KOÇ UNIVERSITY—ISTANBUL

Optical Microsystems Laboratory (OML)

OML UPDATE, ISSUE NO:1 DECEMBER 2009

OML Director Hakan Ürey joined Koc University in 2001 and currently an Associate Professor of Electrical Engineering. He has 22 US and European patents, 28 SCI journal papers, 310 Citations, >100 conference papers with many invited talks, 8 edited books, 2 book chapters, 4 awards and chaired several international conferences.

PROJECTS:

MID-IR SPECTROMETER

LASER 3DTV

PICO PROJECTOR

THERMAL IMAGING

BIOSENSORS

MOEMS SCANNERS

OML DIRECTOR IN THE NEWS

Prof. Ürey received TUBITAK-Encouragement Award (2009) from the President of Turkey, Abdullah Gül, at a ceremony held on Dec. 25th, 2009.

Assoc. Prof. Hakan Ürey received BS'92 Middle East Technical University, Ankara, Turkey, MS and PhD (1997) Georgia Institute of Technology, Atlanta, USA. After PhD, he had 4.5 years of industrial experience working as a Principle Scientist at Microvision Inc. (USA). He has been one of the key contributors to the development of pico-projectors and wearable displays based on MEMS scanner technology. He joined Koc University in 2001 and currently an Associate Professor of Electrical Engineering. He has 22 US and European patents, 28 SCI journal papers, >100 conference papers with many invited talks, 8 edited books, 2 book chapters, and chaired several international conferences. He is the recipient of Siemens Excellence in Research Award (2006), Turkish Academy of Sciences Outstanding Young Research Award (2007), JCI Top Young Person Award in Science and Technology (2008), and TUBITAK Encouragement Award given to a few Scientists under the age of 40 every year (2009). Dr. Urey's research is focused on MEMS, micro-optics, sensors and actuators. His research group has many active and completed projects closely linked with the industry in USA, Europe, and Turkey. His group is one of the largest at KOC and has a very successful project completion track record. He participated in the following FP6 projects: 3DTV (NoE titled 3D Capture, Transmission, and Display), NEMO (NoE titled Network of Excellence in Micro Optics, WP leader on Optical MEMS), and MINOS (SSA titled Micro-Nano Sensors Europe). Currently he is a key contributor to two active FP7-STREP projects: MEMFIS – Ultrasmall MEMS FTIR Spectrometer (Sep 2008- Aug 2011), and HELIUM3 – High Efficiency Laser-Based Multi-User Multi-Modal 3D Display (Jan 2008-Dec 2010).

RESEARCH INTERESTS AND SPONSORS

MEMS/NEMS, micro-optics, photonic microsystems, 2D/3D displays

- FP7-ICT STREP projects: HELIUM3D and MEMFIS
- Microvision Inc. (USA)
- Fraunhofer IPMS (DE)
- TÜBİTAK (TR) (2 projects)
- ASELSAN INC

PICO PROJECTOR HIGHLIGHTS

OML received renewed funding from Microvision, Inc. for projects focussing on technology options and applications for next generation Pico-projector products.

UNIVERSITY AND LOCATION INFORMATION

KOÇ University is Vehbi Koc Foundation's non-profit research University established in 1993 in Istanbul-Turkey. KOÇ has 3,000 undergraduate and 400 graduate students in the masters and PhD programs. In spite of its short history, KOÇ established a strong research culture and became one of the top research Universities in Turkey in terms of scholarly articles and faculty awards. KOÇ has gained significant experience by participating in a number of EU funded projects since 2004 and has setup a project management office to help its academic staff in their efforts to successfully manage and complete their EU projects. The sponsored programs (all research contracts and grants) at KoçUniversity are administered by the Vice President of Research and Development's Office (VPRD Office).

Koç University's mission is to produce the most capable graduates by providing a world-class education, to advance the frontiers of knowledge and to contribute to the benefit of Turkey and humanity at large. Koç University's graduates will be leaders in their respective professions, critical thinkers, creative individuals and will be able to operate in any environment, adhere to the highest ethical standards, feel social responsibility and is committed to the values of democracy. ***Koç University's research will contribute to advance universal knowledge and influence the intellectual, technological, economic and social developments in Turkey.***

http://home.ku.edu.tr/~mems/

Phone: 90-212-338-1474
Fax: 90-212-338-1548
E-mail: hurey@ku.edu.tr

Assoc. Prof. Hakan Urey
Engineering Faculty
34450 Rumeli Feneri Yolu
Sariyer-Istanbul, Turkey

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