NATIONAL ACADEMEY OF TELEVISION ARTS AND SCIENCES

Outstanding Achievement in Technical/Engineering Development Awards

1948	CHARLES MESAK Don Lee Television for "Phasefader" in recognition of an outstanding advancement in the video field
1949	HAROLD W. JURY of KTSL, LOS ANGELES For the synchronizing coordinator which allows superimposition from more than one location
1950	ORTHOGRAM TV AMPLIFIER BY KNBH-NBC
1951-1953	NO AWARD
1954	NBC, Color TV Policy and Burbank Color - JOHN WEST
1955	RCA TRICOLOR PICTURE TUBE which made the commercial color receiver practical
1956	DEVELOPMENT OF VIDEO TAPE BY AMPEX and FURTHER DEVELOPMENT AND PRACTICAL APPLICATIONS BY CBS - dual entry
1957	ENGINEERING AND CAMERA TECHNIQUES ON WIDE WIDE WORLD (NBC)
1958-1959	Industry-wide improvement of editing of Video Tape as exemplified by ABC - CBS - NBC
1959-1960	THE NEW GENERAL ELECTRIC SUPERSENSITIVE CAMERA TUBE permitting coheir-casting in no more light than is needed for black & white
1960-1961	RADIO CORPORATION OF AMERICA and MARCONI'S WIRELESS TELEGRAPH COMPANY,LTD. — ENGLISH ELECTRIC VALVE COMPANY, LTD. for the independent development of the 4 1/2 inch image orthicon tube and camera
1961-1962	ABC VIDEO TAPE EXPANDER, or VTX Slow motion tape developed by ABC--Mr. Albert Malang, chief engineer, Video Facilities. ABC
1962-1963 1963-1963 1964-1965	No Awards
1965-1966	STOP ACTION PLAYBACK - MVR Corporation and CBS

EARLY BIRD SATELLITE
Hughes Aircraft Company and Communications Satellite Corporation

1966-1967 PLUMBICON TUBE - N.V. Philips Gloeilampenfabrieken
1966-1968 HIGH BAND VIDEOTAPE RECORDER - Ampex Corporation

1967-1968 BRITISH BROADCASTING CORPORATION
For the "Electronic Field-Store Colour Television Standards Converter".
By converting television pictures instantaneously from the 525-11ne/60-field NTSC system used in America and other countries to the 625-1 ine/50 field PAL or SECAM systems used in Europe and in other parts of the world, the "Colour Television Standards Converter" facilitates immediate and world-wide color television broadcast of events and entertainment of major importance via satellite.

1968-1969 EASTMAN KODAK COMPANY
For the ME-4 Process, making it possible to develop color film with greater speed and sharper images than ever before, materially facilitating the presentation of news and other programs.

1969-1970 APOLLO COLOR TELEVISION FROM SPACE
For the conceptual aspects, an Emmy Award **was** presented to the Video Communications Division of NASA, and
For the development of the camera, an Emmy Award was presented to the Westinghouse Electric Corporation.

1970-1971 THE COLUMBIA BROADCASTING SYSTEM
For the development of the Color Corrector which can provide color uniformity between television picture segments and scenes shot and recorded under different conditions at different times and locations.

THE AMERICAN BROADCASTING COMPANY
For the development of an "Open-Loop" Synchronizing System which enables the simultaneous synchronization of any number of color programs from remote locations.

1971-1972 LEE HARRISON, III
For the development of Scanimate, a unique electronic means of generating picture animation.

1972-1973 SONY
For the development of the TRINITRON, a picture tube providing good picture quality in color television receivers.

CMX SYSTEMS, a CBS/Memorex company
For the development of a video tape editing system, utilizing a computer to aid the decision-making process, store the editing decisions and implement them in the final assembly of takes.

1973-1974 CONSOLIDATED VIDEO SYSTEMS, INC.
For the application of digital video technique to the Time Base Corrector, permitting use of smaller, lighter weight, more portable video tape equipment on news and other outside events in television broadcasting.

RCA
For its leading role in the development of the quadruplex video tape cartridge equipment, providing improved production reliability and efficiency in broadcasting video taped program segments, promos and commercials.

THE TELECOPTER
To John D. Silva for the conception and expertise, and To Golden West Broadcasters for its realization

1974-1975 COLUMBIA BROADCASTING SYSTEM
For spearheading the development and realization of the Electronic News Gathering System

NIPPON ELECTRIC COMPANY
For development of digital television Frame Synchronizers

1975-1976 SONY CORPORATION
For the U-matic video cassette concept

EASTMAN KODAK
For the development of Eastman Ektachrome Video News Film

1976-1977 GENERAL ELECTRIC COMPANY
For the first application of the Vertical Interval Reference (VIR) signal system to the television receivers

1977-1978 CBS, INC.
For the development of the Digital Noise Reducer

PBS ENGINEERING
For the technical development of the Public Television Satellite

THOMSON-CSF LABORATORIES
For the development of the Digital Noise Reducer

1978-1979 THE AMPEX CORPORATION
For the development of the compatible one inch type C Format which made possible improved videotape recording, editing and playback.

SONY VIDEO PRODUCTS COMPANY
For the development of the compatible one inch type C Format which made possible improved videotape recording, editing and playback.

1979-1980 THE PANASONIC COMPANY
For the introduction of Digital Techniques for the production of video special effects

NIPPON ELECTRIC COMPANY
For the development and implementation of Digital Techniques for the production of video special effects.

QUANTEL LIMITED
For the development and implementation of Digital Techniques for the production of video special effects.

VITAL INDUSTRIES
For the development and implementation of Digital Techniques for the production of video special effects.

1980-1981 IKEGAMI ELECTRONICS
For the development of digital computer techniques for the automatic alignment of color television studio cameras.

RCA
For the development of digital computer techniques for the automatic alignment of color television studio cameras.

CBS, INC.
For the original concept, assisting in the development and on air use of the first digital electronic still store system which made the magnetic storage and electronic broadcasting of film slides and graphics easier to manage and more reliable with consistent high quality.

AMPEX CORPORATION
For the engineering development of the first digital electronic still store system which made the magnetic storage and electronic broad-casting of film slides and graphics easier to manage and more reliable with consistent high quality.

1981-1982 EASTMAN KODAK COMPANY
For the research and development of a new film technology which led to the introduction of the new high speed color negative film.

FUJI FILM COMPANY
For the research and development of a new film technology which led to the introduction of the new high speed color negative film.

1982-1983 THE AMPEX CORPORATION
For the engineering development of the first transparent quality real-time digital effects system with off axis-rotation, true third dimension perspective and ultra smooth motion which made multiple pass operation possible without signal deterioration.

THE EUROPEAN BROADCASTING UNION
For achieving a European agreement on a component digital-video studio specification based on demonstrated quality studies and for their willingness to subsequently compromise on a world wide standard.

THE INTERNATIONAL RADIO CONSULTATIVE COMMITTEE OF THE I.T.U. (CCIR)
For providing the international forum to achieve a compromise of national committee positions on a digital video studio standard and to achieve agreement within the 1978-82 period.

RCA CCSD VIDEO SYSTEMS
For its pioneering efforts in the development of an 'electronic hand-held recording camera and the development of a system for news gathering on videotape using a single integrated unit containing camera, recorder and battery

SMPTE
For their early recognition of the need for a digital-video studio standard, their acceptance of the EBU proposed component requirement and for the development of the hierarchy and line lock 13.5 MHz demonstrated specifications which provided the basis for a world standard.

3M CORPORATION
For pioneering the development of the first industry accepted videotape.

XEROX CORPORATION
For its pioneering support of research leading to the development of the first electronic graphic creative system.

MEL SATER
For his important contribution to the development of the first industry-accepted videotape.

RICHARD SHOUP
For his concept and development of the first electronic graphic creative system which has led to the importance of videographics in television today.

1983-1984 THE AMPEX CORPORATION
For the development of an extremely light-weight and compact, portable 1-inch Type-C VTR which, with its quality imagery and sound, provides producers with a highly-mobile recording facility

KUDELSKI, SA/Nagra
For the development of an extremely light-weight and compact, portable 1-inch Type VTR which, with its quality imagery and sound, provides producers with a highly-mobile recording facility

LEXICON, INCORPORATED
For the development of the Lexicon Model 1200 Audio Time Compressor and Expander

SONY CORPORATION
For materially improving the quality and efficiency animation production by the development of single-frame recording techniques on stationary video tape and the incorporation of the technology in the 1-inch Type-C equipment

RCA CORPORATION
For pioneering work in the development of circular polarization technology in television broadcasting

TEKTRONIX CORPORATION
For continued technical excellence and leadership in television tests, measurement, and monitoring technology

1984-1985 RCA CORPORATION
For Pioneering Efforts Leading to The Development of Broadcast Television Cameras With Solid State Image Pickup Devices

SONY CORPORATION
For the technology leading to significant improvement in slow motion picture quality

AMERICAN BROADCASTING COMPANY
For the Concepts for a television system leading to significant improvement in slow motion picture quality

1985-1986 ELECTRONICS INDUSTRIES ASSOCIATION
For the Administration of the Development, Testing and Documentation of a single voluntary technical standard for a multi-channel television sound system

NATIONAL BROADCASTING COMPANY
For their work in developing and implementing multi-channel stereo sound for broadcast television

RCA CORPORATION
For their work in developing and implementing multi-channel stereo sound for broadcast television

ZENITH ELECTRONICS CORPORATION
For their research, development and implementation of the multi-channel stereo sound system used in the voluntary broadcast television standard

dbx. Inc.
For their research, development and implementation of the multi-channel stereo sound system used in the voluntary broadcast television standard

SONY CORPORATION
For their design and manufacture of a consumer video tape recorder making it possible for the consumer to time shift recording and viewing

JVC CORPORATION
For the development of a consumer video tape recorder making it possible for the consumer to time shift recording and viewing

PANASONIC CORPORATION
For the manufacturing and marketing of a consumer video tape recorder making it possible for the consumer to time shift recording and viewing

AMPEX CORPORATION
For the development of a microprocessor based intelligent production video tape recorder VPR-3

AMPEX CORPORATION
For their developments in advanced digital picture processor/time base corrector techniques used in the Zeus

ABEKAS VIDEO SYSTEMS
For their outstanding achievement in engineering development of The Abekas A62 Digi1l Video Disk Recorder

SONY CORPORATION
In recognition of their efforts in the development of component Betacam format video recording system for the broadcast industry

RCA CORPORATION
For the pioneering effort in the development of component video recording technology for broadcast television

QUANTEL CORPORATION
For outstanding achievement in painting and graphics generation for the Quantel paint-box systems

M/A COM, INc.
For their contributions to satellite TV encryption and scrambling technology

QUANTEL CORPORATION
For their outstanding achievement in digital video mixing, processing and compositing technology for the Quantel Harrv

1986-1987 DUBBNER COMPUTER SYSTEMS, INC.
In recognition of their engineering contributions in the development of the technology for the conversion en video cape of original Black and White images into color

COLOR SYSTEMS TECHNOLOGY, INC.
In recognition of their engineering contributions in the development of the technology for the conversion on video cape of original Black and White images into color

COLORIZATION. INC.
In recognition of their engineering contributions to the development of the technology for the conversion on video cape of original Black and White images into color

NATIONAL AERONAUTIC AND SPACE ADMINISTRATION (NASA)
For their pioneering efforts in basic research of the application of Ku-band Satellites for terrestrial communication

COMMUNICATION RESEARCH CENTRE OF THE DEPARTMENT OF COMMUNICATIONS OF CANADA
For their pioneering efforts in basic research of the application of KU Band Satellites for terrestrial communications

EUROPEAN BROADCAST UNION (EBU)
For their early recognition of the need for a component digital video tape recording standard, development of a recording system based on the world wide standard for digital component sampling and cooperation with the SMPTE to provide the basis for a world standard for digital component video cape recording

PUBLIC BROADCASTING SERVICE (PBS)
For their outstanding leadership and contributions in helping to develop more efficient UHF transmitter technology

SOCIETY OF MOTION PICTURE AND TELEVISION ENGINEERS (SMPTE)
For their early recognition of the need for a component digital video tape recording standard, development of a recording system based on the world wide standard for digital component sampling and cooperation with the EBU to provide the basis for a world standard for digital component video tape recording

1987-1988 QUANTEL INC.
In recognition of their engineering contribution to the advancement of standards conversion technology

AVS Ltd.
In recognition of their engineering contribution to the advancement of standards conversion technology

DR. THOMAS C. STOCKHAM
For his pioneering efforts in the development of tapeless audio recording and editing technology

EASTMAN KODAK COMPANY
In recognition for their development of the new Eastman Color High Speed Daylight Negative Films 5297 and 7297

QUANTEL INC.
Awarded to QUANTEL INC. for their Engineering Contribution in Real Time 3D Digital Video Effects leading to development of MIRAGE

BTS BROADCAST TELEVISION SYSTEMS, INC.
To BTS in recognition of their engineering contribution in 3D computer graphic technology and for development of the FGS 4000 computer animation system

BARCO INDUSTRIES NV
In recognition of their engineering contributions and development of the first all digital controlled intelligence professional broadcast monitor

TEKTRONIX INC.
In recognition of their engineering contribution and development of systems using digital intelligence to measure, monitor and record distortions in a television signal

SCHWEM TECHNOLOGY
In recognition for the development of lens stabilization technology for live cameras

1988-1989 RAY M. DOLBY
For audio noise reduction systems in professional television tape recorders

AMPEX
In recognition of their development and implementation of composite digital video tape recording

SONY CORPORATION
In recognition of their development and implementation of composite digital video tape recording

MAGNI SYSTEMS, INC.
In recognition of their engineering innovation in the development of a fully programmable television test signal synthesizer

RTS SYSTEMS, INC.
In recognition of their engineering contribution and development of professional two-wire intercommunications systems for use in television production and broadcast operations

TRW LSI PRODUCTS INC.
For analog/digital video conversion technology

CBS, INC.
In recognition of their leadership in the development and realization of an intelligent master control system for television stations and networks

1989-1990 TV Technology for the Visually Impaired
Public Television, Dr. Margaret Pfanstiehl, Narrative Television Network and George Frazier (Joint Award)

Storage and Recall Technology in Large Production Switchers
The Grass Valley Group

Real Time Component Digital Noise and Film Reducers
Accom

Technical Developments in Silver Halide Crystal Growth and Dispersion in Motion Picture Negative Films
Eastman Kodak

Still Picture Transmission Technology for News
Glen Southworth, Sony and Eastman Kodak (Joint Award)

Video Work Station Technology
DFX and Pinnacle Systems (Joint Award)

Automated/Robotic Record Playback Video Technology for Large Libraries
Odetics, Panasonic, Ampex and Sony (Joint Award)

Developments in Metal Panicle Tape Technology
Fuji and Sony (Joint Award)

1990-1991 Development of Test Signals and Measuring Equipment for Performance Evaluation of Component Video Systems
Magni and Tektronix (Joint Award)

Multi-Layer Real Time Component Video Compositing Technology
Grass Valley Group and Abekas (Joint Award)

Pioneering Work and Implementation od Data Compression Techniques for Real Time Television Transmission
NEC and Telettra (Joint Award)

Techniques for Minimization of NTSC Artifacts Through Advanced Encoding Techniques
Faroudjia Laboratories

Masahiko Morizono for Technical Vision and Leadership in the TV Industry
Masahiko Morizono

Computerized Robotic Camera Systems
TSM, Ramadec, Epo and Vinten (Joint Award)

Digital Encoding from 525/625 Analogue and Digital Component to Analogue and Digital Composite
Accom

For the Development of Digital Audio Technology Leading to the Compact Disk
Sony and Philips (Joint Award)

1991-1992 Technology for Electronic Character Generation for Television
AB Dick, CBS Laboratories and Chyron (Joint Award)

Motion Vector Compensated Standards Conversion
Vistek-Digital Vision and Thomson-CSF (Joint Award)

Digital Video Processing in Color TV Cameras
Panasonic (MEI)

Digital Audio Work Station Technology for Television Broadcasting
AMS and New England Digital (Joint Award)

TRIAX CABLE CAMERA TECHNOLOGY
CBS Laboratories and Phillips (Joint Award)

½ Inch Composite Digital Video Tape Recording Technology
MEI (Panasonic) and NHK (Joint Award)

Broadband Multi-channel Cable Television Technology
Hubert Schflafly

1992-1993 Miniature Lightweight Rapid Deployment Earth Terminals for Satellite News Gathering
Advent Communications Ltd. and Comsat (Joint Award)

Enabling Technology for Non-Linear Editing Systems Using Digital Images and Sounds
Montage Group, Ltd., Avid and EMC (Joint Award)

In Plant Digital Serial Interconnection Technology for Television
Sony, Tektronix, Thomson CSF and Society of Motion Picture and Television Engineers (Joint Award)

Zoom Lens Technology for Broadcast Television Cameras
Dr. Frank G. Back

Pioneering Developments in Digital Video Production Switcher Technology
MEI (Panasonic)

Prism Technology for Color Television Cameras
Philips

1993-1994 Pioneering Development in Micro-lens Technology for CCDs used in ENG Cameras
MEI (Panasonic) and Sony (Joint Award)

Technology for the Removal of Temporal Artifacts Caused by Film Originated *(3/2* Pulldown) 525 Material to 625
AVS, Laser Pacific Media Corp. and Snell & Wilcox Ltd. (Joint Award)

Development of Machine Readable Key Type Numbers on Motion Picture Film
Eastman Kodak Company

Technology for Transmission of Contribution Quality Video and Audio Signals Over Fiber Optic Cable
Time Warner Cable

Controlled Edge Enhancement Utilizing Skin Hue Keying
BTS and Ikegami (Joint Award)

Pioneering Development of Address Compression Technology
Pinnacle Systems

Special Award for Long and Distinguished Service to the Television Broadcast Industry
Julie Barnathan, Joe Flaherty and Michael Sherlock

1994-1995 Pioneering Development in SCH Phasing Monitor Technology
Leitch

Pioneering Development in Half-Inch Component Digital Video Recording Technology
Matsushita and Sony (Joint Award)

Pioneering Development of Direct to Home Digital Satellite Broadcasting
PRIMESTAR and DIRECTV (Joint Award)

Standardization of Serial Digital Audio Transmission System
EBU and AES (Joint Award)

1995-1996 Standardization of JPEG, MPEG 1, and MPEG 2
ISO and IEC (Joint Award)

Implementation in Lens Technology to Achieve Compatibility with CCD Sensors
Canon and Fujinon (Joint Award)

Pioneering Development of the Broadcast Wireless Microphone
CBS, Nady, Sennheiser and Vega (Joint Award)

Digital Technology for Noise Reduction and Elimination of Sound impairments in Television Audio
Sonic Solutions

Development and implementation of Technology for High Security Encryption of Signals for Home Television Reception
General Instrument, News Data (NDS)Corp. and Nagra (Joint Award)

Pioneering Efforts for Rounding Techniques for Multiple Generation Image Manipulation for Minimal Visibility of Truncation Errors
BBC, Grass Valley and Quantel (Joint Award)

1996 – 1997 Pioneering Application of SMPTE 270 Mb/s Technology to Large Scale Television Facilities
CBC and DirecTV

Pioneering Development of Wireless Remote Control for Consumer Television
Zenith

Development of Real-Time 3-D Manipulation for Non-Linear Editing
Pinnacle Systems, Quantal and Scitex Digital Video

Pioneering Development of 3-CRT Video Projectors
UC Precision Lens, Inc., Art R. Tucker and Henry Kloss

Pioneering Development of Real-Time Hardware for Motion Estimation
General Instrument, LSI Logistic, BBC and Snell & Wilcox

1997-1998 Technology to Enable 'Point of Action' Video
Seven Network Ltd Australia

Pioneering Development of a Multichannel Digital Audio Bit Rate Reduction System, Standardized for the ATSC High Definition and Standard Definition Television Systems, and for Worldwide Digital Versatile Discs
Dolby Laboratories

Pioneering Development of Film Scratch Removal Systems for Telecines
Filmtreat International and Piclear

Development of a High Resolution Digital Film Scanner
Eastman Kodak and Philips and Sony

High Definition Intra-Field Compression Adapter Technology for Full Bit Rate 4:2:2, 10 bit, 1/2 inch, Component Digital Recorders
Panasonic and NHK (Japan Broadcasting Company)

Broadcast Quality, 6.35mm, Component Digital ENG/EFP Recording Technology
Panasonic

Development and Implementation of Digital uncompressed Tapeless Recording and Playback Technology for Television Broadcast and Post Production Operations Quantel and Scitex

1998 – 1999 Generation and Protocol Analysis of MPEG-2 Transport Streams for Equipment Evaluation and Operational Monitoring of Digital Television transmission Systems
Hewlett Packard, Tektronix, Thomcast, Sarnoff

Development of DVD Technology
Philips, Sony, Toshiba, Warner Home Video, Dolby, Matsushitia

Development of a Distribution System for Sound with Television known as Sound-in-Sync
BBC

Statistical Multiplexing of DTV Signal
General Instrument Corp.

First Full Time Distribution of TV Network by Satellite Transmission
Home Box Office & CBC

Development of Lens-Line Prompting System
Teleprompter Corp.

1999-2000 Video format up/down image a conversion with color space, film, television and audio compensation
Panasonic and Snell & Wilcox

Development of an audio bit-rate digital two-channel compression system known as Musicam or MPEG Layer II
CCETT, IRT and Philips

Pioneering development of full motion broadcast quality PC video and compression plug-in cards utilized in the manufacture of non-linear editing systems or video servers
Avid, DPS, Matrox, Media 100, Pinnacle and Vela

Implementation of real time virtual imaging for life events on television
Orad, PVI, Sportsvision, Symah and Fox Sports

Preprocessing of baseband video for digital compressed transmission systems to deliver pictures with maximum subject quality and minimum bit rates
DirecTV, Philips, and Snell & Wilcox

Development of advanced battery technology for ENG/EFP
Anton Bauer, Christie, Cine 60 and Frezzolini

Pioneering development of equipment to provide objective measurement of perceptible picture quality in digital television systems
Tektronix, Sarnoff, Rohde & Schwarz, IfN, KDD Media Will

2000-2001 Pioneering developments in shared video-data storage systems for use in television video servers
Leitch/ASC, SeaChange, Thomson/Philips, and Pinnacle

Development of Consumer Camcorders
Sony, JVC, Hitachi, Matsushita, Kodak

Pioneering effort in digital asset management for television news production
KGO-TV, CNN, ITN and Quantel.

Pioneering development of in home disk based personalized digital video recorder (PVR) and accompanying personal television service
TIVO and Replay.

Implementation of a multi-standard precision digital test transmitter for use in receiver chip-set development and set-top-box evaluation and characterization
Rohde & Schwarz

Development of flat screen CRT technology for consumer TV
Sony ,Zenith.

Pioneering development of a digital up converter from 525 to HDTV for DTV broadcasting
BBC, Faroudja, Leitch, and YEM

Development of 24P video
Sony, Laser Pacific, and Kodak.

2001-2002

Development and standardization of the Alignment Color Bar Test Signal for Television Picture Monitors
CBS Technology Center

Development of a practical variable frame rate video acquisition camera system that enables under and over cranking
Panasonic

Development of plasma displays
Professor Donald L. Bitzer, Professor H. Gene Slottow, and Robert Wilson of the University of Illinois at Urbana-Champaign
Fujitsu General

Development and/or commercialization of the 16:9 aspect ratio
Thomson and Philips

Development of remote-controlled cable-suspended moving camera-platform technology
Garret Brown and CF InFlight Systems

Software for managing graphical assets for broadcast.
Proximity

Development of the consumer digital set top box for satellite and/or cable.
Motorola and Thomson

2002-2003

Pioneering Efforts in the Development of Automated, Server-Based Closed Captioning Systems
Turner Networks

Pioneering Development of Digital Modulator Adaptive Pre-Correction for ATSC 8VSB Digital Transmitter Systems
Thales

Development And Application Of Sub-Pixel Imaging Devices For Television Cameras
Thomson

Development of Surround Sound for Television
Dolby, Fosgate, and Scheiber

Pioneering Development of mass-produced digital reflective imaging technology for consumer rear projection television
Texas Instruments

Coding Technology for Optical Recording Formats
Dr. Keith Immek

Technology to simultaneously encode multiple video qualities and the corresponding metadata to enable real-time conformance and / or playout of the higher quality video (nominally broadcast) based on the decisions made using the lower quality proxies
Montage, Pinnacle, Philips and Thomson

2003- 2004

Direct View Liquid Crystal Display Screens
Sharp

UHP Lamps
Philips

Pioneering efforts in the invention of the Telestrator
Len Reiffel

Pioneering Efforts in the Development of Spot Beam Satellites for Distribution of Local Broadcast Channels Directly to Home Receivers
DirecTV and Echostar

Development, productization, and commercialization of video server technology leading to large scale VOD implementations
Concurrent, SeaChange and Ncube