

Biography

Krishna V. Palem is the Ken and Audrey Kennedy Professor of Computing at Rice University where he is the director and founder of the NTU-Rice Institute on Sustainable and Applied Infodynamics (ISAID) with appointments in Computer Science and in Electrical and Computer Engineering. Previously he held professorships with tenure in Electrical and Computer Engineering and in Computer Science in the College of Computing, a senior research leadership in the College of Engineering, and has been the founding director of the *Center for Research in Embedded Systems and Technology* (CREST) (www.crest.gatech.edu) at the Georgia Institute of Technology, since 1999. In addition to a broad research program involving several universities world-wide as well as industry, CREST is also helping lead a curricular development effort supported by HP as well as by the Yamacraw mission of the state of Georgia. Palem has been a leader in the area of Embedded Systems research, having founded one of the earliest laboratories for research in academia dedicated to this field in 1994---the *Real-time Compilation Technologies and Instruction Level Parallelism* (ReaCT-ILP) laboratory at the Courant Institute of Mathematical Sciences, NYU, where he was a tenured faculty member. This laboratory had significant impact within the context of enabling compilers in optimizing the design and eventual deployment of embedded systems. The work pursued there led to the widely-used **TRIMARAN** system (www.trimaran.org), co-developed with the CAR group of HP-Labs and the Impact project of the University of Illinois. The efforts of the ReaCT-ILP laboratory were recognized with awards for excellence from Hewlett-Packard, IBM and Panasonic. A significant thrust of the research done at the ReaCT-ILP laboratory was aimed at the convenient and fast use of *reconfigurable hardware* by software (application) developers---traditionally the purview of application designers with significant hardware design experience. A highlight of the research accomplishments along this dimension is the award-winning dissertation of his Ph.D. advisee Suren Talla. As part of this research, Palem laid the foundations of *architecture assembly* which is at the heart of the product offerings of Proceler, Inc---the Atlanta based venture funded company that he co-founded in 2000. The prestigious Analysts' Choice Awards recognized Proceler's technology, by nominating it as one of the outstanding technologies of 2002. Over the years, he has played an active role in enabling a community of research in embedded and hybrid systems internationally through invited and keynote lectures, conference organization and participation as well as editorial contributions to journals. Among others, he serves on the editorial board of the newly created *ACM Transactions on Embedded Computing Systems*. Notably, he has chaired bodies whose advise has led to funding initiatives in Embedded and Hybrid Systems by the National Science Foundation in the U.S., as well as by the leading research funding agency A*Star of Singapore. With Guang Gao, he started the *Compilers, Architectures and Synthesis for Embedded Systems* (CASES) workshop series in 1998. Since then, this workshop has blossomed into a thriving international conference sponsored by ACM SIGs, serving the community as a point of focus for top-quality research, driven exclusively by concerns of the embedded computing domain. From 1986 to 1994, Palem was a member of the IBM T. J. Watson research center. During this period, he also served as an Advanced Technology Consultant to IBM's Santa Teresa Laboratory and helped with the transfer of research technology including his own, into compilers for IBM's RS6000 line of processors. He was a Schonbrunn visiting professor at the Hebrew University of Jerusalem, Israel, where he was recognized for *excellence in teaching*, and has held visiting positions at the National University and Nanyang Technological University, of Singapore. He is a fellow of the ACM and the IEEE. He is the recipient of the 2008 W. Wallace McDowell Award, IEEE Computer Society's highest technical award and one of computing's most prestigious individual honors.