

BIOGRAPHY

Yoshiaki Daimon Hagiwara was born on July 4, 1948 in Kyoto Japan. At age 17 in 1965, he moved to Riverside, California USA for study as a high school student. He graduated Caltech in Pasadena California USA in 1971 with BS degree in honor, in 1972 with MS degree and in 1975 with PhD degree in Physics minor and Electric Engineering major. He joined Sony in 1975 and was engaged first in the early development of image sensors. While working at Sony since 1975 till 2008, he was engaged in the early developments of image sensor and the digital camera chip-set, including the ADC, DRAM and high-speed Cache SRAM buffer memory chips and micro controller chips and real-time high-performance processors. Before retiring from Sony in 2008, he was engaged with the developments of the PS2 and PS3 Play Station chip sets. He was invited to talk at the CCD1979 conference in Edinburgh, Scotland UK, the ECS1980 conference in St. Louis USA, the ESSCIRC2001 conference in Villach, Austria, the ESSICRC2008 in Edinburgh, Scotland UK, and ISSCC2013 in San Fransisco USA for his works at Sony.

In 1992 he also served as a member of JEDEC memory standardization committee and also as the IEC TC47 technical committee chair of the international standard committee (IEC). He also served as the international program chair and an operational committee member in IEEE Electron Device Society (EDS) sponsored ICMTS conferences, IEEE Solid State Circuits Society (SSCS) sponsored ISSCC conferences for which he served as the IEEE ISSCC Asian Committee chair and also as the ISSCC international technical program (ITC) chair in series. He was also a member of the PC and OC and advisory committee members of IEEE Computer Society (CS) sponsored Cool Chips International Conference in series.

He served as a visiting professor in the electrical department and the applied physics departments at Caltech in 1998 till 1999. He was a visiting professor in the electrical department at Gunma University at Kiryu Japan in 2003 till 2006. He served as a full professor at the information science and technology department of Sojo university in Kumamoto-city, Kyushu Island in Japan since 2009 till 2017 and now serving as a specially appointed professor in the president office in Sojo University.

In 2008 he founded AIPLAB consortium and worked as the president in the artificial intelligent partner system (AIPS) laboratory, a nonprofit research organization (NPO) registered by Kanagawa prefecture government in Japan in 2008, and still now serving as the president of the LOCOMTEC AIPS Laboratory in Atsugi-city, Japan for developing AI Robot Clean Energy SDGs System Solutions. He served as the chair and is still serving as a member of Department of Educational Committee in Society of Semiconductor Industry Specialists (SSIS). He is Caltech Distinguished Alumni, AAIA Fellow, IEEE Life Fellow and a member of IEEE EDS, IEEE SSCS, IEEE CS, IEEE Council on Superconductivity, IEEE Nanotechnology Council, IEEE Sensors Council, and IEEE Systems Council.

LIST OF SOME MAJOR PUBLICATIONS

- [1] Amr M. Mohsen, T.C.McGill, Yoshiaki Daimon Hagiwara, and Carver A. Mead, "The Influence of Interface States on Incomplete Charge Transfer in Overlapping Gate Charge Coupled Devices", IEEE Journal of Solid State Circuits, Vol. SC 8, No.2, April 1973.
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- [3] Yoshiaki Daimon Hagiwara, Amr Mohsen, and T. C. McGill, "Final Stage of the Charge Transfer Process in Charge Coupled Devices", IEEE Transactions on Electron Devices, Vol. ED-21, No.4, April 1974.
- [4] Y. Hagiwara, JPA1975-127646, filed on Oct 23, 1975, on the surface-pinned N+PNP triple junction type dynamic photodiode with MOS capacitor buffer memory for high frequency global shutter.
- [5] Y. Hagiwara, JPA1975-127647, filed on Oct 23, 1975, on the surface-pinned N+PNP double junction dynamic photodiode with MOS capacitor buffer memory for high frequency global shutter.
- [6] Y. Hagiwara, JPA1975-134985, filed on Nov 10, 1975, on the surface-pinned PNP double-junction bipolar-transistor type dynamic photodiode with vertical overflow drain (VOD) capability with completely-majority-carrier-depleted buried-channel base region.
- [7] C.A. Mead, Y. Hagiwara, et al, "128-Bit Multi Comparator", IEEE Journal. of Solid State Circuits, VOL.SC11, No.4, Oct.1976. Caltech/Intel Project 1972-1973.
- [8] Y.Hagiwara, T.Hahashimoto and S.Ochi, JPA1977-126885, filed on Sept 29, 1977, on in-pixel overflow drain (OFD) with drain punch-thru action of complete-charge-draining and high-frequency global-and-electronic shutter function capability.
- [9] Y Daimon-Hagiwara, "Two Phase CCD with Narrow-Channel Transfer Regions", SSDM1977, Sept 1978; Proc. 9th Conf. Solid State Devices, Japanese Journal of Applied Physics, Vol. 17 Sup. 17-1, 1978, pp. 255-261.
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- [11] Y.D-Hagiwara, an invited talk, "Advances in CCD imagers", the 5th Int. Conf. on CCD, Univ. of Edinburgh, Scotland, UK, Sept 1979; <https://www.imagesensors.org/Past%20Workshops/1979%20CCD79/03-1%20Hagiwara.pdf> ; <https://imagesensors.org/1979-papers/> ;
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- [13] Yoshiaki Daimon-Hagiwara, an invited talk " CCD imagers", IEEE Electrochemical Society ECS 1980 Meeting, St. Louis, MO USA.
- [14] Fumio Miyaji, Yasushi Matsuyama, Yoshikazu Kanaishi, Katsunori Senoh, Takashi Emori and Yoshiaki Hagiwara, "A 25 nanosec 4 Mega bit CMOSRAM with Dynamic Bot-Line Loads", ISSCC1989 and J.Solid State Circuits, Vol24, No.5, October 1989.
- [15] Yoshiaki Hagiwara, "High-Density and High-Quality Frame Transfer CCD Image with Very Low Smear, Low Dark Current, and Very High Blue Sensitivity", IEEE Transaction on electron Devices, Vol.43, No.12, Dec 1996.
- [16] Yoshiaki Hagiwara, an invited ESSCIRC2001 Plenary Talk, "Micro-Electronics for Home Entertainment", Technical Digest of IEEE ESSCIRC2001 International Conference (ESSCIRC2001), Villach, Austria, September, 2001.
- [17] Yoshiaki Hagiwara, "Imaging Devices", IEEE IEDM2004 Conference Tutorial Short Course, Dec 2004..
- [18] Yoshiaki Daimon Hagiwara, "SOI Design in Cell Processor and Beyond", an invited ESSCIRC2008 Plenary Talk, Technical Digest of IEEE ESSCIRC2008 Conference, Edinburgh, Scotland UK, September 2008.
- [19] Yoshiaki Hagiwara, "The p-n-p-n Diode in Future Linear Motor Cars and in Modern Imagers" an invited talk on ISSCC2013 Plenary Panel talk, Feb 2008 and IEEE Journal of Solid State Circuits, June issue, 2013.
- [20] Yoshiaki Hagiwara,, JPA2014-135497, " Digital Transformation Matrix for Fast Image Recognition System", filed on July 1, 2014.
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