

Contact Molly Phillips, maphillips@smu.edu, 214-768-1556

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## Ronald A. Rohrer, Cecil & Ida Green Chair and Professor of Engineering at SMU Lyle Honored with TAMEST Membership

DALLAS (SMU) – Legendary inventor and scholar Ronald A. Rohrer, Cecil & Ida Green Chair and Professor of Engineering in SMU's Lyle School of Engineering, has been named to The Academy of Medicine, Engineering, and Science of Texas (TAMEST). The nonprofit organization, founded in 2004, brings together the state's top scientific, academic and corporate minds to support research in Texas.

The organization builds a stronger identity for Texas as an important destination and hub of achievement in these fields. Members of The National Academies of Sciences, Engineering, and Medicine, and the state's nine Nobel Laureates comprise the 270 members of TAMEST. The group has 18 member institutions, including SMU, across Texas.

Rohrer joins three other distinguished SMU faculty members in TAMEST — Fred Chang, executive director of the Lyle School's Darwin Deason Institute for Cyber Security; Delores Etter, founding director of the Lyle School's Caruth Institute for Engineering Education and electrical engineering professor *emeritus*; and David Meltzer, Henderson-Morrison Chair and professor of prehistory in anthropology in Dedman College.

Considered one of the preeminent researchers in electronic design automation, Rohrer's contributions to improving integrated circuit (IC) production have spanned over 50 years. Rohrer realized early on that circuit simulation was crucial to IC design for progress in size reduction and complexity. Among his achievements was introducing a sequence of circuit simulation courses at the University of California, Berkeley, that evolved into the SPICE (Simulation Program with Integrated Circuit Emphasis) tool, now considered the industry standard for IC design simulation. At Carnegie Mellon University, Rohrer introduced the Asymptotic Waveform Evaluation (AWE) algorithm, which enabled highly efficient timing simulations of ICs containing large numbers of parasitic elements.

"The appointment of Ron Rohrer into TAMEST will increase the visibility of Lyle's outstanding faculty members," said Marc P. Christensen, dean of the Lyle School of Engineering. "Through TAMEST, Rohrer will share his vast knowledge and inspire additional collaborative research relationships with other outstanding Texas professors and universities. This will elevate SMU and the state as a leading center of scholarship and innovation."

Once an SMU electrical engineering professor back in the late 70's, Rohrer rejoined the Lyle School as a faculty member in 2017. He is professor *emeritus* of electrical and computer engineering at Carnegie

Mellon. Rohrer's career has included roles in academia, industrial management, venture capital, and start-up companies.

"I've stayed close to industry to be a practicing engineer and close to academia to conduct deeper research on hard problems," said Rohrer.

According to Rohrer, one pressing problem is analog integrated circuit design automation, also the name of the project-based research course he's currently teaching. "In the analog domain, it's hard to design a 20-transistor circuit. My goal is to make analog integrated circuit design more accessible to students and industry, especially for our local corporate partners," he said. "I want to get the ball rolling so younger engineers can keep it moving toward a complete solution."

Along with his membership in TAMEST and the National Academy of Engineering, Rohrer is an IEEE Life Fellow. His professional service includes several other prominent positions with IEEE, AIEE, and U.S. government committees. Ron is the author and co-author of five textbooks and more than 100 technical papers as well as the holder of six patents. Rohrer has received 11 major awards, including the IEEE Education Medal and the NEC C&C Prize.

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## **About SMU**

SMU is a nationally ranked private university in Dallas founded 100 years ago. Today, SMU enrolls approximately 11,000 students who benefit from the academic opportunities and international reach of seven degree-granting schools.

## About the Bobby B. Lyle School of Engineering

SMU's Bobby B. Lyle School of Engineering, founded in 1925, is one of the oldest engineering schools in the Southwest. The school offers eight undergraduate and 29 graduate programs, including master's and doctoral degrees, through the departments of Civil and Environmental Engineering; Computer Science and Engineering; Electrical Engineering; Engineering Management, Information, and Systems; and Mechanical Engineering. Lyle students participate in programs in the unique Deason Innovation Gym, providing the tools and space to work on immersion design projects and competitions to accelerate leadership development and the framework for innovation; the Hart Center for Engineering Leadership, helping students develop nontechnical skills to prepare them for leadership in diverse technical fields; the Caruth Institute for Engineering Education, developing new methodologies for incorporating engineering education into K-12 schools; and the Hunter and Stephanie Hunt Institute for Engineering and Humanity, combining technological innovation with business expertise to address global poverty.