

## Personal Information

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## Education

- B.E. in Biomedical Engineering, 03/03/02~07/02/22  
Konkuk University
- M.S. in Biomedical Engineering (Brain-cognitive Science), 07/03/01~09/02/23  
Konkuk University
- Ph.D. in Biomedical Engineering (Brain-cognitive Science), 10/03/01~15/02/23  
Konkuk University

## Professional Experience

- Assistant professor, 16/04/01~ present  
Biomedical Engineering, Research Institute of Biomedical Engineering, School of ICT Convergence Engineering, College of Science & Technology, Konkuk University, Chungju, South Korea

## Papers

- International journals (SCI(E), SSCI)

no.	IF	JCR rank (%)	
1	1.235	91.39	<b>M.H.Choi</b> , B.Kim, H.S.Kim, J.H.Jo, S.C.Chung, The use of natural language to communicate the perception of vibrotactile stimuli. Somatosensory & Motor Research, 35(2), 1-8, (2019)
2	0.815	93.05	<b>M.H.Choi</b> , H.S.Kim, J.H. Jo, J.S.KIM, J.H.JUN, J.R.PARK, S.C.Chung, Interaction effect between beam diameter and energy density in laser-induced tactile perception. Journal of Mechanics in Medicine and Biology, 18(7), 1840011-1~9, (2018)
3	0.499	96.89	<b>M.H.Choi</b> , J.H.Jo, Kim, H.S.Kim, S.C.Chung, The Influence of an Extra Task During Driving on the Intensity of Activation Voxels. Journal of Medical Imaging and Health Informatics, 8, 1706-1710, (2018)
4	4.063	7.69	H.S.Kim, <b>M.H.Choi</b> , S.C.Chung, Development of a puff- and suction-type pressure stimulator for human tactile studies, Behavior Research Methods, 50, 703-710, (2018)
5	3.209	41.31	<b>M.H.Choi</b> , B.Kim, H.S.Kim, S.Y.Gim, W.R.Kim, S.C.Chung, Perceptual threshold level for the tactile stimulation and response features of ERD/ERS-based specific indices upon changes in high-frequency vibrations. Frontiers in Human Neuroscience, 11, 207, (2017)
6	1.250	83.33	<b>M.H.Choi</b> , H.S.Kim, H.J.Yoon, J.C.Lee, J.H.Baek, J.S.Choi, G.R.Tack, B.C.Min, D.W.Lim, S.C.Chung, Increase in brain activation due to sub-tasks during driving: fMRI study using new MR-compatible driving simulator. Journal of Physiological Anthropology, 36, 11, (2017)
7	0.392	95.31	H.S.Kim, S.C.Chung, <b>M.H.Choi</b> , S.Y.Gim, W.R.Kim, G.R.Tack, D.W.Lim, S.K.Chun, J.W.Kim, K.R.Mun, Primary and secondary gait deviations of stroke survivors and their association with gait performance, Journal of Physical Therapy Science, 28, 2634-2640, (2016)
8	5.578	8.77	<b>M.H.Choi</b> , S.P. Kim, H.S.Kim, S.Y. Gim, W.R. Kim, K.R. Mun, D.W. Lim, B. Lee, S.C. Chung, Somatotopic map and Inter- and Intra-digit distance in Brodmann Area 2 by pressure stimulation, Scientific Reports, 25(6), 30243, (2016)

9	5.723	9.74	<b>M.H.Choi</b> , S.P.Kim, H.S.Kim, S.C.Chung, Inter- and Intra-digit Somatotopic map of high-frequency vibration stimulations in human primary somatosensory cortex, <i>Medicine</i> , 95(20), e3714, (2016)
10	2.030	68.65	<b>M.H.Choi</b> , H.S.Kim, S.Y.Gim, W.R.Kim, K.R.Mun, G.R.Tack, B.Lee, Y.C.Choi, H.J.Kim, S.H.Hong, D.W.Lim, S.C.Chung, Differences in cognitive ability and hippocampal volume between Alzheimer's disease, amnesic mild cognitive impairment, and healthy control groups, and their correlation, <i>Neuroscience Letters</i> , 620, 115-120, (2016)
11	1.332	57.14	S.C.Chung, <b>M.H.Choi</b> , H.S.Kim, J.C.Lee, S.J.Park, U.H.Jeong, J.H.Baek, S.Y.Gim, Y.C.Choi, B.Y.Lee, D.W.Lim, B.Kim, Differences in and correlations between cognitive abilities and brain volumes in healthy control, mild cognitive impairment, and Alzheimer disease groups, <i>Clinical Anatomy</i> , 29(4), 473-480, (2016)
12	1.372	70.45	<b>M.H.Choi</b> , H.S.Kim, B.Kim, J.C.Lee, S.J.Park, U.H.Jeong, J.H.Baek, H.J.Kim, D.W.Lim, S.C.Chung, Extraction and analysis of risk elements for Korean homecare patients with senile dementia, <i>Journal of Behavioral Health Services &amp; Research</i> , 43(1), 116-126, (2016)
13	5.723	9.74	<b>M.H.Choi</b> , H.S.Kim, J.H.Baek, J.C.Lee, S.J.Park, U.H.Jeong, S.Y.Gim, S.P.Kim, D.W.Lim, S.C.Chung, Differences in activation area within Brodmann area 2 caused by pressure stimuli on fingers and joints: in case of male subjects, <i>Medicine</i> , 94(38), e1657, (2015)
14	0.847	81.25	H.J.Kim, J.H.Yi, H.S.Kim, S.C.Chung, J.H.Baek, J.C.Lee, S.J.Park, U.H.Jeong, S.Y.Gim, S.P.Kim, D.W.Lim, <b>M.H.Choi</b> , Change of neural activations induced by the passive perception of driving speed difference, <i>Bio-Medical Materials and Engineering</i> , 26, 833-840, (2015)
15	2.055	70.63	H.S.Kim, J.S.Kim, G.I.Jung, J.H.Jun, J.R.Park, S.P.Kim, S.M.Choi, S.J.Park, <b>M.H.Choi</b> , S.C.Chung, Evaluation of the possibility and response characteristics of laser-induced tactile sensation, <i>Neuroscience Letters</i> , 602, 68-72, (2015)
16	0.253	93.75	J.S.Choi, H.S.Kim, Y.H.Shin, <b>M.H.Choi</b> , S.C.Chung, B.C.Min, G.R.Tack, Differences in driving performance due to headway distances and gender: the application of jerk cost function, <i>International Journal of Occupational Safety and Ergonomics</i> , 21(1), 111-117, (2015)
17	2.055	70.63	<b>M.H.Choi</b> , H.S.Kim, J.H.Baek, J.C.Lee, S.J.Park, U.H.Jeong, S.Y.Gim, J.H.You, S.P.Kim, D.W.Lim, H.J.Kim, S.C.Chung, Differing ERP patterns caused by suction and puff stimuli, <i>Neuroscience Letters</i> , 594, 70-75, (2015)
18	1.164	87.65	H.S.Kim, <b>M.H.Choi</b> , J.H.Baek, S.J.Park, J.C.Lee, U.H.Jeong, S.P.Kim, H.J.Kim, Y.C.Choi, D.W.Lim, S.C.Chung, Effects of 92% oxygen administration on cognitive performance and physiological changes of intellectually and developmentally disabled people, <i>Journal of Physiological Anthropology</i> , 34(1), 3, (2015)
19	1.087	77.77	S.C.Chung, <b>M.H.Choi</b> , S.J.Park, J.C.Lee, U.H.Jeong, J.H.Baek, J.H.You, Y.C.Choi, D.W.Lim, J.H.Yi, H.S.Kim, Development of a simultaneous vibration and pressure stimulation system for cognitive studies, <i>Bio-Medical Materials and Engineering</i> , 24(6), 3619-3627, (2014)
20	1.087	77.77	S.C.Chung, <b>M.H.Choi</b> , H.S.Kim, N.R.You, S.P.Hong, J.C.Lee, S.J.Park, J.H.Baek, U.H.Jeong, J.H.You, D.W.Lim, H.J.Kim, Effects of distraction task on driving: A functional magnetic resonance imaging study, <i>Bio-Medical Materials and Engineering</i> , 24(6), 2971-2977, (2014)
21	1.907	23.07	H.S.Kim, <b>M.H.Choi</b> , H.J.Kim, S.P.Hong, J.Y.Park, J.H.Jun, J.H.Yi, Y.G.Chung, S.P.Kim, J.R.Park, D.W.Lim, S.C.Chung, Development of a simple pressure and heat stimulator for intra- and interdigit functional magnetic resonance imaging, <i>Behavior Research Methods</i> , 46(2), 396-405, (2014)
22	0.384	94.44	H.S.Kim, <b>M.H.Choi</b> , I.H.Lee, S.P.Hong, N.R.You, H.J.Kim, D.W.Lim, S.C.Chung, Cognitive ability and cardiovascular control in Intellectually and Developmentally Disabled People, <i>Neurophysiology</i> , 46(2), 169-172, (2014)
23	1.087	77.77	H.S.Kim, <b>M.H.Choi</b> , H.J.Yoon, H.J.Kim, U.H.Jeong, S.J.Park, D.W.Lim, S.C.Chung, B.Y.Lee, Cerebral activation and lateralization due to the cognition of a various driving speed difference: an fMRI study, <i>Bio-Medical Materials and Engineering</i> , 24(1), 1133-1139, (2014)
24	1.087	77.77	H.J.Kim, H.S.Kim, <b>M.H.Choi</b> , I.H.Lee, S.P.Hong, N.R.You, S.C.Chung, D.W.Lim, J.H.Yi, Response time of visual matching task and heart rate in children with Attention Deficit Hyperactivity Disorder (ADHD), <i>Bio-Medical Materials and Engineering</i> , 24, 987-991, (2014)
25	1.130	56.14	H.S.Kim, <b>M.H.Choi</b> , J.S.Choi, J.H.Jun, J.H.Yi, J.R.Park, D.W.Lim, S.C.Chung, Development of a three-axis acceleration signal measurement system for fMRI motor studies, <i>Measurement</i> , 47, 120-124, (2014)

26	0.487	95.23	H.S.Kim, <b>M.H.Choi</b> , J.S.Choi, H.J.Kim, S.P.Hong, J.H.Jun, G.R.Tack, B.Kim, B.C.Min, D.W.Lim, S.C.Chung, Driving performance changes of middle-age experience taxi drivers due to distraction tasks during unexpected situation, <i>Perceptual &amp; Motor Skills</i> , 117, 411-426, (2013)
27	2.116	15.38	H.S.Kim, <b>M.H.Choi</b> , Y.G.Chung, S.P.Kim, J.H.Jun, J.Y.Park, J.H.Yi, J.R.Park, D.W.Lim, S.C.Chung, Development of a simple MR-compatible vibrotactile stimulator using a planar-coil-type actuator, <i>Behavior Research Methods</i> , 45(2), 364-371, (2013)
28	1.169	54.54	H.S.Kim, H.W.Yeon, <b>M.H.Choi</b> , J.H.Kim, J.S.Choi, J.Y.Park, J.H.Jun, J.H.Yi, G.R.Tack, S.C.Chung, Development of a tactile stimulator with simultaneous visual and auditory stimulation using E-Prime software, <i>Computer Methods in Biomechanics and Biomedical Engineering</i> , 16(5), 481-487, (2013)
29	1.428	27.90	J.S.Choi, H.S.Kim, D.W.Kang, <b>M.H.Choi</b> , H.S.Kim, S.P.Hong, N.R.Yu, D.W.Lim, B.C.Min, G.R.Tack, S.C.Chung, The effects of disruption in attention on driving performance patterns: analysis of jerk-cost function and vehicle control data, <i>Applied Ergonomics</i> , 44, 538-543, (2013)
30	1.635	65.10	H.S.Kim, <b>M.H.Choi</b> , H.J.Kim, H.W. Yeon, H.J. Yoon, I.H. Lee, S.P.Hong, N.R.Yu, J.S.Choi, J.H.Yi, Y.S.Chung, D.W.Lim, S.C.Chung, Changes in simple visual matching task performance and physiological signals in intellectually and developmentally disabled people due to administration of highly concentrated oxygen, <i>NeuroRehabilitation</i> , 32(3), 687-692, (2013)
31	2.164	53.33	<b>M.H.Choi</b> , H.J.Kim, J.H.Kim, H.S.Kim, J.S.Choi, J.H.Yi, G.R.Tack, Y.S.Chung, I.Son, S.C.Chung, Correlation between cognitive ability measured by response time of 1-back task and changes of SpO2 by supplying three different levels of oxygen in the elderly, <i>Geriatrics &amp; Gerontology International</i> , 13(2), 384-387, (2013)
32	2.728	51.63	Y.G.Chung, J.Kim, S.W.Han, H.S.Kim, <b>M.H.Choi</b> , S.C.Chung, J.Y.Park, S.P.Kim, Frequency-dependent patterns of somatosensory cortical responses to vibrotactile stimulation in humans: a fMRI study, <i>Brain Research</i> , 1504, 47-57, (2013)
33	1.379	82.78	<b>M.H.Choi</b> , Y.K.Min, H.S.Kim, J.H.Kim, H.W.Yeon, J.S.Choi, B.S.Kim, B.C.Min, J.Y.Park, J.H.Jun, J.H.Yi, G.R.Tack, S.C.Chung, Effects of three levels of arousal on 3-back working memory task performance, <i>Cognitive Neuroscience</i> , 4(1), 1-6, (2013)
34	0.216	98.36	H.J.Kim, H.K.Park, D.W.Lim, <b>M.H.Choi</b> , H.J.Kim, I.H.Lee, H.S.Kim, J.S.Choi, G.R.Tack, S.C.Chung, Effects of oxygen concentration and flow rate on cognitive ability and physiological responses in the elderly, <i>Neural Regeneration Research</i> , 8(3), 264-269, (2013)
35	1.941	21.31	H.S.Kim, <b>M.H.Choi</b> , H.W.Yeon, J.H.Jun, J.H.Yi, J.R.Park, D.W.Lim, S.C.Chung, A new tactile stimulator using a planar coil type actuator, <i>Sensors and Actuators A: Physical</i> , 178, 209-216, (2012)
36	2.055	67.36	S.P.Kim, <b>M.H.Choi</b> , J.H.Kim, H.W.Yeon, H.J.Yoon, H.S.Kim, J.Y.Park, J.H.Yi, G.R.Tack, S.C.Chung, Changes of 2-back task performance and physiological signals in ADHD children due to transient increase in oxygen level, <i>Neuroscience Letters</i> , 511, 70-73, (2012)
37	0.847	76.78	S.P.Kim, B.Y.Lee, S.J.Lee, <b>M.H.Choi</b> , H.W.Yeon, J.Y.Park, J.H.Jun, S.C.Chung, A study on orbital volume of Korean people in their 20s or 40s, <i>Ophthalmic Research</i> , 47, 98-102, (2012)
38	2.923	9.09	S.C.Chung, H.S.Kim, J.W.Yang, S.J.Lee, <b>M.H.Choi</b> , J.H.Kim, H.W.Yeon, J.Y.Park, J.H.Yi, G.R.Tack, A simple 5-DoF MR-compatible motion signal measurement system, <i>Behavior Research Methods</i> , 43(3), 897-901, (2011)
39	1.925	71.86	<b>M.H.Choi</b> , J.H.Kim, H.W.Yeon, J.S.Choi, J.Y.Park, J.H.Jun, B.Y.Lee, H.J.Kim, G.R.Tack, S.C.Chung, Effects of gender and age on anterior commissure volume, <i>Neuroscience Letters</i> , 500, 92-94, (2011)
40	2.373	47.00	G.R.Tack, <b>M.H.Choi</b> , S.J.Lee, J.W.Yang, J.H.Kim, J.S.Choi, J.H.Jun, J.W.Lee, J.Y.Park, S.W.Moon, S.C.Chung, Prioritizing problem features in Korean patients with senile dementia for implementation of monitoring technologies, <i>Psychiatry Research</i> , 187, 418-423, (2011)
41	2.373	47.00	<b>M.H.Choi</b> , S.J.Lee, J.W.Yang, J.H.Kim, J.S.Choi, H.S.Kim, J.Y.Park, J.H.Jun, G.R.Tack, H.J.Kim, S.C.Chung, An analysis of the correlation between young males' personal aggression and their skin conductance levels during exposure to aggression images, <i>Psychiatry Research</i> , 186, 441-442, (2011)
42	0.108	96.00	H.J.Kim, <b>M.H.Choi</b> , B.Y.Lee, S.J.Lee, J.W.Yang, J.H.Kim, J.S.Choi, D.W.Kang, J.Y.Park, J.H.Jun, G.R.Tack, S.C.Chung, Effects of smoking on cerebral and ventricular volumes in healthy males, <i>Neural Regeneration Research</i> , 6(1), 72-75, (2011)
43	2.200	63.80	<b>M.H.Choi</b> , S.J.Lee, J.W.Yang, J.H.Kim, J.S.Choi, J.Y.Park, J.H.Jun, G.R.Tack, B.Y.Lee,

			H.J.Kim, S.C.Chung, Difference between smokers and non-smokers in the corpus callosum volume, <i>Neuroscience Letters</i> , 485, 71-73, (2010)
44	0.108	96.00	<b>M.H.Choi</b> , S.J.Lee, J.W.Yang, J.S.Choi, H.S.Kim, J.H.Yi, G.R.Tack, S.C.Chung, B.C.Min, S.J.Park, J.R.Park, J.H.Jun, Functional magnetic resonance imaging of cerebellar activation and lateralization during verbal and visuospatial tasks, <i>Neural Regeneration Research</i> , 5(3), 226-231, (2010)
45	2.200	63.80	<b>M.H.Choi</b> , S.J.Lee, J.W.Yang, J.S.Choi, H.S.Kim, H.J.Kim, B.C.Min, S.J.Park, J.H.Jun, J.H.Yi, G.R.Tack, S.C.Chung, Activation of the limbic system under 30% oxygen during a visuospatial task: An fMRI study, <i>Neuroscience Letters</i> , 471, 70-73, (2010)
46	1.649	44.31	S.C.Chung, <b>M.H.Choi</b> , S.J.Lee, J.S.Choi, B.Y.Lee, S.W.Moon, H.J.Kim, B.Lee, H.T.Kim, G.R.Tack, Correlation between psychological factors and the cerebellar volume of normal young adults, <i>International Journal of Clinical and Health Psychology</i> , 10(1), 75-88, (2010)
47	0.108	96.00	J.R.Park, D.W.Lim, <b>M.H.Choi</b> , S.J.Lee, J.S.Choi, H.S.Kim, J.H.Yi, G.R.Tack, S.C.Chung, Aging effects of regional activation in a spatial task: A functional magnetic resonance imaging study, <i>Neural Regeneration Research</i> , 4, 663-667, (2009)
48	2.417	99.52	B.Y.Lee, J.H.Sohn, <b>M.H.Choi</b> , S.J.Lee, H.S.Kim, J.W.Yang, J.S.Choi, H.S.Kim, J.H.Yi, G.R.Tack, S.C.Chung, A volumetric study of the corpus callosum in 20s and 40s Korean people, <i>Brain Structure and Function</i> , 213, 463-467, (2009)
49	0.861	87.67	D.W.Lim, J.R.Park, <b>M.H.Choi</b> , S.J.Lee, J.S.Choi, H.S.Kim, J.H.Yi, G.R.Tack, B.Lee, S.C.Chung, Development of a magnetic resonance-compatible galvanic skin response measurement system using optic signal, <i>International Journal of Neuroscience</i> , 119(9), 1337-1345, (2009)
50	2.085	59.24	S.C.Chung, G.R.Tack, <b>M.H.Choi</b> , S.J.Lee, J.S.Choi, J.H.Yi, B.Lee, J.H. Jun, H.J.Kim, S.J.Park, Changes in reaction time when using oxygen inhalation during simple visual matching tasks, <i>Neuroscience Letters</i> , 453, 175-177, (2009)
51	0.861	87.67	S.C.Chung, <b>M.H.Choi</b> , B.Lee, G.R.Tack, J.H.Jun, J.R.Park, B.C.Min, B.G.Park, A study on the cerebral sizes of Koreans in their 20s and 40s, <i>International Journal of Neuroscience</i> , 118, 1711-1724, (2008)
52	0.861	87.67	D.W.Lim, B.C.Min, H.J.Kim, <b>M.H.Choi</b> , S.J.Lee, J.H.Jun, B.Lee, S.C.Chung, Cerebral lateralization index based on intensity of BOLD signal of fMRI, <i>International Journal of Neuroscience</i> , 118, 1628-1642, (2008)
53	0.861	87.67	S.C.Chung, H.W.Lee, <b>M.H.Choi</b> , G.R.Tack, B.Lee, J.H.Yi, H.J.Kim, B.Y.Lee, A study on the effects of 40% oxygen on addition task performance in three levels of difficulty and physiological signals, <i>International Journal of Neuroscience</i> , 118, 905-916, (2008)
54	0.861	87.67	J.R.Park, D.W.Lim, S.Y.Lee, H.W.Lee, <b>M.H.Choi</b> , S.C.Chung, Long-term study of simulator sickness: Differences in EEG response due to individual sensitivity, <i>International Journal of Neuroscience</i> , 118, 857-865, (2008)
55	0.861	87.67	H.J.Kim, H.K.Park, J.R.Park, <b>M.H.Choi</b> , H.W.Lee, S.C.Chung, Effects of aging on visuospatial performance and cerebral activation and lateralization: An fMRI study, <i>International Journal of Neuroscience</i> , 118, 781-791, (2008)
56	0.757	34.37	S.C.Chung, B.Lee, G.R.Tack, J.H.Yi, H.W.Lee, J.H.Kwon, <b>M.H.Choi</b> , J.S.Eom, J.H.Sohn, Physiological mechanism underlying the improvement in visuospatial performance due to 30% oxygen inhalation, <i>Applied Ergonomics</i> , 39, 166-170, (2008)
57	2.019	57.07	S.C.Chung, G.R.Tack, J.H.Yi, B.Lee, <b>M.H.Choi</b> , B.Y.Lee, S.Y.Lee, Effects of gender, age, and body parameters on the ventricular volume of Korean people, <i>Neuroscience Letters</i> , 395, 155-158, (2006)