

Seong-Jin Kim
Assistant Professor at
Ulsan National Institute of Science and

All Since 2013

Citations 487 350
h-index 13 11
i10-index 15 12

Integrated Imaging System Bio-medical Interface Circuit

Technology

TITLE	CITED BY	YEAR
Imaging method and apparatus SJ Kim US Patent 8,344,306	47	2013
A CMOS Image Sensor Based on Unified Pixel Architecture With Time- Division Multiplexing Scheme for Color and Depth Image Acquisition SJ Kim, JDK Kim, B Kang, K Lee Solid-State Circuits, IEEE Journal of 47 (11), 2834-2845	44	2012
A modular expandable tactile sensor using flexible polymer HK Lee, SI Chang, SJ Kim, KS Yun, E Yoon, KH Kim Micro Electro Mechanical Systems, 2005. MEMS 2005. 18th IEEE International	42	2005
A Three-Dimensional Time-of-Flight CMOS Image Sensor With Pinned-Photodiode Pixel Structure SJ Kim, SW Han, B Kang, K Lee, JDK Kim, CY Kim Electron Device Letters, IEEE 31 (11), 1272-1274	37	2010
A spatial-temporal multiresolution CMOS image sensor with adaptive frame rates for tracking the moving objects in region-of-interest and suppressing motion blur J Choi, SW Han, SJ Kim, SI Chang, E Yoon IEEE Journal of Solid-State Circuits 42 (12), 2978-2989	37	2007
A 1920× 1080 3.65 µm-pixel 2D/3D image sensor with split and binning pixel structure in 0.11 pm standard CMOS SJ Kim, B Kang, JDK Kim, K Lee, CY Kim, K Kim Solid-State Circuits Conference Digest of Technical Papers (ISSCC), 2012	34	2012
A low dark current CMOS image sensor pixel with a photodiode structure enclosed by p-well SW Han, SJ Kim, E Yoon Journal of Semiconductor Technology and Science 5 (2), 102-106	31	2005
A 640× 480 image sensor with unified pixel architecture for 2D/3D imaging in 0.11µm CMOS SJ Kim, JDK Kim, SW Han, B Kang, K Lee, CY Kim VLSI Circuits (VLSIC), 2011 Symposium on, 92-93	28	2011
Label-free CMOS bio sensor with on-chip noise reduction scheme for real-time quantitative monitoring of biomolecules SJ Kim, E Yoon IEEE transactions on biomedical circuits and systems 6 (3), 189-196	20	2012
A high dynamic range CMOS image sensor with in-pixel floating-node analog memory for pixel level integration time control SW Han, SJ Kim, JH Choi, CK Kim, E Yoon VLSI Circuits, 2006. Digest of Technical Papers. 2006 Symposium on, 25-26	20	2006

TITLE	CITED BY	YEAR
Capacitance-type fingerprint sensor SJ Kim, E Yoon US Patent 7,298,875	19	2007
A CMOS fingerprint system-on-a-chip with adaptable pixel networks and column-parallel processors for image enhancement and recognition SJ Kim, KH Lee, SW Han, E Yoon IEEE Journal of Solid-State Circuits 43 (11), 2558-2567	16	2008
Harmonic distortion free distance estimation in tof camera B Kang, SJ Kim, S Lee, K Lee, JDK Kim, CY Kim Three-Dimensional Imaging, Interaction, and Measurement 7864, 786403	13	2011
Apparatus and method of obtaining 3D image SJ Kim US Patent 8,345,103	12	2013
A Spatial-Temporal Multi-Resolution CMOS Image Sensor with Adaptive Frame Rates for Moving Objects in the Region-of-Interest J Choi, SW Han, SJ Kim, SII Chang, E Yoon Solid-State Circuits Conference, 2007. ISSCC 2007. Digest of Technical	10	2007
A 16.6µW 32.8MHz monolithic CMOS relaxation oscillator YH Lam, SJ Kim Solid-State Circuits Conference (A-SSCC), 2014 IEEE Asian, 161-164	8	2014
A 3-D Camera With Adaptable Background Light Suppression Using Pixel-Binning and Super-Resolution J Cho, J Choi, SJ Kim, J Shin, S Park, JDK Kim, E Yoon IEEE Journal Solid-State Circuits 49 (10), 2319-2332	- 7	2014
A 5.9 µm-pixel 2D/3D image sensor with background suppression over 100klx J Cho, J Choi, SJ Kim, J Shin, S Park, JDK Kim, E Yoon VLSI Circuits (VLSIC), 2013 Symposium on, C6-C7	7	2013
Apparatus and method of obtaining depth image SJ Kim US Patent 8,217,327	7	2012
A 0.5-V sub-µW/channel neural recording IC with delta-modulation-based spike detection SJ Kim, L Liu, L Yao, WL Goh, Y Gao, M Je Solid-State Circuits Conference (A-SSCC), 2014 IEEE Asian, 189-192	6	2014
Single gate pixel and operation method of single gate pixel SJ Kim, SW Han US Patent 8,462,247	6	2013
Method and image sensor having pixel structure for capturing depth image and color image SJ Kim US Patent App. 13/356,384	5	2013

TITLE	CITED BY	YEAR
Real-time label-free quantitative monitoring of biomolecules without surface binding by floating-gate complementary metal-oxide semiconductor sensor array integra SJ Kim, K Yoo, J Shim, W Chung, C Ko, M Im, LS Kim, E Yoon Applied Physics Letters 91, 203903	5 or	2007
Portable Coulter counter with vertical through-holes for high-throughput applications Y Chen, SJ Kim, J Guo, Y Kang, JP Kausalyac, AGM Ongc, W Hunzikerc, Sensors and Actuators B: Chemical 213, 375–381	4	2015
Label-Free CMOS DNA Quantification with On-Chip Noise Reduction Schemes SJ Kim, M Shenoi, K Yoo, J Shim, W Chung, C Ko, LS Kim, E Yoon Solid-State Sensors, Actuators and Microsystems Conference, 2007	4	2007
A 200/spl times/160 pixel CMOS fingerprint recognition SoC with adaptable column-parallel processors SJ Kim, KH Lee, SW Han, E Yoon ISSCC. 2005 IEEE International Digest of Technical Papers. Solid-State	le 4 *	2005
Apparatus having reduced noise and method of using the apparatus for detecting ionic materials K Yoo, S Kim, E Yoon US Patent 7,824,530	3	2010
Apparatus and method for selective pixel binning SJ Kim US Patent 8,964,057	2	2015
Image processing method HS Lim, BM Kang, KC Lee, SJ Kim US Patent 8,305,377	2	2012
Performance Evaluation of Pinning Potential Adjustment in Two- Dimensional/Three-Dimensional Image Sensor SJ Kim IEEE Electron Device Letters 33 (10), 1426-1428	2	2012
Method and apparatus for suppressing background light in time of flight sensor JS Shin, SJ Kim, E Yoon, J Cho US Patent 9,786,252	1	2017
Image sensor based on depth pixel structure SJ Kim, SW Han, A Theuwissen US Patent 9,076,706	1	2015
High Accuracy Remote Temperature Sensor Based on BJT Devices in 0.13-µm CMOS SJ Kim, SSY Ng, D Wee, YH Leow, FY Ma, SB Chiang Integrated Circuits (ISIC), 2014 14th International Symposium on, 408 - 411	1	2014
3D image processing method and apparatus for improving accuracy of depth measurement of an object in a region of interest SJ Kim US Patent 8,369,575	1	2013

TITLE	CITED BY	YEAR
Image sensor and operating method SJ Kim, SW Han US Patent App. 12/929,681	1	2011
Apparatus and method for generating depth image BM Kang, KC Lee, SJ Kim US Patent 9,366,759		2016
Depth sensing apparatus and method S Kim, SW Han US Patent 9,207,065		2015
Image processing apparatus, medium, and method HS Lim, BM Kang, SJ Kim US Patent 8,810,602		2014
FILTER FOR SELECTIVE TRANSMISSION OF VISIBLE RAYS AND INFRARED RAYS USING AN ELECTRICAL SIGNAL SJ KIM, DK KIM, KC LEE, B JEROEN WO Patent 2,012,057,558		2012