

Bio Eugenio Culurciello

BIO LONG:

Eugenio Culurciello received the Laurea (M.S.) degree in Electronics Engineering from the University of Trieste, Italy, in July 1997. His MS thesis work was developed at the Johns Hopkins University with professor Ernst Niebur. He joined professor Andreas G. Andreou laboratory in January 1998 as a graduate student. He received a second M.S. degree in Electrical and Computer Engineering from the Johns Hopkins University, Baltimore. In September 2004 he received the Ph.D. degree in Electrical Engineering at The Johns Hopkins University. Between 2004 and 2011 Mr. Culurciello was with the Department of Electrical and Computer Engineering at Yale University. He was an associate professor of the School of Electrical and Computer Engineering, the Weldon School of Biomedical Engineering, the School of Mechanical Engineering and of Psychological Sciences in the College of Health & Human Sciences at Purdue University, where he directed the 'e-Lab' laboratory. Since July 2019 Eugenio Culurciello works as a Fellow at Micron Inc. His research focus is in artificial vision systems, deep learning, hardware acceleration of vision algorithms. His research aims at extending the performance of CMOS circuits by means of advanced VLSI technologies. He focuses on topologies and circuits that take advantage of the native properties of devices to augment their computational and communication capabilities. His research interests originate from the identification of the physical limitations of current integrated circuits technologies. These limitations suggest efficient algorithms to encode information in ways that are compatible with the physical medium where computation and communication is performed.

His research interests include: analog and mixed-mode integrated circuits with applications to biomedical instrumentation, biological sensors and interfaces, implantable sensors, telemetry sensors, biomimetic sensors. Bio-inspired vision sensory systems and application in Sensor Networks, efficient communication systems, event-based communication and processing. Silicon on Insulator and Silicon on Sapphire circuit design, models of devices, analog-to-digital conversion, radio circuits, radiation tolerant design and isolation amplifiers.

Eugenio Culurciello is the recipient of The Presidential Early Career Award for Scientists and Engineers (PECASE), the Distinguished Lecturer of the IEEE (CASS), and is the author of the book "Silicon-on-Sapphire Circuits and Systems, Sensor and Biosensor interfaces" published by McGraw Hill in 2009, and "Biomedical Circuits and System, Integrated Instrumentation" published by Lulu in 2013. Info: <https://engineering.purdue.edu/elab/>

In 2013 Dr. Culurciello founded TeraDeep <http://teradeep.com/>, a company focused on the design of deep neural network processors. In 2016 Dr. Culurciello founded

FWDNXT <http://fwdnxt.com/>, to deliver the next generation synthetic brains for artificial intelligence (acquired by Micron Inc.).
<http://fwdnxt.com/> and <https://e-lab.github.io/> and <https://www.linkedin.com/in/eugenioculurciello/> and <https://medium.com/@culurciello/>

BIO SHORT:

Eugenio Culurciello (S'97-M'99) received the Ph.D. degree in Electrical and Computer Engineering in 2004 from the Johns Hopkins University, Baltimore, MD. Since July 2019 Eugenio Culurciello works as a Fellow at Micron Inc. He was an associate professor of the School of Electrical and Computer Engineering, the Weldon School of Biomedical Engineering, the School of Mechanical Engineering, and of Psychological Sciences in the College of Health & Human Sciences at Purdue University, where he directed the 'e-Lab' laboratory. His research focus is in artificial vision systems, deep learning, hardware acceleration of vision algorithms. His research interests include: analog and mixed-mode integrated circuits for biomedical instrumentation, synthetic vision, bio-inspired sensory systems and networks, biological sensors, silicon-on-insulator design. Eugenio Culurciello is the recipient of The Presidential Early Career Award for Scientists and Engineers (PECASE), the Distinguished Lecturer of the IEEE (CASS), and is the author of the book "Silicon-on-Sapphire Circuits and Systems, Sensor and Biosensor interfaces" published by McGraw Hill in 2009, and "Biomedical Circuits and System, Integrated Instrumentation" published by Lulu in 2013. Info: <https://engineering.purdue.edu/elab/>

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