

## Biographical Sketch of Avidah Zakhor

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### Academic Appointments

- July 1998 **University of California**, Berkeley, CA, USA  
Dept. of Electrical Engineering and Computer Sciences.  
*Title:* Professor of Electrical Engineering
- July 1994 **University of California**, Berkeley, CA, USA  
Dept. of Electrical Engineering and Computer Sciences.  
*Title:* Associate Professor of Electrical Engineering
- July 1988 **University of California**, Berkeley, CA, USA  
Dept. of Electrical Engineering and Computer Sciences.  
*Title:* Assistant Professor of Electrical Engineering

### Education

- Oct. 1987 **Massachusetts Institute of Technology**  
Ph.D. degree in Electrical Engineering and Computer Science.  
Thesis title: Reconstruction of Multidimensional Signals from Multiple Level  
Threshold Crossings.
- Sept. 1985 **Massachusetts Institute of Technology**  
S.M. degree in Electrical Engineering and Computer Science.  
Thesis title: Error Properties of Hartley Transform Algorithms
- June 1983 **California Institute of Technology**  
B.Sc. degree in Electrical Engineering.  
Graduate first in the engineering class of 1983 at Caltech.

### Principal Fields of Interest

Digital Signal Processing and its applications to 2D and 3D image and video processing, and communications;

### Selected Honors and Awards

- 2009 IEEE Transactions on Multimedia Best paper award for the paper: M. Chen and A. Zakhor, "Multiple TFRC Connections Based Rate Control for Wireless Networks," IEEE Trans. on Multimedia, Vol. 8, No. 5, Oct. 2006, pp. 1045-1062.
- 2008 IEEE Transactions on Semiconductor Manufacturing Best paper award for the paper: A. Gu and A. Zakhor, "Optical Proximity Correction with Linear Regression", IEEE Trans. on Semiconductor Manufacturing, Vol. 21, No. 2, pp 263 - 271, May 2008.
- 2007 IEEE Workshop on Multimodal Sentient Computing: Sensors, Algorithms, and Systems, in conjunction with CVPR 2007; best paper award for the paper: A. Zakhor and C. Frueh,

- "Automatic 3D Modeling of Cities with Multimodal Air and Ground Sensors" in Multimodal Surveillance, Sensors, Algorithms and Systems, Z. Zhu and T. S. Huang, Editors, Artech House, 2007, Chapter 15, pp. 339 - 362.
- 2004 Okawa Foundation Prize.
  - 2002 Packet Video Workshop best paper award for the paper: T. Nguyen and A. Zakhor, "Distributed Video Streaming with Forward Error Correction" in Packet Video 2002, Pittsburgh, April 2002.
  - 1999 International Conference on Image Processing best paper award for the paper: R. Neff and A. Zakhor, "Adaptive Modulus Quantizer Design for Matching Pursuit Video Coding," in Proceedings of the International Conference on Image Processing , Kobe, Japan, October 1999, vol. 2, pp. 81-85.
  - 1999 IEEE Circuits and Systems Society Video Technology Transactions Best Paper Award for the paper: R. Neff and A. Zakhor, "Very Low Bit-Rate Video Coding based on Matching Pursuits," in IEEE Transactions on Circuits and Systems for Video Technology, February 1997, vol. 7, no. 1, pp. 158-171.
  - 1997 IEEE Circuits and Systems Society Video Technology Transactions Best Paper Award for the paper: D. Taubman and A. Zakhor, "A Common Framework for Rate and Distortion Based Scaling of Highly Scalable Compressed Video," IEEE Transactions on Circuits and Systems for Video Technology, August 1996, vol. 6, no. 4, pp. 329-354
  - 1997 IEEE Signal Processing Society Transactions Young Paper Award for the paper: S. Hein and A. Zakhor, "Reconstruction of Oversampled Bandlimited Signals from Sigma Delta Encoded Binary Sequences," IEEE Transactions on Signal Processing, March 1994, vol. 42, no. 4, pp. 799-811.
  - 1992 Office of Naval Research Young Investigator Award.
  - 1990 Presidential Young Investigator (PYI) Award.
  - 1990-1991 IBM Junior Faculty Development Award.
  - 1990 - 1995 Analog Devices Junior Faculty Development Award.
  - 1984 - 1988 Hertz Fellowship.
  - 1983 Henry Ford Engineering Award.
  - 1982 - 1983 General Motors Scholarship.

### **Professional Activities**

- Fellow of IEEE, 2002.
- Elected Member of Signal Processing Board of Governors, 1999–2002.
- Elected Member of the Image and Multidimensional Digital Signal Processing (IMDSP) committee 1992–1998.
- Associate editor for IEEE Transactions on Image Processing, 1992–1994.
- Associate editor for IEEE Transactions on Circuits and Systems for Video Technology, 1997–2000

- Co-Founder and CTO of Signamask Inc., supplier of optical proximity correction software to CAD, lithography and mask industries: 1996–1998. Acquired by Mentor Graphics in 1998.
- Founder of Truvideo, supplier of wireless video software to cell phone industry; 2000 to present.
- Co-Founder of Urban Scan Inc., supplier of automated 3D mapping systems; 2005 –2007. Acquired by Google in 2007.