TEXAS STATE VITA

I. Academic/Professional Background

A. Name and Title

Name: Dr. In-Hyouk Song Title: Associate Professor

B. Educational Background

Degree	*Year*	*University*	*Major*	*Thesis/Dissertation*
PHD	2005	Louisiana State Univ A&M College	Electrical Engineering	
MSEE	2002	Louisiana State Univ A&M College	Electrical Engineering	
BS	1995	Sun Moon University, Korea	Electronic Engineering	

C. University Experience

Position	*University*	*Comments*	*Dates*
Associate Professor, Engineering Technology	Texas State University. San Marcos, TX, United States		September 2016 - Present
Assistant Professor, Engineering Technology	Texas State University. San Marcos, TX, United States		September 2010 - August 2016
Research Associate, Physics	Ecole Polytechnique de Montreal. Montreal, Canada		April 2008 - June 2009
Postdoctoral Research Fellow, Physics	Ecole Polytechnique de Montreal. Montreal, Canada		January 2006 - April 2008

D. Relevant Professional Experience

Position	*Entity*	*Comments*	*Dates*
Research Associate	Nanofabrication, National Research		June 2009 - July 2010

Position	*Entity*	*Comments*	*Dates*
	Council of Canada, Ottawa, Canada		

II. TEACHING

B. Courses Taught:

Texas State University:

TECH 2190 - INDUS INTERNSHIP

TECH 2370 - ELECTRICITY AND ELECTRONICS

TECH 2370 - ELECTY ELECTRN

TECH 3370 - AUDIOFREQ ELECTRON

TECH 3370 - ELECTRONICS

TECH 3373 - COMMUNICATION SYS

TECH 4372 - DEVICES & CIRCUITS

TECH 4372 - ELECT INSTRUM

TECH 4397 - SPCL PROBLEMS

TECH 5195 - INDUS INTERNSHIP

TECH 5199B - THESIS

TECH 5384 - PROBLEMS IN TECH

TECH 5392 - FUND OF MICRO MFG

TECH 5398 - DIRECTED PROJECT

TECH 5399A - THESIS

TECH 5399B - THESIS

C. Directed Student Learning (i.e. theses, dissertations, exit committees, etc.):

Supervisor / Chair, Directed Project, "Scratch formation and its mechanism in chemical mechanical planarization (CMP)", Status: In Progress. (September 2021 - May 2022). Engineering Technology, Texas State University.
Student(s): Hector Olivas, Graduate, MS.

Supervisor / Chair, Master's Thesis, "Design and simulation of capacitive micromachined ultrasonic transducer", Status: In Progress. (August 2020 - May 2022). Texas State University.
Student(s): Kendalle Howard, Graduate, MS.

Supervisor / Chair, Independent Study, "Energy Harvesting using Vibration", Status: Completed. (January 18, 2021 - May 2021). Engineering Tech, Texas State University.
Student(s): Jigarkumar Patel, Undergraduate.

Supervisor / Chair, Independent Study, "Eutectic Wafer Bonding", Status: Completed. (January 2020 - May 2020). Engineering Technology, Texas State University.
Student(s): Oscar Zarate, Undergraduate.

Member, Directed Project, "Development of Microfluidics Systems using the Xurography Method Application", Status: Completed. (September 2019 - May 2020). Engineering Technology, Texas State University.
Student(s): Mudriq Hamad, Graduate, MS.

Supervisor / Chair, Master's Thesis, "Analytical modeling and simulation of capacitive micromachined ultrasonic transducer", Status: Completed. (August 2016 - May 2020). Texas State University.
Student(s): Duy Nguyen, Graduate, MS.

Member, Directed Project, "Reducing Triethylene Glycol Consumption at Natural Gas Plants", Status: Completed. (December 2019). Engineering Technology, Texas State University.
Student(s): Matthew Gaston, Graduate, MS.

Member, Directed Project, "Robot Design in Precision Agriculture", Status: Completed. (December 2019). Engineering Technology, Texas State University.
Student(s): Mitchell Corona, Graduate, MS.

Supervisor / Chair, Directed Project, "Study of Charging Infrastructure for Electric Vehicles in Austin, TX", Status: Completed. (May 2019). Engineering Technology, Texas State University.
Student(s): Jorge Melguizo, Graduate, MS.

Member, Dissertation, "Design and Development of a Kinematic Coupling for a Double-Sided Hot Embossing Process", Status: Completed. (August 2016 - December 2018). Materials Science, Engineering, and Commercialization, Texas State University.
Student(s): Devanda Lek, Doctoral, Ph.D.

Supervisor / Chair, Directed Project, "Implementing 5S principles on SPS Engineering Company", Status: Completed. (January 17, 2017 - August 2017). Engineering Technology, Texas State University.
Student(s): Tushar Bendigeri, Graduate, MS.

Supervisor / Chair, Independent Study, "A Structural Health Monitoring System using MEMS Gyroscope", Status: Completed. (January 2017 - May 2017). Engineering Technology, Texas State University.
Student(s): Andre Paul, Undergraduate.
Daniel Bermudez, Undergraduate.
Crawford Smith, Undergraduate.

Supervisor / Chair, Independent Study, "Bonding Techniques for Microsensor and Microactuator Applications", Status: Completed. (January 2017 - May 2017). Engineering Technology, Texas State University.
Student(s): Cole Strauss, Undergraduate.

Member, Directed Project, "Applying Engineering Management Systems for Quality Control: Impact of Receiving ISO 9000 Certification", Status: Completed. (December 2016). Engineering Technology, Texas State University.
Student(s): Brandon Lute, Graduate, MS.

Member, Dissertation, "Characterization of Rubberized Binders with Wax Accitives", Status: Completed. (August 2014 - December 2016). Materials Science, Engineering, and Commercialization, Texas State University.
Student(s): Hyunhwan Kim, Doctoral, Ph.D.

Supervisor / Chair, Master's Thesis, "Non-enzymatic Continuous Glucose Monitoring Technology using EIS", Status: Completed. (June 2014 - December 2016). Engineering Technology, Texas State University.
Student(s): Sean Moore, Graduate, MS.

Supervisor / Chair, Independent Study, "An Investigation of Dry Etch Process Boundaries of Gallium Arsenide using Reactive Ion Etching and Inductively Coupled Plasma", Status: Completed. (January 2016 - May 2016). Engineering Technology, Texas State University.
Student(s): Jon Diaz, Undergraduate.

Member, Dissertation, "Fabrication of Through-Holes for the Interconnection of Polymer Microfluidic Devices", Status: Completed. (August 2012 - May 2016). Materials Science, Engineering, and Commercialization, Texas State University.
Student(s): Juan Gomez, Doctoral, Ph.D.

Member, Master's Thesis, "Performance Properties of CRM Asphalt Binders Containing Wax Additive", Status: Completed. (August 2012 - August 2014). Engineering Technology, Texas State University.
Student(s): Hyunhwan Kim, Graduate, MS.

Member, Master's Thesis, "A Study on Radial Runout for Circular Geometries", Status: Completed. (2012 - May 2014). Engineering Technology, Texas State University.
Student(s): Devanda Lek, Graduate, MS.

Member, Master's Thesis, "Design of a Mold Insert Alignment System for Double-Sided Hot Embossing of Microfluidic Devices using Kinematic Constraints", Status: Completed. (December 2013). Engineering Technology, Texas State University.
Student(s): Timothy Conner, Graduate, MS.

Member, Master's Thesis, "Study of Polymer Flow Behavior in Cavity Filling of Alignment Structures in Micro Hot Embossing", Status: Completed. (August 2012). Engineering Technology, Texas State University.
Student(s): Juan Gomez, Graduate, MS.

D. Courses Prepared and Curriculum Development:

Communication Systems, New Course, Texas State University. Taught: January 2015 - May 2015.

E. Teaching Grants and Contracts

3. Funded Internal Teaching Grants and Contracts:

Song, In-Hyouk (Principal). Major Upgrade of the RFM 4234: Computer Integrated Electronic Laboratory to Offer High-Performance Computing and Simulation for Engineering Technology and Sound Recording Technology Students, Office of the Vice President for Information Technology (VPIT), Texas State University, $17,437.81. (Funded: 2011). Grant.

F. Other:

Student Accomplishments:

Fellowship:

Supervisor, Undergraduate Research Fellowship. "Development of CMOS-Compatible Low Temperature Wafer-to-Wafer Bonding." Status: In Progress. (November 2019).
Student(s): Oscar Zarate, Undergraduate, B.S.

Additional Comments: Fall 2019 Undergraduate Research Fellowship (URF), $1000

Supervisor, Thesis Research Support Fellowship. "Fabrication of Silicon Based Capacitive Micromachined Ultrasonic Transducers (CMUTs)."
Status: Completed. (January 2019).
Student(s): Duy Nguyen, Graduate, M.S.

Additional Comments: Spring 2019 Thesis Research Support Fellowship (GRF), $2000

G. Teaching Professional Development Activities Attended

Workshop, "Promoting College Readiness by Integrating Communication/Information Technology," THECB, Woodlands, TX, United States. (June 9, 2011 - June 10, 2011).

Program, "Excellence in Teaching and Learning 2010-2011," Texas State University, San Marcos, TX, United States. (September 2010 - April 2011).

III. SCHOLARLY/CREATIVE

A. Works in Print (including works accepted, forthcoming, in press):

2. Articles:

a. Refereed Journal Articles:

Makhijaa, G., Pujara, D. S., Song, I.-H., You, B. H., & Kang, H. G. (2020). Constructing an automation table for an image-based Arabidopsis resistance assay. *Engineering*, *6*, 495–499.

Boris, L., Norman, F., Song, I.-H., Penghui, M., Pedro, B., & Daniel, P. (2019). Review of micro-shutters for switchable glass. *Journal of Micro/Nanolithography, MEMS, and MOEMS*, *18*(4), 040901.

Song, I.-H., & Park, T. (2019). Connector-Free World-to-Chip Interconnection for Microfluidic Devices. *Micromachines*, *10*(3), 166. https://doi.org/10.3390/mi10030166

Bendigeri, T., You, B. H., & Song, I.-H. (2018). Implementing 5S principles on a Manufacturing Company, SPS Engineering: Case Study. *International Journal of Research in Engineering and Technology*, *7*(12).

Moore, S., You, B., Kim, N., Park, T., & Song, I.-H. (2018). Non-Enzymatic Continuous Glucose Monitoring. *Micro & Nano Letters*, 1079–1084. https://doi.org/10.1049/mnl.2017.0894

Park, S., Moore, S., Lee, J., Song, I.-H., Farshchian, B., & Kim, N. (2018). Hydrothermal Growth of ZnO Nanowires on UV Nanoimprinted Polymer Structures. *Journal of Nanoscience and Nanotechnology*, *18*, 3686–3692. https://doi.org/10.1166/jnn.2017.14668

Park, S., Moore, S., Song, I.-H., You, B. H., Lee, M., & Kim, N. (2017). Growth of ZnO nanowires on multi-layered polymer structures fabricated by UV liquid transfer imprint lithography. *Microelectronic Engineering*, *176*, 45–53.

Song, I.-H., & Park, T. (2017). PMMA Solution Assisted Room Temperature Bonding for PMMA-PC Hybrid Devices. *Micromachines*, *8*, 284. https://doi.org/10.3390/mi8090284

Moore, S., Gomez, J., Lek, D., You, B. H., Kim, N., & Song, I.-H. (2016). Experimental study of polymer microlens fabrication using partial-filling hot embossing technique. *Microelectronic Engineering*, *162*, 57–62. https://doi.org/10.1016/j.mee.2016.05.009

Song, I.-H., Sriraman, V., & Ortiz, A. (2015). A three-step teaching and learning process in an advanced electronics course for non-electrical engineering technology majoring students. *World Transactions on Engineering and Technology Education (WTE&TE)*, *13*, 8–13.

Kang, H. S., Lee, K.-H., Yang, D.-Y., You, B. H., & Song, I.-H. (2015). Micro-accelerometer Based on Vertically Movable Gate Field Effect Transistor. *Nano-Micro Letters*, *7*(3), 282–290. https://doi.org/DOI: 10.1007/s40820-015-0041-9

Song, I.-H., Forfang, W. B. D., Cole, B., & You, B. H. (2014). Characterization of a vertically movable gate field effect transistor using a silicon-on-insulator wafer. *Journal of Micromechanics and Microengineering*, *24*(10), 105002. https://doi.org/http://dx.doi.org/10.1088/0960-1317/24/10/105002

Forfang, W. B. D., Conner, T. G., You, B. H., Park, T., & Song, I.-H. (2014). Fabrication and characterization of polymer microprisms. *Microsystem Technologies*, *20*(10-11), 2071–2077. https://doi.org/doi:10.1007/s00542-014-2067-1

Conner, T., Song, I.-H., Park, T., & You, B. H. (2014). Method of mould alignment for double-sided hot embossing of microfluidic devices using kinematic constraints. *IET Micro & Nano Letters*, *9*(10), 741–745. https://doi.org/DOI: 10.1049/mnl.2014.0134

Lek, D., Song, I.-H., & You, B. H. (2014). Methods for Balancing and Aligning Rotating Machinery. *European International Journal of Science and Technology*, *3*, 91–102.

Gomez, J. A., Conner, G. T., Kim, Y.-J., Song, I.-H., You, B. H., & others. (2014). Mold filling analysis of an alignment structure in micro hot embossing. *Fibers and Polymers*, *15*(6), 1197–1201. https://doi.org/doi:10.1007/s12221-014-1197-5

Gomez, J. A., Lek, D., Song, I.-H., & You, B. H. (2014). Study on stress evolution in the cooling process of micro hot embossing. *International Journal of Mechanical and Materials Engineering*, *9*(1), 1–6. https://doi.org/doi:10.1186/s40712-014-0020-9

Gomez, J., Williams, J., Song, I.-H., Kim, Y. J., Chun, Du Hwan, Kim, D. K., … You, B. H. (2013). Analysis of acoustic characteristics of a car cabin using computer-aided engineering. *Applied Mechanics and Materials*, *268*, 883–889.

Williams, J., Forfang, W. B., You, B. H., & Song, I.-H. (2013). Modal Analysis and Design of a Vertically Movable Gate Field Effect Transistor (VMGFET) Proposed for Low-Frequency Sensing Applications. *Applied Mechanics and Materials*, *268*, 1538–1543.

Forfang, W. B., You, B. H., & Song, I.-H. (2013). Ultrasonic Dental Therapy: Trends and Prospects. *European International Journal of Science and Technology*, *2*, 1–6.

Williams, J. M., Cole, B. S., You, B. H., Kang, H. S., & Song, I.-H. (2012). Electrical modelling and design insight of a vertically movable gate field effect transistor for physical sensor applications. *IET Micro & Nano Letters*, *7*(11), 1117–1120. https://doi.org/10.1049/mnl.2012.0667

Park, T., Song, I.-H., Park, D. S., You, B. H., & Murphy, M. C. (2012). Thermoplastic fusion bonding using a pressure-assisted boiling point control system. *Lab on a Chip*, *12*(16), 2799–802. https://doi.org/10.1039/c2lc40252a

Maisonneuve, M., Song, I.-H., Patskovsky, S., & Meunier, M. (2011). Polarimetric total internal reflection biosensing. *Optics Express*, *19*(8), 7410–6.

Song, I.-H., & Ajmera, P. K. (2009). A laterally movable gate field effect transistor. *Journal of Microelectromechanical Systems*, *18*(1), 208–216.

Song, I.-H., Peter, Y.-A., & Meunier, M. (2009). Resonant frequency sensitive MEMS bandpass filter using capacitive sensing scheme. *Microsystem Technologies*, *15*(7), 973–979.

Patskovsky, S., Song, I.-H., Meunier, M., & Kabashin, A. V. (2009). Silicon based total internal reflection bio and chemical sensing with spectral phase detection. *Optics Express*, *17*(23), 20847–52.

Patskovsky, S., Vallieres, M., Maisonneuve, M., Song, I.-H., Meunier, M., & Kabashin, A. V. (2009). Designing efficient zero calibration point for phase-sensitive surface plasmon resonance biosensing. *Optics Express*, *17*(4), 2255–63.

Song, I.-H., Kang, K.-N., Jin, Y., Park, D. S.-W., & Ajmera, P. K. (2008). Microlens array fabrication by backside exposure using Fraunhofer diffraction. *Microsystem Technologies*, *14*(9-11), 1285–1290.

Song, I.-H., Jin, Y., & Ajmera, P. K. (2007). Fabrication of a polymeric tapered HARMs array utilizing a low-cost nickel electroplated mold insert. *Microsystem Technologies*, *13*(3-4), 287–291.

Song, I.-H., Peter, Y.-A., & Meunier, M. (2007). Smoothing dry-etched microstructure sidewalls using focused ion beam milling for optical applications. *Journal of Micromechanics and Microengineering*, *17*(8), 1593.

Song, I.-H., & Ajmera, P. K. (2003). Use of a photoresist sacrificial layer with SU-8 electroplating mould in MEMS fabrication. *Journal of Micromechanics and Microengineering*, *13*(6), 816.

3. Conference Proceedings:

a. Refereed Conference Proceedings:

Park, D., Song, I.-H., & Park, T. (2016). Polycarbonate Thermal Bonding System using Boiling Point. In *Proceedings of KSPE 2016 Spring Conference* (pp. 735–736). KSPE.

Kang, H. ., Lee, K.-H., Kim, J., Song, I.-H., & You, B. (2014). Design of vertically movable gate field effect transistor (VMGFET) sensor for low frequency applications. In *2014 Proceedings of International Conference of Control, Dynamic Systems, and Robotics* (pp. 121_1–121_7).

Gomez, J., Lek, D., Song, I.-H., Chun, D., & You, B. (2014). Study on Stress and Thermal Contraction During Cooling and Demolding in Hot Embossing. In *Proceedings of the 2014 ASME International Mechanical Engineering Congress & Exposition* (p. V010T13A037). https://doi.org/10.1115/IMECE2014-39203

Gomez, J. A., Conner, G., Song, I.-H., Kim, Y.-J., You, B. H., & Chun, D.-H. (2013). Finite Element Analysis for Reliable Replication of Alignment Structures in Micro Hot Embossing. In *Proceedings of the ASME 2013 International Mechanical Engineering Congress & Exposition (IMECE2013)* (p. V010T11A043). https://doi.org/10.1115/IMECE2013-64829

Conner, G., Lek, D., Gomez, J. A., Song, I.-H., Park, T., & You, B. H. (2013). Mold Alignment System for Double-Sided Micro Hot Embossing Using

Kinematic Constraints. In *Proceedings of the ASME 2013 International Mechanical Engineering Congress & Exposition (IMECE2013)* (p. V010T11A035). https://doi.org/10.1115/IMECE2013-63670

Gomez, J., Conner, T., Song, I.-H., Chun, D., Kim, Y., & You, B. (2012). Cavity Filling Analysis for the Fabrication of an Alignment Structure in Micro Hot Embossing. In *Proceedings of the ASME 2012 International Mechanical Engineering Congress & Exposition (IMECE2012)* (pp. IMECE2012–88441).

Lee, K.-H., Kang, H., Song, I.-H., You, B., & Yang, D. (2012). Dynamic Response Analysis of Sensing Element of MEMS Accelerometer. In *2012 Fall Transactions of the Korean Society for Noise and Vibration Engineering Society* (Vol. 2012, pp. 221–222).

Park, T., Song, I.-H., & Murphy, M. C. (2012). Sealing of Polymer Micro Devices using a Boiling Point Control System. In *Fall 2012 Korean Society of Mechanical Engineers (KSME) Conference* (pp. 1554–1557).

Park, T., Song, I.-H., Park, D., You, B., & Murphy, M. (2012). Thermal bonding of polymer microdevices using a pressure-assisted boiling point control system. In *the 16th International conference on miniaturized systems for chemistry and life sciences* (pp. 1554–1557).

Masson, P., Micheau, P., Pasco, Y., Thomas, M., Brailovski, V., Meunier, M., … Song, I.-H. (2006). Smart Technologies for Structural Health Monitoring of Aerospace Structures. In *International Workshop on Smart Materials and Smart Structures (Cansmart 2006)* (pp. 191–202).

Song, I.-H., & Ajmera, P. K. (2004). Differential laterally movable gate FETs (LMGFETs) as a position sensor. In *SPIE's 11th Annual International Symposium on Smart Structures and Materials* (Vol. 5389, pp. 267–273).

Song, I.-H., Kopparthi, S., Ajmera, P. K., & Srivastava, A. (2003). Design, simulation, and fabrication of a novel integrated microaccelerometer utilizing a post-CMOS fabrication technique. In *SPIE's 10th Annual International Symposium on Smart Structures and Materials* (Vol. 5055, pp. 78–86).

Song, I.-H., Ajmera, P., & Kopparthi, S. (2003). Integrated Microsystem utilizing Laterally Movable Gate FETs. In *IWPSD 2003 12th International Workshop on the Physics of Semiconductor Devices* (Vol. 2, pp. 631–636).

Song, I.-H., Xin, T., & Ajmera, P. K. (2002). Laterally movable gate FET (LMGFET) as a resonant gate device. In *SPIE's 9th Annual International Symposium on Smart Structures and Materials* (Vol. 4700, pp. 29–39).

Ajmera, P. K., & Song, I.-H. (2001). Laterally movable gate FET (LMGFET) for on-chip integration of MEMS with electronics. In *SPIE's 8th Annual International Symposium on Smart Structures and Materials* (Vol. 4334, pp. 30–37).

Song, I.-H., Xin, T., & Ajmera, P. (2001). Laterally movable gate field effect transistor (LMGFET) for microsensor and microactuator applications. In *IWPSD 2001 11th International Workshop on the Physics of Semiconductor Devices* (Vol. 1, pp. 468–478).

4. Abstracts:

Miller, J., Lek, D., Chun, D. H., Na, H., Kim, N., Song, I.-H., & You, B. (2020). Potential misalignment reduction by additive manufacturing of microscale kinematic coupling alignment features. *2020 Proceedings of the ASME International Mechanical Engineering Congress & Exposition*, IMECE2020–24873.

Lek, D. R., Miller, J., Song, I.-H., Chun, D. H., & You, B. H. (2018). Micro mechanical punching by a double-sided hot embossing process. *The 2018 ASME International Mechanical Engineering Congress & Exposition (IMECE)*, IMECE2018–89096.

Lek, D., Song, I.-H., Chun, D. H., Park, T., & You, B. (2017). Micro mechanical punching of through-holes for microfluidic interconnection. *The 2017 ASME International Mechanical Engineering Congress & Exposition (IMECE2017)*, IMECE2017–71930.

Moore, S., You, B., Kim, N., Park, T., & Song, I.-H. (2017). Non-Enzymatic Continuous Glucose Monitoring. *Micro and Nano Engineering (MNE 2017)*. Published.

Park, S., Moore, S. A., Lee, J., Song, I.-H., You, B. H., & Kim, N. (2017). Hydrothermal Synthesis of ZnO Nanowires on Nanoimprinted 3D Polymer Structures. *2017 The Korean Society of Mechanical Engineers Annual Spring Meeting*. Published.

Park, D., Park, T., Choi, J., Song, I.-H., Kim, N., You, B., … Murphy, M. (2016). Design and Fabrication of a High Throughput Processing Module for Plasma Isolation. *ASME International Mechanical Engineering Congress & Exposition (IMECE2016)*, IMECE2016–68129.

Lek, D., You, B., Song, I.-H., Park, T., & Chun, D. (2016). Design of a Kinematic Coupling for Doublesided Micro Hot Embossing. *ASME International Mechanical Engineering Congress & Exposition (IMECE2016)*, IMECE2016–67662.

Park, S., Moore, S., Song, I.-H., You, B., Lee, M., & Kim, N. (2016). Growth of ZnO Nanowires on Multi-Layered Polymer Structures Fabricated using UV Liquid Transfer Imprint Lithography. *Micro and Nano Engineering (MNE 2016)*. Published.

Song, I.-H., Moore, S., You, B., Kim, N., & Park, T. (2016). Microlens Fabrication using Partial-Cavity Filling Hot Embossing Technique. *2016 Korean BioChip Society Annual Spring Meeting*. Published.

Park, S., Song, I.-H., You, B., Lee, M.-Y., & Kim, N. (2016). ZnO nanowires grown on nanoimprinted polymer structures for mechanical cell lysis. *2016 Korean BioChip Society Annual Spring Meeting*. Published.

Park, S., Song, I.-H., & Kim, N. (2015). 3D Microstructures Integrated with ZnO Nanowires in Microchannels. *ASME International Mechanical Engineering Congress & Exposition (IMECE2015)*, IMECE2015–51980.

Moore, S., Gomez, J., Lek, D., You, B., Kim, N., & Song, I.-H. (2015). Experimental Study of Hot Embossing Process for Polymer Microlens Array. *ASME International Mechanical Engineering Congress & Exposition (IMECE2015)*, IMECE2015–52660.

Gomez, J., Lek, D., Song, I.-H., Chun, D., Park, T., & You, B. (2015). Fabrication of Through-Holes for the Interconnection of Polymer Micro-fluidic Devices. *ASME International Mechanical Engineering Congress & Exposition (IMECE2015)*, IMECE2015–51950.

Forfang, W., Williams, J., Conner, T., You, B., Park, T., & Song, I.-H. (2013). Fabrication and Characterization of Polymer Microprisms. *10th International Workshop on High Aspect Ratio Micro and Nano System Technology*. Published.

Forfang, W., You, B., Kang, H., Lee, K.-H., & Song, I.-H. (2013). Fabrication Method of a Vertically Movable Gate Field Effect Transistor (VMGFET) using SOI Wafer. *10th International Workshop on High Aspect Ratio Micro and Nano System Technology*. Published.

5. Reports:

Song, I.-H., You, B. H., Piner, E., & Chen, Y. (2014). *Acquisition of ICP-RIE Capability at Texas State University - San Marcos*.

Additional Comments: Final Report: Major Research Instrumentation Program, National Science Foundation (NSF)

You, B. H., Song, I.-H., & Kim, Y.-J. (2014). *Assembly tolerance analysis for wheel stacking*.

Additional Comments: Research Report: KEPCO Plant Service & Engineering (KEPCO-KPS)

Song, I.-H., & You, B. H. (2013). *Development of microaccelerometer with wireless readout using MEMS technology (Phase II)*.

Additional Comments: Korean Government Report: Korean Ministry of Knowledge and Economy

You, B. H., Song, I.-H., & Kim, Y.-J. (2013). *Investigation of acoustic characteristics of a car cabin for the development of nonwoven fabrics as a car interior material (Phase II).*

Additional Comments: Research Report: Korea Textile Machinery Research Institute (KOTMI)

Song, I.-H., & You, B. H. (2012). *Development of microaccelerometer with wireless readout using MEMS technology (Phase I).*

Additional Comments: Korean Government Report: Korean Ministry of Knowledge and Economy

You, B. H., Song, I.-H., & Kim, Y.-J. (2012). *Investigation of acoustic characteristics of a car cabin for the development of nonwoven fabrics as a car interior material (Phase I).*

Additional Comments: Research Report: Korea Textile Machinery Research Institute (KOTMI)

B. Works Not in Print:

2. Invited Talks, Lectures, and Presentations:

Song, I.-H., "Objectives and Requirements for Smart Manufacturing Systems," Center for Smart Factory Academy, Kyungnam, South Korea. (December 11, 2019).

Additional Comments: Invited Lecture

Miller, J. E., Lek, D. R., Chun, D. H., Na, H., Lee, M. -Y., Kim, N., Song, I.-H., You, B. H., ASME International Mechanical Engineering Congress & Exposition (IMECE2019), "Tolerance Allocation of Kinematically Coupled Polymer Microfluidic Modules," American Society of Mechanical Engineers, Salt Lake, UT, United States. (November 2019).

Lek, D., Song, I.-H., Park, T., Chun, D.H., You, B., International Mechanical Engineering Congress & Exposition (IMECE2017), "Micro mechanical punching of through-holes for microfluidic interconnection," ASME, Tempa, FL, United States. (November 4, 2017).

Song, I.-H., 2017 Spring Conference of the Korean Society of Industrials Application, "Field Effect Transistor based Microsensors," The Korean Society of Industrials Application, The Westin Chosun Busan, Busan, South Korea. (July 7, 2017).

Additional Comments: Invited Talk

Park, S., Moore, S. A., Lee, J., Song, I.-H., You, B. H., Kim, N., Micro/Nano Engineering Spring Meeting, "Hydrothermal Synthesis of ZnO Nanowires on Nanoimprinted 3D Polymer Structures," KSME, Busan, South Korea. (May 2017).

Park, D., Park, T., Choi, J., Song, I.-H., Kim, N., You, B., Soper, S., Nikitopoulos, D., Park, S., Murphy, M., International Mechanical Engineering Congress & Exposition (IMECE2016), "Design and Fabrication of a High Throughput Processing Module for Plasma Isolation," ASME, Phoenix, AZ, United States. (November 17, 2016).

Lek, D., You, B., Song, I.-H., Park, T., Chun, D., International Mechanical Engineering Congress & Exposition (IMECE2016), "Design of a Kinematic Coupling for Doublesided Micro Hot Embossing," ASME, Phoenix, AZ, United States. (November 17, 2016).

Song, I.-H., You, B., Kim, N., US-Korea Conference 2016, "Vertically Movable Gate Field Effect Transistor (VMGFET) for Low-Frequency Vibration Sensing Applications," KSEA, Fort Worth, TX, United States. (August 3, 2016).

Park, S., Song, I.-H., Kim, N., International Mechanical Engineering Congress & Exposition (IMECE2015), "3D Microstructures Integrated with ZnO Nanowires in Microchannels," ASME, Houston, TX, United States. (November 16, 2015).

Moore, S., Gomez, J., Lek, D., You, B., Kim, N., Song, I.-H., International Mechanical Engineering Congress & Exposition (IMECE2015), "Experimental Study of Hot Embossing Process for Polymer Microlens Array," ASME, Houston, TX, United States. (November 16, 2015).

Lek, D., Gomez, J., Song, I.-H., Chun, D., Park, T., You, B., International Mechanical Engineering Congress & Exposition (IMECE2015), "Fabrication of Through-Holes for the Interconnection of Polymer Micro-fluidic Devices," ASME, Houston, TX, United States. (November 16, 2015).

Song, I.-H., "Capacitive Micromachined Ultrasonic Transducers," Korea Advanced Institute of Science and Technology, Daejeon, South Korea. (May 23, 2014).

Song, I.-H., "Vertically Movable Gate FET for Micro-Accelerometer," KyoungNam University, Changwong, South Korea. (May 21, 2014).

Song, I.-H., "Movable Gate Field Effect Transistor as Physical Sensing Element," Dong-A University, Busan, South Korea. (May 20, 2014).

Song, I.-H., "Introduction to Microelectromechanical systems," Korea Advanced Institute of Science and Technology, Daejeon, South Korea. (December 23, 2013).

Song, I.-H., "Laterally movable gate field effect transistor for physical sensing applications," KyoungNam University, Changwong, South Korea. (December 20, 2013).

Gomez, J., Williams, J., Song, I.-H., Kim, Y., Chun, D., Kim, D., Na, H., You, B., The 2nd International Conference of Applied Mechanics, Materials, and Manufacturing, "Modal Analysis and Design of a Vertically Movable Gate Field Effect Transistor (VMGFET) Proposed for Low-Frequency Sensing Applications," International Conference of Applied Mechanics, Materials, and Manufacturing, Changsha, China. (November 18, 2012).

Williams, J., Forfang, W., You, B., Song, I.-H., The 2nd International Conference of Applied Mechanics, Materials, and Manufacturing, "Modal Analysis and Design of a Vertically Movable Gate Field Effect Transistor (VMGFET) Proposed for Low-Frequency Sensing Applications," International Conference of Applied Mechanics, Materials, and Manufacturing, Changsha, China. (November 18, 2012).

Song, I.-H., "Microsensors and microactuators for physical and bio/chemical sensing applications," Chungnam Digital R&D Cluster, Asan, South Korea. (June 14, 2012).

Song, I.-H., "Microsensors and microactuators for physical and bio/chemical sensing applications," Korea Advanced Institute of Science and Technology, Daejeon, South Korea. (November 16, 2011).

Lamontagne, B., Song, I.-H., Barrios, P., Nikumb, S., 15th Canadian Semiconductor Science and Technology Conference, "MEMS on large areas: smart windows based on micro-blinds," Vancouver, Canada. (August 16, 2011).

Mathieu, M., Sergiy, P., Song, I.-H., Meunier, M., Photonics North 2009, "Biosensing with total internal reflection polarimetry," Photonics North, Quebec, Canada. (May 25, 2009).

Mathieu, M., Sergiy, P., Song, I.-H., Meunier, M., Kabashin, A., Photonics North 2008, "Highly sensitive surface plasmon resonance biosensing using phase properties of light," Photonics North, Montreal, Canada. (June 3, 2008).

5. Other Works not in Print:

b. Works "in progress":

Journal Articles:

SONG, I. H., & SONG, I. H. (In Preparation; Not Yet Submitted). Optimal Design of Capacitive Micromachined Ultrasonic Transducers.

c. Other Works Not in Print:

Keynote / Plenary Addresses:

Song, I.-H., 2017 Changwon International Conference on Intelligent Robot and Convergence Industry (CICIRO 2017), "Vertically Movable Gate

Field Effect Transistor for Low Frequency Vibration Monitoring System," Robotics Research Center for Robot Intelligent Technology, Changwon, South Korea. (December 1, 2017).

Additional Comments: Invited Plenary Lecture

Posters:

Song, I.-H., Global Research Network Seoul 2019, "Automatic 3D Micro & Nano Polymer Thermal Bonding System," National Research Foundation of Korea, Seoul Dragon City, Seoul, South Korea. (December 4, 2019).

Moore, S., You, B. H., Kim, N., Park, T., Song, I.-H., International Conference on Micro and Nano Engineering, Braga, "Non-enzymatic Continuous Glucose Monitoring System," Braga, Portugal. (September 2017).

Moore, S., You, B. H., Kim, N., Park, T., Song, I.-H., 43rd International Conference of Micro and Nano Engineering (MNE 2017), "Non-enzymatic Continuous Glucose Monitoring System," MNE 2017, Braga, Portugal. (September 19, 2017).

Moore, S., You, B., Kim, N., Song, I.-H. (CO), IEEE Sensors 2016, "Non-Enzymatic Continuous Glucose Monitoring Technology Using Electrochemical Impedance Spectroscopy," IEEE, Orlando, FL, United States. (October 31, 2016).

Park, S., Moore, S., Song, I.-H., You, B., Lee, M., Kim, N., 42nd Micro and Nano Engineering (MNE 2016), "Growth of ZnO Nanowires on Multi-Layered Polymer Structures Fabricated using UV Liquid Transfer Imprint Lithography," MNE 2016, Vienna, Austria. (September 21, 2016).

Song, I.-H. (CO), Moore, S., You, B., Kim, N., Park, T., 2016 Korean BioChip Society Annual Spring Meeting, "Microlens Fabrication using Partial-Cavity Filling Hot Embossing Technique," The Korean BioChip Society, Yesan, South Korea. (May 19, 2016).

Park, S., Song, I.-H., You, B., Lee, M., Kim, N., 2016 Korean BioChip Society Annual Spring Meeting, "ZnO nanowires grown on nanoimprinted polymer structures for mechanical cell lysis," The Korean BioChip Society, Yesan, South Korea. (May 19, 2016).

Park, D., Song, I.-H., Park, T., 2016, "Polycarbonate Thermal Bonding System using Boiling Point," Korean Society of Precision Engineering, Jeju, South Korea. (May 12, 2016).

Forfang, W., Williams, J., Conner, T., You, B., Park, T., Song, I.-H., 10th International Workshop on High Aspect Ratio Micro and Nano System Technology, "Fabrication and Characterization of Polymer Microprisms," HARMNST, Berlin, Germany. (April 22, 2013).

Forfang, W., You, B., Kang, H., Lee, K., Song, I.-H., 10th International Workshop on High Aspect Ratio Micro and Nano System Technology, "Fabrication Method of a Vertically Movable Gate Field Effect Transistor (VMGFET) using SOI Wafer," HARMNST, Berlin, Germany. (April 22, 2013).

Mathieu, M., Vallieres, M., Montigny, E., Song, I.-H., Sergiy, P., Crescenzo, G., Peter, Y.-A., Kabashin, A., Meunier, M., RQMP 2008, "Surface Plasmon Resonance Sensing and Imaging," RQMP, Montreal, Canada. (May 20, 2008).

Song, I.-H., Pasco, Y., Peter, Y.-A., Meunier, M., Masson, P., Micheau, P., Canadian Semiconductor Technology Conference (CSTC-2007), "Capacitive Micro-Accelerometer for Structural Health Monitoring Applications," Canadian Semiconductor Technology Conference (CSTC-2007), Montreal, Canada. (August 15, 2007).

Song, I.-H., Meunier, M., Peter, Y.-A., Canadian Semiconductor Technology Conference (CSTC-2007), "Fabrication of Vertically Standing Micro-Mirror Smoothened by Focused Ion Beam Milling," Canadian Semiconductor Technology Conference (CSTC-2007), Montreal, Canada. (August 15, 2007).

Patskovsky, S., Song, I.-H., Peter, Y.-A., Kabashin, A., Meunier, M., Canadian Semiconductor Technology Conference (CSTC-2007), "Spectral total internal reflection Silicon-based phase-sensitive microsensor," Canadian Semiconductor Technology Conference (CSTC-2007), Montreal, Canada. (August 15, 2007).

Song, I.-H., Kang, K., Jin, Y., Park, D., Ajmera, P., 7th International Workshop on High Aspect Ratio Micro-Structure Technology, "Microlens Array Fabrication by Backside Exposure Using Fraunhofer Diffraction," HARMNST 2007, Besancon, France. (June 8, 2007).

Song, I.-H., Meunier, M., Peter, Y.-A., RQMP 2007, "Design and fabrication of micro-accelerometer for structural health monitoring applications," RQMP, Montreal, Canada. (May 14, 2007).

Song, I.-H., Meunier, M., Peter, Y.-A., RQMP 2006, "Microaccelerometer for in situ health monitoring of aircraft," RQMP, Montreal, Canada. (May 26, 2006).

Tabbara, S., Patskovsky, S., Kabashin, A., Song, I.-H., Meunier, M., RQMP 2006, "Surface plasmon Resonance Sensing," RQMP, Montreal, Canada. (May 26, 2006).

Song, I.-H., Jin, Y., Ajmera, P., 6th International Workshop on High Aspect Ratio Micro-Structure Technology, "Fabrication of Polymeric Tapered HARMs Array Utilizing a Low-cost Nickel Electroplated Mold Insert," HARMNST 2005, Gyeongju, South Korea. (May 11, 2005).

Ajmera, P., Srivastava, A., Song, I.-H., Zhang, C., Xin, T., Kona, S., Kopparthi, S., Yernagula, J., Chamakura, A., LA EPSCoR Capitol Day, "Microsystem Integration: Imparting intelligence to sensors and actuators to fabricate smart microsystems," LA EPSCoR, Baton, LA, United States. (April 29, 2003).

Patents:

Song, In-Hyouk, You, Byoung Hee, Kang, Heung Seok, Lee, Kang-Hee. "A vertically movable gate field effect transistor (VMGFET) on a Silicon-on-insulator (SOI) wafer and method of forming a VMGFET". United States. Number / ID: US 9450066 B2. (Date Licensed: 2016).

C. Scholarly / Creative Grants and Contracts:

1. Funded External Grants and Contracts:

You, Byoung Hee (Principal), Khaleghian, Seyedmeysam (Co-Principal), Song, In-Hyouk (Co-Principal), Kim, Namwon (Co-Principal). Real-time morning and energy harvesting from a tire deformation using piezoelectric materials, Other, $41,900.00. (Funded: January 2020 - Present). Grant.

Ameri, Farhad, Khaleghian, Seyedmeysam (Co-Principal), Tate, Jitendra S (Supporting), Trueba, Luis (Supporting), You, Byoung Hee (Supporting), Song, In-Hyouk (Supporting), Jimenez, Jesus (Supporting), Chen, Heping (Supporting), Emami, Anahita (Supporting). REU Site: Multidisciplinary Research Experience in Advance Manufacturing for Undergraduates, National Science Foundation (NSF), Federal, $396,737.00. (Funded: May 1, 2021 - August 1, 2024). Grant.

Yeon, Jung Heum (Principal), Ozbakkaloglu, Togay (Co-Principal), Hwang, Sangchul (Co-Principal), Song, In-Hyouk (Co-Principal). Development of IoT-Based Snow Removal System for Preemptive Response to Heavy Snow and Black Ice, Seoul Institute of Technology (SIT), Other, $326,551.00. (Funded: September 2021 - December 2023). Grant.

Song, In-Hyouk (Principal), You, Byoung Hee (Co-Principal), Kim, Namwon (Co-Principal). A study for ultrasonic transducer using 3D micro-addictive manufacturing technology, Honeybee Factory, Other, $5,750.00. (Funded: September 1, 2019 - May 31, 2021). Grant.

Kim, Namwon (Principal), You, Byoung Hee (Co-Principal), Song, In-Hyouk (Co-Principal). Development and Characterization of Porous membranes for Lateral Flow Assay, Convert Co., Ltd., Private / Foundation / Corporate, $46,845.15. (Funded: July 1, 2016 - May 13, 2019). Grant.

Song, In-Hyouk (Co-Principal), Kim, Namwon (Co-Principal), You, Byoung Hee (Principal). A study for manufacturing and assembly of environment-friendly micro energy harvesting system, Other, $27,208.25. (Funded: February 15, 2018 - November 30, 2018). Grant.

Song, In-Hyouk (Co-Principal), Kim, Namwon (Principal), You, Byoung Hee (Co-Principal). Development of High Efficient Micro-Heatsink for 25W LED Automotive Headlamp Module, NTF Tech, Private / Foundation / Corporate, $25,477.00. (Funded: November 20, 2015 - November 19, 2016). Grant.

Song, In-Hyouk (Co-Principal), You, Byoung Hee (Principal). Assembly tolerance analysis for the development of a gas turbine rotor stacking software, KEPCO Plant Service & Engineering (KEPCO-KPS), Private / Foundation / Corporate, $73,223.00. (Funded: March 1, 2013 - February 28, 2015). Grant.

Song, In-Hyouk (Principal), You, Byoung Hee (Co-Principal), Piner, Edwin L (Co-Principal), Chen, Yihong (Co-Principal). Acquisition of ICP-RIE Capability at Texas State University - San Marcos, National Research Foundation, Federal, $486,599.00. (Funded: September 1, 2011 - August 31, 2014). Grant.

Song, In-Hyouk (Principal), You, Byoung Hee (Co-Principal). Development of Thin Microaccelerometer with wireless readout using MEMS technology, Korea Atomic Energy Research Institute (KAERI), Private / Foundation / Corporate, $149,968.00. (Funded: November 14, 2011 - November 13, 2013). Grant.

Song, In-Hyouk (Principal). CIS Grant Texas State University IN, Stanford University, Private / Foundation / Corporate, $5,000.00. (Funded: October 9, 2012 - August 31, 2013). Grant.

Song, In-Hyouk (Co-Principal), You, Byoung Hee (Principal). Investigation of acoustic characteristics of a car cabin for the development of nonwoven fabrics as a car interior material (Phase II), Korea Textile Machinery Research Institute (KOTMI), Private / Foundation / Corporate, $25,898.00. (Funded: July 1, 2012 - December 31, 2012). Grant.

Song, In-Hyouk (Co-Principal), You, Byoung Hee (Principal). Investigation of acoustic characteristics of a car cabin for the development of nonwoven fabrics as a car interior material (Phase I), Korea Textile Machinery Research Institute (KOTMI), Private / Foundation / Corporate, $26,810.00. (Funded: July 1, 2011 - December 31, 2011). Grant.

2. Submitted, but not Funded, External Grants and Contracts:

Lee, Y (Principal), Song, In-Hyouk (Supporting). NRT-HDR: Harnessing Data to Design Predictive Strategies for Brain Diseases and Extreme Weather Patterns, National Science Foundation, Federal, $1,167,214.00. (Submitted: September 7, 2021, Funded: March 1, 2022 - February 28, 2027). Grant.

Song, In-Hyouk. ERI: Reconfigurable Ultrasound Beam Focusing System using CMUTs for micro-LIPUS Stimulation, National Science Foundation, Federal, $199,858.00. (Submitted: June 18, 2021, Funded: January 1, 2022 - December 31, 2023). Grant.

Aguayo, Federico Macias (Principal), Khaleghian, Seyedmeysam (Co-Principal), You, Byoung Hee, Song, In-Hyouk, Torres, Anthony S, Schemmel, John, Ozbakkaloglu, Togay. Research Experience for Undergraduates in Enhanced Infrastructure Systems, NSF, Federal, $399,098.00. (Submitted: August 2019). Grant.

Song, In-Hyouk (Principal), You, Byoung Hee (Co-Principal), Lee, Soon Jae (Co-Principal). Innovative Deflectometer for Pavement Inspection, Texas Department of Transportation, State, $259,553.00. (Funded: October 1, 2014 - December 31, 2017). Grant.

Song, In-Hyouk (Principal). Vertically Movable Gate Field Effect Transistor for Spectral Vibration Monitoring System, National Research Foundation, Federal, $334,596.00. (Funded: April 1, 2014 - March 31, 2017). Grant.

Song, In-Hyouk (Co-Principal), Yu, Qingkai (Principal). Acquisition of Physical Vapor Deosition Facility with Ebeam Deposition and Sputtering Capabilities, National Research Foundation, Federal, $187,600.00. (Funded: September 1, 2012 - August 31, 2015). Grant.

Song, In-Hyouk (Co-Principal), You, Byoung Hee (Principal). Multi-component injection molding technology for the development of multilayer molded biomedical microsystems, Private / Foundation / Corporate, $37,000.00. (Funded: 2013). Grant.

3. Funded Internal Grants and Contracts:

You, Byoung Hee (Principal), Song, In-Hyouk (Co-Principal), Khaleghian, Seyedmeysam (Co-Principal). Development of a Self-powered Wireless Tire-Road Characterization System for Autonomous Vehicles, International Research Accelerator (IRA), Texas State University, $15,000.00. (Funded: June 17, 2020 - March 31, 2021). Grant.

Song, In-Hyouk (Principal). Development of Embedded Electrode Pair (EEP) Micromixer for Miniaturized Bioanalytical Systems, Research Enhancement Program, Texas State University, $8,000.00. (Funded: January 7, 2017 - May 31, 2018). Grant.

Song, In-Hyouk (Principal). Focused Ultrasound Beam using Capacitive Micromachined Ultrasonic Transducers (CMUTs) for Therapeutic Applications, Research Enhancement Program, Texas State University, $8,000.00. (Funded: January 13, 2015 - May 31, 2016). Grant.

Kang, Hong-Gu (Principal), Song, In-Hyouk (Co-Principal), You, ByoungHee (Co-Principal), Li, Xiaopeng (Co-Principal). Development of electrochemical impedance spectroscopy-baseddevice sensing epigenetic changes for early cancer detection, Multi-Disciplinary Internal Research Grant, Texas State University, $13,150.00. (Funded: June 4, 2014 - December 31, 2015). Grant.

Song, In-Hyouk (Principal), You, ByoungHee (Co-Principal). Electrostatically Actuated Micro-Blinds for Energy Efficient Windows, Research Enhancement Program, Texas State University, $16,000.00. (Funded: January 19, 2011 - May 31, 2012). Grant.

Song, In-Hyouk (Principal). Highly sensitive optical biosensing system using localized surface plasmon resonance (LSPR), Alkek Library, Texas State University, $1,700.00. (Funded: 2011). Grant.

4. Submitted, but not Funded, Internal Grants and Contracts:

Song, In-Hyouk (Principal). Development of Wireless Microsensor for Volatile Organic Compound Detection using Capacitive Micromachined Ultrasonic Transducers (CMUTs), Research Enhancement Program, Texas State University, $8,000.00. (Funded: January 1, 2020 - December 31, 2020). Grant.

Song, In-Hyouk (Co-Principal), You, Byoung Hee (Principal). Analysis of acoustic resonance for effective noise-suppressing vehicles, Texas State University, $15,000.00. (Funded: September 1, 2019 - August 31, 2020). Grant.

Song, In-Hyouk (Co-Principal), Lee, Young Ju (Principal), You, Byoung Hee (Co-Principal). MIRG: Integrating Experiments, Physical Modeling and Computational Simula- tions for Extreme Micro-Weather Patterns in Vapor-

to-Particle Reaction, Convection, and Diusion Systems, Texas State University, $25,000.00. (Funded: September 1, 2019 - August 31, 2020). Grant.

Song, In-Hyouk (Principal). Non-Destructive Evaluation System for in-situ Structural Health Monitoring (SHM) using Ultrasonic Transducers, Research Enhancement Program, Texas State University, $8,000.00. (Funded: January 1, 2019 - December 31, 2019). Grant.

Song, In-Hyouk (Principal), You, ByoungHee (Co-Principal). The development of microfluidic chip for blood cell separation and collection, Multi-Disciplinary Internal Research Grant, Texas State University, $25,000.00. (Funded: January 1, 2014 - December 31, 2014). Grant.

Song, In-Hyouk (Principal). Wristband Cardia Monitoring (WristCaM) System, Research Enhancement Program, Texas State University, $8,000.00. (Funded: January 1, 2014 - December 31, 2014). Grant.

Song, In-Hyouk (Co-Principal), You, ByoungHee (Principal). Analysis of acoustic resonance to achieve a comfortable sound environment for a car cabin, Research Enhancement Program, Texas State University, $16,000.00. (Funded: January 1, 2012 - December 31, 2012). Grant.

D. Scholarly / Creative Fellowships, Awards, Honors:

Fellowship Recipient: 2017 Brain Pool, The Korean Federation of Science and Technology Society.
June 1, 2017 - December 31, 2017

Additional Comments: The Brain Pool program is a prime window of globalization of Korean Science and Technology, and to enhance the scientific and technological exchange among scientists and engineers in Korea and abroad.

IV. SERVICE

A. Institutional

1. University:

Member, Shared Research Operations Advisory Committee. (March 5, 2018 - Present).

Undergraduate Advisor, ASEE Student Chapter. (January 2015 - Present).

Member, Nanofabrication Research Space Steering Committee. (August 2013 - Present).

Member, Analysis Research Service Center Committee. (January 2013 - Present).

Faculty Senate Liaison, Faculty Senate. (September 1, 2019 - August 31, 2022).

Advisor, Advising for a potential student-athlete at TX State football recruiting. (December 15, 2018).

Participant, Graduation Commencement Ceremony. (December 15, 2018).

Undergraduate Advisor, ASME Student Chapter. (September 2016 - August 2017).

Participant, Graduation Commencement Ceremony. (December 16, 2016).
Additional Comments: Served as Graduate Marshal

Participant, Graduation Commencement Ceremony. (August 7, 2015).

Participant, Graduation Commencement Ceremony. (December 14, 2013).

Chair, Fifth International Research Conference for Graduate Students. (November 6, 2013 - November 7, 2013).

Member, MSEC applicant screening committee. (2012).

Participant, Graduation Commencement Ceremony. (December 14, 2012).

Member, Minifab Strategy Committee. (September 2010 - May 2012).

Participant, Graduation Commencement Ceremony. (May 12, 2012).

Participant, Graduation Commencement Ceremony. (May 13, 2011).

2. College:

Member, College Curriculum Committee. (August 2021 - Present).

Member, CoSE Undergraduate Scholarship Committee. (September 1, 2018 - Present).

Member, Graduate Faculty. (September 2010 - Present).

Member, MSEC Dissertation Committee. (September 2010 - Present).

Member, College Scholarship Committee. (September 6, 2016 - August 2017).

3. Department/School:

Chair, Department Curriculum Committee. (August 2021 - Present).

Co-Chair, Presidential Awards Committee. (January 16, 2019 - Present).

Member, Personnel Committee. (September 2016 - Present).

Participant, ET industrial advisory board meeting. (2016 - Present).

Member, ABET Committee for Engineering Technology Program. (September 2012 - Present).

Member, Curriculum Committee. (January 2011 - Present).

Advisor, Academic Advising for Transferred Student. (August 2018 - May 2019).

Member, Foundry Faculty Search Committee. (September 2018 - March 2019).

Participant, Award Day Ceremony. (2011 - 2018).

Participant, Bobcat Day. (October 13, 2018).

Member, Manufacturing Faculty Search Committee. (September 2017 - May 2018).

Member, Foundry Faculty Search Committee. (September 2016 - May 2017).

Participant, Bobcat Day. (February 25, 2017).

Participant, Bobcat Day. (February 13, 2016).

Participant, Bobcat Day. (February 28, 2015).

Participant, Annual Board Meeting for Foundry Education Foundation. (2012 - 2014).

Participant, Bobcat Day. (April 5, 2014).

Member, Reform Committee for Electrical Engineering Technology. (2011 - 2013).

Member, Reform Committee for Electrics Technology. (2011 - 2013).

Participant, Bobcat Day. (October 8, 2011).

Participant, Bobcat Day. (October 16, 2010).

B. Professional:

Topic Organizer, ASME The International Mechanical Engineering Congress and Exposition 2021. (2021 - Present).

Additional Comments: **The International Mechanical Engineering Congress and Exposition (IMECE)** is ASME's largest research and development conference focused primarily on mechanical engineering, but encompasses perspectives from many engineering disciplines. IMECE is the place to present technical research and expertise, while also learning from and connecting with thousands of peer researchers on a global level.

Topic Organizer (In-Hyouk Song)
Topic: 13-3 Design and Fabrication, Analysis, Processes, and Technology for Micro and Nano Devices and Systems

Reviewer / Referee, Frontiers of Mechanical Engineering. (2016 - Present).

Reviewer / Referee, Microsystem Technologies. (2016 - Present).

Reviewer / Referee, Precision Engineering. (2015 - Present).

Reviewer / Referee, Entropy. (2014 - Present).

Reviewer / Referee, National Science Foundation. (2013 - Present).

Reviewer / Referee, ASME International Mechanical Engineering Congress & Exposition. (2012 - Present).

Reviewer / Referee, IEEE Sensors Journal. (2012 - Present).

Reviewer / Referee, Journal of Micromechanics and Microengineering. (2012 - Present).

Reviewer / Referee, IET Micro & Nano Letters. (2011 - Present).

Reviewer / Referee, Journal of Micro/Nanolithography, MEMS, and MOEMS. (2009 - Present).

President, Korean American Scientists and Engineers Association - Austin Chapter, Austin, TX, United States. (July 1, 2020 - June 30, 2022).

Editor, Electronics. (September 2021 - May 2022).

Additional Comments: **Guest Editor** of Electronics – international peer-reviewed journal by MDPI

Special Issue: Semiconductor and Package for Next Generation

Editorial Review Board Member, Korean Society of Industry Convergence. (March 1, 2020 - February 28, 2022).

International Cooperation Director, Korean Society of Industry Convergence. (March 1, 2020 - February 28, 2022).

Coordinator / Organizer, American Society of Mechanical Engineering (ASME). (February 2021 - November 2021).

Additional Comments: **The International Mechanical Engineering Congress and Exposition (IMECE)** is ASME's largest research and development conference focused primarily on mechanical engineering, but encompasses perspectives from many engineering disciplines. IMECE is the place to present technical research and expertise, while also learning from and connecting with thousands of peer researchers on a global level.

Topic: 13-3 Design and Fabrication, Analysis, Processes, and Technology for Micro and Nano Devices and Systems

Chair, ASME The International Mechanical Engineering Congress and Exposition. (November 1, 2021 - November 4, 2021).

Additional Comments: **Session Chair** of ASME The International Mechanical Engineering Congress and Exposition 2021.

Session Title: Design and Fabrication, Analysis, Processes, and Technology for Micro and Nano Devices and Systems

Chair, KSEA Best Paper Award Committee, Austin, TX, United States. (October 1, 2019 - October 25, 2019).

Vice President, Korean American Scientists and Engineers Association - Austin Chapter, Austin, TX, United States. (September 2018 - August 2019).

Local Arrangement Chair, 2019 Professional Development Forum, Austin, TX, United States. (June 21, 2019 - June 23, 2019).

Coordinator / Organizer, 2017 Changwon International Conference on Intelligent Robot and Convergence Industry (CICIRO 2017), Changwon, South Korea. (2017 - November 8, 2017).

Vice President, Korean American Scientists and Engineers Association - Austin Chapter, Austin, TX, United States. (September 2016 - August 2017).

Chair, KSEA Best Paper Award Committee, Austin, TX, United States. (January 1, 2017 - February 24, 2017).

Poster Session Judge, US-Korea Conference 2016, Fort Worth, TX, United States. (August 10, 2016 - August 13, 2016).

Co-Chair, 2015 ASME International Mechanical Engineering Congress & Exposition, Houston, TX, United States. (November 13, 2015 - November 19, 2015).

Technical Program Committee, IEEE MTT-S International Microwave Workshop Series on Intelligent Radio for Future Personal Terminals, Daejeon, South Korea. (2011).

Reviewer / Referee, IEEE MTT-S IMWS 2011. (August 24, 2011 - August 25, 2011).

C. Community:

Chair, KSEA Sponsored National Math and Science Competition, Austin, TX. (April 18, 2020).

Chair, KSEA Sponsored National Math and Science Competition, Austin, TX. (April 13, 2019).

Organizer, KSEA Sponsored National Math and Science Competition, Austin, TX. (April 8, 2017).

Organizer, KSEA Sponsored National Math and Science Competition, Austin, TX. (April 9, 2016).

Judge, Bobcat BEST Robotics Competition, San Marcos. (October 29, 2011).

Board Member, Bobcat BEST Robotics Competition, San Marcos, TX. (April 2011 - October 29, 2011).

D. Organization Memberships:

American Society of Mechanical Engineering (ASME). (February 2021 - Present).

American Society for Engineering Education (ASEE). (August 2017 - Present).

Korea Institute of Industrial Technology (KITECH). (2011 - Present).

Institute of Electrical and Electronics Engineers (IEEE). (2010 - Present).
Additional Comments: Senior Member since 2015

Korean-American Scientists and Engineers Association (KSEA). (2010 - Present).