

# RESUME of SUNG HYUN PARK

**Prof. Sung H. Park**

**President, Korean Academy for Science and Technology**

e-mail address: [parksh@snu.ac.kr](mailto:parksh@snu.ac.kr), parksh@kast.or.kr

## Education

B.S., 1968, Seoul National University, Seoul, Korea

Major : Chemical Engineering

M.S., 1972, North Carolina State University, U.S.A.

Major : Operations Research

Minor : Statistics

Thesis title : A branch-and-bound method for the sequencing problem of  $n$  jobs on  $m$  machines in parallel (advisor: Salah E. Elmaghraby)

Ph. D., North Carolina State University, U.S.A.

Major : Statistics

Minor : Operation Research

Thesis title : Experimental designs for estimating the slope of second order polynomial response surfaces.  
(advisor : Robert J. Hader)

Field of interest : 1. Design of Experiments, Regression Analysis  
2. Statistical Quality Control  
3. Quality Engineering, Sustainable Development

## Employment and academic experiences

September 2013 – present: A member of the Presidential Advisory Council on Science and Technology

March 2013 – present: President, Korean Academy for Science and Technology

March 2012 – present: Chair Professor, Department of Management of Technology, Konkuk University

January 2010 – January 2012: Director, Directorate for Basic Research in Science and Technology, National Research Foundation of Korea.

August 1977 – February 2010 : Assistant Professor, Associate Professor and Professor, Dept. of Statistics, College of Natural Sciences, Seoul National University

January 1991 - February 1991 : Visiting professor, Dept. of Statistics, Dortmund University, Dortmund, Germany.

June 1990 - September 1990 : Visiting professor  
Institute of Statistical Mathematics, Tokyo, Japan

January 1984 - February 1984 : Visiting professor, Dept. of Mathematics and Statistics, Okayama University, Japan.,

January 1980 - February 1980 : Visiting professor, Dept. of Statistics, North Carolina State University, U.S.A

January 1975 - August 1977 : Assistant professor, Dept. of Business, Statistics and Data Processing Business School, Mississippi State University, Mississippi, U.S.A.

March 1968 - June 1970 : ROTC Ordnance and Interpreter officer, Korea Army, Korea.

## **Professional societies**

Member of : International Academy for Quality (Academician)  
International Statistical Institute (Council Member, 1997-2001)  
International Society for Business and Industrial Statistics  
(Vice president, 2005 - 2007)  
American Statistical Association (Fellow, 2010 – present)  
American Society for Quality (Fellow, 2013 - present)  
Korean Statistical Society  
Korean Society for Quality Management  
Korean Sustainability Science Society

## **Professional activities**

1. President, Korean Society for Quality Management (1999-2001)
2. President, Korean Statistical Society (1995-1997)
3. Member of Statistical Committee, The National Statistical Office, Korean Government (1980-2008)
4. Quality Management Consultant: Many Korean companies including Samsung, LG, Hyundai Automobile, etc.
5. International Editorial Board Member, Total Quality Management & Business Excellence (2002-present)
6. Editorial Board Member, International Journal of Industrial Engineering - Applications and Practice (1994-present)
7. Director, The Research Institute for Basic Sciences, Seoul National University (1995-1997)
8. Council Member of the International Statistical Institute (1997-2001)
9. Vice President, Office of Student Affairs, Seoul National University (1997.3 -1998. 12)
10. Dean, College of Natural Sciences, Seoul National University (2000. 12 - 2002. 12)
11. Vice President, International Society for Business and Industrial Statistics (2005. 4. - 2007. 8)
12. Chairman, Faculty Senate of Seoul National University (2005. 11 - 2007. 10)
13. Vice President of the Korean Academy of Science and Technology (KAST) (2010. 3. – 2013.2)
14. Director, Directorate for Basic Research in Science and Engineering, National Research Foundation of Korea (2010. 1 – 2012.1)
15. President, Korean Sustainability Science Society (2010.9 – 2012.9)
16. President, the Korean Academy of Science and Technology (2013.3 – present)

## **Published Papers** (International Journals) : Total 60 papers

Selected recent papers:

1. Rabin N. Das, Sung H. Park and Manohar Aggarwal (2010), On D-optimal robust second order slope-rotatable designs, Journal of Statistical Planning and Inference, Vol. 140, Issue 5, May 2010, ISSN 0378-3758.
2. Hee J. Park and Sung H. Park (2010), Extension of central composite designs for second order response surface model building, Communications in Statistics: Theory and Methods, Vol. 39, Issue 6, p. 1-10, Taylor & Francis Group, LLC, ISSN: 0361-0926.

3. Zhen He, Jing Wang, Jinho Oh and Sung H. Park (2010), Robust optimization for multiple responses using response surface methodology, Applied Stochastic Models in Business and Industry, Vol. 26, p. 157-171.
4. R.N. Das and Sung H. Park (2010), On D-optimal robust first order designs, Journal of Statistical Theory and Applications, Vol. 9, No. 2, p.217-232, Gowas Publishing House.
5. Rabin N. Das, Sung H. Park and Manohar Aggarwal (2010), Robust second order slope-rotatable designs with maximum directional variance, Communications in Statistics: Theory and Methods, Vol. 39, No. 5, p. 803-814.
6. Eun Sun Yoo, Sung Hyun Park, Min Hyung Lee (2010), Comparison of the OECD nations through a comprehensive evaluation index for low-carbon green growth, STI (Science Technology and Innovation) Policy Review, Vol. 1, Number 2, Summer 2010, p. 51-58, ISSN 2093-3053.
7. Zhen He, Peng Fei Zhu and Sung Hyun Park (2012), A robust desirability function method for multi-response surface optimization considering model uncertainty, European Journal of Operational Research, Vol. 221, Issue 1, p. 241-247, August 16, 2012.

**Published papers (Korean Journals and Proceedings)**

Total: Journal papers - 111 papers  
 Proceedings papers - 86 papers

**Published books**

Total 60 books: Korean books - 49  
 English books - 4  
 Book chapters in English - 7

<Only English books and chapters are listed below.>

1. Park, Sung H.(1996): Robust Design and Analysis for Quality Engineering: Chapman & Hall, London, p. 329.
2. Park Sung H. and Vining Geoffrey (1999): Statistical Process Monitoring and Optimization: Marcel Dekker, New York, Edited book (total 27 papers edited) p. 504.
3. Park, Sung H. (2003), Six Sigma for Quality and Productivity Promotion, AsianProductivity Organization, p. 207.
4. Park, Sung H. and Antony, Jiju (2008): Robust Design for Quality Engineering and Six Sigma, World Scientific, Singapore, p. 545.

<Book Chapter>

5. Park Sung H. (1989): The statistical quality control in Korea and its practices in manufacturing processes; Recent Developments in Statistics and Their Applications, edited by J. Klein and J. Lee, Freedom Academy publishing Company, 313-331, 1989.
6. Park Sung H. Kim Jae J. (1997): Quality engineering using robust design and analysis; Industrial Statistics: Aims and Computational Aspects, A book chapter edited by C. P. Kitsos and L. Edler, 3-15, Physica-Velag, Heidelberg, Germany.
7. Park, Sung H. (1998): Statistical process control and its applications in Korean

- industries; with J. J. Kim, Quality Improvement Through Statistical Methods, Edited by B. Abraham, 121-134, Birkhauser, Boston, 1998.
8. Park, Sung H. (1998): Simultaneous optimization of multiple responses using a weighted desirability function; with J. O. Park, Quality Improvement Through Statistical Methods, Edited by B. Abraham, 299-312, Birkhauser, Boston, 1998.
  9. Park, Sung H. (2006): Concepts of slope-rotatability for second order response surface designs, a book chapter in the book "Response Surface Methodology and Related Topics", Published by World Scientific, New Jersey, Edited by Andre I. Khuri, p. 409-426.
  10. Park, Sung Hyun, Kim Hyuk Joo and Cho Jae-II (2008): Optimal central composite designs for fitting second order response surface linear models, a book chapter in the book "Recent Advances in Linear Models and Related Areas", p. 323-339, Physica-Verlag.
  11. Park, Sung H. (2011): Simple Linear Regression, a book chapter in the book "International Encyclopedia of Statistical Science", Edited by Miodrag Lovric, 1<sup>st</sup> edition, p. 1673, Springer, New York, January.