



# Minutes of 1<sup>st</sup> meeting of IEEE Technical Committee on Haptics

March 21, 2007,  
Tsukuba, Japan (WHC'07)

## List of participants

Last Name	First Name	Affiliation	e-mail
Basdogan	Cagatay	Koc University	<a href="mailto:cbasdogan@ku.edu.tr">cbasdogan@ku.edu.tr</a>
Bicchi	Antonio	University of Pisa	<a href="mailto:bicchi@ing-unipi.it">bicchi@ing-unipi.it</a>
Buss	Martin	TUMunich	<a href="mailto:m.buss@ieee.org">m.buss@ieee.org</a>
Ernst	Marc	MPI Tubingen	<a href="mailto:marc.ernst@tuebingen.mpg.de">marc.ernst@tuebingen.mpg.de</a>
Ferre	Manuel	UPM	<a href="mailto:m.ferre@upm.es">m.ferre@upm.es</a>
Frisoli	Antonio	Scuola Superiore Sant'Anna	<a href="mailto:a.frisoli@ssup.it">a.frisoli@ssup.it</a>
Hannaford	Blake	University of Washington	<a href="mailto:blake@ee.washington.edu">blake@ee.washington.edu</a>
Harders	Matthias	ETH Zurich	<a href="mailto:mharders@vision.ee.ethz.ch">mharders@vision.ee.ethz.ch</a>
Harwin	William	University of Reading	<a href="mailto:W.S.Harwin@reading.ac.uk">W.S.Harwin@reading.ac.uk</a>
Iwata	Hiroo	University of Tsukuba	<a href="mailto:iwata@k8.tsukuba.ai.jp">iwata@k8.tsukuba.ai.jp</a>
Kajimoto	Hiroyuki	University of Electro-Communications	<a href="mailto:kajimoto@hc.uec.ac.jp">kajimoto@hc.uec.ac.jp</a>
Lécuyer	Anatole	INRIA	<a href="mailto:anatole.lecuyer@irisa.fr">anatole.lecuyer@irisa.fr</a>
Maclean	Karon	University of British Columbia	<a href="mailto:maclean@cs.ubc.ca">maclean@cs.ubc.ca</a>
Niemeyer	Gunter	Stanford University	<a href="mailto:gunter@stanford.edu">gunter@stanford.edu</a>
Okamura	Allison	Johns Hopkins	<a href="mailto:aokamura@jhu.edu">aokamura@jhu.edu</a>
Pai	Dinesh	University of British Columbia	<a href="mailto:pai@cs.ubc.ca">pai@cs.ubc.ca</a>
Prattichizzo	Domenico	University of Siena	<a href="mailto:domenico@ing.unis.it">domenico@ing.unis.it</a>
Provancher	william	University of Utah	<a href="mailto:wil@mech.utah.edu">wil@mech.utah.edu</a>
Srinivasan	Mandayam	MIT	<a href="mailto:srini@mit.edu">srini@mit.edu</a>
Tan	Hong	Purdue University	<a href="mailto:hongtan@purdue.edu">hongtan@purdue.edu</a>
Yokokohji	Yasuyoshi	Kyoto University	<a href="mailto:yokokoji@mech.kyoto-u.ac.jp">yokokoji@mech.kyoto-u.ac.jp</a>

## Observers

Fiene	Jonathan	Johns Hopkins	<a href="mailto:jfiene@seas.upenn.edu">jfiene@seas.upenn.edu</a>
Kuchenbecker	Katherine	Johns Hopkins	<a href="mailto:kuchenbe@seas.upenn.edu">kuchenbe@seas.upenn.edu</a>

## Agenda

<b>TIME</b>	<b>DESCRIPTION</b>
6:00-6:05 pm (5 min)	Welcome (Hong) Intro of TCH officers and advisors
6:05-6:15 pm (10 min)	Coordination of haptics conferences (Gunter)
6:15-6:25 pm (10 min)	TCH 2007 budget (Allison)
6:25-6:35 pm (10 min)	TCH webpage (Antonio F.)
6:35-6:45 pm (10 min)	IEEE Transactions on Haptics (William Harwin / Karon)
6:45-6:55 pm (10 min)	Unify publication procedure at haptics conferences (Karon)
6:55-7:00 pm (5 min)	Special issue/tutorial-workshop on haptics (Domenico)
7:00-7:05 pm (5 min)	Membership recruitment at WHC'07 (Hiroyuki)
7:05-7:10 pm (5 min)	Affiliation with other organizations (Matthias)
7:10-7:15 pm (5 min)	TCH reporting requirements (Hong)

## Abbreviations

TCH	IEEE Technical Committee on Haptics
HS	Haptics Symposium
WHC	World Haptics Conference
EH	Eurohaptics Conference
RAS	IEEE Robotics and Automation Society
C	IEEE Computer Society
ToH	IEEE Transactions on Haptics
VRSJ	Virtual Reality Society of Japan
IEEE VR	IEEE Virtual Reality Conference
VGTC	Technical Committee on Visualization and Graphics (Computer Society)
TVCG	IEEE Transactions on Visualization and Computer Graphics
EIC	Editor-in-Chief
PUG	PHANToM User Group meetings

## Minutes of the meeting

First of all Hong has very good news: our TC won the award of the “most active Technical Committee award”, as given by the IEEE RAS!

For this first meeting the members of the EH and HS executive committees were kindly invited.

### **1) Coordination of haptics conferences (Gunter)**

What are the plans for the next years? In 2008 there will be separate HS and EH conferences. In 2009, World Haptics will be organized again. After 2009, the organization of the conferences remains open.

HS remains interested in being attached to IEEE VR. IEEE VR 2010 may be in China.

Main issue: what will be the nature of the link between WHC and IEEE in the future?

Hiroo: the financial sponsorship of WHC'07 is 100% taken by VRSJ for the 2007 edition. VRSJ is interested in financially sponsoring future WHCs.

Antonio B.: there has always been a flat balance for all WHC conferences in the past.

Cagatay: intends to organize WHC in Istanbul, possibly in 2011.

Hong: we need a steering committee for WHC.

Gunter: the steering committee needs to represent both HS and EH.

Gunter is “volunteered” for coordinating all three haptics conferences (EH, HS, WHC) on behalf of the TCH.

The TCH adopts the following motion:

“A steering committee is to be set-up by the TCH to coordinate future World Haptics conferences”.

Allison: there should also be votes in both HS and EH committees to validate that IEEE TCH coordinates future WHC.

Hong: clarifies that “coordinating” conferences does not mean “running” conferences.

Antonio B. is volunteered to set up the steering committee of WHC.

[Post-conference notes from Gunter]

The WHC steering committee should be composed of

(a) chairs of the WHC/EH/HS conferences,

(b) representatives of the constituent groups :

1) The past WHC chair(s) (WHC07 chair = Hiroo Iwata)

2) The new WHC chair(s) (WHC09 chair = John Hollerbach)

3) The interlaced EH chair, or one of the co-chairs (EH08 = Manuel Ferre)

- 4) The interlaced HS chair, or one of the co-chairs (HS08 elected Allison Okamura)
- 5) A EH member, to be appointed by EH (tbd)
- 6) A HS member, to be appointed by HS (tbd)
- 7) A TCH member, TCH appoints the VC for conferences (Gunter Niemeyer)
- 8) A VRSJ member, to be appointed by VRSJ (tbd)

The past WHC chair would automatically assume the role as committee chair, i.e., sometimes after each WHC, the past WHC chair hands over the reins of the steering committee to his/her successor, who would also update the EH/HS chair members at that time.

## **2) Budget (Allison)**

Figures of the TCH budget are provided by Allison.

Original budget submitted to the Computer Society was of \$8,000, and \$5000 was approved. Another budget was submitted to RAS for \$5000. [It was subsequently approved by RAS.] Total budget of the TCH is currently \$10,000.

[Post-conference notes]

The Most Active TC Award from RAS includes \$1,000. Hiroo Iwata also intends to donate some of the WHC'07 profits to TCH, pending approval from VRSJ.

Hong: In the future, we need to submit budget requests simultaneously to both C and RAS.

Allison will be in charge of the TCH budget.

## **3) Webpage (Antonio F.)**

First version of the TCH Website is now available at: [www.worldhaptics.org/](http://www.worldhaptics.org/)

The main work done for the moment concerns: the TCH logo, the graphic layout, and first contents.

Antonio now needs feedback and input for pages, mainly for: membership sign-up page, Haptic conferences page.

Antonio also asks for flashy haptic images that can be displayed on the TCH homepage.

Antonio raises two main issues: update of materials, and overlaps with existing haptic websites. The use of a content management system is to be discussed. The final system must provide a secure access for members of the TCH executive committee, so that each Vice Chair can directly update the portion of the webpage pertaining to his/her domain.

Hong: website will also contain the history of the TCH (on the "archive" page), e.g., initial proposal, minutes, etc. We intend to keep the TCH members informed through the webpage.

Antonio F. will be in charge of website issues.

There was a discussion on using the TCH website for managing paper submission and registration of future haptics conferences. Also discussed was software that can be used to handle conferences, e.g., openconf (free software), paper plaza, precision conference systems (charged by a company), etc.

There are 2 issues :

- (1) handling the review process. Antonio F. will investigate and prepare a document describing existing tools;
- (2) handling registration, which is more difficult because of online payment issues. Allison will look into how IEEE VR handles its online registration/payment.

#### **4) Journal IEEE Transactions on Haptics (Karon, on behalf of William)**

Karon describes the current state of the journal proposal. A position paper is distributed to the participants. **(this document is enclosed in Annex of the current minutes).**

The possibility of granting TCH members free on-line access to ToH was brought up. It was thought that VGTC offers such service to its members. [Post-meeting, it was clarified that there is not in fact a precedent for VGTC and IEEE TVCG to offer free online access to TC members. Thus, TCH member on-line access of this sort would need to be negotiated as a new practice.] [Post-meeting update: This issue is now being incorporated into the budget of the ToH for its Phase II development.]

Matthias: this free access could improve interest for subscribing.

A discussion followed on possible problems for psychophysicists to publish in an IEEE journal. Domenico: possibility for the first issue to be a joint special issue with a perception journal?

Karon: importance point on the choice of journal's EIC. The EIC should change probably every 3 years. Must be less than 6 years of total service.

Hong: According to the practice of C, a search committee is set up to find the EIC. The EIC may not submit any papers with his/her name as a co-author under C regulations. It is not clear what agreement has been reached between RAS and C in terms of how EIC will be selected.

Antonio B.: we should work on a "package" deal that keep our conferences and the journal together, in our negotiation with IEEE.

Hong: the link between Haptics-E and ToH needs to be defined.

Blake: we could put Haptics-e in the "package" for IEEE.

Gunter: we should propose to IEEE that the TCH will organize the search and selection of the EIC.

#### **5) Unify publication process (Karon)**

TCH is concerned by how papers of our conferences will be published. It would be nice for all three haptics conferences to have the same/similar requirements in terms of paper types, lengths, etc.

Suggestions or input concerning this topic should be sent to Karon.

## **6) Special issues (Domenico)**

Objectives of this discussion: understand the trends of past special issues on haptics, and coordinate future proposals for special issues on haptics.

Domenico has collected all data concerning past special issues, workshop, and tutorial on 'haptics' since 1997. Main results are the following:

- Special issues : since 1997, there have been 48 special issues. The first one was in 1997 in Computer Graphics field. The number increased to 8 per year since 2005. First special issues was concerned with haptics technology, then, since 2000, they also focus on perception, rehabilitation, multimodal aspects, and medicine. Main publishers are : IEEE >> ACM > Springer >> others.
- Workshops: Domenico found 45 Workshops (more difficult to find).

Srini: haptics events existed before 1997. First ones in 90's, e.g., PUG (91).

Hong: Domenico's figures should be available on the TCH website.

Matthias: TCH could support tutorials/workshops organized in the future, not financially, but by giving a "label".

Domenico will coordinate future special issues activities.

## **7) Membership recruitments (Hiroyuki)**

A booth for sign-up is at WHC 2007. Cost of the booth = 500\$.

Hiroyuki will take charge of membership recruitments activities.

## **8) Affiliation with other organizations (Matthias)**

Matthias: shall we (and how?) actively approach other organizations for sponsorship of TCH?  
List of such organizations includes: Haptics community webpage, Haptics-L.

Allison: a mutual link could be made between our website and other websites (e.g., Haptics-L), to avoid overlaps of contents.

Matthias will look into affiliation with other organizations.

## **9) Reporting (Hong)**

We need to prepare a one-page slide for RAS concerning highlights of haptics research every year. Hong asks for suggestions on what to put down in such a limited space. C plans to solicit

papers from each TC to be published in Computer Society journals/magazines. Matthias will prepare the one-page slide for RAS this time.

Karon: one solution could be to list the best papers of haptics conferences.

Matthias: it must be something “flashy”.

One highlight could be the availability of 3DOF haptic devices at around 300\$ by Novint Tech (demonstrated at IEEE VR 2007).

Allison: it could be related to highlights of haptics in mass media (= haptic citations in TV, radio, etc).

## **10) Appendix: ToH brief (Karon and William)**

# Haptics Journal: Brief for TC/WHC at WHC, Mar 2007

William Harwin Karon MacLean

## Overview

Most attendees will be aware that an effort is underway to introduce a Haptics Journal. This effort is coordinated by several core people with the lead taken by William Harwin on the proposal side, and Bill Hamel as our primary IEEE liaison.

**Haptics is a growing area, and there is no single journal that covers all aspects of Haptics.**

General information about both the journal effort and the new IEEE Technical Committee (TC) on haptics, which is separate but related, is available online at this temporary site:

<http://www.cs.ubc.ca/~maclean/hapticsPublications/>  
login/password: *not available in public minutes*

Among other things, this site includes (a) info about a discussion email list and (b) a pointer to the IEEE Phase 1 proposal presentation, which makes the community-growth case for a haptics journal on the basis of number of haptics-related pubs and haptics special issues.

## Scope statement

*The proposed journal, to be called Transactions on Haptics, will address the science, technology and applications associated with information acquisition and object manipulation through touch. Haptic interactions relevant to this journal include all aspects of manual exploration and manipulation by humans, machines, and interactions between the two, performed in real, virtual, teleoperated, or networked environments.*

## Phase 1: Approved Feb 2007

A Phase 1 proposal for IEEE Transactions on Haptics has been approved. This essentially means the concept has been screened as appropriate for the more rigorous Phase II process.

## Phase 2: Proposal due 16 April

We are currently undergoing Phase 2 (meeting is in Philadelphia on June 14), which consists of:

**From us:** a Phase 2 proposal which includes:

- . • periodical oversight structure, EIC selection process and term constraints
- . • identity of proposed Editor in Chief
- . • structure for editor selection (EIC and possibly associate editors)
- . • identification of paper source channels (where to market it)



### From IEEE:

- . • a marketing survey to assess financial viability
- . • firm financial commitments from sponsoring IEEE societies

### IEEE Society Sponsorship

#### Current *proposed* society **Financial Co-Sponsorship:**

- . • Robotics and Automation Society (45% and lead role: contact is Bill Hamel)
- . • Computer Society (45%; contact is Jon Rokne)
- . • Consumer Electronics (10%)

#### Current proposed **technical co-sponsorship** (no financial involvement):

- . • Systems and Signal Processing
- . • Engineering in Medicine and Biology
- . • Instrumentation and Measurements

### First Issue in 2008

Assuming Phase 2 approval on schedule, we would **launch sometime in 2008 with 4 issues / year.**

During our startup phase, we propose to do several **thematic issues**, each with an invited paper from a key researcher, both to underscore our scope and encourage submissions – **e.g.**

- . • Advances in perception
- . • Haptic interface design and control
- . • Software rendering for haptic and multimodal interactions
- . • Applications and haptic interaction design
- . • Rehabilitation, Medicine, Neuroscience...

### Community Feedback & Support Needed

- .1. What is best way to **share ‘ownership’** of with non-IEEE haptics researchers?
  - . • *Would like to include non-IEEE researchers both as authors and readers*
  - . • *Ideas for alternative marketing for Phase 2 proposal (where should we advertise? Where should we not advertise?)*
- .2. Need an **initial Editor in Chief** and a **plan to replace him/her every 3 years.**
  - . • *How do we want to structure steering boards and associate editors?*
  - . • *What role should the TCH have here?*
- .3. It will be extremely important to have a **strong first issue to set the tone.**
  - . • ***Save up some good work to submit in 2008!***
  - . • *What themes might we consider for subsequent issues? (See initial suggestions above)*