

**IEEE Signal Processing Society**  
**Claude Shannon-Harry Nyquist Technical Achievement Award**  
(formerly known as the Technical Achievement Award)

The Claude Shannon-Harry Nyquist Technical Achievement Award honors a person who, over a period of years, has made outstanding technical contributions to theory and/or practice in technical areas within the scope of the Society, as demonstrated by publications, patents, or recognized impact on the field.

<b>2022</b>	Nicholas Sidiropoulos, for exemplary contributions to tensor decomposition, beamforming, and spectral analysis  Arnold Lee Swindlehurst, for contributions to multi-user and multi-antenna communications and sensor array signal processing.
<b>2021</b>	Pramod K. Varshney for outstanding contributions in the fields of distributed inference, and data fusion.  Charles Bouman for fundamental contributions to X-ray computed tomography and computational imaging.
<b>2020</b>	Jose Carlos Principe for fundamental contributions to adaptive learning systems.
<b>2019</b>	C.-C. Jay Kuo for significant contributions to visual signal processing technologies and their applications.
<b>2018</b>	Michael Elad for contributions to sparsity-based signal processing.
<b>2017</b>	Patrick Flandrin, for contributions to the theory and application of nonstationary signal analysis.  Ahmed H. Tewfik, for contributions to digital watermarking, multimedia, and wavelets.
<b>2016</b>	Jelena Kovacevic, for contributions to the theory and practice of signal representations.  Bhaskar D. Rao, for fundamental contributions to array processing and sparsity-based signal processing.
<b>2015</b>	Li Deng, for outstanding contributions to deep learning and to automatic speech recognition.
<b>2014</b>	Moeness G. Amin, for fundamental contributions to signal processing algorithms for communications, satellite navigations, and radar imaging.  Richard G. Baraniuk, for contributions to the Theory and Applications of Sparsity and Compressive Sensing.
<b>2013</b>	Yonina Eldar, for fundamental contributions to sub-nyquist and compressed sampling, convex optimization and statistical signal processing.  Al Hero, for information-theoretic advances in statistical signal processing and machine learning.
<b>2012</b>	Shih-Fu Chang, for pioneering contributions to signal processing for multimedia content analysis and retrieval.  Ali H. Sayed, for fundamental contributions to adaptive and statistical signal processing.

<b>2011</b>	<b>Bernd Girod</b> , for his contributions to the theory and practice of video communications, search and processing. <b>Björn Ottersten</b> , for contributions in array signal processing and wireless communications.
<b>2010</b>	<b>Aggelos Katsaggelos</b> , for outstanding contributions to the fields of image and video processing. <b>José M. F. Moura</b> , for fundamental contributions to statistical signal processing.
<b>2009</b>	<b>K. J. Ray Liu</b> , for pioneering and outstanding contributions for the advances of signal processing in multimedia forensics, security, and wireless communications. <b>Alan S. Willsky</b> , for originality and innovation in stochastic multiresolution modeling in statistical and graphical modeling, and in probabilistic control-driven signal processing.
<b>2008</b>	<b>Harry L. Van Trees</b> , for fundamental contributions to detection, estimation, and modulation theory, sensor array processing, and Bayesian bounds. <b>Michael Unser</b> , for the contributions to the theory and practice of splines and their applications in signal and image processing.
<b>2007</b>	<b>H. Vincent Poor</b> , for fundamental contributions to statistical signal processing and its applications in wireless communications and related fields.
<b>2006</b>	<b>Chin-hui Lee</b> , for exceptional contributions to the field of automatic speech recognition. <b>Arye Nehorai</b> , for fundamental contributions to sensor array processing with applications to radar, sonar, biomedicine, and the environment.
<b>2005</b>	<b>Alan Bovik</b> , for broad and lasting contributions to the field of digital image processing. <b>Hermann Ney</b> , for contributions to the advancement of the theory and performance of speech and language technology, including language modeling, search algorithms and machine translation.
<b>2004</b>	<b>Edward J. Delp</b> , for sustained and meritorious contributions in the fields of image, video coding and watermarking. <b>Stephen J. Young</b> , for outstanding contributions to the advancement of the theory and performance of speech technology, including speech recognition, spoken language understanding, and dialog systems.
<b>2003</b>	<b>Johann Bohme</b> , for contributions to statistical signal and array processing. <b>Arogyaswami J. Paulraj</b> , for pioneering contributions to wireless communication systems, with emphasis to smart antenna technology and related signal processing techniques.
<b>2002</b>	<b>Henrique S. Malvar</b> , for development of lapped transforms and contributions to audio and video coding techniques. <b>Michael D. Zoltowski</b> , for fundamental contributions to two-dimensional direction-of-arrival estimation and space-time channel modeling and equalization.
<b>2001</b>	<b>P. P. Vaidyanathan</b> , for fundamental contributions to filter bank theory and design.

	<b>Martin Vetterli</b> , for technical leadership and fundamental contributions to the fields of multiresolution signal analysis and signal processing, compression, and transmission.
<b>2000</b>	<b>Rama Chellappa</b> , for contributions to image processing and computer vision.  <b>Georgios B. Giannakis</b> , for fundamental contributions to non-Gaussian and non-stationary signal analysis, system identification, and equalization of single and multi-user communication systems.
<b>1999</b>	<b>John R. Treichler</b> , for outstanding contributions and technical leadership in application of signal processing techniques to communication applications.  <b>Donald W. Tufts</b> , for fundamental contributions in array signal processing and parametric spectrum analysis.
<b>1998</b>	<b>Biing-Hwang Juang</b> , for outstanding theoretical contribution and technical leadership in speech processing and neural network signal processing.  <b>Hugo De Man</b> , for contributions to design automation of digital signal processing systems.
<b>1997</b>	<b>Robert M. Gray</b> , for his seminal contributions to source coding, including work in rate-distortion theory and quantizer design, as well as for his work in medical image processing.  <b>Boaz Porat</b> , for outstanding contributions to Statistical Signal Processing.
<b>1996</b>	<b>Petre Stoica</b> , for fundamental contributions to statistical signal processing with applications in time series analysis, system identification, and array signal processing.  <b>Murat Kunt</b> , for sustained contributions to image sequence processing and coding.
<b>1995</b>	<b>Sanjit K. Mitra</b> , for fundamental and sustained contributions to signal processing research and graduate education.  <b>Teuvo Kohonen</b> , for outstanding contributions to the theory and application of associative memories, artificial neural networks, and pattern recognition.
<b>1994</b>	<b>Thomas P. Barnwell, III</b> , for contributions to the areas of speech processing, filter banks and filter design, and multiprocessor architectures.  <b>Louis L. Scharf</b> , for advances in the theory and application of statistical signal processing.
<b>1993</b>	<b>John W. Woods</b> , for significant and sustained contributions to image processing.  <b>David G. Messerschmitt</b> , for contributions to adaptive filters, VLSI architectures and software, and applications of digital signal processing to communications systems.
<b>1992</b>	<b>S. Y. Kung</b> , for contributions to parallel and neural network signal processing algorithms.
<b>1991</b>	<b>R.A. Roberts</b> .
<b>1990</b>	<b>R. W. Broderon</b> .

1989	B. Friedlander.
1988	T. Kailath.
1987	J.B. Allan and T.S. Huang.
1986	J. H. McClellan.
1985	C. S. Burrus.
1984	B. Liu.
1983	L. B. Jackson.
1982	J. Makhoul.
1981	K. Steiglitz.
1980	T. W. Parks.
1979	R. W. Schafer.
1978	L. R. Rabiner.
1977	A.H. Gray, J.F. Kaiser and J.D. Markel.
1976	A.V. Oppenheim and C. Rader.
1975	B.S. Atal and J.W. Cooley.
1974	No Recipient.
1973	No Recipient.
1972	B. Gold.
1971	J.L. Flanagan.
1970	W.W. Lang.
1969	H.B. Knowles.
1968	M.S. Corrington.

1967	D. von Recklinghausen.
1966	No Recipient.
Achievement Award (forerunner of Technical Achievement Award)	
1965	H. H. Scott.
1964	C. D. Mee.
1963	D. F. Eldridge.
1962	J. K. Hilliard.
1961	J. R. MacDonald.
1960	W. B. Snow.
1959	A. B. Bereskin and P.C. Goldmark.
1958	D.W. Martin.
1957	M. Camras.
1956	H.E. Roys.
1955	H.F. Olson.
1954	B.B. Bauer.