

# 2017 HONORS AND AWARDS RECIPIENTS

## 2017 SMPTE AWARDS CEREMONY

The 2017 Annual SMPTE Awards Gala will take place on **Thursday, 26 October** and will feature a red carpet, reception, and dinner in the Hollywood Ballroom of the Loews Hollywood Hotel.

**Honorary Membership** is the Society's highest accolade. It recognizes individuals who have performed distinguished service in the advancement of engineering in motion pictures, television, or in the allied arts and sciences.

Honorary Members who have passed away are named to the **SMPTE Honor Roll**, which also posthumously recognizes individuals who were not awarded Honorary Membership during their lifetimes but whose contributions would have been sufficient to warrant such an honor.



This year, **Renville "Ren" H. McMann Jr.** (1927 – 2015) will be inducted into the Honor Roll in recognition of his award-winning leadership in the development of television and imaging technology. McMann held more than 36 patents for inventions that include the elec-

tronic video recorder, the electronic image enhancer, the color camera system, and the magnetic scan conversion techniques used by the National Aeronautics Space Administration (NASA) to bring color television images from the moon to viewers around the world. He was the principal inventor for and a major participant in projects such as the development of the CBS Minicam Mark VI, the first handheld color TV camera. A tireless and curious engineer, McMann made many contributions to the advancement of color television signal processing and image gathering technology. Along with those contributions, his pioneering work in the field of high-definition television systems garnered worldwide recognition.

The **Progress Medal** is the most prestigious SMPTE award, and it recognizes outstanding technical contributions to the progress of engineering phases of the motion picture, television, or motion-imaging industries.

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SMPTE awards the 2017 Progress Medal to **Paul E. Debevec**, in recognition of his achievements and on-going work in pioneering techniques for illuminating computer-generated objects based on the measurement of real-world illumination and their effective commercial application in numerous Hollywood films. Techniques from his research have been used to dramatic effect in films such as *The Matrix* sequels, *The Curious Case of Benjamin Button*, *District 9*, *Avatar*, *Rogue One: A Star Wars Story*, and *Life of Pi*. He is also a pioneer in high dynamic range (HDR) imaging and co-authored the 2005 book, "High Dynamic Range Imaging: Acquisition, Display, and Image-Based Lighting," now in its second edition.

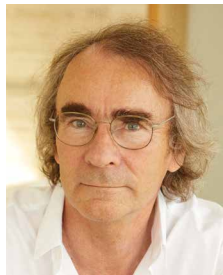
The **Camera Origination and Imaging Medal Award** recognizes significant technical achievements related to inventions or advances in imaging technology, including sensors,



imaging processing electronics, and the overall embodiment and application of image capture devices.

**David F. E. Corley** will receive the award for his five decades of continuous innovation in measurement and calibration tools for image acquisition, display, and color correction.

The **David Sarnoff Medal Award** recognizes outstanding contributions to the development of new techniques or equipment that have improved the engineering phases of television technology, including large-venue presentations.



The award will be presented to **Phillip Bennett** in recognition of his significant contributions to the broadcast industry with his work in video effects, still stores, and digital standards conversion during the dawning of the digital video era. Over the years, Bennett has developed many groundbreaking products for broadcasters, including the very successful Ampex Digital Optics (ADO) digital video effects system and one of the very early digital disk recorders.

The **Digital Processing Medal Award** recognizes significant technical achievements related to the development of digital processing of content for cinema, television, games, or other related media.



**Michael A. Isnardi** will receive the award for his contributions to the art of digital video delivery systems, including video encoding, re-encoding, and quality evaluation. Isnardi's body of work includes one of the first advanced television systems proposals, encoder, compressed-domain watermarking the first realtime Motion Picture Experts Group (MPEG), Emmy® Award-winning MPEG Compliance Bitstreams, compressed-domain bit rate reduction, salience-based compression, and just noticeable difference (JND) evaluation of JPEG 2000 for digital cinema applications. His current work includes sub-Nyquist compressed sensing and skin-tone analysis algorithms.

The **James A. Linder Archival Technology Medal Award** sponsored by **James A. Linder**, recognizes significant technical advancements or contributions related to the invention or development of technology, techniques, workflows, or infrastructure for the long-term storage, archive, or preservation of media content essence.



The 2017 award will be presented to **James M. Reilly** for his more than three decades of contributions to image preservation and sustainable preservation practices. In 1985, Reilly founded the Image Permanence Institute, a non-profit, university-based laboratory devoted to preservation

research, and the world's largest independent laboratory with this specific scope. As its founder and director, Reilly studied the mechanisms of film deterioration and developed technology, techniques, and preservation strategies to lengthen its life in storage.

The **Samuel L. Warner Memorial Medal Award**, sponsored by **Warner Bros**, recognizes outstanding contributions in the design and development of new and improved methods and/or apparatus for motion picture sound, at any step in the process.



The award will be presented to **Mark Robert Gander** in recognition of his contributions to the design and development of cinema loudspeaker systems. Gander has brought a comprehensive perspective to these efforts and has been responsible for every aspect of bringing a new

loudspeaker design to market, from transducer engineering through logistics of manufacture and distribution to the signature marketing of the JBL Professional cinema product line. In his four decades devoted to the highest fidelity cinema sound reproduction, Gander has influenced cinema loudspeaker design industrywide.

The **Technicolor/Herbert T. Kalmus Medal Award**, sponsored by **Technicolor, Inc.**, recognizes outstanding contributions that reflect a commitment to the highest standards of quality and innovation in motion picture post-production and distribution services.



The award will be presented to **Joseph Goldstone** for his innovations in the design and implementation of hardware and software to perform the accurate analysis and characterization of photochemical film processes, including film printing, which have been used in color management systems by the motion picture industry. Goldstone's early work involved the creation and refinement of film scanning and recording processes used for visual effects (VFX) creation at Digital Domain and Industrial Light & Magic (ILM). He was a pioneer in incorporating color science theory into digital production and post-production workflows, and he is currently working on digital image processing for the ALEXA camera systems at ARRI. Goldstone is a key contributor to the Academy of Motion Picture Arts and Sciences (AMPAS) Academy Color Encoding System (ACES) and serves on several SMPTE Technology Committees (TCs): TC-10E DG Dynamic Metadata for Color Transforms of HDR and WCG Images, TC-32NF-40 DG HDR and WCG Signaling on Streaming Interfaces, and TC-31FS DG Constrained DPX for HDR.

The **Workflow Systems Medal Award**, sponsored by **Leon Silverman**, recognizes outstanding contributions related to the development and integration of workflows, such as integrated processes, end-to-end systems or industry ecosystem innovations that enhance creativity, collaboration, and efficiency, or novel approaches to the production, post-production, or distribution process.



The award will be presented to **Randy Ubillos** in recognition of his role in establishing the foundation of accessible and affordable digital nonlinear editing software that fundamentally shaped the industry landscape and changed the way visual stories are created and told. Ubillos' revolutionary work with creating and designing lower-cost editing software such as Final

Cut Pro and Adobe Premiere shifted the film and television industry toward a more inclusive future, giving storytellers of diverse backgrounds and experience levels the ability to tell their stories and rise as filmmakers, technicians, engineers, and key players in every facet of media and entertainment. His work significantly enhanced and transformed the world of post-production, popularizing and commoditizing file-based workflows while removing significant barriers to the creative editing process for millions of users worldwide.

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Each year, one **SMPTE Journal Award** is presented to the author of the most outstanding paper originally published in the *SMPTE Motion Imaging Journal* during the preceding calendar year.



The SMPTE Journal Award will be presented to **Sean T. McCarthy** for the article “How Independent Are HDR, WCG, and HFR in Human Visual Perception and the Creative Process?” published in the May/June 2016 issue of the *SMPTE Motion Imaging Journal*.

**McCarthy**, an engineering fellow, brings a unique convergence of expertise in video compression, signal processing, and the neurobiology of human vision to content distribution at Arris. McCarthy leads advancements in state-of-the-art of video processing, compression and practical vision science. Previously, he held similar responsibilities as Fellow of the Technical Staff at Motorola, and as chief scientist at both Modulus Video, which was acquired by Motorola, and ViaSense, a University of California (UC), Berkeley spin-off that developed commercial applications of the human visual system. He earned a BS in physics from Rensselaer Polytechnic, and a PhD in bioengineering jointly at UC, Berkeley and UC, San Francisco.

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Two **Journal Certificates of Merit** will be presented to the following:



**Katy C. Noland** for the article “High Frame Rate Television: Sampling Theory, the Human Visual System, and Why the Nyquist–Shannon Theorem Does Not Apply,” published in the April 2016 issue of the *SMPTE Motion Imaging Journal*.

**Katy Noland** is a senior research engineer at BBC Research and Development. Her research interests lie in the interaction between human perception and technology. Noland graduated from the Tonmeister course at the University of Surrey

in 2003, and completed an MSc in digital signal processing at Queen Mary University of London in 2004. She joined the Centre for Digital Music at Queen Mary to study for a PhD on automatic analysis of tonal harmony, which she received in 2009. In 2006, she also became a teaching fellow in the electronic engineering department at Queen Mary, teaching audio and video signal processing. After six months as a visiting researcher at a leading consumer electronics manufacturer, Noland joined BBC Research and Development in 2011, where she has specialized in ultrahigh-definition television systems.

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**David Long and Mark D. Fairchild** for the article “Observer Metamerism Models and Multiprimary Display Systems,” published in the April 2016 issue of the *SMPTE Motion Imaging Journal*.



**David Long** joined the faculty of the School of Film and Animation at Rochester Institute of Technology (RIT) in 2007, where he is currently program chair and associate professor for the BS Motion Picture Science program. His research interests at RIT include engineering

multispectral video capture and display systems and studying variability in human color vision for artistic applications. Prior to RIT, Long worked as a development engineer and imaging scientist with Eastman Kodak’s Entertainment Imaging Division. At Kodak, his primary responsibilities included new product development and image science and systems integration for the motion picture group, focusing on film and digital imaging products. Long contributed to the design and commercialization of the Vision 2 family of motion picture color negative films, as well as several digital and hybrid imaging products for television and feature film post-production. His work has earned him numerous patents and a 2008 Scientific & Technical Academy Award for contributions made to the design of Vision2 films. Long has a BS in chemical engineering from the University of Texas at Austin, an MS in Materials Science from the University of Rochester, and a PhD in Color Science from RIT.



**Mark D. Fairchild** is professor and founding head of the Integrated Sciences Academy in RIT’s College of Science and director of the Program of Color Science and Munsell Color Science Laboratory. He received BS and MS degrees in imaging science from RIT and a PhD in

vision science from the University of Rochester. Fairchild was presented with the 1995 Bartleson Award by the Colour Group (Great Britain) and the 2002 Macbeth Award by the Inter-Society Color Council for his work in color appearance and color science. He is a Fellow of the Society for Imaging Science and Technology (IS&T) and the Optical Society of America. Fairchild was presented with the Davies Medal by the Royal Photographic Society for contributions to photography. He is recipient of the 2008 IS&T Raymond C. Bowman award for excellence in education.

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*The **Student Paper Award** recognizes the outstanding paper prepared and submitted by a Student Member. The paper receiving the Student Paper Award will be published in the SMPTE Motion Imaging Journal.*



The 2017 award will be presented to **Elizabeth DoVale** for her paper “High Frame Rate Psychophysics: Experimentation to Determine a JND for Frame Rate.”

DoVale is a recent graduate of RIT with a BS degree in Motion Picture Science. The high frame rate research presented was conducted as part of her Senior Thesis Project. While at RIT, she was an active member of RIT’s student chapter of SMPTE, along with working as teaching assistant for the core motion picture science courses. In 2016, she was awarded the SMPTE Louis F. Wolf Jr. Memorial Scholarship. She now works as an associate engineer for Dolby Laboratories’ Cinema Team.

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**Jonathan Bouchard**, a student at McGill University in Montréal, Québec, Canada, will receive an honorable mention for his paper “Quality Control of Stereoscopic 3D Compositing Using Half-Occlusion Geometry.”

Bouchard is heading the R&D activities on computer vision and image processing at Digital District, an award-winning VFX post-production and color grading company with outposts in France, Belgium, and Canada. Concurrently to this assignment, Bouchard pursues PhD studies at McGill University, under the supervision of Prof. James J. Clark, within the Centre for Intelligent Machines. His research aims at the detection of defects that can be introduced during post-production of stereoscopic (3D) content for cinema and VR, and at the assessment of their perceptual effects. Before his time at Digital District, Bouchard

was a research scientist at Mokko Studio (2011-2016). He completed a Master’s of Engineering (2011) in applied computer vision and a Bachelor’s of Engineering (2008) in automated manufacturing at École de Technologie Supérieure (Montreal, Canada).

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*The **Presidential Proclamation Award** recognizes individuals of established and outstanding status and reputation in the motion picture, television, and motion-imaging industries worldwide.*



**Mark Schubin** will receive the award in recognition of his five decades of contributions to the television technology industry. An internationally recognized expert with an insatiable intellectual curiosity, Schubin has worked in every aspect of television production, including design, manufacturing, lighting, sound, camera, editing, distribution as well as talent, and his projects have spanned every continent of the globe. Today, he supports the broadcasting of New York Metropolitan Opera (The Met) productions to cinemas and televisions around the world. Schubin is an active SMPTE Life Fellow and a sought-after resource in educating the industry on the history and current state of motion-imaging technology.

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*The **Excellence in Standards Award** recognizes individuals or companies that have been actively involved in advancing the Society’s standards activities and processes.*



**Johann Safar** will receive this award in recognition of his continuous participation in SMPTE’s standards work for more than 30 years. Safar has contributed to the development of countless standards related to the compression and formatting of multimedia content for storage

on analog and digital media, as well as the development of Time Code, ancillary data formatting and mapping. He is a careful reviewer of SMPTE standards, with a focus on ensuring harmonization and compatibility of interrelated standards across multiple technology committees. Safar’s dedicated performance in the SMPTE Standards Community has resulted in a high quality of professional standards documents.

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*The rarely bestowed **Society Citation** recognizes individuals or companies that have actively been involved in specific Society engineering or editorial functions.*



**Elizabeth “Betty” Migliore** will receive this award in recognition of her 45 years of service with SMPTE and her contributions to the standards program. A dedicated and loyal staff member, Migliore joined SMPTE in November of 1972 as secretary to the staff director of engineering.

Over the years, she has been steadfast in supporting SMPTE’s standards work as engineering assistant and standards publisher, roles in which she actively supported document preparation for the SMPTE Technology Committees. In these roles, Migliore participated in advancing SMPTE’s standards publishing process from typewriter to CD-ROM to PDF and the digital library.

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*The Citation for Outstanding Service to the Society, which recognizes individuals for dedicated service for the betterment of the Society over a sustained period, will be conferred upon four SMPTE Members:*



**Merrick Ackermans** for his contributions to and leadership of the Atlanta Section and the Southern Region. A long-time contributor to the Atlanta Section and four-term governor of the Southern Region, Ackermans has devoted much time and effort to producing quality Section events.

His extensive involvement has included participation in everything from proposing engaging topics, securing speakers, and organizing facility and audio-visual logistics to contributing his knowledge as a speaker and facilitator.



**Herbert Jay Dunmore** for his contributions as Member and manager of the Washington, D.C. SMPTE Section and as the Student Chapter advisor of the Loyola University Maryland Chapter since its founding in 2012. Dunmore has strongly promoted interaction between the Student Chapter and the Section, hosting an annual Section meeting at Loyola and encouraging his students to participate in the Section.

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**John Walsh** for his dedication and service to the SMPTE Australia Section over the past decade. Walsh has served on the board of the SMPTE Australia Section since 2005, taking on the additional roles of membership chair and Section meeting lead. He has also been an active member of the organizing committee for the biennial SMPTE Australia Section conferences. Walsh is a dedicated Section member, always working behind the scenes to ensure the success of the Australia Section meetings.

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**David Wheeler** for his many contributions to the Australia Section, especially the SMPTE Australia Conferences. Wheeler was a member of the Conference Papers Committee for the SMPTE 2013 Australia Conference and served as chair of that committee for the 2015 event with 16 sessions and 52 presentations spanning four days.

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*The Louis F. Wolf Jr. Memorial Scholarship is designed to assist students in furthering their undergraduate or graduate studies in motion pictures and television, with an emphasis on technology. The 2017 scholarship will be awarded to Trevor Canham, Rochester Institute of Technology (RIT); Emily Faw, RIT; and Catherine Marie Meininger, RIT*



**Trevor Canham** is currently embedded in his fourth year pursuing a Motion Picture Science degree from RIT. His passions lie in digital image processing, color management, and the communication of technical ideas through writing and filmmaking. Outside of school, he practices these passions at his media management position at Optic Sky Productions in Rochester, NY. There he has devised and implemented projects to contribute to the advancement of the company’s post production department. Projects have ranged from the development of an ACES workflow for the company to the creation of various hardware and software improvements for the facility. Canham’s

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passion for motion picture post-production first materialized at his previous internship with Company 3 New York. In his time at RIT, Canham has held several other positions at the institution as well as in the community. He served as the digital projection consultant for the 2017 Rochester International Film Festival, the technical director of RIT's film student's association, as well as vice president of the SMPTE Student Chapter at RIT. Over the next year, he will be developing software for an adaptive consumer color management system as his senior project at RIT.



**Catherine Marie Meininger** is currently a fourth-year student at RIT, pursuing a BS degree in Motion Picture Science. Her childhood interest in filmmaking and editing led her to RIT's School of Film and Animation, but a desire for challenging coursework in science and mathematics attracted her to the school's unique program. Though her main interests originated in audio and video post-production, Meininger developed a passion for the perceptual side of the industry and focuses her studies on color science and psychophysics. Her senior thesis is in collaboration with researchers at ARRI, where she will be studying the perception of noise in color images. She primarily works as a research assistant for the DARPA MediFor program, where she edits images, video, and audio for perceptually undetectable manipulations. She also works as an All-Access editor for RIT SportsZone. Meininger has been a member of RIT's SMPTE chapter and will serve as president this coming year. She is also an active member in the Color Guard and Winter Guard community, where she competes internationally with The Brigadiers, a six-time WGI finalist independent Winter Guard based out of Syracuse, NY, and is a Color Guard instructor for the Webster Marching Band.

**SMPTE**



**Emily Faw** is currently a senior at RIT studying Motion Picture Science. Originally from Philadelphia, PA, Faw's love for science, math, and film brought her to the Motion Picture Science program, where she is pursuing an education in engineering within the entertainment industry. Faw

is interested in image processing and post-production, specifically picture finishing. She is currently working on her senior project in designing a high dynamic range mastering workflow for RIT's School of Film and Animation. She recently completed an internship with the Academy of Motion Picture Arts and Sciences as an Imaging Science Intern with the Academy Gold Program. In 2016, she interned at Harbor Picture Company with the Digital Intermediate Department. At RIT, she currently works as a video production assistant for RIT's Teaching and Learning Services, where she edits and films content for courses. Faw has been a member of RIT's SMPTE chapter since her sophomore year.



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