Information and Communication Technologies (ICT) Programme

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D7.3: CERBERO Dissemination and Communication Report

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Abstract:

This document reports the CERBERO dissemination and communication till the conclusion of the project.

Disclaimer

The CERBERO Consortium is the following:

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6	Universidad Politécnica de Madrid	UPM	ES
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For the CERBERO Consortium, please see the http://cerbero-h2020.eu web-site.

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Document Revision History

Date	Ver.	Contributor (Beneficiary)	Summary of main changes
05/02/2020	V0.1	USI, UNISS	Initial draft, new template for papers/events
20/02/2020	V0.2	USI	Integrated contribution from all partners, released version for review.
25/02/2020	V0.3	USI	Integrated contributions from partners, ready for reviewers.
27/02/2020	V0.4	UNISS	Revision
28/02/2020	V1	USI	Final version

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1. Executive Summary

The main goal of this deliverable is to report, in an incremental way, the dissemination and communication activities for the period from month 18 till the conclusion of the project, that was extended of 2 months (till the end of February 2020) to maximize the impact of the project by having the final event in January (co-located with HiPEAC 2020) and to participate to Embedded World 2020. It contains the final report of the Dissemination and Communication activities carried out within the CERBERO project, but it is written in an incremental way. It includes the recalls of the goals of the dissemination and communication, the activities carried out till month 18, and the activities from month 18 till the end of the project (month 38). Portions of this deliverable reported from previous ones are written in light grey, to easily distinguish them from the new part. As mentioned in the previous version of this deliverable, the whole project strategy to protect, disseminate and exploit the project results and achievement, includes other aspects and involves several other actions. Such a global vision can be achieved only by reading the current deliverable together with deliverables dedicated to exploitation and to open data management since the activities described in each of these deliverables are extremely interleaved and they strongly influencing themselves.

In the first 18 months of the project, CERBERO partners have completed

1. the setup of the entire infrastructure for communication and dissemination, including the project website and the Twitter social account
2. have published (or received the notification of acceptance) of several peer reviewed papers at conferences and journals, and
3. have participated to leading events of the CPS community presenting tutorial and giving lectures at summer schools.
4. have been actively involved in dissemination events organized by the CPS Cluster.

   In the last 20 months of the project, CERBERO partners have completed:
5. maintained the entire infrastructure for communication and dissemination the project results (website and social accounts)
6. have published (or received the notification of acceptance) several peer reviewed papers at conferences and journals, and
7. have participated to leading events of the CPS community, organizing workshops, presenting tutorial, giving lectures at summer schools, and participating as panellist organized within scientific conferences, and
8. continued to be actively involved in dissemination events organized by the CPS Cluster.

1.1. Structure of Document

The document is organized as follows. Section 2 summarizes the communication and dissemination activities proposed in Deliverable D7.5 (which described the original plan

of the actions). Section 3 presents the carried-out activities. Section 4 compares the completed activity with the planned one.

1.2. Related Documents

D1.3 (and the preliminary versions of this deliverable D1.6 and D1.7) CERBERO Open Data Management Plan, which discuss the plan to manage the open data

D7.1 CERBERO Website, which stores all the public information related to the project.

D7.4 CERBERO Final Workshop, that provides a report about the final workshop organized in co-location with HiPEAC.

D7.5 CERBERO Dissemination and Communication plan, which defines the dissemination and communication goals for the period covered by this deliverable.

D8.3 CERBERO (and the preliminary version of this deliverable D8.5) Innovation, Standardization and Exploitation Plan, which defines the activities related with the exploitation of the project results.

2. Summary of the Dissemination and Communication Strategy

In this section we summarize the dissemination and communication strategy planned in Deliverable 7.5. The main goal of the CERBERO dissemination and communication activities has been to communicate the project results to a large audience. However, communication and dissemination activities are also directed towards a very specific audience, to achieve two of the goals of the project: the creation of a CPS community and the creation of a CERBERO community. Responsible of the coordination and reporting of the dissemination activities has been Francesco Regazzoni (USI), who acted as Communication Manager.

Objectives of the communications were:

- consolidating the general knowledge about CPSs and the challenges associated with their design
- creating awareness of the project results, including a demonstrating the key project's concepts to principal stakeholders and to the scientific community
- exploring novel possibilities in the field of CPSs paving the way for exploitation of the project results.

For the whole duration of the project, the dissemination and communication of the CERBERO project has been carried out at the following levels:

- Level 1 (internal communication): this level ensures good communication among the partners of the consortium, along with the sharing of the relevant material.

- Level 2 (communication towards scientific and technical community): this level ensures the dissemination of project results via suitable technical papers, conferences and journals.
- Level 3 (communication towards society): this level ensures the communication to toward interested stakeholders who would benefit from the knowledge acquired with the consortium.
- Level 4 (communication towards industry): this communication aims at establishing contacts with the proper industrial associations at the national and European level.

Figure 1 shows the timeline we originally defined to summarize all the communication and dissemination activities, as reported in Deliverable 7.5. All the activities indicated in the timeline have been successfully completed.

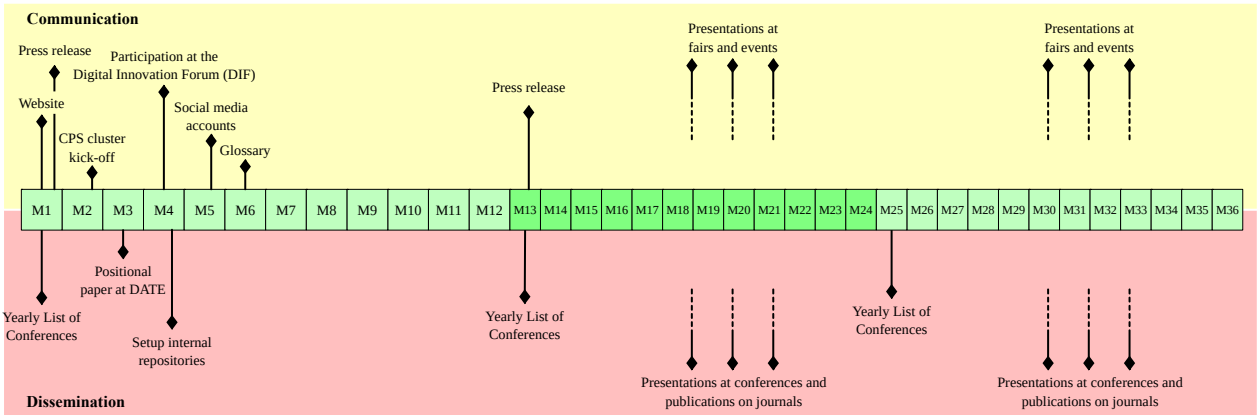


Figure 1: Project timeline with dissemination and communication activities.

3. Completed Dissemination and Communication activities

This section summarized all the activities performed during the whole project to support communication by the CERBERO consortium, updating the situation previously presented at M18.

Online Activity

The official project website is reachable at http://www.cerbero-h2020.eu and it corresponds to Deliverable D7.1. It was created shortly after the start of the project. A screen capture of the updated home page is reported in Figure 2. As envisioned at the beginning of the project, the website contains information about: the consortium and its partners, the approved deliverables, a link to the events involving CERBERO partners (with a short description of the event), the list of publications and public presentations, the glossary, press releases, a collection of multimedia files, and a dedicated page for each tool developed in the project, that summarizes the main features of the tool, also in the form of leaflet, and contains the link to the tool main page or main repository.

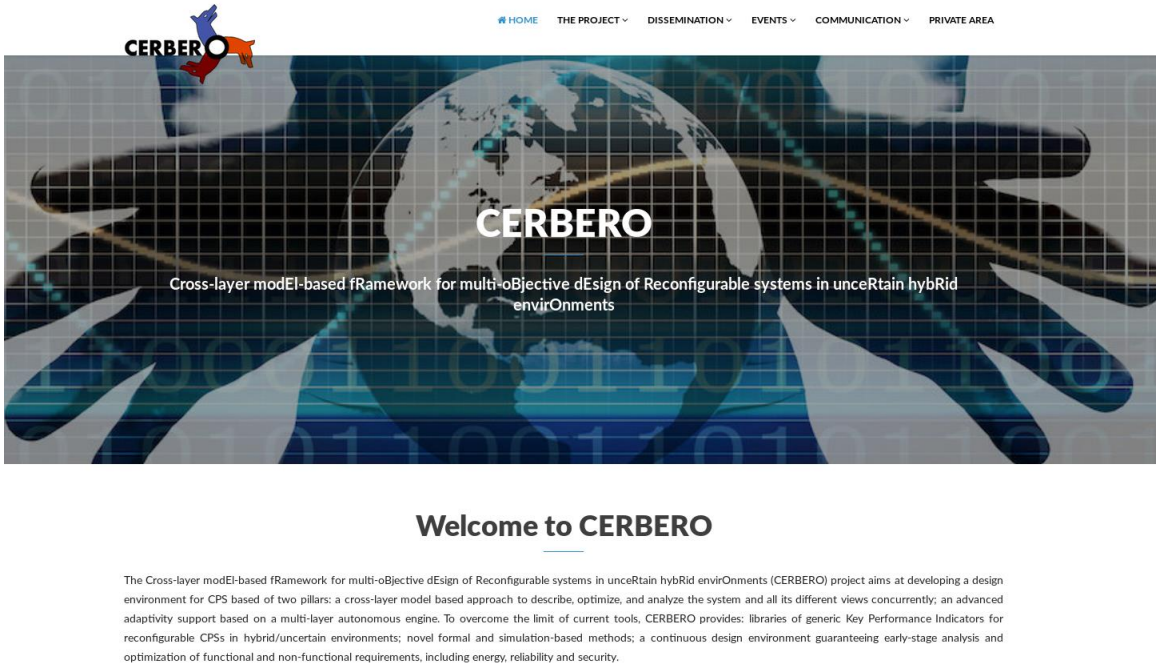


Figure 2: CERBERO Website Home Page.

Since its creation, the accesses to the website are monitored with proper statistical tools. In the last month before the deliverable finalization, there have been more than 3’800 users accessing the website Figure 3 summarize the analytic of the web page visit. It is important to highlight that each tool has an independent and often well-established web page (as in the case of tools established before the beginning of the project), and this is often the link pointed by the search engines when searching the tool name. As a result, not all the visitors interested in CERBERO tools will necessary land to the main project

page. Because of this, we expect that the toolchain produced by the CERBERO project have already reached a number of visitors much beyond the ones that accessed the project main website.

An example of this situation is the website of PREESM, that was indeed established before the CERBERO project. In 2019, the website of PREESM, according to Google Analytics, was visited by 1920 visitors, for a total of 11257 pages seen (visits come from North America, Europe and Asia). The same website, over the 3 years of CERBERO, has the following statistics: 4062 visitors and 20.909 pages seen.

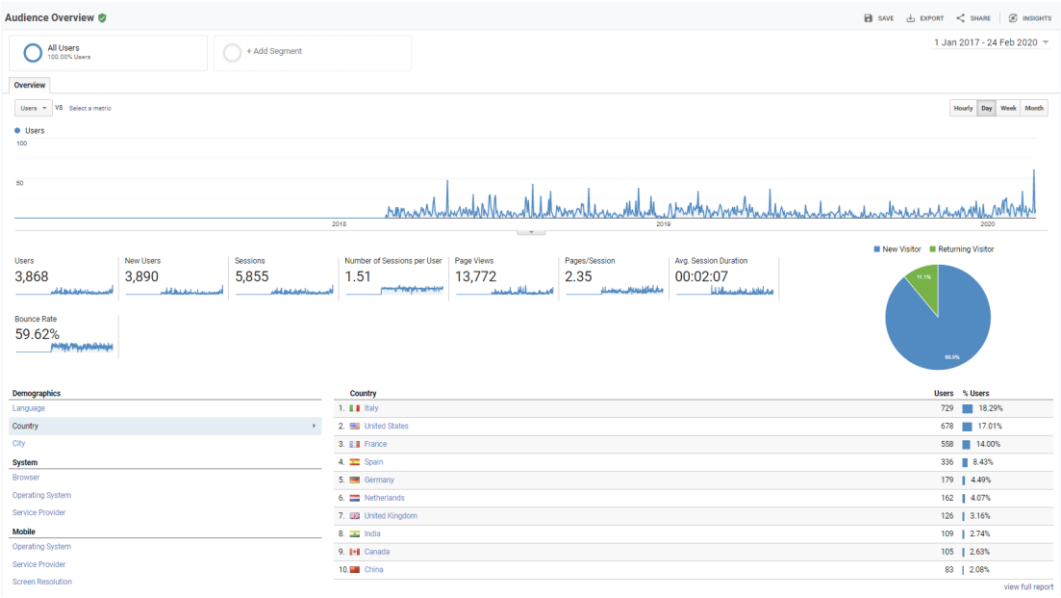


Figure 3 - Analytic Data of CERBERO Website

The CERBERO Twitter account was setup at the very beginning of the project. It can be followed via @cerbero-h2020.eu and currently has 131 followers. Figure 4 shows a screen capture of the CERBERO Twitter page. The Twitter feed has been used to inform the community of the main events of the project, to raise awareness of its activities, and to disseminate the main events and discover related with cyber-physical systems and system design in general. During the month of February 2020, we collected the following statistics: 15 tweets, 5423 Tweet impressions, 30 profile visit, 5 mentions, and 3 new followers.

Figure 4: CERBERO Twitter Page.

Peer reviewed scientific publications

Results of the CERBERO project are promptly disseminated to the scientific community using classical channels such as peer-reviewed conference and journals. At the time of the finalization of this deliverable (middle of February 2020) there are 42 papers accepted at conferences or workshops, 10 papers accepted in journals, and 1 book chapter.

The complete list of accepted formal publications is reported in tabular form in Table 2 in the appendix. Three additional papers, prepared during the CERBERO project have been completed, submitted for publication and are currently under review. CERBERO results have also been disseminated to events without formal proceedings to online archives such as arXive or eprint. Few other papers are under completion at the moment of the wiring on this deliverable and will be promptly submitted for publication. We thus expect that the total number of publications resulting from the CERBERO project will further increase compared with the numbers presented in this deliverable. New accepted papers will be promptly reported on the main project website. The published works are mostly the results of a collaboration between CERBERO partners.

Awards

On March 16, 2018, Leonardo Suriano received the "Best Speech" award at "II Symposium: Cuéntanos tu tesis (Tell us about your PhD Thesis)" with the work "Runtime Adaptive Hardware/Software execution in complex heterogeneous systems", mostly based on CERBERO research work.

Press releases and dissemination towards civil society

Civil society was reached with press releases and with participation of CERBERO partners in public debates. The kick-off meeting of CERBERO received large press coverage by Italian media, with an interview of the Prof. Francesca Palumbo (Technical coordinator of the CERBERO project) at Radio24 (the radio channel of "Il sole 24 ore", the main economy Italian newspaper) and articles on the several newspapers: La Stampa, L'Unione Sarda, and La Nuova Sardegna. The CERBERO project was also mentioned in the University guide of "Il sole 24 ore". The articles and the interview were presenting the challenges associated with CPS design and the goals of the CERBERO project.

Dr. Michael Masin, coordinator of the CERBERO project, was invited to participate to a public debate at the "Notte europea dei ricercatori", in Sassari, the 29th of September 2017. During his intervention, Dr. Masin largely presented the CERBERO project and his goals to the open public. The presentation was mentioned in local newspapers of Sardinia.

Further dissemination of CERBERO topics toward civil society was carried out by involving four students of high school in Lugano in projects supervised by USI on security challenges of cyber-physical systems. Two students successfully completed their project, while two have just started and will continue for the whole 2020.

The CERBERO project has been also presented to the interested students during the "Giornate dell'orientamento 2019" (https://www.uniss.it/uniss-comunica/unisspress/giornate-dellorientamento-uniss-2019) organized at UNISS.

Finally, the CERBERO project was selected as one of the top 100 Italian Robotics & Automation Stories, the initiative promoted by Fondazione Symbola and ENEL group. The screen capture of the reported news is depicted in Figure 5.

Figure 5 - Conference, Workshops, Tutorials, Panels, Schools, Special Sessions and didactics.

CERBERO partners have been organizing tutorials and have been participating to conferences and CPSs summer schools organized by other institutions.

Among others, it is work mentioning the active participation to the CPS Summer School organized by University of Sassari, that is now a well-established school in the field. In the last three editions, members of CERBERO had presented the developed tools, the design methodologies conceived during the project, and, finally, PhD students of CERBERO have attended the courses to get familiar with the most relevant topics in CPS design.

In addition to that, CERBERO project has organized tutorials and workshops co-located with the most relevant conferences of CPS, design automation and design methodologies, including DAC, Hipeac, CPSWeek, and a university booth presence at DATE.

The complete list of these events is reported in tabular form in Table 3 in the Appendix.

Participation in activities organised jointly with other H2020 project(s)

The Project and Technical Coordinators and the Innovation and Communication Managers, actively participate to the events organized by the CPS Cluster.

The first event was the CPS Cluster Kick-off meeting in Brussels, putting together all H2020 projects funded under the ICT-01-2016 call.

The cluster also organized booth to event and exhibitions. CERBERO participated to them: Dr. Francesco Regazzoni participated at the booth of CPS cluster at the Digital innovation forum in Amsterdam and at the booth at the European Forum for Electronics Components and Systems (EFECS), presenting the CERBERO project.

Dr. Francesco Regazzoni is also attending the monthly meetings of the CPS cluster (the call of the month of June 2018 was organized by CERBERO).

Together with the CPS cluster, CERBERO participated to the preparation and the submission of a networking session proposal at the next ICT event in Vienna (currently under evaluation) and is maintaining a glossary of all the relevant CPS definitions (glossary will be detailed in the next section).

The networking session, titled “Enabling Tech for Pervasive Cyber-Physical Systems (CPS)”, has been accepted and held at the ICT conference in December 2018.

Still as part of the collaboration with the CPS cluster, CERBERO participated to the final event of the CPSwarm project in Torino (13 December 2019), where the overall results of the CERBERO project have been presented and cross-disseminated. Similarly, CPSwarm project participated to the final event of CERBERO, in January 2020 presenting its main achievements.

A CERBERO team also participated to the hackathon contest organized by the project MegaMart2. The CERBERO team exploited CIF (the CERBERO Interoperability Framework) to solve interoperability problems. Follow up on the use of CIF in projects of mutual interest have been already planned.

Open source activities

Opensource is one of the pillars of the CERBERO project. A large part of the toolchain developed during the CERBERO project is open source. The research groups involved in the development of each tool are responsible for maintaining the dedicated website, the documentation and the tutorials related with the use of the tool.

A detailed exploitation plan for each open source tool is reported in Deliverable D8.2, together with the dedicated website and promotion material.

Other Dissemination activities

A Glossary of the fundamental definitions related to the cyber-physical system world is maintained on the CERBERO website (http://www.cerbero-h2020.eu/glossary-3/). The glossary defines the terminology of the CPS domain using a clear, precise, and simple language. The on-line glossary is a live document, which is continuously extended. Starting from CERBERO glossary, a global glossary will be defined with the other partners of the CPS cluster.

The glossary have been maintained during the whole project in coordination with the CPS cluster.

CERBERO partners participated also to industrial events, such as the TASE techno-day (UPM).

Internal dissemination

The internal dissemination has been carried out using the tools and the mechanisms decided for the project coordination and reported in detail in Deliverable 7.5. Summarizing used list of tools used include a version control system, a document sharing repository, and an online editing tool used for the meeting minutes.

Internal communication and dissemination of project results also happened during the project meeting and monthly phone call, and during the events where members of the CERBERO project participate. Exchange of staff members and short-term visits to other partner institution have also demonstrated to be an effective way to ensure dissemination of project results. We believe that the internal communication within the project members have been extremely successful and have allowed a fruitful collaboration.

Summary of Activities

In Table 1 we summarize all the dissemination and communication activities completed since the beginning of the project.

Table 1 – Summary of dissemination and communication activity

Type of dissemination and communication activity	Number
Organization of a Workshop All the workshop organized are reported in tabular form in Table 3 in the appendix. We highlight here the COWOMO workshop, co-organized by CERBERO and the workshop on design automation for security, also co-organized by CERBERO partners co-located with DAC in 2019.	2
Press release • CERBERO KoM received larger press coverage by Italian media, with articles on the several newspapers: La Stampa, L'Unione Sarda, and La Nuova Sardegna	4

• Presentation at "Notte europea dei ricercatori" appeared on Sardinian local newspapers • CERBERO project was mentioned onto the University guide of "Il sole 24 ore" • Inclusion of CERBERO among the top 100 Italian Robotics & Automation Stories of Enel and fondazione Symbola.	
Exhibition • 4 Participations to exhibition together with other H2020 project, these 4 activities are reported in "Participation in activities organized jointly with other H2020 project(s)" below • Participation at Embedded World 2020 to disseminate the results of the CERBERO project.	5
Training All the training events are reported in tabular form in Table 3 in the appendix.	7
Social media • Twitter account is up and running, news and relevant information are regularly posted (@cerbero-h2020.eu) • ReasearchGate page of CERBERO is up and running. Page is regularly updated (https://www.researchgate.net/project/CERBERO-Cross-layer-modEl-based-fRamework-for-multi-oBjective-dEsign-of-Reconfigurable-systems-in-unceRtain-hybRid-envirOnments)	2
Website • Project website is up and running, content is regularly updated (http://www.cerbero-h2020.eu/)	1
Communication campaign (e.g. radio, TV) • Technical Coordinator gate a short live interview right after the KoM to Radio 24	1
Participation in conferences Partners of the CERBERO project have participated to all the conference where they had to present an accepted paper, where they have been invited as panel member or to give a talk, or where they have organized a tutorial. A detailed list of publications (including the ones presented at conferences) and other events are in the two appendix in Table 2 and Table 3.	33
Participation in workshops As in the case of the conference, partners of the CERBERO project have participated to all the workshops where they had to present an accepted paper, where they have been invited as panel member or to give a talk, or where	7

they have organized a tutorial. A detailed list of publications (including the ones presented at conferences) and other events are in the two appendix in Table 2 and Table 3.

Participation to an event other than a conference or workshop 10

- IWES 2019 Italian Workshop on Embedded Systems. Francesca Palumbo presented the CERBERO adaptation loop and related tools.
- IWES 2018 Italian Workshop on Embedded Systems. Francesca Palumbo presented the multigrain adaptivity given by the ARTICo^3-MDC integration.
- SIE2018 Annual Meeting. Francesca Palumbo and Carlo Sau presented an abstract on the adaptivity loop.
- SIE2018 Annual Meeting. Carlo Sau presented an abstract on CAPH-MDC integration.
- Wednesday Seminars 2018 at CEI-UPM. Tiziana Fanni presented the ARTICo^3-MDC integration.
- IWES 2017 Italian Workshop on Embedded Systems. Tiziana Fanni presented the functional approximate computing methodologies combined with coarse-grained reconfigurable design approaches.
- SIE2017 Annual Meeting. Carlo Sau presented an abstract on runtime adaptivity in Cyber-Physical Systems.
- Notte europea dei ricercatori. The CERBERO coordinator participate to the event presenting the CERBERO project
- Presentation at ASTRA 2019: Pablo Sánchez de Rojas, Manuel Sánchez, Luis Berrojo, Raúl Regada, Implementation of adaptive motion planning in FPGA-based reconfigurable robot control architecture
- Presentation at DASIA 2019: Pablo Sanchez de Rojas, Design of a self-adaptive, self-healing MPSoC architecture targeting robotic applications through CERBERO tools and technologies

Video/film 4

4 main videos have been produced to promote the project and its results. They are or will be all accessible from the main project website.

- CERBERO final video, deliberately inspired to the Rick and Morty series. It is basically a cameo to the series that employs cutting-edge scientific theories in every episode.

- Ocean Monitoring use case video,
- Smart Travelling use case video
- Space Exploration use case video

Brokerage event

- Road2CPS 2017. Prof. Francesca Palumbo and Dr. Katiuscia Zedda attended the event.
- Meeting with the start-up at the local incubator in Lugano
- Participation to two events organized by the Cluster Prossimo
- Start-up Happy Hour in Alghero

5

Pitch event

- Sardinia SMEs and start-ups pitch event during CPS summer school 2017 – Lead by Katiucia Zedda (AI), panel participants – CERBERO coordinator Dr. Michael Masin (IBM), scientific coordinator Dr. Francesca Palumbo (UNISS), and Dr. Luigi Raffo (UNICA).

1

Participation in activities organised jointly with other H2020 project(s)

- CPS Cluster Kick-off meeting. The coordinators and the managers of the CERBERO project attended the meeting.
- European Forum for Electronics Components and Systems (EFECS). The dissemination manager presented CERBERO at a booth
- Digital innovation forum. The dissemination manager presented CERBERO at a booth
- Networking session "Enabling Tech for Pervasive Cyber-Physical Systems (CPS)" organized together with the CPS cluster at the ICT18 event in Vienna (6 May 2018)
- Participation to the final event of CPSwarm in Torino (13 December 2019) presenting the CERBERO project.
- Presentation at the final event of CERBERO of members of the CPSwarm project

6

Other

- TASE techno-day. UPM participated to the event.

1

4. Comparison with Planned activities and Conclusions

In this section we compare the activities planned in Deliverable 7.5 and reported in Figure 1 with the dissemination and communication activity that we were effectively able to carry out, to verify if all the planned activities have been completed. The comparison is summarized in Table 2. The last column of the Table reports how the planned activity has been completed.

Planned Activity	Timeline	Status	How Completed
Yearly List of Conferences	M1	Completed	A list of target conference for the year 2 and 3 has been finalized
Press Release	M1	Completed	A large coverage of media was done during the kick-off meeting
Website	M1	Completed	The website was realized and published on line
Activities in collaboration with other H2020 projects (Cluster kick-off)	M2	Completed	CERBERO partners attended the CPS cluster meeting and follow up activities
Positional Paper at DATE	M3	Completed	A CERBERO positional paper has been presented at the DATE conference
Activities in collaboration with other H2020 projects (DIF)	M4	Completed	CERBERO was presented at a shared booth ad DIF
Setup Internal Repositories	M4	Completed	Repositories for internal dissemination have been set up
Social Media Presence	M5	Completed	The twitter account have been created and news are regularly posted
Initial version of glossary	M6	Completed	An initial version of the CPS glossary has been published on the CERBERO website
Updated Yearly List of Conferences	M13	Completed	The list of target conference has been revised by the dissemination manager, no update is required
Press Release	M13	Completed	At the end of month 9, several local newspaper from Sardinia reported the participation of the CERBERO coordinator to the Notte europea dei ricercatori
Presentations at fairs at events	From M18	Completed	Partners of the CERBERO project have contribute to the communication of the project results participating to public events (such as the ones for startups) and to major fairs (such as Embedded World 2020) (detailed list of the participation to events is in the appendix)
Presentations at conferences and publications on journal	From M18	Completed	Partners of the CERBERO project have contribute to the dissemination of the project results towards the scientific community presenting the outcome of the project at scientific conferences and on scientific journals (detailed list

			is in the appendix)
Yearly List of Conferences	M25	Completed	The list of target conference has been constantly updated during the project and was discussed at M25 during the project meeting.

Table 6: Comparison with planned activities and carried out activities

We also compare with the list of potential target journals and conferences identified in 7.7. Among the journals, we identified major ACM, IEEE, and Springer Journals. We indeed reached the goal of targeting journals at major ACM, and IEEE journals. For IEEE, we had several papers published or accepted for publication on Embedded System Letters and IEEE Access, in addition to two major IEEE journals such as Transaction on Computer Aid Design and Transaction on Dependable and Secure Computing. Concerning the ACM, we have a paper submitted and currently under review on CSUR. In addition to these we have publications on Springer and Elsevier journals.

Among the conferences, we identified a number of major conferences whose proceedings are published by IEEE, ACM, or Springer. Also in this case we reached the goal, having published, among others, at DATE, ReConFig, FPGA, SAMOS, Eurocrypt and Computing Frontieers. A book chapter, publications at workshops without proceedings, and the upload of achieved results on public archive such as arXiv or eprint complete the dissemination of achieved results.

Dissemination of the project results will continue beyond the conclusion of the project. There are already papers accepted that will be presented in events scheduled after the conclusion of the project, and we have also few scientific works currently under review. Still related with dissemination of scientific results, at the moment there are at least 3 papers in preparation that will be submitted in the next months.

The components of the CERBERO tool chain will continue, together with the dissemination of the whole CERBERO tool chain. Such dissemination will be carried out at scientific events, but also, when possible, participating to technology transfer event similar to the ones to which CERBERO partners participated during the project.

Dissemination towards civil society will also continue. At the moment, for instance, a project on security of CPS together with the Liceo of Lugano II stated already and will continue till the end of 2021.

Finally, the website of the project will be maintained, reporting scientific publications and dissemination activities in general.

5. References

[CERBERO 2017] http://www.cerbero-h2020.eu

1. Appendix: CERBERO Publications

Table 2 - CERBERO Publications

Type*	Conference
Title	Built-in self-evaluation of first order power side channel leakage for FPGA
DOI	
ISSN/eSSN	
Authors	Ognjen Glamocanin, Louis Coulon, Francesco Regazzoni, Mirjana Stojilovic
Title of Journal/Conference	28th ACM/SIGDA International Symposium on Field-Programmable Gate Arrays
Number, Date	2020
Publisher	ACM
Place of publication	Seaside (CA)
Year	2020
Peer Review	Yes
Open Access	Green
Type*	Conference
Title	Friet: an authenticated encryption scheme with built in fault detection
DOI	
ISSN/eSSN	
Authors	Thierry Simon, Lejla Batina, Joan Daemen, Vincent Grosso, Pedro Maat Costa Massolino, Kostas Papagiannopoulos, Francesco Regazzoni, Niels Samwel
Title of Journal/Conference	Eurocrypt 2020
Number, Date	
Publisher	
Place of publication	Zagreb
Year	2020 (accepted, to appear)
Peer Review	Yes
Open Access	Green
Type*	Conference

Title	Automated Toolchain for Enhanced Productivity in Reconfigurable Multi-Accelerator Systems
DOI	--
ISSN/eSSN	--
Authors	Alberto Ortiz, Rafael Zamacola, Alfonso Rodríguez, Andrés Otero, Eduardo de la Torre
Title of Journal/Conference	16th International Symposium on Applied Reconfigurable Computing
Number, Date	2020
Publisher	Springer
Place of publication	Springer Lecture Notes in Computer Science
Year	2020
Peer Review	Yes
Open Access	Green
Type*	Conference
Title	Runtime Multi-versioning and Specialization inside a Memoized Speculative Loop Optimizer
DOI	10.1145/3377555.3377886
ISSN/eSSN	--
Authors	Raquel Lazcano, Daniel Madroñal, Eduardo Juarez, Philippe Clauss
Title of Journal/Conference	International Conference on Compiler Construction 2020
Number, Date	--
Publisher	ACM
Place of publication	ACM Digital Library
Year	2020
Peer Review	Yes
Open Access	Green
Type*	Journal,
Title	Tool of Spies: leaking your Ip by altering the 3D printer compiler
DOI	10.1109/TDSC.2019.2923215
ISSN/eSSN	
Authors	Sujit Rokka Chhetri, Anomadarshi Barua, Sina Faezi, Francesco Regazzoni, Arquimedes Canedo, and Mohammad Abdullah Al Faruque

Title of Journal/Conference	IEEE Transactions on Dependable and Secure Computing
Number, Date	
Publisher	IEEE
Place of publication	
Year	Accepted in 2019, to appear
Peer Review	Yes
Open Access	Green
Type*	Conference
Title	Automated Tool and Runtime Support for Fine-Grain Reconfiguration in Highly Flexible Reconfigurable Systems
DOI	10.1109/FCCM.2019.00048
ISSN/eSSN	2576-2621
Authors	Rafael Zamacola, Alberto García Martínez, Javier Mora, Andrés Otero, Eduardo de La Torre
Title of Journal/Conference	Field-Programmable Custom Computing Machines (FCCM), Annual IEEE Symposium on
Number, Date	2019
Publisher	IEEE
Place of publication	IEEE Xplore Digital Library
Year	2019
Peer Review	Yes
Open Access	Green
Type*	Journal
Title	Property specification patterns at work: verification and inconsistency explanation
DOI	10.1007/s11334-019-00339-1
ISSN/eSSN	1614-5046
Authors	Massimo Narizzano , Luca Pulina, Armando Tacchella and Simone Vuotto
Title of Journal/Conference	Innovation in Systems and Software Engineering – A NASA journal
Number, Date	15
Publisher	Springer
Place of publication	

Year	2019
Peer Review	Yes
Open Access	Green - Open access version available at https://www.cerbero-h2020.eu/wp-content/uploads/2020/02/ISSE.pdf
Type*	Journal
Title	DAMHSE: Programming heterogeneous MPSoCs with hardware acceleration using dataflow-based design space exploration and automated rapid prototyping
DOI	https://doi.org/10.1016/j.micpro.2019.102882
ISSN/eSSN	--
Authors	Leonardo Suriano, Florian Arrestier, Alfonso Rodriguez, Julien Heulot, Karol Desnos, Maxime Pelcat, Eduardo de la Torre
Title of Journal/Conference	Microprocessors and Microsystems
Number, Date	Volume 71, 102882, 2019
Publisher	Elsevier
Place of publication	--
Year	2019
Peer Review	Yes
Open Access	Green
Type*	Workshop
Title	Automata-Based Generation of Test Cases for Reactive Systems
DOI	
ISSN/eSSN	1613-0073
Authors	Simone Vuotto
Title of Journal/Conference	Cyber-Physical systems PhD and Post-doc workshop
Number, Date	2019
Publisher	CEUR
Place of publication	
Year	2019
Peer Review	Yes
Open Access	Green - Open access version available at http://ceur-ws.org/Vol-2457/10.pdf

Type*	Conference
Title	Cyber-Physical Planning: Deliberation for Hybrid Systems with a Continuous Numeric State
DOI	
ISSN/eSSN	
Authors	Arthur Bit-Monnot , Luca Pulina and Armando Tacchella
Title of Journal/Conference	Twenty-Ninth International Conference on Automated Planning and Scheduling
Number, Date	2019
Publisher	AAAI
Place of publication	
Year	2019
Peer Review	Yes
Open Access	Green - Open access version available at https://aaai.org/ojs/index.php/ICAPS/article/view/3459
Type*	Workshop
Title	Automata based test generation with SpecPro
DOI	10.1109/ICST.2019.00043
ISSN/eSSN	
Authors	Simone Vuotto , Massimo Narizzano , Luca Pulina and Armando Tacchella
Title of Journal/Conference	6th International Workshop on Requirements Engineering and Testing
Number, Date	2019
Publisher	IEEE/ACM
Place of publication	
Year	2019
Peer Review	Yes
Open Access	Green - Open access version available at https://www.cerbero-h2020.eu/wp-content/uploads/2020/02/RET.pdf
Type*	Conference
Title	Poster: Automatic Consistency Checking of Requirements with ReqV

DOI	10.1109/ICST.2019.00043
ISSN/eSSN	
Authors	Simone Vuotto , Massimo Narizzano , Luca Pulina and Armando Tacchella
Title of Journal/Conference	12th IEEE Conference on Software Testing, Validation and Verification
Number, Date	2019
Publisher	IEEE
Place of publication	
Year	2019
Peer Review	Yes
Open Access	Green - Open access version available at https://www.cerbero-h2020.eu/wp-content/uploads/2020/02/ICST.pdf
Type*	Journal
Title	PAPIFY: Automatic Instrumentation and Monitoring of Dynamic Dataflow Applications Based on PAPI
DOI	10.1109/ACCESS.2019.2934223
ISSN/eSSN	2169-3536
Authors	Daniel Madroñal, Florian Arrestier, Jaime Sancho, Antoine Morvan, Raquel Lazcano, Karol Desnos, Rubén Salvador, Daniel Menard, Eduardo Juárez and César Sanz
Title of Journal/Conference	IEEE Access
Number, Date	Vol. 7, pp. 111801 - 111812
Publisher	IEEE
Place of publication	IEEE Xplore Digital Library
Year	2019
Peer Review	Yes
Open Access	Green
Type*	Conference
Title	Modeling Nested For Loops with Explicit Parallelism in Synchronous Dataflow Graphs
DOI	10.1007/978-3-030-27562-4_19

ISSN/eSSN	978-3-030-27562-4
Authors	Honorat, Alexandre; Desnos, Karol; Pelcat, Maxime; Nezan, Jean-François
Title of Journal/Conference	Lecture Notes in Computer Science book series (LNCS, volume 11733)
Number, Date	2019
Publisher	Springer
Place of publication	Pythagorio, Greece
Year	2019
Peer Review	Yes
Open Access	Green
Type*	Conference
Title	Elicitation of Technical Requirements in Large Research Projects: the CERBERO approach
DOI	10.1145/3297280.3297600
ISSN/eSSN	978-145035933-7
Authors	Masin, Michael and Palumbo, Francesca and Adriaanse, J and Myrhaug, Hans and Regazzoni, Francesco and Sanchez, M and Zedda, Katiuscia
Title of Journal/Conference	34th ACM/SIGAPP Symposium On Applied Computing
Number, Date	2019
Publisher	Association for Computing Machinery
Place of publication	Limassol; Cyprus
Year	2019
Peer Review	Yes
Open Access	green
Type*	Book Chapter
Title	Dataflow Modeling for Reconfigurable Signal Processing Systems
DOI	10.1007/978-3-319-91734- 4_22
ISSN/eSSN	978-331991734-4;978-331991733-7

Authors	Karol Desnos and Francesca Palumbo
Title of Journal/Conference	Handbook of Signal Processing Systems, 3rd Edition
Number, Date	2019
Publisher	Springer International Publishing
Place of publication	
Year	2019
Peer Review	Yes
Open Access	Green (https://hal.archives-ouvertes.fr/hal-01899410/document)
Type*	Journal & Conference
Title	Numerical Representation of Directed Acyclic Graphs for Efficient Dataflow Embedded Resource Allocation
DOI	10.1145/3358225
ISSN/eSSN	1539-9087
Authors	Arrestier, Florian and Desnos, Karol and Juarez, Eduardo and Menard, Daniel
Title of Journal/Conference	ACM Transactions on Embedded Computing Systems (TECS) & EMSOFT Proceedings
Number, Date	Volume 18, Issue 5s
Publisher	ACM
Place of publication	New York, USA
Year	2019
Peer Review	Yes
Open Access	Green
Type*	Conference
Title	Extending Architecture Modeling for Signal Processing towards GPUs
DOI	10.23919/EUSIPCO.2019.8903094
ISSN/eSSN	---
Authors	Saman Payvar, Jani Boutellier, Antoine Morvan, Claudio Rubattu, and Maxime Pelcat
Title of Journal/Conference	Proceedings of the 27th European Signal Processing Conference (EUSIPCO)

Number, Date	2019
Publisher	IEEE
Place of publication	IEEE Xplore Digital Library
Year	2019
Peer Review	Yes
Open Access	Green
Type*	Workshop
Title	A Dataflow Implementation of Inverse Kinematics on Reconfigurable Heterogeneous MPSoC
DOI	---
ISSN/eSSN	---
Authors	Luca Fanni, Leonardo Suriano, Claudio Rubattu, Pablo Sanchez, Eduardo de la Torre and Francesca Palumbo
Title of Journal/Conference	Proceedings of the Cyber-Physical Systems PhD Workshop 2019
Number, Date	2019
Publisher	CEUR-WS.org
Place of publication	CEUR-WS.org
Year	2019
Peer Review	Yes
Open Access	Gold
Type*	Workshop
Title	Run-time Performance Monitoring of Heterogeneous Hw/Sw Platforms Using PAPI
DOI	---
ISSN/eSSN	978-3-8007-5045-0
Authors	Tiziana Fanni, Daniel Madroñal, Claudio Rubattu, Carlo Sau, Francesca Palumbo, Eduardo Juárez, Maxime Pelcat, Cesar Sanz, and Luigi Raffo
Title of Journal/Conference	Sixth International Workshop on FPGAs for Software Programmers
Number, Date	2019
Publisher	VDE
Place of publication	IEEE Xplore Digital Library

Year	2019
Peer Review	Yes
Open Access	Green
Type*	Journal
Title	An integrated hardware/software design methodology for signal processing systems
DOI	10.1016/j.sysarc.2018.12.010
ISSN/eSSN	1383-7621
Authors	Lin Li, Carlo Sau, Tiziana Fanni, Jingui Li, Timo Viitanen, François Christophe, Francesca Palumbo, Luigi Raffo, Heikki Huttunen, Jarmo Takala and Shuvra S. Bhattacharyya
Title of Journal/Conference	Journal of Systems Architecture
Number, Date	2019
Publisher	Elsevier
Place of publication	Science Direct
Year	2019
Peer Review	Yes
Open Access	Gold
Type*	Conference
Title	Run-time Performance Monitoring of Hardware Accelerators: POSTER
DOI	10.1145/3310273.3323423
ISSN/eSSN	978-1-4503-6685-4
Authors	Daniel Madroñal and Tiziana Fanni
Title of Journal/Conference	16th ACM International Conference on Computing Frontiers
Number, Date	2019
Publisher	ACM
Place of publication	ACM Digital Library
Year	2019
Peer Review	Yes
Open Access	Green
Type*	Conference

Title	CERBERO: Cross-layer modEl-based fRamework for multi-oBjective dEsign of Reconfigurable Systems in unceRtain hybRid envirOnments: Invited Paper: CERBERO Teams from UniSS, UniCA, IBM Research, TASE, INSA-Rennes, UPM, USI, Abinsula, AmbieSense, TNO, S&T, CRF
DOI	10.1145/3310273.3323436
ISSN/eSSN	---
Authors	Francesca Palumbo, Tiziana Fanni, Carlo Sau, Luca Pulina, Luigi Raffo, Michael Masin, Evgeny Shindin, Pablo Sanchez de Rojas, Karol Desnos, Maxime Pelcat, Alfonso Rodríguez, Eduardo Juárez, Francesco Regazzoni, Giuseppe Meloni, Katiuscia Zedda, Hans Myrhaug, Leszek Kaliciak, Joost Andriaanse, Julio Olivieria de Filho, Pablo Muñoz and Antonella Toffetti.
Title of Journal/Conference	16th ACM International Conference on Computing Frontiers
Number, Date	2019
Publisher	ACM
Place of publication	ACM Digital Library
Year	2019
Peer Review	Yes
Open Access	Green
Type*	Conference
Title	Hardware/Software Self-adaptation in CPS: The CERBERO Project Approach
DOI	10.1007/978-3-030-27562-4_30
ISSN/eSSN	---
Authors	Francesca Palumbo, Tiziana Fanni, Carlo Sau, Alfonso Rodríguez, Daniel Madroñal, Karol Desnos, Antoine Morvan, Maxime Pelcat, Claudio Rubattu, Raquel Lazcano, Luigi Raffo, Eduardo de la Torre, Eduardo Juárez, César Sanz and Pablo Sánchez de Rojas,.
Title of Journal/Conference	International Conference on Embedded Computer Systems SAMOS 2019: Embedded Computer Systems: Architectures, Modeling, and Simulation
Number, Date	2019
Publisher	Springer, Cham
Place of publication	Part of the Lecture Notes in Computer Science book series (LNCS, volume 11733)
Year	2019
Peer Review	Yes
Open Access	Green
Type*	Conference

Title	Challenging CPS Trade-Off Adaptivity with Coarse-Grained Reconfiguration.
DOI	10.1007/978-3-319-93082-4_8
ISSN/eSSN	978-3-319-93082-4
Authors	Francesca Palumbo, Carlo Sau, Tiziana Fanni and Luigi Raffo.
Title of Journal/Conference	In Applications in Electronics Pervading Industry, Environment and Society Conference (ApplePies)
Number, Date	2019
Publisher	Springer, Cham
Place of publication	Lecture Notes in Electrical Engineering book series (LNEE, volume 512)
Year	2019
Peer Review	Yes
Open Access	Green
Type*	Conference
Title	SMT-based Planning for Robots in Smart Factories
DOI	10.1007/978-3-030-22999-3_58
ISSN/eSSN	
Authors	Arthur Bit-Monnot, Leofante, Francesco, Luca Pulina, Armando Tacchella.
Title of Journal/Conference	Advances and Trends in Artificial Intelligence. From Theory to Practice - 32nd International Conference on Industrial, Engineering and Other Applications of Applied Intelligent Systems
Number, Date	2019
Publisher	Springer
Place of publication	
Year	2019
Peer Review	Yes
Open Access	Green - Open access version available at https://www.cerbero-h2020.eu/wp-content/uploads/2020/02/IEAAIE.pdf
Type*	Journal
Title	Securing Hardware Accelerators: a New Challenge for High-Level Synthesis (Perspective Paper).
DOI	10.1109/LES.2017.2774800
ISSN/eSSN	1943-0663 /1943-0671
Authors	Christian Pilato, Siddharth Garg, Kaijie Wu, Ramesh Karri, and Francesco Regazzoni.

Title of Journal/Conference	IEEE Embedded Systems Letters
Number, Date	2018
Publisher	IEEE
Place of publication	Embedded Systems Letters
Year	2018
Peer Review	Yes
Open Access	Green
Type*	Conference
Title	DEMO: Multi-Grain Adaptivity in Cyber-Physical Systems
DOI	10.1109/ICM.2018.8704058
ISSN/eSSN	---
Authors	Alfonso Rodriguez and Tiziana Fanni
Title of Journal/Conference	2018 30th International Conference on Microelectronics (ICM)
Number, Date	2018
Publisher	IEEE
Place of publication	IEEE Xplore Digital Library
Year	2018
Peer Review	Yes
Open Access	Green
Type*	Conference
Title	Consistency Checking of Functional Requirements
DOI	
ISSN/eSSN	
Authors	Simone Vuotto
Title of Journal/Conference	Proceedings of the Doctoral Consortium of Formal Methods 2018
Number, Date	
Publisher	
Place of publication	
Year	2018
Peer Review	Yes

Open Access	Green - Open access version available at https://arxiv.org/pdf/1804.10486.pdf
Type*	Journal
Title	Dataflow-Functional High-Level Synthesis for Coarse-Grained Reconfigurable Accelerators
DOI	10.1109/LES.2018.2882989
ISSN/eSSN	1943-0663
Authors	Claudio Rubattu, Francesca Palumbo, Carlo Sau, Rubén Salvador, Jocelyn Serot, Karol Desnos, Luigi Raffo and Maxime Pelcat
Title of Journal/Conference	IEEE Embedded Systems Letters
Number, Date	2018
Publisher	IEEE
Place of publication	IEEE Xplore Digital Library
Year	2018
Peer Review	Yes
Open Access	Green
Type*	Conference
Title	Consistency of property specification patterns with boolean and constrained numerical signals.
DOI	10.1007/978-3-319-77935-5_26
ISSN/eSSN	
Authors	Massimo Narizzano, Luca Pulina, Armando Tacchella, and Simone Vuotto.
Title of Journal/Conference	NASA Formal Methods - 10th International Symposium
Number, Date	2018
Publisher	Springer, Cham
Place of publication	
Year	2018
Peer Review	Yes
Open Access	Green - Open access version available at https://arxiv.org/pdf/1712.04162
Type*	Conference
Title	Delays and States in Dataflow Models of Computation.
DOI	10.1145/3229631.3229645

ISSN/eSSN	9781450364942
Authors	Florian Arrestier, Karol Desnos, Maxime Pelcat, Julien Heulot, Eduardo Juarez and Daniel Menard.
Title of Journal/Conference	2018 International Conference on Embedded Computer Systems: Architectures, Modeling, and Simulation (SAMOS)
Number, Date	2018
Publisher	ACM
Place of publication	SAMOS '18: Proceedings of the 18th International Conference on Embedded Computer Systems: Architectures, Modeling, and Simulation
Year	2018
Peer Review	Yes
Open Access	Green
Type*	Conference
Title	Automatic Instrumentation of Dataflow Applications using PAPI.
DOI	doi.org/10.1145/3203217.3209886
ISSN/eSSN	978-1-4503-5761-6
Authors	Daniel Madroñal, Antoine Morvan, Raquel Lazcano, Rubén Salvador, Karol Desnos, Eduardo Juárez, César Sanz.
Title of Journal/Conference	Conference on Computing Frontiers
Number, Date	2018
Publisher	ACM
Place of publication	ACM Digital Library
Year	2018
Peer Review	Yes
Open Access	Gold
Type*	Conference
Title	Darkmem: fine-grained power management of local memories for accelerators in embedded systems.
DOI	10.1109/ASPDAC.2018.8297403
ISSN/eSSN	2153-697X
Authors	Christian Pilato, and Luca P. Carloni.
Title of Journal/Conference	Proceedings of the 23rd Asia and South Pacific Design Automation Conference

Number, Date	2018
Publisher	IEEE Press
Place of publication	Jeju, Korea (South)
Year	2018
Peer Review	Yes
Open Access	Green
Type*	Conference
Title	Multi-Grain Reconfiguration for Advanced Adaptivity in Cyber- Physical Systems}
DOI	10.1109/RECONFIG.2018.8641705
ISSN/eSSN	2640-0472
Authors	Tiziana Fanni, Alfonso Rodríguez, Carlo Sau, Leonardo Suriano, Francesca Palumbo, Luigi Raffo, and Eduardo de la Torre.
Title of Journal/Conference	Conference on ReConFigurable Computing and FPGAs (ReConFig'18)
Number, Date	2018
Publisher	IEEE
Place of publication	IEEE Xplore Digital Library
Year	2018
Peer Review	Yes
Open Access	Green
Type*	Conference
Title	Searching of Self-similar Spaces
DOI	https://doi.org/10.1007/978-3-030-02683-7_81
ISSN/eSSN	978-3-030-02682-0
Authors	Leszek Kaliciak, Hans Myrhaug, and Ayse Goker.
Title of Journal/Conference	Proceedings of the Future Technologies Conference (FTC)
Number, Date	2018
Publisher	Springer, Cham
Place of publication	Advances in Intelligent Systems and Computing, vol 881
Year	2018
Peer Review	Yes
Open Access	

Type*	Conference
Title	On Search Spaces of Fractal Nature
DOI	10.3233/978-1-61499-927-0-202
ISSN/eSSN	9781614999270
Authors	Leszek Kaliciak, Hans Myrhaug, and Ayse Goker.
Title of Journal/Conference	Fuzzy Systems and Data Mining IV: Proceedings of FSDM 2018
Number, Date	2018
Publisher	IOS Press
Place of publication	Frontiers in Artificial Intelligence and Applications
Year	2018
Peer Review	Yes
Type*	Workshop
Title	Requirements-driven design of cyber-physical systems
DOI	
ISSN/eSSN	1613-0073
Authors	Simone Vuotto
Title of Journal/Conference	Cyber-Physical systems PhD and Post-doc workshop
Number, Date	2018
Publisher	CEUR
Place of publication	
Year	2018
Peer Review	Yes
Open Access	Green - Open access version available at http://ceur-ws.org/Vol-2208/6.pdf
Type*	Conference
Title	IMPRESS: Automated Tool for the Implementation of Highly Flexible Partial Reconfigurable Systems with Xilinx Vivado
DOI	10.1109/RECONFIG.2018.8641703
ISSN/eSSN	2640-0472
Authors	Rafael Zamacola, Alberto García Martínez, Javier Mora, Andrés Otero, Eduardo de La Torre

Title of Journal/Conference	International Conference on ReConFigurable Computing and FPGAs (ReConFig)
Number, Date	2018
Publisher	IEEE
Place of publication	IEEE Xplore Digital Library
Year	2018
Peer Review	Yes
Open Access	Green
Type*	Workshop
Title	Goal-based Deliberation for Cyber Physical Systems
DOI	
ISSN/eSSN	1613-0073
Authors	Arthur Bit-Monnot
Title of Journal/Conference	Cyber-Physical systems PhD and Post-doc workshop
Number, Date	2018
Publisher	CEUR
Place of publication	
Year	2018
Peer Review	Yes
Open Access	Green - Open access version available at http://ceur-ws.org/Vol-2208/1.pdf
Type*	Workshop
Title	Dataflow-based Adaptation Framework with Coarse-Grained Reconfigurable Accelerators
DOI	---
ISSN/eSSN	---
Authors	Claudio Rubattu
Title of Journal/Conference	Proceedings of the Cyber-Physical Systems PhD Workshop 2018
Number, Date	2018
Publisher	CEUR-WS.org

Place of publication	CEUR-WS.org
Year	2018
Peer Review	Yes
Open Access	Gold
Type*	Conference
Title	A Unified Hardware/Software Monitoring Method for Reconfigurable Computing Architectures Using PAPI
DOI	DOI: 10.1109/ReCoSoC.2018.8449389
ISSN/eSSN	-
Authors	Leonardo Suriano, Daniel Madroñal, Alfonso Rodriguez, Eduardo Juarez, Cezar Sanz, Eduardo de la Torre
Title of Journal/Conference	2018 13th International Symposium on Reconfigurable Communication-centric Systems-on-Chip (ReCoSoC)
Number, Date	2018
Publisher	IEEE
Place of publication	IEEE Xplore Digital Library
Year	2018
Peer Review	Yes
Open Access	Green
Type*	Conference
Title	Cross-layer design of reconfigurable cyber-physical systems.
DOI	10.23919/DATE.2017.7927088
ISSN/eSSN	1558-1101
Authors	Michael Masin, Francesca Palumbo, Hans Myrhaug, J. A. de Oliveira Filho, M. Pastena, Maxime Pelcat, Luigi Raffo, Francesco Regazzoni, A. A. Sanchez, Antonella Toffetti, Eduardo de la Torre and Katiuscia Zedda
Title of Journal/Conference	In Proceedings of the Conference on Design, Automation & Test in Europe
Number, Date	2017
Publisher	IEEE
Place of publication	Lausanne
Year	2017
Peer Review	Yes
Open Access	Green

Type*	Conference
Title	More adaptive does not imply less safe (with formal verification)
DOI	10.1007/978-3-319-70389-3_19
ISSN/eSSN	
Authors	Luca Pulina and Armando Tacchella
Title of Journal/Conference	Hardware and Software: Verification and Testing - 13th International Haifa Verification Conference
Number, Date	2017
Publisher	Springer, Cham
Place of publication	
Year	2017
Peer Review	Yes
Open Access	Green Open access version available at https://www.cerbero-h2020.eu/wp-content/uploads/2020/02/HVC.pdf
Type*	Journal
Title	Reproducible Evaluation of System Efficiency with a Model of Architecture: From Theory to Practice.
DOI	10.1109/TCAD.2017.2774822
ISSN/eSSN	0278-0070 /1937-4151
Authors	Maxime Pelcat, Alexandre Mercat, Karol Desnos, Luca Maggiani, Yanzhou Liu, Julien Heulot, Jean-François Nezan, Wassim Hamidouche, Daniel Ménard, and Shuvra S. Bhattacharyya.
Title of Journal/Conference	IEEE Transactions on Computer-Aided Design of Integrated Circuits and Systems
Number, Date	Volume: 37, Issue: 10 , Oct. 2018
Publisher	IEEE
Place of publication	IEEE
Year	2017
Peer Review	Yes
Open Access	Green

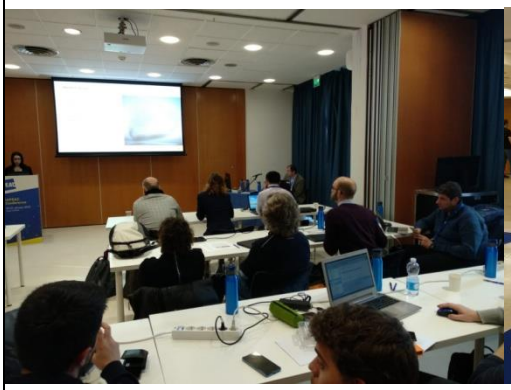
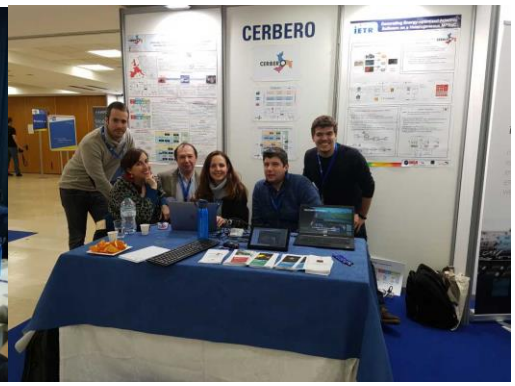
Type*	Conference
Title	Adaptive software-augmented hardware reconfiguration with dataflow design automation.
DOI	10.1109/RECONFIG.2017.8279772
ISSN/eSSN	---
Authors	Claudio Rubattu, Francesca Palumbo, and Maxime Pelcat
Title of Journal/Conference	2017 International Conference on ReConFigurable Computing and FPGAs (ReConFig)
Number, Date	2017
Publisher	IEEE
Place of publication	IEEE Xplore Digital Library
Year	2017
Peer Review	Yes
Open Access	Green
Type*	Journal
Title	Challenging the Best HEVC Fractional Pixel FPGA Interpolators with Reconfigurable and Multifrequency Approximate Computing
DOI	10.1109/LES.2017.2703585
ISSN/eSSN	1943-0671
Authors	Carlo Sau, Francesca Palumbo, Maxime Pelcat, Julien Heulot, Erwan Nogues, Daniel Menard, Paolo Meloni, and Luigi Raffo.
Title of Journal/Conference	IEEE Embedded Systems Letters
Number, Date	2017
Publisher	IEEE
Place of publication	IEEE Xplore Digital Library
Year	2017
Peer Review	Yes
Open Access	Gold
Type*	Conference
Title	Analysis of a heterogeneous multi-core, multi-hw-accelerator-based system designed using PREESM and SDSoC

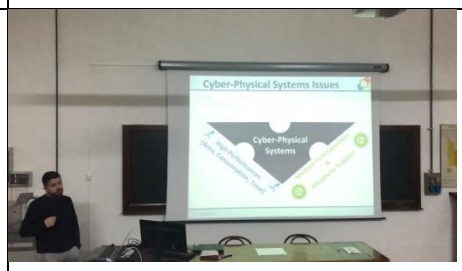
DOI	DOI: 10.1109/ReCoSoC.2017.8016151
ISSN/eSSN	-
Authors	Leonardo Suriano, Alfonso Rodriguez, Karol Desnos, Maxime Pelcat, Eduardo de la Torre
Title of Journal/Conference	2017 12th International Symposium on Reconfigurable Communication-centric Systems-on-Chip (ReCoSoC)
Number, Date	2017
Publisher	IEEE
Place of publication	IEEE Xplore Digital Library
Year	2017
Peer Review	Yes
Open Access	Green
Type*	Conference
Title	Unified Hybrid Image Retrieval System with Continuous Relevance Feedback.
DOI	10.3233/978-1-61499-927-0-202
ISSN/eSSN	0922-6389
Authors	Leszek Kaliciak, Hans Myrhaug, and Ayse Goker.
Title of Journal/Conference	In 21st World Multi-Conference on Systemics, Cybernetics and Informatics (WMSCI)
Number, Date	2017
Publisher	IOS Press
Place of publication	Frontiers in Artificial Intelligence and Applications
Year	2017
Peer Review	Yes
Open Access	Green
Type*	Conference
Title	Content-Based Image Retrieval in Augmented Reality.
DOI	https://doi.org/10.1007/978-3-319-61118-1_13
ISSN/eSSN	978-3-319-61117-4
Authors	Leszek Kaliciak, Hans Myrhaug, and Ayse Goker.

Title of Journal/Conference	8th International Symposium on Ambient Intelligence (ISAmI 2017)
Number, Date	2017
Publisher	Springer, Cham
Place of publication	Advances in Intelligent Systems and Computing, vol 615
Year	2017
Peer Review	Yes
Open Access	Green

2. Appendix: Conference, Workshops, Tutorials, Panels, Schools, Special Sessions and didactics

Table 3 - CERBERO Dissemination events

Type of Activity	Organization of Tutorial - **CERBERO Final Event at HiPEAC 2020**
Description	Adaptive CPS architectures, methods and tools: the CERBERO project – The event has been structured in four different sessions: • SESSION 1: The CERBERO Project – Challenges and Solutions • SESSION 2: HANDS on "Tools Interoperability – Intra-tool interoperability using the CERBERO Interoperability Framework" • SESSION 3: HANDS on "Self-Adaptation over Heterogeneous Embedded Computing Infrastructures" • SESSION 4: The CERBERO Project – Impact, Demo and Clustering  
Target/Audience	Academic and Industrial researchers in CPS field
Date and Place	22 January 2020 – Bologna (Italy)
Number of attendees	47 people registered for the tutorial.

Type of Activity	Participation to the third Technology Transfer Event of PROSSIMO Sardinian Regional Project
Description	 The main objective of PROSSIMO project is to transfer advanced techniques and tools regarding design and implementation of CPS. In the context of the third day of technology transfer, Carlo Sau (UniCA) and Tiziana Fanni (UniSS) gave a lecture, togethet with Giacomo Valente, form de University of L'Aquila, on Monitoring heterogeneous platforms, result of the cross-fertilization between CERBERO Project and FitOptiVis ECSEL Project. 
Target/Audience	Start-up and enterprise
Date and Place	18 February 2020 – Università degli Studi di Sassari, Sassari, Italy.
Number of attendees	About 12
Type of Activity	Lesson on Seasonal School: - Heterogeneous Cyber Physical Systems of Systems (HEPSoS)
Description	Eduardo de la Torre participated in this Summer School with an invited lecture on "Adaptivity and self-awareness of CPSs and CPSoSs". HEpSoS is an IEEE sponsored School (sponsorship obtained in a competitive manner). As the title may suggest, adaptation related results from CERBERO were shown as examples of a more general lecture on adaptation.
Target/Audience	Academic and Researchers at PhD and Master levels
Date and Place	Nov 29th – Dec 1st 2019, Aristotle University of Thesaloniki, Thesaloniki (Greece)
Number of attendees	Approx. 40 attendees
Type of Activity	Participation to the second Technology Transfer Event of PROSSIMO Sardinian Regional Project

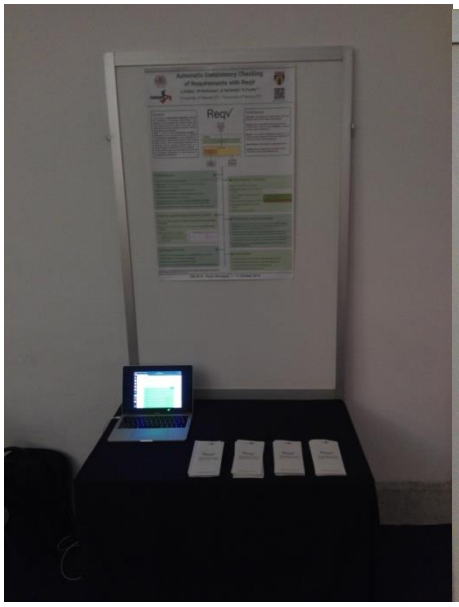
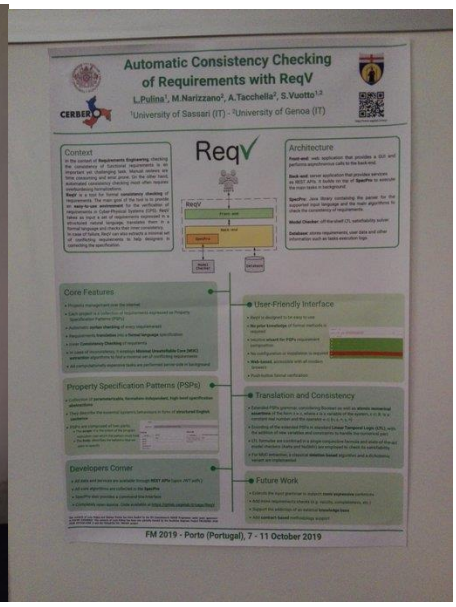
Description		The main objective of PROSSIMO project is to transfer advanced techniques and tools regarding design and implementation of CPS. In the context of the second day of technology transfer, Carlo Sau (UniCA) and Tiziana Fanni (UniSS) gave a lecture on High Level Synthesis Tools for Hardware design.
Target/Audience	Start-up and enterprise	
Date and Place	14 November, 2019 – Sardegna Ricerche, Parco Tecnologico di Pula, Cagliari, Italy.	
Number of attendees	About 15	
Type of Activity	Participation to the first Technology Transfer Event of PROSSIMO Sardinian Regional Project	
Description	The main objective of PROSSIMO project is to transfer advanced techniques and tools regarding design and implementation of CPS. In the context of the first day of technology transfer, Claudio Rubattu and Tiziana Fanni, from UniSS, presented MDC tool Demo to the SMEs attending the event.  	
Target/Audience	Start-up and enterprise	
Date and Place	24 October, 2019 - Hubinsula, Viale Umberto I, 24, 07100 Sassari, Italy	
Number of attendees	About 30	
Type of Activity	Organization of Demo Event – **Happy ICT Hour**	

Description	The "happy ICT hour" presented the results and the potential of the CERBERO toolchains. Participants had the opportunity to browse CERBERO technologies demos, play with the tool chains and its components, and discuss the potential benefit of the CERBERO toolchain in other applications of their interests. The CERBERO Advisory Board Members participated to the event. 
Target/Audience	Start-up and enterprises
Date and Place	25 September 2019 - Hotel Oasis, Viale I Maggio, 9, 07041 Alghero (SS)
Number of attendees	Besides the participants to the CPS School (53), about 20 people participated to the happy ICT hour.
Type of Activity	Organization of Summer School - **CPS Summer School 2019**
Description	The CPS summer school is targeted at students, research scientists, and R&D experts from academia and industry, who want to learn about CPS engineering and applications. During the CPS summer school CERBERO participants gave a tutorial on CERBERO self-adaptation loop. CERBERO speaker: Claudio Rubattu (UNISS), Daniel Madronal (UOM), Leonardo Suriano (UPM). 
Target/Audience	PhD Students, Academic and Industrial researchers in CPS field
Date and Place	23 - 27 September, 2019 - Porto Conte - Alghero (Italy)
Number of attendees	56
Type of Activity	Participation to School on CPS & IoT 2019
Description	MDC has been presented with a lecture and tutorial titled: "Dataflow-Based Toolchain for Adaptive Hardware Accelerators" at the Summer School on CPS & IoT collocated with ECYPS 2019 – 7th EUROMICRO/IEEE Workshop on Embedded and CPS and MECO 2019

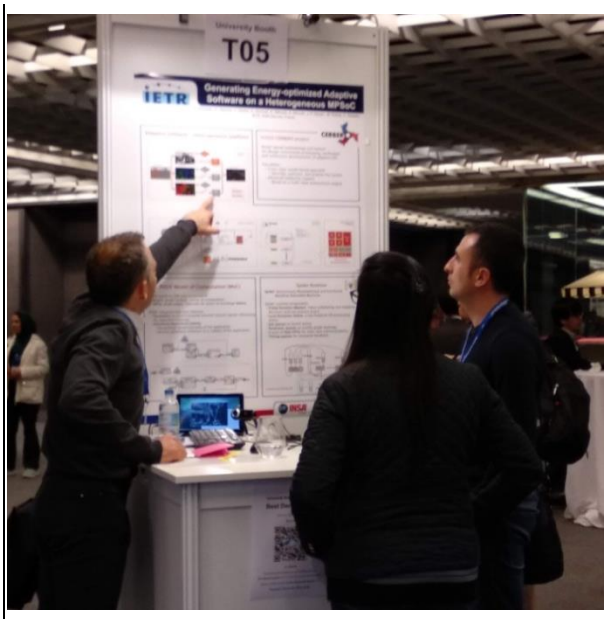
	(http://embeddedcomputing.me/en) 
Target/Audience	PhD Students, Academic and Industrial researchers in CPS field
Date and Place	10-14 June 2019 – Budva
Number of attendees	30
Type of Activity	**CEDA Workshop on CAD for Safe and Secure Electronic System Design** (co-located with DAC 2019)
Description	Safe and secure electronic systems have become an important priority for industry, government, and consumers. Cyber-physical systems and Internet-of-Things (IoT) systems rely on safe and secure electronic systems. These systems are only as secure as the CAD tools used to create them. This workshop will explore the requirements on CAD systems for safety and security and the methodologies and algorithms required to satisfy these requirements. Both the goals of safety/security and the best techniques to achieve these goals are rapidly evolving. Standards and certification are two complementary mechanisms for safe and secure system design. Standards provide both goals and processes; certification is a regulatory process that is used in some domains. Externally-defined safety/security goals for CAD tools are relatively new; methodologies and algorithms to produce and use these tools are still evolving. The workshop will draft a report identifying goals and research issues.
Target/Audience	Researchers, standardization bodies, and industry interested in designing secure embedded and cyber physical systems
Date and Place	2 June 2019 – Las Vegas (USA)
Number of attendees	Approximately 25 people attended the workshop.

Type of Activity	Organization of **TechnoDay 2017**
Description	Thales Alenia Space unveiled more than 40 innovations at its third TechnoDay exhibition, held at its Tres Cantos facility (Madrid). These innovative solutions were developed by the company's Spanish R&D and engineering departments to meet customer needs in five main areas: digital transformation, smart systems, the Internet of Things, Factory 4.0 and open innovation. 
Target/Audience	Professionals from national and international research bodies, universities, industry and civil and military institutions attended the exhibition, including: - European Comission Space NCPs - ESA representatives - Members of the Spanish Armed Forces - Spanish Satellite Operators (Hispasat, Hisdesat) - Embassy Commercial Attachés (Italy, Korea, France) - Thales Representatives from Security, Trains or defense markets - Thales Alenia Space Decision makers as the Company CTO or the responsible for TAS Product Policy In the same way, press representatives were received including both generalist and specialized media.
Date and Place	13-15 June, 2017 in Tres Cantos, Madrid (Spain)
Number of attendees	60 external visitors

Type of Activity	Participation to the Tool Exhibition at FM 2019
Description	The SAGE suite has been presenting during the Tool Exhibition of the 3rd World Congress on Formal Methods (http://formalmethods2019.inesctec.pt/?page_id=2101)

	 
Target/Audience	PhD Students, Academic and Industrial researchers in Formal Methods
Date and Place	7 – 11 October, 2019 – Porto (Portugal)
Number of attendees	About 40

Type of Activity	Participation to University-Booth at DATE 2019
Description	CERBERO had three demonstrators at the University Booth at DATE 2019 Conference. MDC tool, presented by Claudio Rubattu (UniSS) and Tiziana Fanni (UniCA), ReqV presented by Simone Vuotto (UniSS) and PREESM and SPIDER, presented by Daniel Menard. The goal was dissemination of tools developed in the CERBERO project in an international event with industry and academics participants.  

	
Target/Audience	PhD Students, Academic and Industrial researchers in CPS field
Date and Place	25 - 29 March, 2019 – Firenze (Italy)
Number of attendees	DATE 2019 in Florence received over 1,600 registrations from international experts – about a 10% visited the CERBERO booths

Type of Activity	Event with Students @UniSS
Description	CERBERO technologies presented by Francesca Palumbo (UniSS) and Claudio Rubattu (UniSS) at the students  
Target/Audience	Students
Date and Place	13 April 2019 – Sassari (Italy)
Number of attendees	50

Type of Activity	**Organization of Tutorial at HiPEAC 2019**

Description	This tutorial target designers and users of cyber-physical system. The attendees learned about the main methodologies and tools for designing CPS and have been introduced to the most recent security challenges. The design of adaptive and secure CPS has been presented using realistic cases of study.
Target/Audience	Academic and Industrial researchers in CPS field
Date and Place	21 January 2019 – Valencia (Spain)
Number of attendees	29 people registered for the tutorial.
Type of Activity	**Event with startups Lugano**
Description	During this event CERBERO partners have presented the results and the potential of the CERBERO toolchains. The participants had the opportunity to familiarize with the toolchains and to discuss the potential benefit of the CERBERO approach in cases of study of interests of the participants. 
Target/Audience	Interested startups from the local startup incubator. Persons involved in the technology transfer at the Università della Svizzera italiana
Date and Place	10 January 2019 – Lugano
Number of attendees	6 participants coming from startups locally incubated and from the offices dedicated to technology transfer at Università della Svizzera italiana participated to the event.
Type of Activity	**Demo Night at ReConFig 2018 @UPM**
Description	Alfonso Rodriguez presented the "DEMO: MDC + ARTICo3: a Multi-Grain Reconfiguration Approach for CPS" during the Demo Night placed at the Conference on ReConFigurable Computing and FPGAs (ReConFig'18).

	
Target/Audience	Academic and industrial researchers that work in the field of reconfigurable systems
Date and Place	3rd December 2018 – Cancun (Mexico)
Number of attendees	From 60 to 80 people attended the conference.

Type of Activity	Organization of Summer School - **CPS Summer School 2018**
Description	The CPS summer school is targeted at students, research scientists, and R&D experts from academia and industry, who want to learn about CPS engineering and applications. CERBERO Speakers: Francesca Palumbo (UNISS), Luca Pulina (UNISS), Simone Vuotto (UNISS), Michael Masin (IBM), Julio de Oliveira Filho (TNO), Karol Desnos (INSA), Eduardo de la Torre (UPM), Tiziana Fanni (UNICA), Alfonso Rodriguez (UPM). 
Target/Audience	PhD Students, Academic and Industrial researchers in CPS field
Date and Place	17 - 21 September, 2018 - Alghero (Italy)
Number of attendees	45

Type of Activity	Organization of workshop - **COWOMO workshop 2018**
Description	Maxime Pelcat co-organized the COWOMO workshop ("http://cowomo.insa-rennes.fr/") in Rennes. A day of the workshop was completely dedicated to CERBERO. The focus was mainly on the hardware/software adaptive toolchain. CERBERO speakers: Daniel Madronal (UPM),

	Eduardo Juarez and Ruben Salvador (UPM), Michael Masin (IBM), Maxime Pelcat (IETR), Claudio Rubattu (ITER/UNISS), and Leonardo Suriano (UPM).UPM).
Target/Audience	PhD Students, Academic and Industrial researchers in CPS field
Date and Place	7th-8th June 2018 - Rennes (France)
Number of attendees	53
Type of Activity	Organization of Tutorial - **Design for Low-Power Internet-of-Things (IoT) Systems**
Description	Dr. Francesca Palumbo was co-organizer of the tutorial "Design for Low-Power Internet-of-Things (IoT) Systems" at the ISCAS 2018. The presentation was discussing, among others, the hardware reconfigurability and adaptivity as developed in the CERBERO project.
Target/Audience	PhD Students, Academic and Industrial researchers in CPS field
Date and Place	27 May 2018 - Florence (Italy)
Number of attendees	About 20 people registered for the tutorial.
Type of Activity	Didactics - **Boosting Flexibility and Computing Performance in Dynamically Reconfigurable FPGA-Based Embedded Systems**
Description	Andrés Otero and Alfonso Rodriguez gave the Seminar "Boosting Flexibility and Computing Performance in Dynamically Reconfigurable FPGA-Based Embedded Systems" during the CEI Annual Meeting in April 2018, which included CERBERO tools tutorials. A demo of ARTICo3 was also done to participating companies, with interest from other third companies, such as GMV or UTRC.
Target/Audience	PhD Students, Academic and Industrial researchers in CPS field
Date and Place	19th April 2018 - Madrid (Spain)
Number of attendees	Around 20 people registered for the tutorial.
Type of Activity	Organization of Tutorial - **Design of adaptive and secure CPS**
Description	A tutorial on "Design of adaptive and secure CPS" (http://www.cerbero-h2020.eu/cpsweek2018-tutorial/) was organized in conjunction with the CPS Week conference. During the tutorial the challenges related with requirement formalization, design tool chains, self-adaptation and security of CPS have been presented and explained.
Target/Audience	PhD Students, Academic and Industrial researchers in CPS field
Date and Place	10 April 2018 - Porto (Portugal)
Number of attendees	About 20 people registered for the tutorial.

Type of Activity	Organization of Summer School - **Dataflow workshop 2017**
Description	Karol Desnos co-organized the Dataflow workshop (https://hackmd.io/s/H1qxbyqkf#). Several partners of the CERBERO project presented their activities regarding adaptivity, design tools, modeling and energy efficiency. CERBERO Speakers: Karol Desnos (INSA/IETR), Francesca Palumbo (UniSS), Carlo Sau (UniCA), Claudio Rubattu (UniSS/INSA), Ruben Salvador (UPM), Florian Arrestier (INSA/UPM), Eduardo Juarez (UPM),
Target/Audience	PhD Students, Academic and Industrial researchers in CPS field
Date and Place	12-14 December 2017 – Rennes (France)
Type of Activity	Organization of Summer School - **CPS Summer School 2017**
Description	 The CPS summer school is targeted at students, research scientists, and R&D experts from academia and industry, who want to learn about CPS engineering and applications. Lectures from CERBERO partners addressed the following topics: introduction to CPSs and the CERBERO project, high level synthesis, self-adaptation, security, hardware software co-design, and modeling. During the school, CERBERO partners were also organizing tutorials on the CERBERO toolchain and they were distributing to participants the material related with the CERBERO tools. CERBERO Speakers: Christian Pilato (USI), Eduardo de la Torre (UPM), Francesca Palumbo (UNISS), Francesco Regazzoni (USI), Joost Adriaanse (TNO), Julio De Oliveira Filho (TNO), Karol Desnos (TNO), Michael Masin (IBM), Claudio Rubattu (UNISS), Tiziana Fanni (UNICA), Alfonso Rodriguez (UPM).
Target/Audience	PhD Students, Academic and Industrial researchers in CPS field
Date and Place	25 – 29 September, 2017 – Porto Conte Ricerche - Alghero (Italy)
Number of attendees	43
Type of Activity	Organization of Panel - **Designing Cyber-Physical Systems: Incremental Approaches or Disruptive Technologies?**
Description	Dr. Francesca Palumbo (UNISS) has organized and chaired a Panel on CPS design entitled "Designing Cyber-Physical Systems: Incremental Approaches or Disruptive Technologies?" at Computing Frontiers 2017 in Siena. Dr. Ruben Salvador (UPM) participated as speaker to provide the CERBERO perspective.
Target/Audience	PhD Students, Academic and Industrial researchers in CPS field
Date and Place	16th May 2017 – Siena (Italy)

Number of attendees	about 70-80 people
Type of Activity	Didactics
Description	The tool chain of CERBERO is also regularly used during teaching course at the master level (INSA and UPM) and for master thesis development (at Università degli Studi di Cagliari). A MOOC will be created by INSA on the design and programming of distributed signal processing systems, covering the design part of the CERBERO toolchain. This open MOOC will advertise the project toolchain and disseminate the ideas of the CERBERO consortium.