

Dr. WOO SOO KIM, P.Eng

Associate Professor in the School of Mechatronic Systems Engineering,
Simon Fraser University

Employment History

2016 Sept. - Current	Associate Professor, School of Mechatronic Systems Engineering, Faculty of Applied Sciences, <i>Simon Fraser University</i> .
2018 Jan. – 2018 Mar.	Visiting Professor, <i>EMPA- Swiss Federal Laboratory of Materials Engineering in ETH Domain</i> , Zurich in Switzerland.
2017 May – 2017 Oct.	Visiting Professor & Brain Pool Fellow, Department of Material Science and Engineering, <i>Seoul National University</i> in South Korea.
2010 Sept. – 2016 Aug.	Assistant Professor, School of Mechatronic Systems Engineering, Faculty of Applied Sciences, <i>Simon Fraser University</i> .
2009 Jan. - 2010 Aug.	Senior Research Staff Scientist, <i>Xerox Research Centre of Canada</i> , Toronto in Canada
2001 Dec. - 2002 Dec.	Visiting Research Staff, <i>Fraunhofer Institute of Silica Research</i> at Wuerzburg in Germany.

Educational Background

2009 PostDoc	<i>Massachusetts Institute of Technology (MIT)</i> , Department of Materials Science and Engineering, USA “Silver Nanoparticle Self-Assembly for Plasmonic Applications.”
2006 Ph.D.	<i>Korea Advanced Institute of Science and Technology (KAIST)</i> , Department of Materials Science and Engineering, South Korea “Nano Imprint Lithography with Surface Functionalized Sol-gel Hybrid Polymer toward Mechanically Durable Stamp Applications.”
2003 M.Sc.	<i>Korea Advanced Institute of Science and Technology (KAIST)</i> , Department of Materials Science and Engineering, South Korea “Soft Lithography of Sol-gel Hybrid Polymers for Photonic Applications.”
2001 B.Sc.	<i>Yonsei University</i> , Department of Materials Engineering, South Korea

Awards, Honors and Scholarships

2016	Title: <i>International Short Visit Award 2018</i> , Award: \$12,000, Type: Research, Organization: Swiss National Science Foundation
2010	Title: <i>Brain Pool Fellowship</i> : \$25,000, Type: Research, Organization: National Research Foundation of South Korea
2016	Title: <i>Hanwha Advanced Material Award 2016</i> , Award: \$13,000, Type: Research, Organization: Hanwha Corporation’s New Faculty Award
2010	Title: <i>Wendy McDonald</i> Endowed Research Fellow Award: \$5,000, Type: Research, Organization: Simon Fraser University
2009	Title: The first prize of <i>Quadrant Award 2007</i> : €15,000, Type: Research, Organization: ETH Zurich, Details: International PhD thesis competition in Polymeric and Composite Materials and Manufacturing Field held in ETH Zurich in Switzerland

Research Objectives

Over the past ten years as a Principle Investigator in Simon Fraser University, I have established a strong and flourishing research program in Additive Manufacturing of Printed Electronics. SFU's Additive Manufacturing Laboratory quickly became an interdisciplinary research training platform with a substantial critical mass of research personnel. Additive manufacturing is an emerging field that integrates the aspects of nanotechnology, material science, and mechatronics to design novel materials and manufacturing of energy, sensing robots, and their systems. My laboratory is equipped with the necessary facilities to generate transformative technological advances.

Publications & Patents: 1 book chapter, 57 refereed journal publications, 22 US patents, and 21 refereed conference proceedings have been published as a corresponding author.

Conferences, Workshops and Presentations: 45 invited talks from 2010, and 15 media interviews such as Maclean, New Scientist, ScienceDaily, AAAS EurekAlert!, and YTN broadcasting were given so far.

Research/Project Funding – Received: Total external funding received as PI: \$2,330,300 in total (from 2010 September to 2020 May) including NSERC DAS Award, three NSERC CRD, and international collaborative funds from S. Korea etc.

Supervision of Highly Qualified Personnel

Here is a summary for past HQP training in my lab: 1) Supervised one PDF, three PhD students, eleven MSc students, and twelve international visiting students to completion, 2) Currently supervise four PhD students and one MSc student, 3) Supervised 72 research Coop students, and 15 Undergraduate students by Capstone Design Projects, 4) Participated in 57 thesis examination for 37 PhD theses and 20 MSc thesis since 2010.

Active Service to the Academic Community

- **Evaluation Committee of Grant Proposals:** Member of NSERC Discovery Selection Committee in 2019, Engineering RTI Grants Selection Committee in 2017 to 2019.
- **Conference Session Organizer:**
 - Presider of the Next-generation nano-lithography session of PMSE, *ACS 2012 National meeting* in San Diego, USA, March 2012.
 - One of four Symposium BM4 organizers for Material Research Society's Fall Conference in Boston, 2016.
 - General Co-Chair of IEEE International Flexible Electronic Technology Conference in Vancouver, 2019 August.
- **Conference General Co-Chair:** organized and hosted IEEE International Flexible Electronic Technology Conference in Vancouver, 2019 August.
- **Award Committee Member:**
 - The 14th IEEE international conference on Nanotechnology in Toronto, August 2014.
- **Journal Editor:** One of the Editor in IEEE Transactions of Electron Devices since 2019.
- **Senior Member of IEEE** since 2020.