# SANG-GOOK KIM

#### Professor

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Professional Preparation			
Seoul National Univ., Korea	Mechanical Engineering	B.S., 1978	
KAIST, Korea	Production Engineering	M.S., 1980	
M.I.T.	Mechanical Engineering	Ph.D., 1985	
Positions and Appointments			
Micro/Nano Area Head, Mechanical Engineering Department, MIT		2013 –	
Professor, Department of Mechanical Engineering, MIT		2011 –	
Director, Park Center for Complex Systems, M.I.T		2006 –	
Associate Professor (Tenured), Department of Mechanical Engineering, MIT		MIT 2006 – 2011	
Esther & Harold E. Edgerton Associate Professor of Mech. Engineering, MIT		MIT 2000 – 2006	
Executive Corporate Director, Daewoo Electronics Co., Korea		1994 – 2000	
Adjunct Professor, Ajou University, Korea		1993 – 2000	
General Manager, Daewoo Corp., Korea,		1991 – 1994	
Senior Research Staff, Korea Institute of Science & Technology, Korea		1986 – 1991	
Manufacturing Manager, Axiomatics Co., Cambridge, MA		1985 – 1986	

## **Publications**

## 5 most relevant

- S. Jahanmir, N. Saka, C. Tucker III, S.G. Kim (Eds.), Advances in Multidisciplinary Engineering, ASME Press, NY, 2016
- Nordlund M., T. Lee, H. Oh, S.G. Kim, "Axiomatic design: Making the abstract concrete," 26th CIRP Design Conference, Procedia CIRP Volume 50, 2016, Pages 216–221
- 3. J. Peck, S-G. Kim, "Improving Patient Flow through Axiomatic Design of Hospital Emergency Departments," Journal of Manufacturing Science and Technology, Vol.2, Issue 4, P. 255-260, 2010
- S.G. Kim and M. Koo, "Design of a microactuator array against the coupled nature of microelectromechanical systems (MEMS) processes", Annals of the CIRP (Int'l Academy for Production Engineering), Vo. 49, No. 1, 2000
- 5. S.J. Kim, N.P. Suh, and S.G. Kim, "Design of Software System based on Axiomatic Design", *Annals of the CIRP (Int'l Academy for Production Engineering)*, Vol. 8, 40/1, 1991

## 5 most significant

 Chou, J. B., Yeng, Y. X., Lee, Y. E., Lenert, A., Rinnerbauer, V., Celanovic, I., Soljačić, M., Fang, N. X., Wang, E. N. and Kim, S.-G "Enabling Ideal Selective Solar Absorption with 2D Metallic Dielectric Photonic Crystals "Advanced Materials, V. 26, Issue 47, p.7922, 2014 (Inside front cover article)

- S. Ryu, P. Lee; J. Chou, R. Xu, R. Zhao, J. Hart, S.G. Kim, "Fabrication of extremely elastic wearable strain sensor using aligned carbon nanotube fibers for monitoring human motion," ACS Nano, 2015, 9 (6), pp 5929-5936
- S.G. Kim, S. Priya, I. Kanno, "Piezoelectric MEMS for Energy Harvesting," MRS Bulletin, 37, p.1039, Nov. 2012
- 9. N. DuToit, Wardle, B. L., and S.-G. Kim, "Design Considerations for MEMS-scale Piezoelectric Mechanical Vibration Energy Harvesters", *Integrated Ferroelectrics*, Vol. **71**, P. 121, 2005
- 10. Y. B. Jeon, R. Sood, J. H. Jeong and S.G. Kim, "Piezoelectric Micro Power Generator for Energy Harvesting," *Sensors and Actuators A: Physical*, **122**, No. 1, P16, 2005

#### **Synergistic Activities**

- 1. Fellow of the CIRP (International Academy for Production Engineering Research)
- 2. Fellow of ASME (American Society of Mechanical Engineers);
- 3. Organizer, ASME Society-wide Micro and Nanotechnology Forum, IMECE 2006, IMECE 2007; Track Co-Organizer, Symposium "Advances in Multidisciplinary Engineering", IMECE 2015 Track 19, Houston
- 4. Editorial Board and Associate Editor, Journal Energy Harvesting and Systems De Gruyter, Boston, 2013
- 5. Editorial Board, Journal of Manufacturing Science and Technology (CIRP-JMST), 2009 -