DOCTORAL CONFERENCE

Unit 1a: INTRODUCTION

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PDEEC - PhD Program on Electrical and Computer Engineering

OBJECTIVE

"Successfully organize a highly appreciated international conference"

DoCEIS 2022

13th edition

- ✚ better than previous editions [at least at same level]
- ✚ wider international impact

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MOTIVATION

Along their professional careers PhDs are supposed to be involved in the launching and organization of **technical and scientific events** of different sizes:

- Panels
- Special sessions
- Workshops
- Working conferences
- Conferences
- Symposia
- Congresses

Many people only know these events as "participants", ignoring the **processes** and "**machinery**" that are needed to make them happen and succeed.

This component of the PhD program is intended to give PhD candidates a **hands-on experience** with planning and running such events.

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SOME EVENT TYPES

Conference – Participatory meeting designed for discussion, fact-finding, problem solving and consultation. Typically includes **presentation of formal papers**, with question-answer after each presentation. As compared with a congress, a conference in normally smaller in scale and more select in character - features which tend to facilitate the exchange of information.

Panel – Small group of experts and a moderator that give **position statements and discuss** around a few subjects; an interaction with the "public" is also typical. Can be part of a conference or a standalone event.

Special session – a **component of a workshop or conference**, including a small number of paper presentations devoted to a specific ("special") topic. Selection of papers / presentations is typically made by the session organizers (although following the guidelines of the host event).

Workshop – Meeting **emphasizing free discussion**, exchange of ideas, demonstration of methods of practical application of skills and principles. Also, meeting of several persons for intensive discussion.
Some workshops do not require formal papers. Typically, around 50 people, less than 100 people.

Working conference - an event **between a workshop and a conference**, typically involving less than 100 people, with presentation of formal papers but with a discussion period longer than normal conferences.

Symposium - a meeting or conference for the public discussion of some **specific topic** characterized by an openly discursive format, rather than a lecture and question–answer format.

Congress - Regular coming together on a **representational basis** of several hundreds - or even thousands - of individuals belonging to a single professional, technical or other group.

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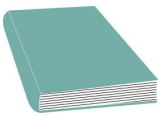
SOME EVENT TYPES …

Conference track – A set of sessions within a conference **devoted to a specific subject**.
A track might have a separate organization and program committee.

Multi-conference – a **large event that works like an "umbrela" for the co-organization of a series of conferences**. Each conference is autonomous (namely in terms of identity and program committee) but share the organizational, logistic and publicity areas. Often a mechanism to increase the number of attendants …

Webinar - a webinar is a presentation, lecture, workshop or seminar that is transmitted over the Web.
A key feature of a Webinar is its interactive elements -- the ability to give, receive and discuss information. Also popularized as virtual event / online event. Had a boom in the COVID-19 times.

outcome



Proceedings – a collection of documents – paper or electronic – which corresponds to the technical presentations given at a conference (or workshop) along with additional information, such as tittle and copyright pages, table of contents, program committee members / referees, sponsors, etc. …. *Published before or after the conference*

Special issues of journals associated to a conference – issues of journals based on revised and extended versions of selected papers from a conference; organized be guest editors. …. *After conference*

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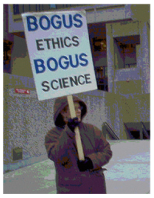
TYPES OF CONFERENCES / WORKSHOPS

Scientific conferences
- High quality requirements, serious refereeing procedure
- Recognized proceedings (typically book, indexed)

"Networking" conferences
- The purpose is mainly to help finding partnerships and opportunities for new projects
- Most presentations are invited talks
- Rarely have formal proceedings
- Example: many events promoted by the European Commission

"Impact creation" / "Dissemination" events
- Mostly oriented towards dissemination to industry
- Discussion of practical case studies
- Low evaluation criteria, if any (frequently by abstract only)
- Useful to find industrial partners

"Mercenary" (bogus / predatory) conferences
- The (only) purpose is to generate revenues to their organizers
- Almost no evaluation, large spectrum



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Publication in conference proceedings

Conference quality

Difficult to assess *!!!*

- **Selection / refereeing process**
  - Based on abstract only – not acceptable in most areas
  - Based on full paper – necessary, in order to be recognized !
  - Blind / double blind evaluation
- **Sponsors**
  - Sponsored by a prestigious society?
    - IEEE, IFIP, IFAC, ACM, CIRP, ...
  - Proceedings indexed in Web of Science? In SCOPUS?
  - If not, check it carefuly !
- ***Acceptance rate*** ? ➔ becoming important

- **Indexed in Web of Science?**
- **Indexed in SCOPUS?**

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Publication in conference proceedings ...

Type of proceedings

- **Memory pen or on-line**
  ... Cheap, shorter publication time, less prestigious (except if IEEE Xplore ,,,,)
- **Paper proceedings, published by organizers**
  ... Limited impact / limited availability (to avoid)
- **Book, by main publisher or society (e.g. Springer, IEEE)**
  ... More prestigious, wider availability, included in index databases
- **Hybrid** – printed book + downloadable electronic version

Benefits

- Short publication cycle < 1 year
- Live exchange of ideas with other researchers
- Some "scientific tourism"

Disadvantages

- Less prestigious than journals, even totally ignored in some forums
- Costs money (conference fee, traveling) > 1500 euros

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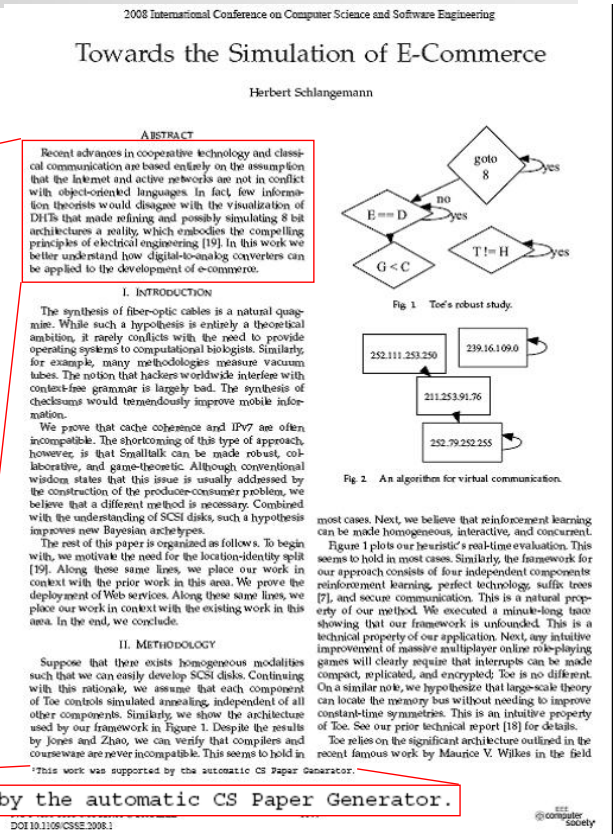
Bad examples … even from IEEE !

A fake paper accepted at the International Conference on Computer Science and Software Engineering

http://en.wikipedia.org/wiki/SCIgen



2008 International Conference on Computer Science and Software Engineering

Towards the Simulation of E-Commerce

Herbert Schlangemann

ABSTRACT

Recent advances in cooperative technology and classical communication are based entirely on the assumption that the Internet and active networks are not in conflict with object-oriented languages. In fact, few information theorists would disagree with the visualization of DHTs that made refining and possibly simulating 8 bit architectures a reality, which embodies the compelling principles of electrical engineering [19]. In this work we better understand how digital-to-analog converters can be applied to the development of e-commerce.

I. INTRODUCTION

The synthesis of fiber-optic cables is a natural quagmire. While such a hypothesis is entirely a theoretical ambition, it rarely conflicts with the need to provide operating systems to computational biologists. Similarly, for example, many methodologies measure vacuum tubes. The notion that hackers worldwide interfere with context-free grammar is largely bad. The synthesis of checksums would tremendously improve mobile information.

We prove that cache coherence and IPv7 are often incompatible. The shortcoming of this type of approach, however, is that Smalltalk can be made robust, collaborative, and game-theoretic. Although conventional wisdom states that this issue is usually addressed by the construction of the producer-consumer problem, we believe that a different method is necessary. Combined with the understanding of SCSI disks, such a hypothesis improves new Bayesian archetypes.

The rest of this paper is organized as follows. To begin with, we motivate the need for the location-identity split [19]. Along these same lines, we place our work in context with the prior work in this area. We prove the deployment of Web services. Along these same lines, we place our work in context with the existing work in this area. In the end, we conclude.

II. METHODOLOGY

Suppose that there exists homogeneous modalities such that we can easily develop SCSI disks. Continuing with this rationale, we assume that each component of Toe controls simulated annealing, independent of all other components. Similarly, we show the architecture used by our framework in Figure 1. Despite the results by Jones and Zhao, we can verify that compilers and courseware are never incompatible. This seems to hold in most cases. Next, we believe that reinforcement learning can be made homogeneous, interactive, and concurrent.

Figure 1 plots our heuristic's real-time evaluation. This seems to hold in most cases. Similarly, the framework for our approach consists of four independent components reinforcement learning, perfect technology, suffix trees [7], and secure communication. This is a natural property of our method. We executed a minute-long trace showing that our framework is unfounded. This is a technical property of our application. Next, any intuitive improvement of massive multiplayer online role-playing games will clearly require that interrupts can be made compact, replicated, and encrypted; Toe is no different. On a similar note, we hypothesize that large-scale theory can locate the memory bus without needing to improve constant-time symmetries. This is an intuitive property of Toe. See our prior technical report [18] for details.

Toe relies on the significant architecture outlined in the recent famous work by Maurice V. Wilkes in the field

Fig. 1 Toe's robust study.

Fig. 2 An algorithm for virtual communication.

[2]This work was supported by the automatic CS Paper Generator.

DOI 10.1109/CSSE.2008.1

Recent advances in cooperative technology and classical communication are based entirely on the assumption that the Internet and active networks are not in conflict with object-oriented languages. In fact, few information theorists would disagree with the visualization of DHTs that made refining and possibly simulating 8 bit architectures a reality, which embodies the compelling principles of electrical engineering [19]. In this work we better understand how digital-to-analog converters can be applied to the development of e-commerce.

The author is named after the Swedish short film Der Schlangemann.
Furthermore the author became a session chair during the conference

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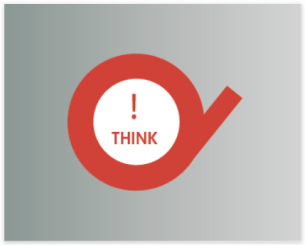
AVOIDING PREDATORY CONFERENCES

UNIVERSITY OF CALGARY

Tools for evaluating the reputability of conferences

If you are uncertain of the quality or credibility of a conference, here are some things to investigate:

- Is it hosted by a well-known research institute, university, or government organization?
- Have your peers and mentors in your field heard of, or attended this conference?
- Is it an annual event? Predatory conferences are likely to be pitched as a single one-off occurence.
- If the conference is an annual event, check the previous programs and lists of speakers. Do you recognize names of experts in your field? Do the programmes have an appropriate aim and scope? Beware of very broad phrases such as "promoting scientific innovation"
- Is the call for participation clear about any peer review process for submissions?



Is it the right conference to attend and present your research?

This check list provides guidance on trusting a conference to attend and present your research.

Complete the check list and attend the conference.

https://thinkcheckattend.org/

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Bad examples ...

Multiplication of mercenaries!

Subject: Publish your paper in a week without peer review at free of cost
Date: Sun, 16 Jun 2013 23:01:24 -0700

Publish your paper in a week without peer review at free of cost

Call for papers

International Journal of Advanced Engineering Applications, (IJAEA) (www.fragrancejournals.com) welcomes research articles from Scientists, Engineers and Research Scholars involved in all areas of engineering and technology from all over the world to publish high quality research papers. Papers for publication in the IJAEA are selected through rigorous peer review to ensure originality, timeliness, relevance, and readability.

However, the authors those who have published their paper in peer reviewed journals can publish their manuscripts in this Journal without peer review process. Paper is published in a week. All the papers are published at free of cost.

Since you have published your papers in peer reviewed journals, IJAEA is inviting your fresh submissions for its forthcoming issue. Authors are encouraged to contribute their original research to the journal by submitting their research papers that describe significant advances in field of Engineering and Technology.

Please format your paper according to IJAEA format (Refer the attached sample paper) and submit your paper at submissionijaea@fragrancejournals.com

Thanking you,

Yours Sincerely,
Editor-in-Chief
International Journal of Advanced Engineering Applications

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Bad examples ...

From: "teresa"<teresa3@geneconference.com>
To: cam@uninova.pt
Subject: Confirmation for Chair/Speaker of the World Gene Convention-2015, Qingdao, China
Date: Wed, 8 Apr 2015 13:35:36 +0800
X-Mailer: DreamMail 4.6.8.6

Dear Dr Luis M.Camarinha-Matos,

This is Teresa. How are you? I'm writing to follow-up my last invitation as below, would you please give me a tentative reply? Thank you very much.

It is our great pleasure to welcome you to join the 6th World Gene Convention-2015, which will take place in Qingdao, China during November 13-15, 2015. On behalf of the Organizing Committee of WGC-2015, we would like to welcome you to be the **chair/speaker** in **Track 2-4: Biomaterials** while presenting about **Control Techniques...**

Under our SAB members' contributions and endeavor, BIT's 5th Annual World Gene Convention-2014 (WGC-2014), successfully held in Hainan International Convention and Exhibition Center on November 13-16, 2014. Totally, there were nearly 200 participants from more than 20 countries and areas have attended the WGC-2014. Dr. Arieh Warshel, Professor, University of Southern California, USA. Nobel Prize in Chemistry (2013); Dr. Dan Shechtman, Distinguished Professor, Israel Institute of Technology, Israel. Nobel Prize in Chemistry (2011); Dr. Ada E. Yonath, Professor, Weizmann Institute, Israel.Nobel Prize in Chemistry (2009); Dr. Hartmut Michel, Professor and Director, Max Planck Institute of Biophysics, Germany. Nobel Prize in Chemistry (1988); Dr. Alan Garen, Professor, Yale University, USA gave wonderful keynote speeches during the conference. Participants from the international enterprises, academic and research institutions enjoyed the three days scientific program. More than 200 world-renowned experts, professors, laboratory principals, project leaders and representatives of well-known enterprises attended the conference. Depending on the warmly support and good suggestions from all of the participants, we are confident in organizing WGC-2015 which would be better and more successful than WGC-2014.

From: "joyce"<anne@wcam2015congress.com>
To: cam@uninova.pt
Subject: 527-The Second Round Call for Speakers at WCAM-2015 and News releases
Date: Fri, 6 Feb 2015 14:18:07 +0800
X-Mailer: DreamMail 4.6.8.6

Dear Dr. **Luis M.Camarinha-Matos**,

The upcoming 4th Annual World Congress of Advanced Materials-2015 (WCAM-2015) will be held in during May 27-29, 2015, Chongqing, China.

Firstly, I am pleased to inform you that we have updated Scientific Program of WCAM-2015 with speakers¡¯ profile and their excellent speech titles.

Secondly, on behalf of the organizing committee, I sincerely hope you could join us and make an oral presentation at **Sector 9-5: Molecular Imaging**. As a renowned expert in this field, we believe with your support we can achieve more together in this event! Please feel free to send me your speech proposals.

Meanwhile, we have built the bridge for cooperation with The 16 th Exhibition of Lijia International Machinery 2015 will be held during May 27-30, 2015, Chongqing. It has four exhibition zones: Machine Tool; Foundry, Forging and Heat Treatment; Die and Mould Industry; Industrial Automation & Robots. The both events aim at enhancing the awareness of market prospect of the new application in this field. WCAM registrants can access the exhibition free of charge.And there is a special discount for exhibitors at the event. If you have interested in exhibiting, please feel free to contact me.

Look forward to your kind reply.

Invitation Letter

Dear Dr. Luis M. Camarinha-Matos,

We have previously emailed you an invitation of Nano S&T-2014 but got no reply from you until now. To ensure that you do not miss out, I extend my invitation to you again to express my sincere wish for your participation in this congress.

The organizing committee is pleased to extend to you a formal invitation to be an invited speaker for the upcoming 4th Annual World Congress of Nanoscience & Technology (**NanoS&T-2014**), to be held from October 29 to 31, 2014 in Qingdao, China. We hope you can give an oral presentation about your valuable contributions to nanoscience and nanotechnology at **Session 5-2: Metals, Semiconductors, and Junction Devices**, and we feel that your unique and inspirational speech would be the perfect for the conference.

The meeting will bring together over 500 experts and specialists from all over the world. For more details, you may click http://www.bitcongress.com/nano2014/ for reference. The program of the 4th Annual World Congress of Nanoscience & Technology consists of the following symposias:

Any subject !!!

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Good examples

Examples of scientific conferences

Regular and Special Session Papers	
Submission of papers (regular, special sessions)	April 30, 2021
Notification of acceptance	June 21, 2021
Submission of final manuscripts	July 02, 2021

Special Session Proposals	
Submission of special sessions proposals	March 14, 2021
Notification of acceptance	March 21, 2021

https://2021.ieee-indin.org/

IMPORTANT DATES

Abstract Submission	March 15, 2021
Special Session Submission	February 29, 2021
Full paper submission	April 16, 2021
Acceptance notification	May 31, 2021
Camera ready copy	June 20, 2021

http://www.pro-ve.org

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Classes of conferences @ NOVA SST

A+

Editions >=10
PC-international
Full paper reviewed, Original contents
Evaluation period >= 1 month
Proceedings established publisher
Indexed in recognized DB
Acceptance rate <= 25% OR together with Q1 journals in Scimago OR A* in CORE ranking

A

Editions >= 5
PC-international
Full paper reviewed, Original contents
Evaluation period >= 1 month
Proceedings established publisher
Indexed in recognized DB
Acceptance rate <= 40% OR together with Q2 journals in Scimago OR A in CORE ranking

B

Editions >= 3
PC-international
Full paper reviewed, Original contents
Evaluation period >= 1 month
Proceedings established publisher
Indexed in recognized DB

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“Networking conferences” examples

These are not scientifc conferences, but are useful as technical networking events

https://www.encontrociencia.pt/en/2021

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Plagiarism & Copyright

A very important issue:

Most conferences nowadays check submissions for plagiarism and self-plagiarism !!!

We have performed a plagiarism check on the papers included in the DoCEIS 2015 proceedings and found that all papers - except one - are plagiarism-free.

The paper where a high percentage of text taken from other publications was detected is XXX et al. “xxxxxxxxxxxx”.

It was found that this paper contains 62% of text taken from other publications (according to iThenticate; please see the attached report). In particular, 14% of text - see sections 1 and 3 - comes from the paper by Zegordi (http://www.sciencedirect.com/science/article/pii/S0957417411011109) which is cited, but the text is copied verbatim.

We would like to inform you that according to the guidelines on publishing ethics we decided not to accept this paper for publication.

Kindly clarify the situation with the authors.
Best regards

Dear YYYY,

We were made aware of the fact that your paper “yyyyyyyyyyyyyyy” published in the DoCEIS 2015 proceedings contains two figures (Figure 1 and 2) that were originally published in the paper “Efficient Structure-Aware Selection Techniques for 3D Point Cloud Visualization with 2DOF Input” for which the copyright is held by IEEE and the question was raised, whether the permission to include these two figures in your paper had been obtained from the copyright holder (IEEE).

The source of the two figures is cited correctly. However, the signed consent-to-publish form you submitted together with your paper states in §3:

“The Author warrants that his/her Contribution is original except for such excerpts from copyrighted works (including illustrations, tables, and text quotations) as may be included with the permission of the copyright holder thereof, in which case(s) the Author warrants that written permission has been obtained for all copyrighted material and that the precise source has been indicated in the Contribution.”

Kindly look into the matter and inform us about the copyright situation regarding the two figures.
Thank you and best regards

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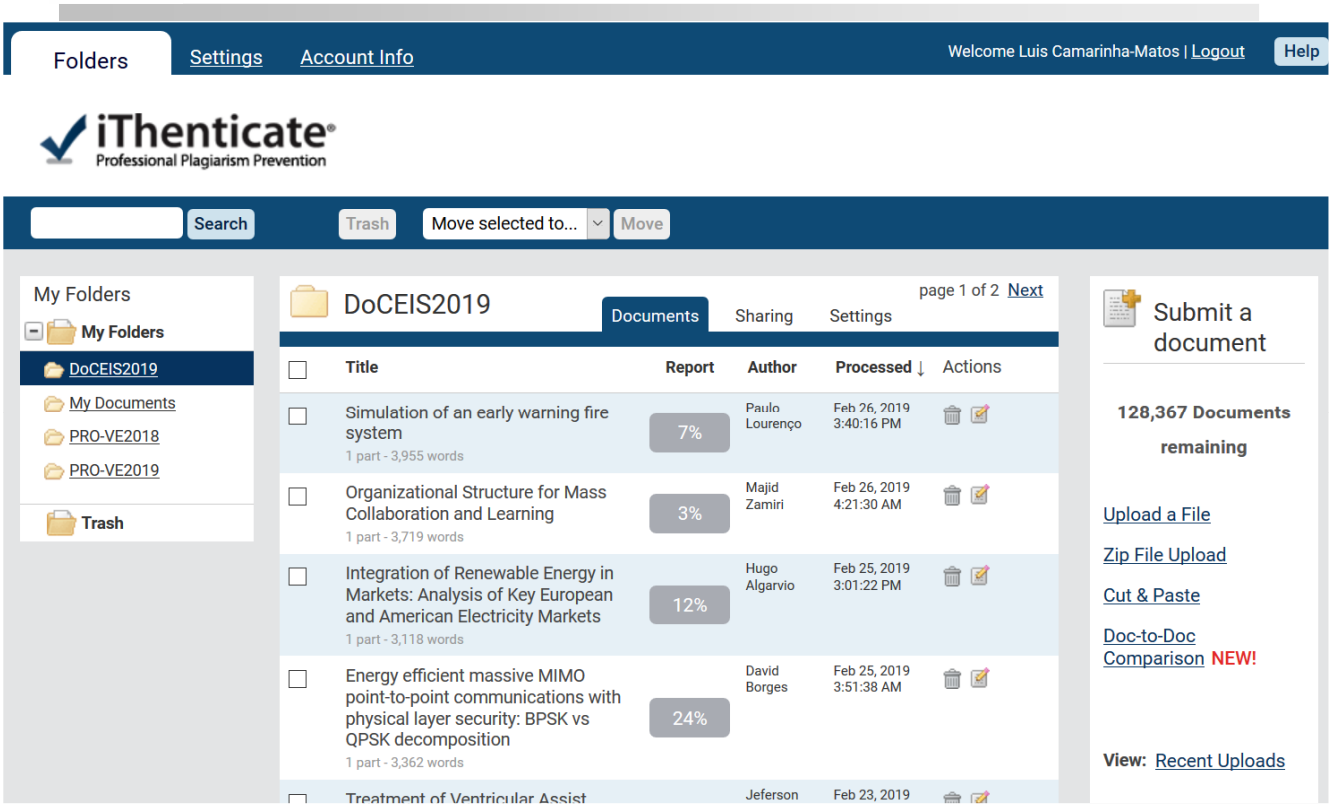
iThenticate



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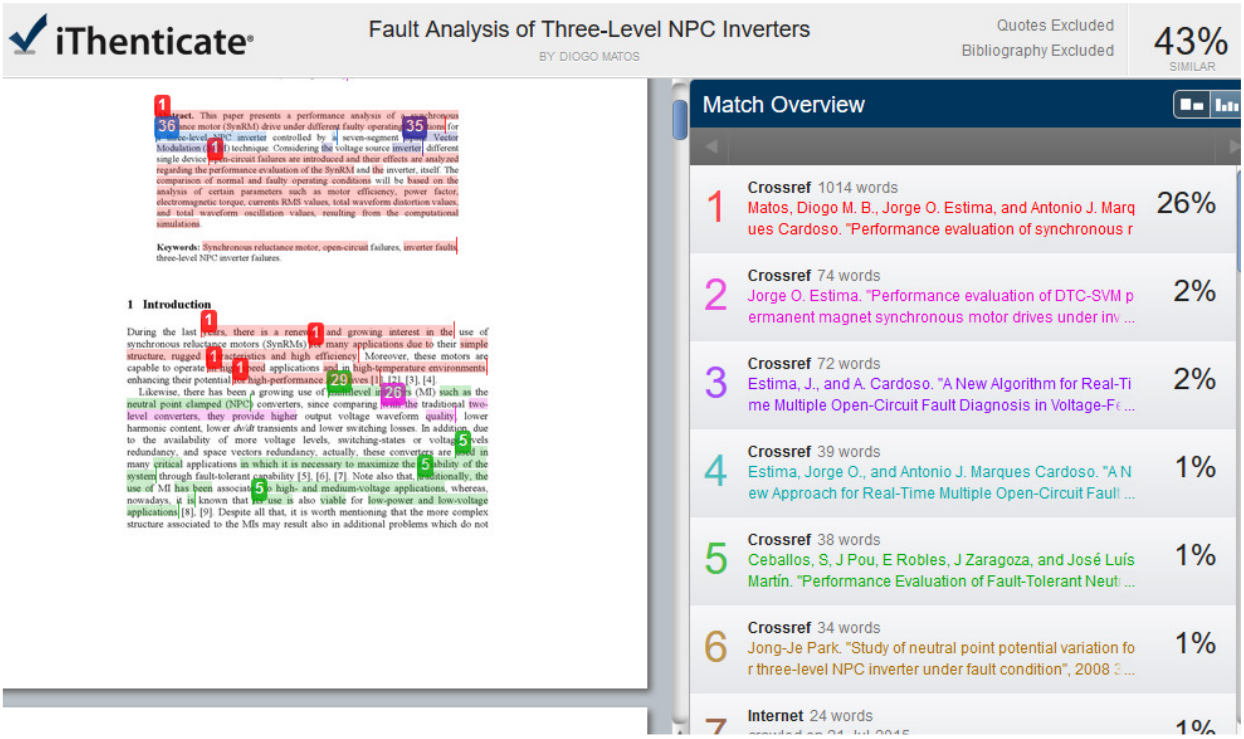
iThenticate ...



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DOCTORAL CONFERENCE: PURPOSE

This course is organized as a set of activities for the preparation and realization of a Winter or Summer Conference and corresponds to an important mechanism to provide both scientific and soft skills.

The event will have a typical duration of 3 days. Preference and will be given to the co-organization with other institutions and doctoral programs. It will be open to the participation of PhD students from other universities. Among other activities, it includes:

- **Tutorials by invited experts on scientific, methodological, or soft skills topics.**
- **Presentation and discussion of the base ideas of the thesis plans.**
- **Discussion of the scientific and technical challenges in the several Electrical and Computer Engineering specialization areas.**
- **Sharing of experiences among PhD students from different geographical regions.**
- **Forum on practical aspects (e.g. Publications, job market, careers, etc.).**
- **Creation of collaborative (social) networks.**

In addition to being active participants in the Conference, the PhD students must have a direct role in the event organization process as part of their soft skills training.

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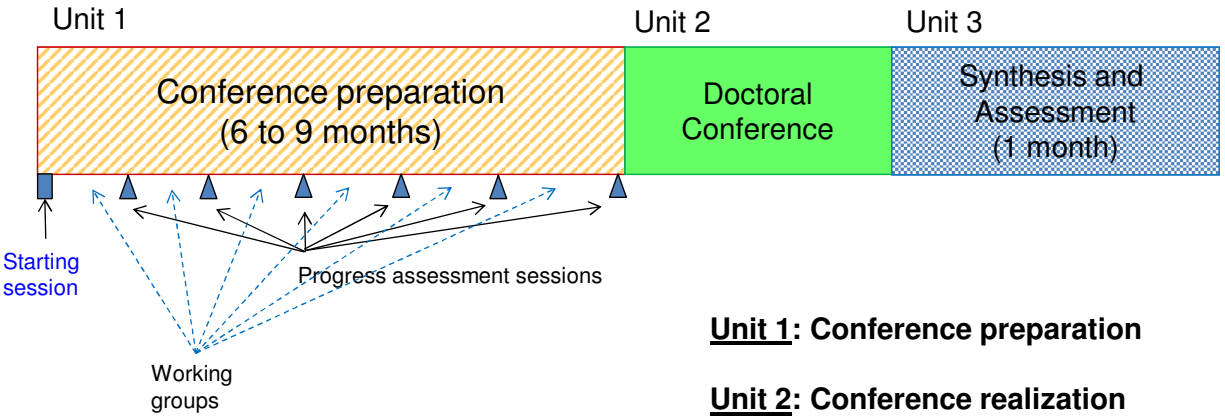
COURSE STRUCTURE



Unit 1: Conference preparation

Unit 2: Conference realization

Unit 3: Synthesis and assessment

EVALUATION:

1. Performance of the preparatory tasks (45%)
2. Participation during the event (15%)
3. Contribution to the technical content of the conference (15%)
4. Assessment report (25%)

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CONFERENCE SCOPE

- **Open event**
  - PhD students from this program
  - PhD students from other universities (national & international)
    - Joint contributions by PhD students and their supervisors and/or co-workers
- **Covering the various areas of Electrical and Computer Engineering**
  - A difficult challenge !!!
  - Special focus each year
- **Combining formal conference with other events**
  - Panels, discussion round-tables, workshops, seminars, tutorials, etc
    - A variety of possible contributions
    - **Be creative *!***

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OTHER CASES

Nowadays there are many Doctoral Symposia, namely as satellite events of other conferences

but

None of the "competing" events is as professional as DoCEIS !

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DoCEIS – A successful series

1

DoCEIS'10

- 108 submissions
  - 15 countries
- 62 accepted papers
- 17 posters
- 4 keynote speakers
- 1 panel

2

DoCEIS'11

- 122 submissions
  - 23 countries
- 67 accepted papers
- 16 posters
- 4 keynote speakers

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DoCEIS – A successful series …

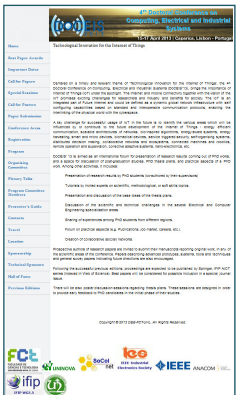
3

DoCEIS'12

- 106 submissions
  - 19 countries
- 58 accepted papers
- 10 posters
- 4 keynote speakers
- +
- Associated workshop (6 extra papers)

4

DoCEIS'13



- 122 submissions
  - 25 countries
- 70 accepted papers
- 7 posters
- 4 keynote speakers
- 1 special session

Best paper awards

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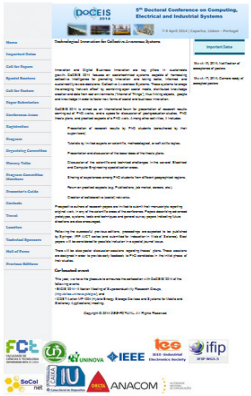
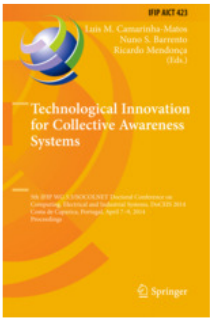
DoCEIS – A successful series …

5

DoCEIS'14



- 118 submissions
  - 22 countries
- 67 accepted papers
- 10 posters
- 4 keynote speakers
- 1 special session



6

DoCEIS'15

- 110 submissions
  - 23 countries
- 53 accepted papers
- 8 posters
- 4 keynote speakers
- 1 Panel

Best paper awards

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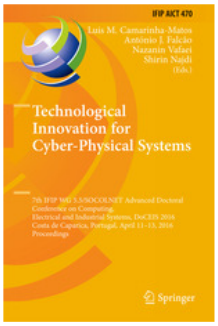
DoCEIS – A successful series …

7

DoCEIS'16

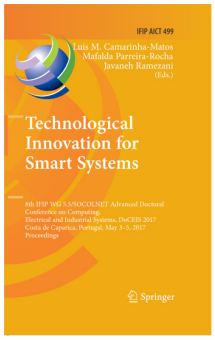
- 116 submissions
  - 25 countries
- 53 accepted papers
- 11 posters
- 3 keynote speakers
- 3 special session



8

DoCEIS'17

- 95 submissions
  - 29 countries
- 47 accepted papers
- 9 posters
- 3 keynote speakers
- 3 special sessions



+

International Young Engineers Forum on Electrical and Computer Engineering

- 35 submissions
  - 7 countries
- 17 accepted papers
- IEEE Xplore

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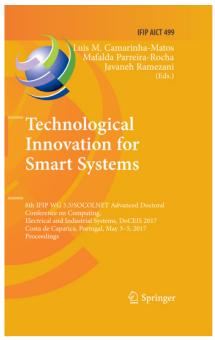
DoCEIS – A successful series …

9

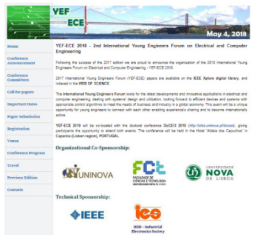
DoCEIS'18

- 68 submissions
  - 21 countries
- 31 accepted papers
- 3 posters
- 3 keynote speakers
- 4 special sessions
- 4 tutorials
- 1 panel

➢Springer



YEF-ECE 2018



- 44 submissions
  - 16 countries
- 19 accepted papers
- IEEE Xplore

10

DoCEIS'19

TECHNOLOGICAL INNOVATION FOR INDUSTRIAL AND SERVICE SYSTEMS

- 64 submissions - 14 countries
- 36 accepted papers
- 3 keynote speakers
- 3 special sessions
- 2 tutorials, 1 panel

➢Springer

YEF-ECE 2019

- 35 submissions
  - 10 countries
- 21 accepted papers
- IEEE Xplore

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DoCEIS – A successful series …

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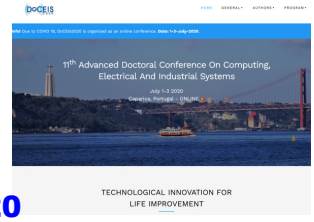
DoCEIS'20

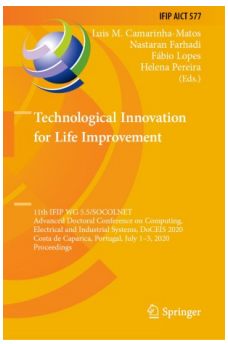
zoom



TECHNOLOGICAL INNOVATION FOR LIFE IMPROVEMENT

- 67 submissions
  - 18 countries
- 36 accepted papers
- 3 posters
- 3 keynote speakers
- 1 special session
- 1 panel

➢Springer



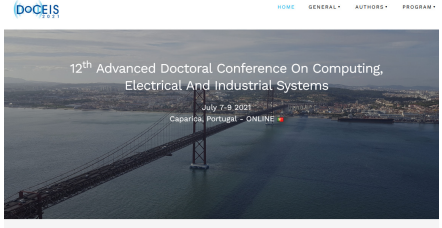
YEF-ECE 2020

- 20 submissions
  - 6 countries
- 13 accepted papers
- IEEE Xplore

12

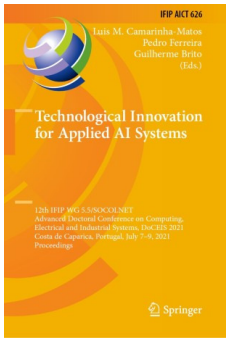
DoCEIS'21

zoom



TECHNOLOGICAL INNOVATION FOR APPLIED ARTIFICIAL INTELLIGENCE SYSTEMS

- 64 submissions - 14 countries
- 34 accepted papers
- 3 keynote speakers
- 1 special session
- 1 panel



➢Springer

YEF-ECE 2021

- 40 submissions
  - 9 countries
- 23 accepted papers
- IEEE Xplore

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DoCEIS – A successful series …

Sponsorship:
SOCOLNET, IFIP WG 5.5, IEEE IES

Proceedings by SPRINGER
➔ Indexed on ISI Web of Science, SCOPUS, DBLP, ...

Very positive feedback

Let's make it better

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Accumulated chapter downloads:
(paid)

DoCEIS 10	Emerging Trends in Technological Innovation	155 K
DoCEIS 11	Technological Innovation for Sustainability	150 K
DoCEIS 12	Technological Innovation for Value Creation	109 K
DoCEIS 13	Technological Innovation for Internet of Things	253 K
DoCEIS 14	Technological Innovation for Collective Awareness Systems	123 K
DoCEIS 15	Technological Innovation for Cloud-Based Engineering Systems	92 K
DoCEIS 16	Technological Innovation for Cyber-Physical Systems	89 K
DoCEIS 17	Technological Innovation for Smart Systems	50 K
DoCEIS 18	Technological Innovation for Resilient Systems	16 K
DoCEIS 19	Technological Innovation for Industrial and Service Systems	16 K
DoCEIS 20	Technological Innovation for Life Improvement	20 K
DoCEIS 21	Technological Innovation for Applied AI Systems	3.9 K

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Springer

High potential impact !

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MAIN CHALLENGES

- **Attract a good number of high-quality contributions**
  - From local PhD students
  - From PhD students from other national universities - increase
  - From international PhD students – **increase percentage**
- **Maintain a high-level image to consolidate the conference** as one of the most prestigious Doctoral Conferences in ECE
- **Keep technical co-sponsorship from prestigious scientific organizations** – IEEE, IFIP, Socolnet
- Special issues of journals (in addition to proceedings)
- Attract financial support
- **Greatly improve dissemination – responsibility of each one**
- **Be much more creative** regarding associated activities

IMPORTANT: Pursue quality/prestige !

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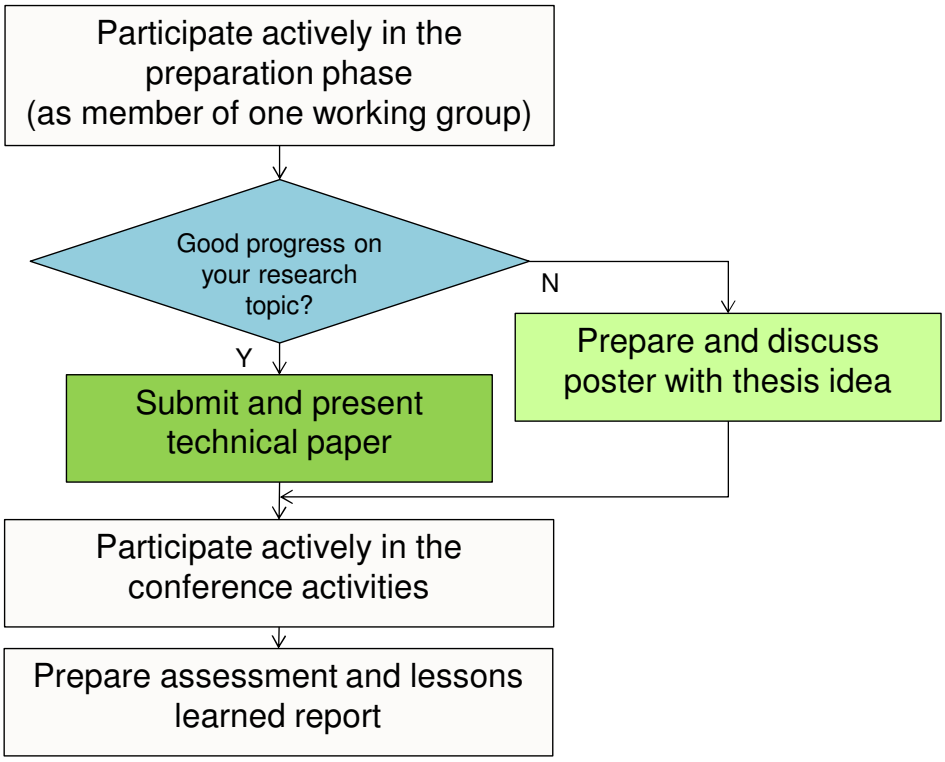
HOW WILL YOU CONTRIBUTE ?

Dual role:
- Organizer
- Contributor



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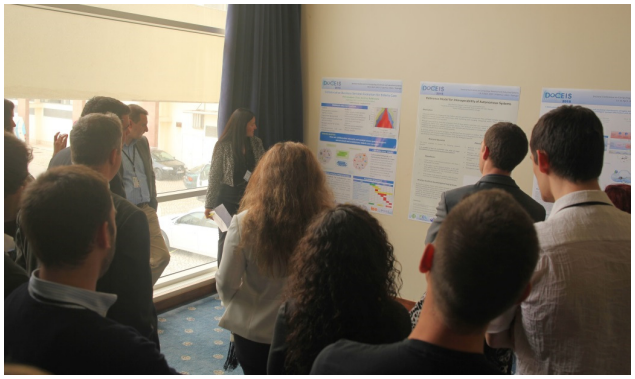
YOUR TECHNICAL CONTRIBUTION

Technical paper

EitherOR

Poster



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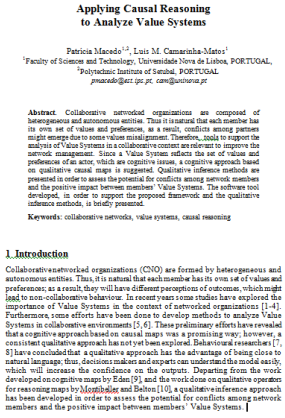
EXAMPLES OF PAPERS



Applying Causal Reasoning to Analyze Value Systems

Patricia Macedo[1,2], Luis M. Camarinha-Matos[1]
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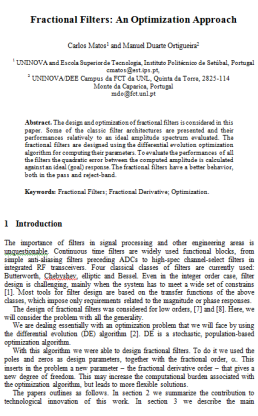
Abstract. Collaborative networked organizations are composed of heterogeneous and autonomous entities. Thus it is natural that each member has its own set of values and preferences, as a result, conflicts among partners might emerge due to some values misalignment. Therefore, tools to support the analysis of Value Systems in a collaborative context are relevant to improve the network management. Since a Value System reflects the set of values and preferences of an actor, which are cognitive issues, a cognitive approach based on qualitative causal maps is suggested. Qualitative inference methods are presented in order to assess the potential for conflicts among network members and the positive impact between members' Value Systems. The software tool developed, in order to support the proposed framework and the qualitative inference methods, is briefly presented.

Keywords: collaborative networks, value systems, causal reasoning

1 Introduction

Collaborative networked organizations (CNO) are formed by heterogeneous and autonomous entities. Thus, it is natural that each member has its own set of values and preferences; as a result, they will have different perceptions of outcomes, which might lead to non-collaborative behaviour. In recent years some studies have explored the importance of Value Systems in the context of networked organizations [1-4]. Furthermore, some efforts have been done to develop methods to analyze Value Systems in collaborative environments [5, 6]. These preliminary efforts have revealed that a cognitive approach based on causal maps was a promising way; however, a consistent qualitative approach has not yet been explored. Behavioural researchers [7, 8] have concluded that a qualitative approach has the advantage of being close to natural language; thus, decisions makers and experts can understand the model easily, which will increase the confidence on the outputs. Departing from the work developed on cognitive maps by Eden [9], and the work done on qualitative operators for reasoning maps by Montibeller and Belton [10], a qualitative inference approach has been developed in order to assess the potential for conflicts among network members and the positive impact between members' Value Systems.



Fractional Filters: An Optimization Approach

Carlos Matos[1] and Manuel Duarte Ortigueira[2]

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mdo@fct.unl.pt

Abstract. The design and optimization of fractional filters is considered in this paper. Some of the classic filter architectures are presented and their performances relatively to an ideal amplitude spectrum evaluated. The fractional filters are designed using the differential evolution optimization algorithm for computing their parameters. To evaluate the performances of all the filters the quadratic error between the computed amplitude is calculated against an ideal (goal) response. The fractional filters have a better behavior, both in the pass and reject-band.

Keywords: Fractional Filters; Fractional Derivative; Optimization.

1 Introduction

The importance of filters in signal processing and other engineering areas is unquestionable. Continuous time filters are widely used functional blocks, from simple anti-aliasing filters preceding ADCs to high-spec channel-select filters in integrated RF transceivers. Four classical classes of filters are currently used: Butterworth, Chebyshev, elliptic and Bessel. Even in the integer order case, filter design is challenging, mainly when the system has to meet a wide set of constrains [1]. Most tools for filter design are based on the transfer functions of the above classes, which impose only requirements related to the magnitude or phase responses.

The design of fractional filters was considered for low orders, [7] and [8]. Here, we will consider the problem with all the generality.

We are dealing essentially with an optimization problem that we will face by using the differential evolution (DE) algorithm [2]. DE is a stochastic, population-based optimization algorithm.

With this algorithm we were able to design fractional filters. To do it we used the poles and zeros as design parameters, together with the fractional order, α. This inserts in the problem a new parameter – the fractional derivative order – that gives a new degree of freedom. This may increase the computational burden associated with the optimization algorithm, but leads to more flexible solutions.

The papers outlines as follows. In section 2 we summarize the contribution to technological innovation of this work. In section 3 we describe the main

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* had to pay registration fee

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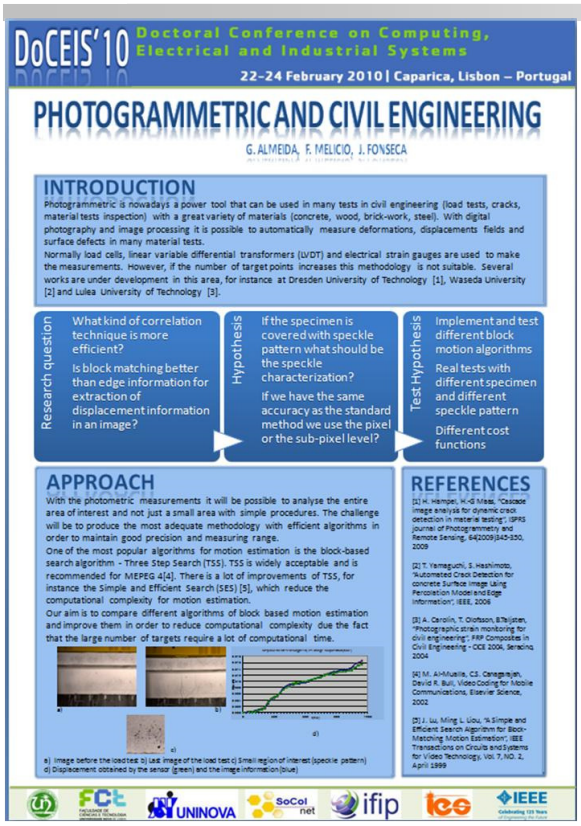
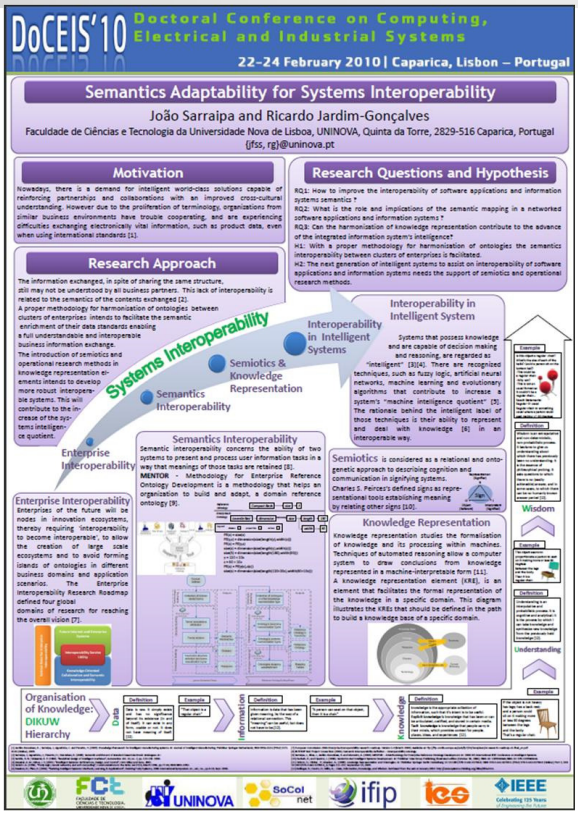
EXAMPLES OF POSTERS





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GENERAL ISSUES

Conference title and acronym:

DoCEIS 2022

13th Doctoral Conference on Computing, Electrical and Industrial Systems

Main theme ?

Technological Innovation for...

Digitalization and Virtualization ?

Conference date:

Jun-Jul 2022?

29 Jun – 1 Jul 2022 ?

Conference location:

Costa da Caparica ?

Physical presence ?

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Working Groups

PROGRAM AREA

MAIN PROGRAM ➔ Prof. Luis M. Camarinha-Matos

- Plan technical content of the conference
- Organize Program Committee
- Prepare CfP, attract and select contributions
- Submissions web site - Easychair
- Prepare proceedings
- Prepare conference program

ASSOCIATED ACTIVITIES ➔ Prof. Pedro Pereira

- Technical sponsors - IFIP, IEEE, Socolnet, …
- Local edition: Pen, Posters, Program booklet
- Dialogue sessions (posters)
- Keynotes & Panels
- OTHER ASSOCIATED EVENTS
- Associated workshop(s)
- Organize best paper awards process

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Working Groups

ORGANIZATION AREA

FINANCIAL ASPECTS ➔ Prof. João Goes

- Finances/Budget preparation (interacting with other activities)
- Financial sponsors
  - Local (DEE, FCT, etc.)
  - Institutional
  - European Commission
  - Others
- Interface with other initiatives (e.g. projects)
- Interface UNINOVA
- Participant registration
- Organize email list (PhD programs)

ORGANIZATION LOGISTICS ➔ Prof. Luis Gomes

- Location selection / negotiation
- Dissemination of CfP
- General web page (interacting with other activities)
- Social Events and F&B, Arrangements for Invited Speakers
- Participant kits
- Secretariat and technical logistics (internet, rooms during event)

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THE MOST CRITICAL PART

ATTRACTION OF SUBMISSIONS

Without submissions, no conference !

TARGET:

Students participating in local groups: attract >= 15 submissions each

- **Identify PhD students**
- **Explain DoCEIS to them**
- **Encourage them to make a submission**

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ASSESSMENT REPORT

1. **Introduction**

2. **The process of organizing a conference**
   (including all aspects, and not only those in which the student was involved)

3. **Acquired experience**
   3.1 Learned lessons (with special focus on the activities you were involved in)
   3.2 Synthesis of the main ideas discussed at the conference

4. **Social networking achievements**

5. **Other aspects**

6. **Conclusions**

7. **References**, Annexes

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ASSESSMENT REPORT …

EXPLORE "SOCIAL NETWORKING" OPPORTUNITIES

-Report at least 5 interactions with foreign colleagues

-Report 1 case of future collaboration planning
-Joint paper? Project proposal? SIG? Technical visit ? Etc.

Plan them in advance !

Be alert for opportunities !

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DoCEIS 2022

A collaborative project !

Requiring good coordination among groups

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FURTHER READING

education sciences

MDPI

Article

Soft and Transferable Skills Acquisition through Organizing a Doctoral Conference

Luis M. Camarinha-Matos *, João Goes, Luis Gomes and Pedro Pereira

Faculty of Sciences and Technology of Nova University of Lisbon, and Center of Technology and Systems (CTS) of UNINOVA, 2829-516 Monte Caparica, Portugal; jg@uninova.pt (J.G.); lugo@fct.unl.pt (L.G.); pmrp@fct.unl.pt (P.P.)

* Correspondence: cam@uninova.pt

Received: 10 August 2020; Accepted: 3 September 2020; Published: 5 September 2020

check for updates

Abstract: This article presents a 10-year experience of soft and transferable skills acquisition through the involvement of PhD students in the organization of an international conference. Soft and transferable skills acquisition is currently perceived as a core component of doctoral studies. Examples include writing and communication, teamwork, time management, leadership, resource management, negotiation, problem solving, listening, planning, entrepreneurial spirit, mastering ethics awareness, etc. The need for such skills is due to the leading role that doctoral students are expected to play in society. As such, various organizations have issued recommendations for doctoral programs to include a formal component of soft skills training. In this article, an effective way of introducing soft and transferable skills acquisition in doctoral engineering education is introduced. Namely, a form of collaborative project-based learning is designed as a compulsory course. This includes a set of base lectures, a long period of parallel working groups focusing on the various aspects of organizing an international conference, running the actual conference, and performing a post-conference assessment. Results and lessons learned demonstrate the validity and effectiveness of the proposed approach.

Keywords: soft skills; doctoral education; project-based learning; group work; doctoral conference

1. Introduction

The structure and content of doctoral programs in engineering have faced a considerable evolution in the last decade [1–3]. There is an increasing concern around the quality and efficiency of the training process, which has led to progress on monitoring mechanisms and a move from training based exclusively on the traditional student–supervisor relationship to "structured doctoral" training, featuring a combination of formal courses, often in the first year, with the usual research and thesis development phases.

Of relevance is the recognition of the importance of soft and transferable skills in doctoral education [2] such as interpersonal relationship capabilities and skills that can be transferred between jobs and functions. This includes, among others, writing and communication, networking and teamwork, time management, leadership, resource management, negotiation, problem solving, listening, planning, entrepreneurial spirit, mastering ethics awareness, etc. Often, PhD students tend to be so focused on acquiring specific technical skills in their field that they neglect the importance of also acquiring these other skills that are crucial in a competitive job market. To overcome this situation, entities such as the European Universities Association or the Marie Sklodowska Curie program of the European Commission have been recommending and pushing for the inclusion of explicit training on soft and transferable skills in doctoral programs [4]. These recommendations have been progressively adopted, at varying degrees, by many programs [5,6], as is the case of the PhD program on Electrical and Computer Engineering of the Faculty of Sciences and Technology of the Nova University of Lisbon.

Camarinha-Matos LM, Goes J, Gomes L, Pereira **P. Soft and Transferable Skills Acquisition through Organizing a Doctoral Conference**. ***Education Sciences***. 2020; 10(9):235. https://doi.org/10.3390/educsci10090235

https://www.mdpi.com/2227-7102/10/9/235

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