

Newsletter of the IFAC Technical Committee on Human-Machine-Systems

Issue 2014_2, September 2014 (Newsletter of IFAC TC 4.5 available on: <http://tc.ifac-control.org/4/5/newsletter>)





This newsletter appears just after our IFAC World Congress 2014, in Cape Town, South Africa. This second 2014 newsletter contains outputs from our TC 4.5 and CC4 meetings organized in Cape Town:

1. The presentation of the list of our TC members with a new co-chair from industry
2. The preparation of our next IFAC/IFIP/IFORS/IEA Symposium in Analysis, Design, and Evaluation of Human-Machine Systems, 2016, Kyoto, Japan
3. The summary of our CC4 meeting at IFAC WC 2014
4. The presentation of an International Research Network on Human-Machine Systems
5. The obituary notice of our colleague Dr. Adinda Freudenthal
6. A list of future events related to Human-Machine Systems

(To communicate your information to the next TC 4.5 newsletter, send your proposal by email to Frédéric Vanderhaegen: frederic.vanderhaegen@univ-valenciennes.fr)

1. The presentation of the list of our TC members with a new co-chair from industry

The TC 4.5 is composed by one chair (F. Vanderhaegen, France), and three co-chairs (T. Sawaragi, Kyoto University, Japan; S. Narayanan, Wright State University, USA; L. Bourrouilhou, UReason, The Netherlands). There is now new co-chair from industry (i.e. UReason) in our TC. UReason is an Anglo-Dutch software company founded in 2001, and has strong expertise in the area of process safety and alarm management. The UReason motivation for cochairing the TC 4.5 was given in our last newsletter (see: <http://tc.ifac-control.org/4/5/Newsletter2014-1.pdf>).

[co-chair] Professor T. SAWARAGI	[chair] Professor F. VANDERHAEGEN	[co-chair] Professor S. NARAYANAN	co-chair Director L. BOURROUILHOU
			
Department of Mechanical Engineering and Science Kyoto University Japan	LAMIH, UMR CNRS 8201 Department of Human-Machine Systems University of Valenciennes France	Department of Biomedical, Industrial and Human Factors Engineering Wright State University USA	UReason International BV, Delft The Netherlands

Members of our IFAC TC 4.5 are invited to verify their affiliation and information at <http://tc.ifac-control.org/4/5/members>. If some modifications have to be done, please contact F. Vanderhaegen.

2. The preparation of our next IFAC/IFIP/IFORS/IEA Symposium in Analysis, Design, and Evaluation of Human-Machine Systems, 2016, Kyoto, Japan

The preparation of our next symposium was presented by Prof. T. Sawaragi.

Our symposium will be organized by Kyoto university and will be held in Kyoto from August 31 to September 2, 2016.

Deadline for submission will be the 21st of November 2015.

Please, be ready for submitting papers and sessions!

More details will be distributed as soon as possible.

3. The summary of our CC4 meeting

Our new CC4 chair is Prof. Klaus Janschek from TU Dresden, Germany. Many thanks to Prof. Detlef Zühlke for being for 6 year our CC4 cochair. Here is enclosed the minutes of this meeting and information about IFAC written by Klaus Janschek

“Minutes of Meeting - CC4 – Robotics, Mechatronics and Components
Cape Town, 2014-Aug-28

Participants

Detlef Zuehlke (outgoing CC4 Chair), Klaus Janschek (incoming CC4 Chair),
Ioan Dumitrache (TC4.1 Chair), Peter Korondi (TC4.3 Chair), Frederic Vanderhaegen (TC4.5 Chair)

Topics

0. CC4-Chair handover

- Detlef Zuehlke as outgoing CC4-Chair thanks all TC4.x chairs for the fruitful cooperation in the last years of office and introduces Klaus Janschek as incoming CC4-Chair; Detlef will be still with CC4 as continuing member of TC4.5
- Klaus Janschek thanks Detlef Zuehlke on behalf of CC4 for his excellent and long year CC4 efforts

1. Co-sponsoring policy

- minimum obligation of a co-sponsoring TC: assignment of 1-2 IPC members to sponsored event
- proposed obligation @ CC4: organizing of invited sessions by TC-members of the co-sponsoring TC; **Action: all TC chairs**
- incentive for organizers of invited sessions @ CC4: free registration of organizers (up to decision of event responsible) ... this may perhaps improve the willingness for organizing invited sessions → experiences will be reported at next CC4 meetings; **Action: all TC chairs**

2. Upcoming CC4 events

- TC4.1 2016 in Bucharest, details TBD
- TC4.2 2016 Symposium in UK, planning on schedule
- TC4.3 2015 Symposium in Brazil, planning delayed and critical

TC4.5 2016 Symposium in Japan, planning on schedule

3. TC-relevant IFAC journals

TC4.1 no specific journal, publications usually in CEP

TC4.2 specific journals exists - Mechatronics

TC4.3 no specific journal, publications usually in CEP, Mechatronics

TC4.5 no specific journal, publications usually in CEP, Engineering Applications of Artificial Intelligence

- Problem @ TC4.5: human machine system topics are not so well visible at current IFAC journal level

4. TC Industry Co-Chairs

- all TC have industry Co-Chairs

- however it is not clear what are their term of references

- each TC chair formulates some brief terms of reference (2-3 lines) for the industry co-chair and communicates this within CC4 for stimulation best practice exchange, Action: all TC chairs

5. TC Newsletters

- each TC should be envisage issuing a TC newsletter (min. 1 per year), Action: all TC chairs

- distribution should cover all TCs of CC4, Action: all TC chairs

FYI: Best practice newsletter example from TC7.1 ...

IFAC TC 7.1 website: <http://tc.ifac-control.org/7/1>

IFAC TC 7.1 BLOG: <http://ifac-automotive-control.blogspot.com/>

IFAC website: <http://www.ifac-control.org>

FACEBOOK: <http://www.facebook.com/group.php?gid=137447056273990&ref=ts#>

LINKEDIN: <http://www.linkedin.com/groups/Automotive-Control-4069204>

Newsletter of IFAC TC 7.1: http://ymlp.com/archive_gwybeqqigu.php

Newsletter of IFAC: <http://www.ifac-control.org/newsletters>

Contact: info@ifac-automotivecontrol.org

6. CC4 Meetings

- it is agreed that meetings only at the IFAC WCs (i.e. every three years) is not sufficient for fruitful development of CC4

- it is agreed that more frequent virtual meetings (minimum 1 per year) should be performed using modern communication technologies; i.e video conference, Skype, ...

- the best possible access should be evaluated (preference: Skype) and communicated to CC4-Chair, Action: all TC chairs

- CC4-Chair to initiate the virtual meetings, Action: CC4-Chair

7. Cleaning-up and updating of TC scopes

- it is evident that the existing TC scopes have some overlaps, some of them are out of date and some current topics related to CC4 are missing

- moreover there exist some topical incoherencies between CC3 and CC4

- for strengthening the topical profile of CC4 the following procedure is agreed:

i. CC4-Chair compiles the relevant TC scopes of CC4 and CC3 and identifies overlaps and incoherencies, Action: CC4-Chair, 2014-Oct-15

ii. This current status is discussed during a virtual telecom with all TC chairs, Action: all TC chairs and CC4-Chair, 2014-Nov

iii. Discussion of CC3#CC4 harmonization; Action: CC4-Chair and CC3-Chair, 2014-Nov

iv. Update of TC4.x scopes on website, Action: all TC chairs, 2014-Dec-31

Updates from Technical Board Meeting, 2014-Aug-29

Missing TC-relevant journals

The missing journal problem has been investigated deeply during the last months by a task force at Executive Board; solution planned: new open access IFAC journal (internet based) on a broad scope, shall serve as homebase for such topics not covered by one of the existing IFAC journals; currently under discussion, tentative implementation 2016.

IFAC sponsoring of Summer Schools

- Summer schools at graduate and PhD level can be regularly sponsored by IFAC using the “workshop” event type
- for workshops it is not mandatory issuing proceedings (although it could be done, if appropriate; if so, then POL must be used)
- as summer schools also have an educational aspect, a brief information should be given to the IFAC education responsible officer Bozenna Pasik-Duncan (bozenna@math.ku.edu)

Author: Klaus Janschek, 2014-Sep-06”

4. The presentation of an International Research Network on Human-Machine Systems

An International Research Network entitled HAMASYTI (Human-Machine systems in Transportation and Industry) is created since January 2014 for 4 years. It composed by several European universities (Leeds, Delft, Berlin, Reims, Valenciennes, Compiègne) and research organisms (CNRS, FRAUNHOFER). The main topics that will be treated concern the analysis, the design and the evaluation of non-intrusive systems for the control and the supervision of human-machine systems, for the real-time diagnosis of the human state, and for the assessment of the resilience of a given system. Joint projects, actions and meetings are planned between the partners of this network for exchanges and mobility between researchers, PhD students, assistant professors and professors.

Colleagues from our TC are welcome to this network as associate members. For more details, please contact F. Vanderhaegen.

5. The obituary notice of our colleague Dr. Adinda Freudenthal

(the text is based on the in memoriam by prof. ir. Ena Voûte, dean of the faculty of Industrial Design at TU Delft)

On Tuesday, 18 February 2014, at the age of 50, the sad message was delivered that Dr. Ir. Adinda Freudenthal passed away. Adinda was born in Utrecht and obtained her master in Industrial Design Engineering at TU Delft. She spent three years working as a project manager for the architects firm Cie and gave the course in ‘Industrial Design’ at the Hogeschool in Rotterdam. In 1992 she returned to TU Delft and worked on her PhD thesis entitled: “The design of home appliances for young and old consumers” in the faculty of Industrial Design Engineering, which she finished in 1999 (supervisors Prof. J.M. Dirken and Prof. A.J.W.M. Thomassen).

She continued her research on ‘increasing the user-friendliness of equipment used in healthcare’ and became specialist in “Intelligent healthcare: Design of ICT-involved medical socio-technical systems”. During her career, she taught on numerous design courses, including: “Telematics products and service design”.

Her commitment to research enabled her to acquire and direct some major projects, including “ARIS*ER” (EU FP6), “The intervention cockpit” (STW) and “SUMMER” (EU FP7), which had more than 60 partners (hospitals, businesses and universities) with the help of PhD students and postdocs.

The fact that Adinda's expertise was held in high esteem was demonstrated by her membership of the European think tank Epossi. At the IFAC conference in Valenciennes, France, in 2010, Adinda won the "Theoretical Paper Prize" with her paper "Revolutionizing the way people work with medical technology". She later joined the IFAC TC 4.5 and became the contact person for the informal European network Human Machine Systems. Adinda was a very active supporter of the 'Delft Women In Science' network.

Adinda was an extraordinarily committed and valued colleague who will be greatly missed. Our thoughts go out to Adinda's family, friends, colleagues and students and we offer our sympathy to them for their sad loss.

6. A list of future events related to Human-Machine Systems

- H-CPS-I (Human Cyber Physical System Interaction - Control for the Human Welfare), 22-23 September 2014 Paris (France): <http://h-cps-i.sciencesconf.org/>
- ERGO-IA2014, 15-17 October 2014, Bidart-Biarritz (France) : <http://www.ergoia.estia.fr/>
- IEA2015 (19th Triennial Congress of the International Ergonomics Association), 09 - 14 August 2015 , Melbourne (Australia): <http://eventegg.com/iea-2015/>