

A man with a beard and glasses, wearing a black tuxedo with a white shirt and a black bow tie, stands at a clear acrylic podium. He is holding a microphone in his right hand and looking towards the right. A red flower is pinned to his lapel. The background is dark with a blue textured curtain on the right side.

"And the award goes to..."

Paul Debevec

for receiving a 2019

**Technical
Achievement Award**

from the

**Academy of Motion
Picture Arts and Sciences**

USC Viterbi



School of Engineering

The USC Viterbi School of Engineering congratulates **Paul Debevec**, research adjunct professor in the Department of Computer Science, for receiving a **2019 Technical Achievement Award** from the Academy of Motion Picture Arts and Sciences. The award honors his role in creating a high-resolution facial scanning technique used to create realistic computer-generated actors in movies including "Avatar", "The Avengers", "Maleficent", "Furious 7", "Blade Runner 2049", and "Ready Player One".

Debevec's technology uses a sphere with hundreds of white LED light sources to light the actor with polarized gradient illumination conditions to reveal sub-millimeter detail of the face. A set of different facial expressions scanned in this manner is used to create a realistic, animated digital character based on the appearance of the real actor. First developed at the USC Institute for Creative Technologies in 2006, the technique has been used to digitize hundreds of actors including Tom Cruise, Angelina Jolie, Will Smith, Bradley Cooper, Sigourney Weaver, Margot Robbie, Hugh Jackman and Cate Blanchett.

USC's Light Stage facial scanning process is one of nine technologies honored this year for its significant and lasting contributions to motion pictures.

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