Deliverable 5.2

Annual Report on Dissemination Activities

DISSEMINATION LEVEL		
PU	Public	**X**
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COVER AND CONTROL PAGE OF DOCUMENT	
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[1] **R**=Report, **DEC**= Websites, patents filling, etc., **O**=Other

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Executive Summary

This document presents the dissemination activities carried out during the first year of the CPSE Labs project. Participations of the centres at specific public events and scientific publications are compiled. More details are given for a selection of significant activities.

1 Introduction

This report presents the dissemination activities which were achieved by the partners of the CPSE Labs project from end of January 2015 to end of January 2016 (first year of the project). These activities aim at developing the growth of the eco-system of the cyber-physical systems by increasing the visibility of the Design Centre achievements. They are supported as much as possible by the website and other communication means developed in WP2. They consist in organizing or participating at events as well as producing scientific publications to reach different targeted publics.

Deliverable D5.1 "Dissemination and Exploitation Plan" identified three kinds of dissemination activities which are useful to distribute complementary set of messages to appropriate audiences:

1. Overviews of centre technologies and instruments to increase the awareness about the centre network and to broaden the community of potential end users. Such presentations can be given during forums or fairs for instance, both at the regional and at the European level.
2. Tutorials about dedicated technologies to ease their adoption by end users. Such presentations can be given during summer schools or dedicated workshops, whereas the supporting materials can be archived on the project web site.
3. Technical presentations of latest technologies to validate their relevance by academy or industry experts. Such presentations can find a natural place in existing international conferences with paper proceedings. They can be also published in journals. It is worth noting that the appropriated conferences can be both general events about cyber-physical systems or events more focussed on the potential application domains of the proposed technologies (e.g. robotics, smart buildings, transport embedded systems, etc.).

This report presents a global analyse of the partners' participations in events and their scientific publications having in mind the three kinds of needs identified in D5.1. The detailed lists of dissemination actions and publications can be found in the appendix A and B, respectively.

2 Analysis of the participation to dissemination events

The partners participated in 55 events from end of January 2015 to end of January 2016 (cf. appendix A). Their activities range from leaflet distribution to oral presentations in specific sessions, and the participation figures can be split according to the event nature as follows:

- Partners achieved networking activities in 32 different existing conferences or workshops;
- They participated to 6 activities jointly organised with other H2020 projects;
- They organized 4 workshops and 1 summer school focused on CPSE Labs know-how;
- They visited or had a booth in 4 exhibitions;
- Finally, the 8 remaining activities include the participation at other kind of events (e.g. to promote smart cities or energy management).

The wide number of events is also representative of the wide spectrum of technical or applicative domain related to cyber-physical systems. The following topics have been covered by the partners according to their interests or their roles in the project.

- project overview, mainly supported by fortiss and Steinbeis ,
- maritime domain, in line with the platform of the Germany North centre,
- system engineering, in line with the platform UK centre,
- autonomous vehicles and design of robotics architectures, in line with the platforms of the Sweden and France centres,
- smart city domain, in line with the platform of the Spain centre.

More illustrative details are given below for a subset of significant actions.

2.1 Focus on general presentations of CPSE Labs

The following activities have been selected as examples of general representations of CPSE Labs in large events in strong relationship with other related European projects or clusters.

CPSE Labs was represented at the ARTEMIS Industry Association co-summit event in Berlin in March 2015 by co-ordinator Holger Pfeifer, of fortiss, with the support of Steinbeis and Newcastle University. ARTEMIS is an industrial association for CPS and embedded systems in Europe, and the co-summit is an excellent opportunity to reach many of the association's industrial members. This year the theme of the co-summit event was "Smart Industry: Impact of Software Innovation".

Fortiss and ONERA participated in Grenoble in March 2015 at the event organised to launch the promotion of European cluster "Smart Anything Everywhere". This cluster consists of 4 networks of regional competence centres, funded with EUR 26M. This includes the CPSE Labs project. The ultimate goal is to facilitate access to latest technologies in the areas of systems and components. The launch event provided a forum to discuss capabilities of electronics and ICT technologies for supporting SMEs who build innovative and competitive "smart" products. In addition, France presented its experience with a complementary initiative to foster innovation in SMES.

Day 1 on 26th March introduced SME success stories from the CAP'TRONIC Initiative as well as a set of new platforms aimed to ease the access of SMEs to electronics and ICT innovation. Presentations and discussions on Day 1 were in French and ONERA presented the French centre platform.

Day 2 on 27th March introduced the European vision about the enabling role of electronics and ICT as well as new tools to facilitate the access of SMEs to electronics and ICT innovation and providing networking opportunities. Fortiss gave an overview of CPSE Labs initiative during this day.

Similarly, Fortiss participated to the EPoSS forum in October 2015 at Leuven. EPoSS is the European Technology Platform on Smart Systems Integration.

2.2 Focus on pedagogic presentations of CPSE Labs

During the reporting period, project partners have been involved in teaching activities for students or for professional training. They also performed specific training sessions to support the experiments launched after the first open call. This section focuses on the public events with pedagogic goals. Two events of this kind have been organized by the Swedish centre.

First, a Cyber-physical Systems Summer School was organized in Stockholm from 22 June to 3 July 2015 in relationship with EIT Digital European open innovation organisation. It hosted around 40 participants, mainly European students achieving a Master diploma or a PhD. Lecturers were members of KTH or invited speakers from research and industry in Europe which aim at providing the

participants with background and trends in the design of cyber-physical system. The global program of the summer school is given in the appendix C.

Then, CPSE Labs Sweden also organized in November a more focussed practical workshop on linked-data and OSLC for tool interoperability, in line with the centre platform. The complexity of Embedded Systems (ES) keeps increasing, and their development requires multiple tools (e.g., for requirement engineering, design and implementation, or for testing) and heterogeneous information models to be smoothly integrated across the boundaries of engineering disciplines (e.g., mechanical engineering, control systems and software engineering), and across distributed development teams in the context of extended enterprises. In order to address these challenges, emerging open standards, the Linked Data Platform (LDP) and OSLC, advocate relying on the Internet backbone and web technologies for integrating data across engineering tools, and throughout the product development lifecycle.

Attendees at this one-day workshop (around 50 participants) learnt the foundations of Linked Data and the OSLC open standard, and how their principles and technologies are applied for integrating engineering tools. In the afternoon session, attendees developed OSLC-compliant tool adaptors, based on the OSLC4J (Java-based) toolkit, and were introduced to code generators implemented by KTH for streamlining the process of developing these adaptors.

2.3 Focus on technical presentations of CPSE Labs

Several technical presentations have been achieved by partners in separate events as mentioned previously. In this part, the focus is put on a one-day workshop on software and system engineering for Cyber-physical Systems where all Design Centres had a time slot to present their platforms.

The workshop was organized jointly by CPSE Labs, SysML France and the GDR GPL in January 2016 for 70 participants interested in rigorous design of cyber-physical system. SysML France is the French chapter of the association about the SySML modelling approach. GDR GPL is the French research group from the national research centre CNR about software engineering; GL/\CE sub-group has been created in 2015 to address more specifically software issues for cyber-physical systems. Moreover, the workshop was offered as a Satellite Event of the Embedded Real Time Software and Systems (ERTS) Congress 2016 to ensure also a connection with a wider European audience. As a result, the audience was a mix of representatives of academia and industries in Europe (and even in Canada).

The event aimed to clarify the current technical challenges and solutions as well as promoting opportunities for the national and European collaboration offered by the co-organizing entities. The technical focus was on the modelling approaches and other best software engineering practices to support the design and the validation of heterogeneous kinds of cyber-physical. The workshop enabled to cross the views between the public and the speakers during the technical presentations proposed by CPSE Labs, GDR GPL, SysML France and during the industrial panel discussions.

For instance, consensus has been reached on the need for customized tool chains; OSCL open standard for tool interoperability (mentioned above) is already accepted by different tool vendors and industries for this reason.

The use of model-based approaches to accelerate the design while achieving mature products is also a must. All the presentations gave a view of general or more domain-oriented approaches (e.g. for engineering of industrial automation systems, of Maritime Architecture Framework or robotic architectures).

The detailed program can be found in http://www.CPSE Labs.eu/news_item6.php.

3 Analysis of the scientific publications in journals or conference

Appendix B compiles the list of the most significant scientific publications.

15 publications achieved by the partners during the first project year have been distinguished (see the list in appendix B) according to their interest for the project topics and their diffusion level in the scientific community.

They include 2 chapters in books, 5 articles in scientific journals and 8 publications in the proceedings of international conferences or workshops. Their topics cover

- general considerations about cyber-physical systems which may be shared as documentation by all Design Centres (KTH is the main contributor);
- presentations of centre technologies: about distributed control and engineering of industrial automation systems (by fortiss), OSCL interoperability standards (by KTH) and technology to assist the design of systems for the maritime domain (by OFFIS).

4 Conclusions

The set of dissemination activities achieved during the first project year is very far-reaching and involved separate or joint activities of all partners.

The driving goal of this period was to increase quickly CPSE Labs' visibility and to provide technical materials to promote the centre technologies.

It is worth noting that our first experiments started during last quarter of 2015. Dissemination activities of the second project year are likely to be more focussed on the presentation of the experiment results, especially during a dedicated workshop that will be organized by CPSE Labs in September 2016 as satellite event of the Safecomp conference.

5 Appendix A: List of partner's participations to dissemination events

The list is sorted by the date of the event occurrence.

Type of Activity	Participants	Title	Date	Place	Type of audience	Size of audience
Participation to a workshop	*UNEW*	*INCOSE International Workshop 2015 (IW), distribute leaflets*	*24/01/2015 29/01/2015*	*Torrance, California*	*industry, policy makers, scientific community*	*> 40*
Participation to a conference	*SEZ*	*Fachveranstaltung Cyber-Physical Systems*	*04/02/2015*	*Stuttgart, Germany*	*industry, scientific community, other*	*150*
Participation to a workshop	*FOR,KTH, SIG*	*CyPhERS Final Project Workshop, http://www.cyphers.eu/*	*23/02/2015*	*Munich, Germany*	*industry, scientific community, other*	*20*
Participation to a conference	*KTH*	*Autonomy for Future of ADAS – (event for autonomous vehicles)*	*26/02/2015 - 27/02/2015*	*Berlin, Germany*	*industry, scientific community, other*	*300*
Exhibition booth	*FOR, SEZ, UNEW*	*ARTEMIS IA co-summit*	*10/03/2015 - 11/03/2015*	*Berlin, Germany*	*industry, scientific community, other*	*300*
Participation to a conference	*OFF*	*Digital Ship 2015*	*18/03/2015 - 19/03/2015*	*Hamburg, Germany*	*industry*	*~80*
Flyers training	*UNEW*	*-*	*21/03/2015*	*-*	*general public*	*~*
Participation to an event other than a conference or workshop	*UPM*	*Smart City of Pozuelo, present and future*	*22/03/2015*	*Madrid, Spain*	*policy makers*	*30*
Participation to a conference	*KTH*	*3rd Scandinavian Conference on System & Software Safety*	*24/03/2015 - 25/03/2015*	*Stockholm, Sweden*	*scientific community*	*110*
Participation to activities organised jointly with other H2020 project(s)	*FOR, ONR, LAAS, UNEW*	*Forum France-Europe, http://europefranceforum.insightoutside ; Launch days of the European cluster «Smart Anything Everywhere»*	*26/03/2015 - 27/03/2015*	*Grenoble, France*	*industry, policy makers, scientific community*	*135*
Participation to a conference	*FOR*	*CPS Summit*	*13/04/2015*	*Seattle (WA), USA*	*scientific community*	*20*
Participation to a conference	*UNEW*	*CPSWeek 2015*	*13/04/2015 - 16/04/2015*	*Seattle, USA*	*industry, scientific community*	*300*
Participation to a conference	*UPM*	*EIT ICT Labs Partner Event 2015*	*15/04/2015 - 17/04/2015*	*Trento, Italy*	*industry, scientific community*	*400*
Participation to a conference	*KTH*	*Electronics in Vehicles industrial Fair*	*22/04/2015 23/05/2015*	*Sweden*	*industry, scientific community*	*1000*

Participation to a workshop	*KTH*	*Model-Based Systems Engineering (MBSE) Workshop*	*04/05/2015 - 05/04/2015*	*Lund, Sweden*	*Industry, scientific community*	*?*
Participation to activities organised jointly with other H2020 project(s)	*SEZ, UNEW*	*1st TAMS4CPS Roadmapping Workshop*	*21/05/2015*	*Brussels, Belgium*	*industry, policy makers, scientific community*	*15*
Participation to activities organised jointly with other H2020 project(s)	*UNEW,SEZ*	*Road4FAME - EU-Consultation Meeting; https://de.amiando.com/road4fame-consultation.html*	*22/05/2015*	*Brussels, Belgium*	*industry, policy makers, scientific community*	*100*
Exhibition	*ONR*	*Innovation Information Technology Days*	*03/06/2015*	*Toulouse, France*	*Industry, scientific community*	*tbc*
Participation to a conference	*KTH*	*Mathworks academic summit*	*06/06/2015 - 08/06/2015*	*Boston, USA*	*scientific community*	*200*
Participation to a conference	*SEZ, FOR*	*ARTEMIS Summer Camp 2015, https://artemis-ia.eu/calendar/386-artemis%20summer%20camp%202015.html*	*10/06/2015 - 11/06/2015*	*Helsinki, Finland*	*industry, policy makers, scientific community*	*80*
Participation to a conference	*UNEW*	*Dynamo 15 - Conference to grow the North East*	*18/06/2015*	*Sunderland, UK*	*industry, scientific community*	*200*
Other	*KTH, ONR*	*Summer school on CPS*	*22/06/2015 - 03/07/2015*	*Stockholm, Sweden*	*scientific community*	*40*
Participation to activities organised jointly with other H2020 project(s)	*SEZ, KTH*	*Road2CPS Workshop*	*24/06/2015*	*Paris, France*	*scientific community*	*21*
Participation to a workshop	*LAAS*	*Workshop on Control Architectures of Robots (CAR 2015)*	*29/06/2015 - 30/06/2015*	*Lyon, France*	*Industry, scientific community*	*~80*
Participation to a conference	*UNEW*	*INCOSE International Symposium 2015, distribute leaflets*	*01/07/2015*	*Seattle, USA*	*industry, policy makers, scientific community*	*~40*
Participation to an event other than a conference or workshop	*SEZ*	*RRI-ICT 2015*	*08/07/2015 - 09/07/2015*	*Brussels, Belgium*	*policy makers, scientific community*	*180*
Participation to a conference	*FOR*	*1st annual conference of the German priority research programme "IT-Sicherheit Kritischer Infrastrukturen"*	*16/07/2015*	*Augsburg, Germany*	*industry, policy makers, scientific community*	*150*
Participation to a workshop	*LAAS*	*Abstraction and Synthesis of Correct-by-Construction Robotics Software: Reuniting Formal Methods with Model-Driven Software Engineering.*	*16/07/2015 - 17/07/2015*	*Rome, Italy*	*industry, scientific community*	*~30*
Exhibition	*FOR*	*Technology fair of the "Sicherheitsnetzwerk München"*	*20/07/2015*	*Munich, Germany*	*industry*	*170*
Participation to an event other than a conference or workshop	*UPM*	*Vision2020: Energy Cluster Event*	*22/07/2015 - 23/07/2015*	*Cardiff, UK*	*industry, policy makers, scientific community*	
Exhibition	*OFF*	*"GreenShipping Niedersachsen" Competence centre Opening*	*26/08/2015*	*Elsfleth, Germany*	*industry, policy makers, scientific community*	*~100*
Participation to a workshop	*OFF*	*COSINUS Final Demonstration*	*16/09/2015*	*Cuxhaven, Germany*	*industry, policy makers, scientific community*	*25*
Organisation of a workshop	*UNEW*	*organise a "launch event" for call 2 for local businesses*	*01/10/2015*	*Newcastle, UK*	*industry*	

Participation to a conference	*UNEW*	*distribute leaflets about Call 2 at ICT 2015*	*01/10/2015*	*Lisbon Portugal*	*industry, policy makers, scientific community*	*~2000*
Participation to a conference	*OFF*	*ATLAS meets Science*	*07/10/2015 - 08/10/2015*	*Bremen, Germany*	*industry, scientific community*	*40*
Participation to activities organised jointly with other H2020 project(s)	*FOR*	*EPoSS Annual Forum 2015 - SAE Special Session*	*12/10/2015*	*Leuven, Belgium*	*industry, policy makers, scientific community*	*150*
Participation to a conference	*FOR*	*ICT 2015 - Session on Digital Innovation Hubs*	*20/10/2015*	*Lisbon, Portugal*	*industry, policy makers, scientific community*	*5700*
Participation to a conference	*SEZ, UPM*	*ICT 2015*	*20/10/2015 - 22/10/2015*	*Lisbon, Portugal*	*industry, policy makers, scientific community*	*5700*
Participation to a workshop	*OFF*	*17th IALA eNAV Committee*	*26/10/2015 - 30/10/2015*	*Brest, France*	*industry, national authorities, scientific community*	*100*
Participation to a conference	*OFF*	*4th Safer Seas*	*27/10/2015 - 28/10/2015*	*Brest, France*	*policy makers, scientific community*	*120*
Participation to an event other than a conference or workshop	*FOR*	*Smart Cities Munich*	*28/10/2015*	*Munich, Germany*	*industry, policy makers, scientific community*	*~50*
Participation to a conference	*UNEW*	*Attend INCOSE UK Annual SE conference, present a poster, distribute leaflets*	*01/11/2015*	*Oxfordshire, UK*	*industry, policy makers, scientific community*	*~150*
Participation to a conference	*UNEW, KTH*	*COST MEDIAN consortium final meeting*	*01/11/2015*	*Tallinn, Estonia*	*industry, policy makers, scientific community*	*~80*
Other	*UPM*	*Week of Science: know, experiment, discover. http://www.madrimasd.org/semanaciencia/2015/actividades/MostrarActividad.aspx?id=12603*	*02/11/2015 - 15/11/2015*	*Madrid, Spain*	*general public, industry, scientific community*	*250*
Organisation of a workshop	*KTH*	*Tutorial on Linked Data and OSLC for Tool Interoperability*	*04/11/2015*	*Stockholm, Sweden*	*industry*	*50*
Participation to a conference	*FOR*	*TAMS4CPS Workshop*	*09/11/2015 - 10/11/2015*	*Brussels, Belgium*	*scientific community*	*~20*
Participation to a conference	*OFF*	*3rd International Conference of Advanced Intelligent Maritime Safety Technology*	*12/11/2015 - 14/11/2015*	*Daejeon, Korea*	*scientific community*	
Participation to a workshop	*OFF*	*Seminar - Maritime Digital Infrastructures and Testbeds*	*30/11/2015 - 03/12/2015*	*Gothenburg, Sweden*	*industry, national authorities, scientific community*	*60*
Participation to an event other than a conference or workshop	*FOR*	*BeInCPPS consortium meeting*	*17/12/2015 - 18/12/2015*	*Milano, Italy*	*scientific community*	*~20*
Participation to a conference	*UNEW*	*INCOSE International Workshop 2016, distribute leaflets*	*01/01/2016*	*California, USA*	*industry, policy makers, scientific community*	*~40*
Other	*KTH*	*Reporting to KTH Management Team*	*14/01/2016*	*Stockholm, Sweden*	*scientific community*	*6*

Participation to activities organised jointly with other H2020 project(s)	*OFF*	*Maritime Cloud Developer Forum*	*25/01/2016 - 29/01/2016*	*Copenhagen, Denmark*	*industry, national authorities, scientific community*	*~12*
Organisation of a workshop	*ONR, UNEW, FOR, OFF, UPM, IND, KTH, LAAS, UPM*	*Software and System Engineering for Cyber-Physical Systems: technical challenges and collaboration opportunities*	*26/01/2016*	*Toulouse, France*	*Industry, scientific community*	*~80*
Participation to a conference, booth	*ONR, FOR, KTH*	*ERTS2 conference and exhibition*	*27/01/2016 - 29/01/2016*	*Toulouse, France*	*industry, scientific community*	*~400*
Organisation of a workshop	*OFF*	*Working Group Meetings "Zivile Maritime Sicherheit"*	*29/01/2016*	*Oldenburg, Germany*	*industry, national authorities, policy makers, scientific community*	*~30*

6 Appendix B: List of partner's scientific publications

The list is sorted by alphabetical order of the contributing partners.

Type of scientific publication	Title of the scientific publication	DOI	ISSN or eSSN	Authors	Title of the journal or equivalent	Number, date	Publisher	Place of publication	Year of publication	Relevant pages	Public & private participation	Peer-review	Is/Will open access provided to this publication[3]
Fortiss :													
Chapters in books	*Hierarchically Structured Control Application for a Pick & Place Station*		*ISBN 9781482259056*	*M. Wenger, M. Vathoopan, H. Prähofer, A. Zoitl*	*Distributed Control Applications*		*CRC Press*		*2015*	*423-441*	*yes*	*yes*	*no*
Publication in conference proceeding	*Behavioral Type-based Monitoring for IEC 61499*	*10.1109 /ETFA.2 015.730 1447*		*M. Wenger, J. O. Blech, A. Zoitl*	*IEEE Conference on Emerging Technologies & Factory Automation (ETFA)*		*IEEE Conference Publications*		*2015*	*1-8*	*yes*	*yes*	*no*
Publication in conference proceeding	*Cloud Based Monitoring of Timed Events for Industrial Automation*	*10.1109 /ICPADS. 2015.11 1*		*M. Wenger, A. Zoitl, J. O. Blech, I. Peake, L. Fernando*	*IEEE International Conference on Parallel and Distributed Systems (ICPADS)*		*IEEE Conference Publications*		*2015*	*827-830*	*yes*	*yes*	*no*
Publication in conference proceeding	*Adaptable Capability-Based Planning*			*Nadine Keddis, Alois Zoitl and Alois Knoll*	*IFAC Symposium on Information Control Problems in Manufacturing (INCOM)*		*International Federation of Automatic Control*		*2015*		*yes*	*yes*	*no*

Publication in conference proceeding	*Product-Driven Generation of Action Sequences for Adaptable Manufacturing Systems*			*Nadine Keddis, Gerd Kainz and Alois Zoitl,*	*IFAC Symposium on Information Control Problems in Manufacturing (INCOM)*		*International Federation of Automatic Control*		*2015*		*yes*	*yes*	*no*
KTH													
Chapter in book	*Characterization, analysis and recommendations for exploiting the opportunities of Cyber-Physical Systems*			*Martin Törngren, Fredrik Asplund, Saddek Bensalem, John McDermid, Roberto Passerone, Holger Pfeifer, Alberto Sangiovanni-Vincentelli, Bernhard Schätz*	*Cyber-Physical Systems: Foundations, Principles and Applications*		*Elsevier*		*2016*		*Yes*	*Yes*	*No*
Article in Journal	*Current Status and Advancement of Cyber-Physical Systems in Manufacturing*		*0278-6125*	*L. Wang, M. Törngren and M. Onori*	*Journal of Manufacturing Systems*	*Vol.37, Part 2*			*2015*	*517-527*	*No*	*Yes*	*Yes – Green OA: 0/12/48*
Article in Journal	*Strategies and considerations in shaping Cyber-Physical Systems education*		*1551-3688*	*Martin Törngren, Martin Grimheden, Jonas Gustafsson and Wolfgang Birk*	*ACM SIGBED Review*				*2016*		*No*	*Yes*	*Yes – Green OA: 0*
Publication in Workshop Proceedings	*Education and training challenges in the era of Cyber-Physical Systems: beyond traditional engineering*			*Martin Törngren, Saddek Bensalem, John McDermid, Roberto Passerone, Alberto Sangiovanni*	*Workshop on Embedded and Cyber-Physical Systems Education (WESE) at ESWEEK 2015*				*2015*		*No*	*Yes*	*Yes*

				Vincentelli and Bernhard Schätz									
Publication in Conference Proceedings	*Modelling support for a Linked Data Approach to Tool Interoperability*			*J. El-khoury, D. Gurdur, D. Zhang, F. Loiret, M. Törngren, M. Nyberg*	*2nd International Conference on Big Data, Small Data, Linked Data and Open Data - ALLDATA 2016*				*2016*		*No*	*Yes*	*Yes*
Conference Proceedings	*Towards Standards Federation for Engineering Data & Tool Interoperability in Cyber-Physical Systems Development*			*Frédéric Loiret, Jürgen Niehaus, Jad El-Khoury, Martin Törngren*	*Embedded World Conference*				*2016*		*No*	*Yes*	*Yes*
OFFIS													
Publication in conference proceeding	*Semantic Data Exchange in e-Navigation*			*Mazen Salous, André Bolles, Daniela Nicklas, Henning Mextorf*	*Datenbanksysteme für Business, Technologie und Web (BTW)*	*GI Proceedings Band 241*	*Köllen*	*Bonn, Germany*	*2015*			*yes*	*yes*
Article in Journal	*Improving Maritime Traffic Safety by Applying Routes Exchange and Automatic Relevant Radar Data Exchange*	*DOI: 10.1740 2/062*	*ISSN 1733-8670 (Printed)* *ISSN 2392-0378 (Online)*	*Salous, M.; Müller, H.; Bolles, A. & Hahn, A*	*Scientific Journals of the Maritime University in Szczecin*	*44 (116) / 2015*		*Szczecin, Poland*	*2015*	*90-98*		*Yes*	*Yes*
Article in Journal	*Contract-Based Design of Embedded Systems Integrating Nominal Behavior and Safety*	*10.7250 /csimq.2 015-4.05*	*22559922*	*Bernhard Kaiser, Raphael Weber, Markus Oertel, Eckard Böde, Behrang Monajemi Nejad, Justyna Zander*	*Complex Systems Informatics and Modeling Quarterly*	*Issue 4*			*2015*	*66-91*		*Yes*	*Yes*
Article in Journal	*Virtual test bed for maritime safety assessment*	*DOI: 10.1740 2/065*	*ISSN 1733-8670 (Printed)*	*Axel Hahn, Volker Gollücke , Carsten*	*Scientific Journals of the Maritime University in*	*44 (116) / 2015*		*Szczecin, Poland*		*116–122*		*Yes*	*Yes*

				Buschmann , Sören Schweiger	*Szczecin*								

7 Appendix C: Cyber-physical systems summer school program

Cyber Physical Systems Summer School
Stockholm, 22 June – 3 July 2015

	Monday, 22/6	Tuesday, 23/6	Wednesday, 24/6	Thursday, 25/6	Friday, 26/6	Saturday, 27/6	Sun 28/6
from 8.00 8.15-9.00	*Coffee followed by* Short Introduction & Practical Information Fredrik Asplund (KTH)				*Check out of Elite Arcadia* Bus to Scania leaves Elite Arcadia at 8am	Off-site activity at Djurönäset	
9.00-10.00	Core CPS *Lecture* "Cyber-Physical Systems: Characteristics, Trends, Opportunities and Challenges" Martin Törngren (KTH)	Core CPS *Lecture* "Prototyping Cyber-Physical Systems: A Hands-On Approach to the Cyber-Part" Sagar Behere (KTH)	Critical Infrastructure, Track 1 *Lecture* "A global perspective on meeting the needs of patients" Fredrik Westman (CareLigo AB)	Critical Infrastructure, Track 2 *Lecture* "ICT Architectures for Smart Cities/Regions" Christer Åhlund (LTU)	Production and Human Machine Interaction *Lecture* "Dependable Power Computing for Automated Driving" Daniel Watzenig (Virtual Vehicle)	I&E Business Modeling I&E Intermediate Presentations	Breakfast available 7-9 am
10.00-11.00	Core CPS *Lecture* "A Systems Engineering Approach to CPS" Martin Törngren & Sagar Behere (KTH)	Additive Manufacturing *Laboratory Excercise*	Critical Infrastructure, Track 1 *Lecture* "System Thinking - a holistic perspective: an examination of risk and safety in integrated systems" Matthew Stogsdill (KTH)	Critical Infrastructure, Track 2 *Lecture* "Cyber-Physical Systems in Critical Infrastructure: A Mobile Network Operator Perspective" Athanasios Karapantelakis (Ericsson)	Production and Human Machine Interaction *Lecture* "Robotics for Autonomous Driving" Marco Trincavelli (Scania)		10 am Bus back to Stockholm, will go to Elite Palace Hotel
11.00-12.00	Industrie 4.0 *Laboratory Excercise*			Critical Infrastructure, Track 2 *Lecture* "Machine Learning" Roland Hostettler (LTU)	Production and Human Machine Interaction *Lecture* "A Conceptual Model of Collobarating Human-Machine Systems" Werner Damm (Offis)		Free Time
12.00-13.00	Lunch @ Restaurang Q	Lunch in the Studio	Lunch @ Restaurang Q	Lunch @ Restaurang Q	Lunch @ Scania	Lunch	
13.00-14.00	Industrie 4.0 *Laboratory Excercise*	Industrie 4.0 *Laboratory Excercise*	Industrie 4.0 *Laboratory Excercise*	Critical Infrastructure, Track 2 *Laboratory Excercise* "Traffic Management" Roland Hostettler (LTU)	Production and Human Machine Interaction *Study Visit* Scania	I&E Intermediate Presentations	
14.00-15.00 15.00-16.00 16.00-17.00	I&E Introduction and Team Setup	I&E Group Work	I&E User Centered Design, Entrepreneur *Lecture*	I&E Group Work			
Evening	1. Walkthrough and Sign-off on Safety Guidelines for Optional, Unsupervised Laboratory Work. 2. Social Event (BBQ at KTH Campus)	A) Free or B) Optional, Unsupervised Laboratory Work	A) Free or B) Optional, Unsupervised Laboratory Work	A) Free or B) Optional, Unsupervised Laboratory Work	Bus from Scania to Djurönäset for Friday-to-Sunday morning I&E Session Dinner in the Archipelago	Free	

	Monday, 29/6	Tuesday, 30/6	Wednesday, 1/7	Thursday, 2/7	Friday, 3/7
8.00-9.00		Travel from Stockholm T-Centralen to Flemingsberg			
9.00-10.00	Core CPS *Lecture* "The vision of Industrie 4.0" Stefan Svensson (ABB)	Critical Infrastructure, Track 2 *Study Visit* Flemingsberg Science	Industrie 4.0 *Laboratory Excercise*	Industrie 4.0 *Laboratory Excercise*	Administrative and Technical Part Finalization
10.00-11.00	Core CPS *Lecture* "Opportunities and Challenges in the Evolution of Electronics, SoC and MultiCore." Axel Jantsch (TU Wien)				
11.00-12.00	Core CPS *Lecture* "CPS Aspects of Safety-Critical Development" Christel Seguin, Remi Delmas (ONERA)				Core CPS *Lecture* Concluding Inspirational / Visionary Words from David Boyle (Imperial College London)
12.00-13.00	Lunch @ Restaurang Q	Lunch @ Flemingsberg Science	Lunch in the Studio	Lunch in the Studio	Lunch @ Restaurang Q
13.00-14.00	I&E Group Work I&E External Coaches	Travel from Flemingsberg to Kista	Industrie 4.0 *Laboratory Excercise*	I&E Pitch Event Preparation	I&E Finalization
14.00-15.00 15.00-16.00		Critical Infrastructure, Track 2 *Study Visit* Ericsson	I&E Startup Strategy and Financing, Entrepreneur *Lecture*		
16.00-17.00		Travel Time			
Evening	A) Free or B) Optional, Unsupervised Laboratory Work	A) Free or B) Optional, Unsupervised Laboratory Work	Social Event Dinner at Skansen (Stockholm)	**The I&E Pitch Event!** including dinner	