The Entrepreneurial University.

Technische Universität München

News Release

Munich, Jan. 11, 2010

Academy Award for Professor Reimar Lenz
TUM professor to collect an Oscar for ARRI

An Oscar in the Scientific and Engineering Awards category will be presented this year to TUM Adjunct Professor Reimar Lenz. The Academy of Motion Picture Arts and Sciences will honor the pioneer in the field of digital photography for his contribution to the development of the ARRISCAN film scanner. The scanner enables high-speed, high-precision, and high-resolution scanning of analog feature film stock. The Oscar will also be awarded to Michael Cieslinski and Bernd Brauner from the Munich-based ARRI group (Arnold & Richter Cine Technik), who worked with Professor Lenz on the development of the scanner.

The crucial qualitative advantage of the ARRISCAN is due mainly to technical finesse based on 'microshifting,' a concept developed by Professor Lenz more than 20 years ago. While still a postdoctoral student at the TUM Department of Electrical Engineering and Information Technology, Lenz set out to improve the resolution of digital cameras available at the time. His apparatus produced multiple exposures of individual images, each time with a shift in position of mere fractions of a pixel; these then were moved back into position and superimposed. In this way, multiple-picture information was available for each pixel and the resolution was increased from less than half a megapixel to more than seven megapixels.

The first concrete business concept based on this development emerged in 1989 and, together with his brother Dr. Udo Lenz, Reimar Lenz founded the company Videometrie, which produced the world's first high-resolution digital cameras. A subsequent development, for which Professor Reimer Lenz is now being honored, is the sensor based on CMOS semiconductor technology used in the ARRISCAN film scanner. The development and use of this technology by ARRI arose from the initiative of the Lenz brothers. This scanner technology is required by the film industry since, to maintain high quality, movies are still filmed in analog format and subsequently digitized for processing and storage on new media.

Professor Lenz completed both graduate and post-graduate studies at TUM, the Department of Electrical Engineering and Information Technology, and he has retained close ties with the department as a member of the teaching staff. He was appointed Adjunct Professor in July 2003. Professor Lenz will be presented with the Scientific and Engineering Award of the Academy of Motion Picture Arts and Sciences on February 20th in Beverly Hills, around two weeks before the gala Oscar ceremony. He will be accompanied at the award presentation by

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his domestic partner, prize-winning film director Dagmar Knöpfel, and his daughter Alev, after whom the image sensor used in the ARRISCAN is named.

Free high resolution pictures:
http://mediatum2.ub.tum.de/?cunfold=957038&dir=957038&id=957038

Technische Universität München (TUM) is one of Germany's leading universities. It has roughly 440 professors, 6,500 academic and non-academic staff (including those at the university hospital "Rechts der Isar"), and 24,000 students. It focuses on the engineering sciences, natural sciences, life sciences, medicine, and economic sciences. After winning numerous awards, it was selected as an "Elite University" in 2006 by the Science Council (Wissenschaftsrat) and the German Research Foundation (DFG). The university's global network includes an outpost in Singapore. TUM is dedicated to the ideal of a top-level research based entrepreneurial university. http://www.tum.de

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