference publications. The impact of Goldgof's research is evidenced by the large number of citations of individual papers and an h-index of 44.

Goldgof has contributed broadly and internationally to the field for many years, and in 2007, his contributions were acknowledged by his selection as IEEE Fellow "for contributions to computer vision and biomedical applications" and then also in 2010 by the selection as Fellow of the International Association of Pattern Recognition "for contributions to computer vision, pattern recognition, and biomedical engineering."

His specific research contributions lie in two broad categories. The first is in the area of biomedical image analysis and machine learning with application in magnetic resonance imaging, computed tomography, and microscopy images, radiomics, and bioinformatics. The second is the area of motion analysis, including biometrics, face analysis and surveillance applications.

Additional interests include high-performance issues of image analysis and machine learning algorithms and their performance evaluation.

Goldgof's contributions to the profession include outstanding professional service. He is a member of the IEEE Systems, Man, and Cybernetics Society (SMCS), the IEEE Computer Society, and the IEEE Engineering in Medicine and Biology Society. He is serving on the IEEE Press editorial board (2012–2014, 2015–2017) and as an associate editor for *IEEE Transactions on Cybernetics*. He is a member of the SMC Board of Governors (2007, 2010–2011, and 2015–2017) and was chosen as a member of the IEEE Computer Society and SMCS Fellows Evaluation Committees (2008–2009, 2011–2016). Goldgof has served as an IEEE Computer Society Distinguished Visitor (2004–2006) and as an associate editor for *IEEE Transactions on Image Processing* (1996–1998).

He is also active outside IEEE, serving as an associate editor for the *International Journal of Pattern Recognition and Artificial Intelligence* (2008–present), North American editor for the *Image and Vision Computing* journal (1998–2007), and associate editor for the *Journal of Pattern Recognition* (1990–2001). Goldgof is active within the U.S. National Institutes of Health Quantitative Imaging Network. He has served as cochair of the Image Analysis and Performance Metrics Working Group and its subgroups (2011–2013) and on the Radiological Society of North America Quantitative Imaging Biomarkers Alliance (2012–2013).

SMC