

WHAT'S TCH ?

The IEEE Technical Committee on Haptics (TCH) was founded in 2006 under the joint sponsorship of IEEE Robotics and Automation Society and IEEE Computer Society (we are currently a Task Force under the Computer Society). Initiated by a group of haptics researchers, the TCH is home to the international interdisciplinary haptics research community. The TCH hopes to provide leadership and organization for scientific endeavors in the area of haptics which cover a wide range of disciplines from engineering to neurophysiology.

MISSION

The goals of the IEEE TCH are to integrate the diverse interests of the highly interdisciplinary haptics research community and to improve communication among the different fields. It will serve to coordinate the scheduling of major haptics conferences, facilitate special conference sessions and journal issues on haptics, organize tutorials focused on haptics, and contribute towards a new IEEE Transactions on Haptics.

MOTIVATION

Since the first International Symposium on Haptic Interfaces for Virtual Environment and Teleoperator Systems (Haptics Symposium) in 1992, the international haptics research community has enjoyed a healthy and steady growth.

There are now three major international conferences dedicated to haptics research: Haptics Symposium, EuroHaptics, and World Haptics Conference, as well as many other regularly-held small-scale meetings. The number of presentations has grown from 9 papers presented at the first Haptics Symposium in 1992 to 69 oral presentations, 143 posters and 35 hands-on demonstrations with a total attendance of 378 people at the First World Haptics Conference in 2005. In the meanwhile, the number of publications worldwide that mention "haptics" in the title has grown from less than a 100 in 1992 to over 1,600 in 2005.

The time is ripe to bring the multidisciplinary international haptics research community together to debate challenges and opportunities in haptics research, and to make concerted efforts towards experimental, theoretical, and algorithmic breakthroughs in this growing field. In October 2006, a proposal for a new Technical Committee (TC) on Haptics was approved by the IEEE Robotics and Automation Society. In November 2007, a proposal for a Task Force (TF) on Haptics was approved by the IEEE Computer Society.

SCOPE

Haptics research has permeated many disciplines and application areas.

Earliest efforts focused on sensory substitution: stimulating the sense of touch to convey imagery or speech for individuals with visual and/or auditory impairments. With the advent of force-feedback devices, there have been renewed interests in using haptic interfaces in teleoperator systems and virtual environments.

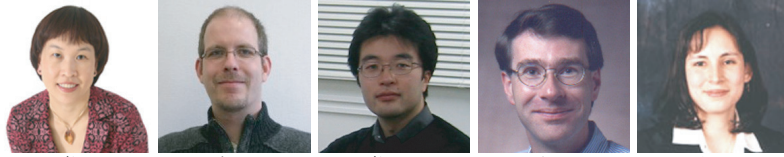
The successful deployment of haptic interfaces requires continuing advances in hardware design, control, software algorithms, as well as our understanding of the human somatosensory system.

Priority areas include, but are by no means limited to:

- Devices & technology
- Tactile display and tactile sensing
- Haptic rendering
- Perception & psychophysics
- Neuroscience
- Haptic cognition
- Multimodal perception
- Sensory guided motor control
- Haptic Communication
- Applications in entertainment, medicine, rehabilitation, education, data perceptualization, art, rapid prototyping, remote collaboration, etc.

GET INVOLVED !!

Membership in the IEEE TCH is free and open to all individuals interested in haptics research at a professional level. There are no fees for membership. IEEE membership is not required for joining the Haptics TC/TF. If you are interested, please fill in the new member sign-up form in the TCH website.



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Allison



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Karon

Domenico

Anatole

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Antonio B.

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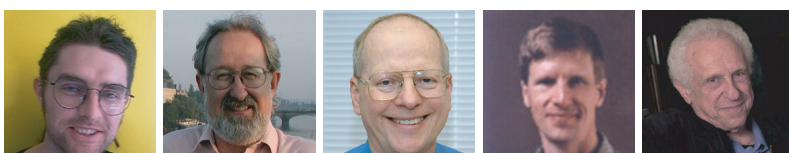
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Dinesh

Makoto

Mandayam

Bernard



Stephen

Roger

James

Mark C.

Nat



Marco

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Gerd

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