

JPL Laboratory's Gerard Holzmann Honored with 2015 IEEE Computer Society Harlan D. Mills Award

LOS ALAMITOS, Calif., 16 December 2014 – Gerard J. Holzmann, head of the Laboratory for Reliable Software at NASA's Jet Propulsion Laboratory, has been named recipient of the 2015 IEEE Computer Society Harlan D. Mills Award.

The Mills Award recognizes researchers and practitioners who have demonstrated longstanding contributions to information science theory and practice, focusing on applying sound theory to software engineering practice.

Holzmann is being recognized "for fundamental contributions to improving software quality, in particular through model-checking tools and coding standards, and for successfully transferring these contributions to practitioners developing mission-critical software."

Holzmann designed the coding standard that has become the standard for all flight software development at NASA's Jet Propulsion Laboratory, and was responsible for the design of a new code review tool that was first used in the flight software team for the Mars Science Laboratory mission. Earlier, he designed and built the Spin model checker. Spin is an efficient tool for the formal verification of distributed software systems. The software has been freely available since 1991, and continues to evolve in line with new developments in the field.

Holzmann received his PhD in Technical Sciences from the Delft University of Technology in The Netherlands in 1979. He worked as a computing science researcher in the Unix group at Bell Laboratories from 1980 to 2003. In 2003, he left Bell Labs to start the new Laboratory for Reliable Software at NASA's Jet Propulsion Laboratory.

Most recently, Holzmann received the NASA Exceptional Engineering Achievement Medal in October 2012, and was part of the team that was awarded the NASA Software of the Year Award in 2013 for the development of the flight software for the Mars Science Laboratory mission to Mars.

He is a JPL Fellow, an ACM Fellow, and a member of the US National Academy of Engineering. He also serves as senior faculty associate in Computing Science at the California Institute of Technology.

The late Harlan D. Mills was widely recognized for his contributions as a mathematician concerned with bringing more rigor into systems and software development. The award consists of a \$3,000 honorarium, memento, and an invited talk at the 2015 International Conference on Software Engineering (ICSE), which is co-sponsored by the IEEE Computer

Society Technical Council on Software Engineering (TCSE). For more information, visit <http://www.computer.org/portal/web/awards/harlan>.

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