

## Citation Lifetime Achievement Award

Erling Moxnes and Hazhir Rahmandad

The System Dynamics Society occasionally recognizes outstanding contributions to the field through a Lifetime Achievement Award. This award is given to an individual based on a career spanning decades of contributions to System Dynamics. It contrasts with the Jay Wright Forrester Award, which recognizes a single piece of work completed in the prior 5 years. The Lifetime Achievement Award has only been given four times before to: Geoff Coyle in 1998, Diana Fisher in 2011, John Richardson in 2013, and Jørgen Randers in 2014. It is an honor for me today, on behalf of the Forrester Award Committee, to present the fifth lifetime achievement award in our history to Professor Ali N. Mashayekhi, for his nearly forty years of leadership in building a remarkably strong foothold for System Dynamics in his home country Iran. Congratulations Ali.

Ali will speak about how he built prestigious academic institutions in which System Dynamics is a central method of analysis. Ali's career is as taken out of Forrester's teaching. He has a strong academic background with a large number of publications, including four books in Farsi about oil and development, management, learning, and System Dynamics. He also advises government agencies, including the Iranian ministries of Power, Heavy Industry, Housing, and the Plan and Budget Organization, and he consults extensively with companies, including the Iran National Petrochemical Company, the conglomerate Mostazafan Foundation, and McKinsey & Co in the USA. Finally, he has changed system structure by building new institutions, including founding and serving as the president of Nazm-Avaran Management Consulting Company in Tehran. And, as many of you know, in 2001 he served as the President of the System Dynamics Society.

Thirty years ago, in 1987, Ali started teaching System Dynamics at the prestigious Sharif University of Technology. Since then, his System Dynamics course has regularly enrolled about 120 students per year. In 1989, he established a new educational institution, the Institute for Research in Planning and Development, which later became the Institute for Management and Planning Studies. In 1991, he launched the Journal of Development and Planning, published quarterly in Farsi. In 1998 he founded the Graduate School of Management and Economics at Sharif University, which teaches System Dynamics as a central method.

On a personal note, at the Master Program in System Dynamics at the University of Bergen, I have enjoyed working with excellent students from Iran over many years, testifying to the quality and quantity of System Dynamics in Iran under Ali's leadership. One of Ali's former students is familiar to many of you, Professor Hazhir Rahmandad, who received the Jay Wright Forrester Award in 2015 and who exemplifies the impacts of Ali's teaching and mentorship for students. I invite Professor Rahmandad to the podium to say more about Ali and the Iranian experience.

In fall of 1997 I was a clueless sophomore in Sharif University, Iran, when I heard from seniors that an MIT-trained faculty member of our department is back from sabbatical and is offering a course in systems analysis that I should not miss. That course shaped my career and changed my life. I was lucky to learn from Ali then, and happily I have been one of many. Ali's introductory course in System Dynamics is extremely popular in a predominantly engineering school with bright students hungry for understanding their society and economy through a rigorous analytical lens. After taking this course some decide to change their careers and study management, economics, or other social sciences at the graduate level; and many more start to see the world differently, making sense of complex social problems through the lens of stocks, flows, and feedback.

Ali has always cared deeply about Iran and has reached the conclusion that his leverage lies in educating future policy makers. Yet, his genius is not only in being a superb teacher and modeler, but in building impactful educational institutions that teach the right stuff. You could say, Mashayekhi's principle is: teach a class and you influence dozens of students, build a program and you touch thousands.

So even though universities are conservative and full of inertia, Ali has made a career of spearheading institutional innovation in academia. After finishing his Ph.D. in System Dynamics under the late and great Jay Forrester he returned to Iran and started a new Industrial Engineering department at Isfahan University, a Masters program there in engineering socio-economic systems, a Masters program in systems management at Sharif University, and later the Institute for Management and Planning Studies, which for years has served as the premier training ground for Iranians with interest in policy. He did all this while the country was undergoing revolution and war and facing resource scarcity. Later Ali somehow convinced Sharif University, Iran's most prestigious technical school, to start

a college of management and economics, where since 2000 he and his colleagues have been admitting and training some of the best talent in the country.

The cumulative impact of these initiatives are immense. For example, just in the past 5 years, former System Dynamics students of Ali have joined the faculty of many top management and economics programs including those at Stanford, Berkeley and MIT, Kellogg, London Business School, and Yale, among others; moreover several have returned to Iran after getting their PhDs in the west, some staffing the same institutions they graduated from. More important, and harder to measure, is the impact of thousands of Iranian managers and policy makers, some at the highest levels of the government, who have studied in those institutions. Now add to that Ali's many other engagements with the industry, policy circles, and the public, from consulting to membership in company boards, to his online system dynamics course, and you start to see why some Iranian students think system dynamics is the most prominent subject taught in every business school worldwide.

Iran is a developing country on a long and complicated path towards more open institutions and shared prosperity. I can think of few people who have done more in building that path than Ali has. Having combined pragmatism and optimism with systems thinking to change the world for forty years, Ali inspires us not only to practice system dynamics but also to live it. I am honored to congratulate Ali on his achievements and on receiving the System Dynamics Society Lifetime Achievement Award.