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Image Processing: Algorithms and Systems XII

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Special Session in Memory of Til Aach

Prof. Dr.–Ing. Til Aach
17.07.1961 - 16.01.2012

Til Aach received his Diploma and Doctoral degrees, both with honors in EE, from RWTH Aachen University in 1987 and 1993, respectively. During his doctoral degree studies, he worked as a research scientist with the Institute for Communications Engineering at the same university and was in charge of several projects in image analysis, 3D-television and medical image processing.

In 1984, he was an intern with Okuma Machinery Works Ltd., Nagoya, Japan. From 1993 to 1998, he was with Philips Research Labs, Aachen, Germany, where he was responsible for several projects in medical imaging, image processing and analysis. In 1996, he was also an independent lecturer with the University of Magdeburg, Germany. In 1998, he was appointed a Full Professor and Director of the Institute for Signal Processing, University of Luebeck. In 2004, he became Chairman of the Institute of Imaging and Computer Vision, RWTH Aachen University.

His research spanned the areas of medical and industrial image processing, signal processing, pattern recognition and computer vision and resulted in more than 250 scientific publications and 20 patents. He was awarded by the German "Informationstechnische Gesellschaft" (ITG/VDE) for a paper published in the IEEE Transactions on Image Processing in 1998.

He was an Associate Editor of the IEEE Transactions on Image Processing (2002-2008), Technical Program Co-Chair for the IEEE Southwest Symposium on Image Analysis and Interpretation (SSIAI) in 2000, 2002, 2004, and 2006 and Member of the Technical Program Committee of the conference 'Image Processing: Algorithms and Systems', part of the IS&T and SPIE Electronic Imaging Symposium.

The following sections of the conference proceedings are dedicated to the memory of Til Aach. Til was a brilliant scientist, a dependable colleague and a hearty friend. He was also a long-time member of the Technical Program Committee of our conference where he served with genuine willingness and uncompromised professionalism. With this small special session, we wanted to remember his remarkable scientific contributions, as well as his infinite energy in supporting scientific events as a contributor, organizer or reviewer. The session includes a summary of the research on Multispectral Imaging and Image Processing—one of numerous research fields of Til—overviewed by his fellow collaborator Julie Klein from the Institute of Imaging & Computer Vision at RWTH Aachen University. It also includes an account of Til Aach's contributions to the theory of multi-rate filter banks, namely the systematic quantification of shift-variance and cyclo-stationarity properties of such systems, overviewed by Robert Bregovic and Atanas Gotchev from the Department of Signal Processing, Tampere University of Technology.

Til's bio, briefly presented here, is solid yet spare, as it cannot fully reveal Til's great attitude and strong presence. To complete it, we asked some colleagues who knew him from the scientific events we were meeting at to share their personal memories about him.

Til is in our memories and his scientific legacy is here to stay.

Atanas P. Gotchev
Karen O. Egiazarian
Sos S. Agaian
Edward Dougherty
Jaakko Astola

Prof. Karen O. Egiazarian, conference chair

Til was one of the most active program committee members of the conference Image Processing: Algorithms and Systems. He had always been accepting review invitations. Never declined. His reviews were delivered on time, and were very precise and helpful for the authors. I recall also his excellent work as a Technical Co-Chair of the IEEE's Southwest Symposiums on Image Analysis and Interpretation (SSIAI). That symposium was always well programed. Til's involvement in it was as a trademark of scientific quality and we enjoyed attending the events.

Til will always be in my memory as a person with endless cheerfulness, friendliness and willingness to help.

Prof. Joseph Havlicek, University of Oklahoma

I met Til at SSIAI 2000 in Austin, Texas. That was his first time attending SSIAI. It's a smaller conference with a very close and personal atmosphere that occurs every two years. Til was involved in SSIAI from then on, serving on both the organizing committee and the Technical Program Committee. Til and I were technical program co-chairs in 2004 and 2006.

Everyone in the SSIAI community liked and respected Til and held him in high regard. We were all shocked and deeply saddened to hear of his passing. Til was unique in his friendliness, enthusiasm, and no-nonsense technical competence. Thanks to Til, many Europeans (and Germans in particular) became involved with the conference. Til helped people find common ground and forge new collaborations, and he collaborated personally with many people that he met at SSIAI. The conference was truly enriched by his contributions, both technical and personal. At SSIAI 2012 in Santa Fe, we had a special tribute session for Til. There were no papers or technical talks; instead, people simply stood up and shared their personal memories of all the great things he did. We remember him fondly and really miss him.

Prof. Ioan Tabus, Chair of the TICSP workshops on Information Theoretic Methods in Science and Engineering

I remember Til as a very warm and gentile person, with an incredible sense of humor and at the same time as a very dedicated and enthusiastic scientist who was easily making others feel the importance of what he was doing. While he was attending one of the workshops organized by TICSP at the turn of millennium, he was as usual animating the discussions during the free time, he was finding always unexpected subjects about people and places making the others to immediately jump into spirited conversations.

However, at the moment of his technical presentation everybody forgot laughing, and was instantly captivated into his incredible work together with hospital scientists showing imaging of life, valves of hearts, describing the challenging needs of imaging in contact with human life.
His early departure is a big loss for those who had the privilege to know him.

Prof. Tapio Saramäki, Chair of the TICSP Spectral Methods and Multirate Signal Processing series of workshops

What a very sad and unexpected message about our great friend Til, definitely too early! No chance to forget Til as very friendly German person who eagerly attended many workshops organized by Tampere University of Technology and provided his own valuable contributions for making our workshops successful. Til had a never-ending effect on me as a dream scientist in the sense, despite his great career, he had always time to smile, talk, laugh, and have good fun together with his colleagues. (This is definitely in an informal manner that is required nowadays to start formally an international collaboration. In this respect, Til spontaneously knew as a pioneer how to first generate a fruitful friendly atmosphere before serious discussions.)

Assoc. Prof. Atanas P. Gotchev, Chair of Signal Processing and Circuits and System Chapter of Finland (2003-2005)

I first met Til at the TICSP SMMSP Workshop in Pula, Croatia in 2001. We were in the hotel lobby when Tapio saw someone and declared 'Ha, Til came'. Then, Til came and became the heart of the group. I remember his interesting presentation on 'Missing Data Interpolation by Transform-Based Successive Approximation'. Very focused and instructive. It was like an eye opener. However, dinners were the best part of the workshop with Til's intelligent and incredible sense of humor.

In 2003 we invited Til to Tampere to give a distinguished talk in front of the SP&CAS Chapter of Finland. He delivered that talk about 'Digital Image Acquisition and Processing in Medical X-Ray Imaging'. Till then, I was thinking he was more on the theoretical side. It turned out that he knew the technology as profoundly as he was writing formulas.

For me, Til was the perfect combination of a theorist and practitioner but he was much more as a scientist role model and a friend.