

IEEE Communications Society Industrial Innovation Award Winner Biographies

Lawrence Bernstein (2011)

"For innovations in software engineering and project management in support of supplying telephone service to the public."

Bernstein

Lawrence "Larry" Bernstein received his Bachelor of Electrical Engineering from Rensselaer Polytechnic Institute in 1961 and his Masters of Electrical Engineering from New York University in 1963.

He is a software engineer introducing Software Project Management to Bell Labs in 1979/80. He is a Professor of Software Engineering at New Jersey Institute of Technology and Stevens Institute of Technology, Software Engineering. Larry was a distinguish speaker for the IEEE Computer Society. He is a speaker on the design of reliable software for the IEEE Reliability Society.

Larry had a 35-year distinguished career at Bell Laboratories, managing large software projects. At one point he managed the software and systems work of more than 2000 professionals. At Bell Labs he became a Chief Technical Officer of the Operations Systems Business Unit and an Executive Director. In parallel with these Bell Labs positions he was the Operations Systems Vice President of AT&T Network Systems from 1992-1996. Larry is a Fellow of the IEEE and a Fellow of the Association for Computing Machinery (ACM). He is a member of the honor societies Tau Beta Pi and Eta Kappa Nu. He was awarded the coveted Bell South "Eagle" for seminal contributions to their automatic telecommunications operations support systems. Mr. Bernstein holds eight patents.

Mr. Bernstein joined Bell Laboratories in 1961. He was involved in computer software throughout his career that included the design of algorithms for parallel processing and software manufacturing. He was named a Director in 1978. He successfully built, and deployed a distributed software system that automated the 6 million paper records telephone companies used to keep track of telephone lines to people's homes. This is the innovation cited for the IEEE

Communications Society Industrial Innovation Award. Through his leadership, new database algorithms were discovered implemented and patented. He led the development and deployment of a software-controlled, computer-automated order-processing system that trebled productivity, and saved telephone companies \$1 billion annually.

David Belanger (2009)

"For pioneering, innovating, and leading the interdisciplinary execution of information systems that transform massive online data streams into actionable information for service businesses"

David Belanger is currently the AT&T Labs Chief Scientist, and Vice President of Information, Software and Systems Research at AT&T Shannon Labs in Florham Park, NJ. As Chief Scientist, he is responsible to the AT&T Labs President for: identifying pre-product technology important to the future of AT&T, evaluating technology, building alignment within AT&T on technology directions, and serving as AT&T liaison to external technical communities, specifically universities, government agencies and industrial laboratories. The Information, Software, and Systems Research Lab conducts research in: large scale and real time information mining related to operations of a (communications) service business; interactive, information visualization; scaleable, dependable software systems; and new, information based, communications services. It is also responsible for delivery and operations of very large scale (e.g. >400TB) near real time service management capabilities to AT&T and its customers, as well as a wide variety of analytic and information mining services.

Dave joined Bell Telephone Laboratories (later AT&T Bell Labs then AT&T Labs) in 1979 working in the area of database technology for economic analysis. This was followed by research on large scale data and information systems, and program generation for data manipulation systems. He has subsequently conducted research and led research efforts in software systems and engineering, and information mining and visualization. In 1996, Dave created the AT&T InfoLab which has become a leader in research in use of data, at scale, and in new technology to support those activities.

Prior to joining AT&T, Dave was on the Mathematics and Computer Science Faculty at the University of South Alabama, a consultant for a variety of organizations, and co-founder/VP of Gulf Coast Data Systems (a computing services company). He received his B. S. from Union College (NY) in Mathematics, and an M. S. and Ph.D., also in Mathematics, from Case Western Reserve University.

In 1998, Dave was awarded the AT&T Science and Technology Medal for his contributions in very large scale information mining technology. In 2006, he was named an AT&T Fellow for "lifetime contributions in software, software tools, and information mining". He is a Distinguished Engineer in ACM, a Senior Member of IEEE, and a member of the TechAmerica Board of Directors.

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