

From: Teresa Ludermir <tbl@cin.ufpe.br>  
Sent: 20 March 2018 20:12  
To: Kerr, Emmett  
Subject: IJCNN 2018 Paper #18870 Final Paper Submission Reminder

Dear Author(s),

Recently you received an e-mail confirming the acceptance of your paper:

Paper ID: 18870

Author(s): Emmett Kerr, Sonya Coleman, Dermot Kerr, Philip Vance, Bryan Gardiner, Yunzhou Zhang,

Wang Fei and Chengdong Wu

Title: Sensor-based Vital Sign Monitoring, Analysis and Visualisation for Ageing in Place

for presentation, in oral or poster format, at the IJCNN 2018 and for publication in the conference proceedings published by IEEE. A notification of the presentation format and timing of that presentation will be sent by May 15, 2018.

An important deadline of May 1, 2018 is approaching. Please review the information below and respond if you have not done so already.

Here are the steps you must follow:

1. Please see the REVIEWERS' COMMENTS for your paper at the end of this email, which are intended to

help you to improve your paper for final publication.

The listed comments should be addressed, as acceptance is conditional on appropriate response to the

requirements and comments.

2. Please take a look at the paper submission instructions at

<http://www.ecomp.poli.br/~wcci2018/submissions/> to obtain the information for preparing the final version of your paper.

To ensure that your file is fully compliant with IEEE Xplore, you need to verify your paper with IEEE PDF

eXpress <http://www.pdf-express.org/plus/> using the following conference ID:

IJCNN 2018: The conference ID is 40505x

PDF eXpress will generate a log file with errors, if any. Your final paper cannot be submitted to the conference till all errors have been corrected.

Once your compliant log is error free, you will receive an IEEE Xplore compliant pdf file from PDF eXpress with a name similar to PIDxxxxxx.pdf. You must upload this file (see next step) as your final submission.

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1. Select the New Users - Click Here link.
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This deadline should be ignored, which is not the conference deadline for uploading your final paper (by May 1, 2018).

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**IMPORTANT:** The IEEE mandates the full compliance of all PDF files to the electronic standard of publication in the IEEE Xplore data base. It is extremely important that your PDF file complies with the IEEE requirement, otherwise it may be excluded from the IJCNN 2018 Proceedings.

When you have completed your paper and are ready to submit it, please go to:

<http://ieee-cis.org/conferences/ijcnn2018/upload.php?PaperID=18870>

to submit your final camera-ready paper. (The above line should be one long URL and you may need to paste it back together if your email client broke it into several lines.) On this page you will need to use the following password:

kun74223

which is valid only for a single submission of your final camera-ready paper and you cannot submit any subsequent revision. Final papers **MUST** be submitted by May 1, 2018. Any paper submitted after this date run the risk of not being included in the proceedings. The paper must be re-submitted even if the reviewers indicated that no changes are required.

IMPORTANT: Please note that once you submit your paper, you cannot submit any subsequent revision.

All papers submitted through the web site are considered to be in final form and ready for publication.

Do not submit your paper until you are ready. A good suggestion is to have a few colleagues review your paper to provide final remarks on its suitability before submitting it through the web site.

3. In order for your paper to be published in the conference proceedings, a \*signed IEEE Copyright Form\* must be submitted for each paper. IJCNN 2018 has registered to use the IEEE Electronic Copyright (eCF) service. The confirmation page shown after submitting your final paper contains a button linking directly to a secure IEEE eCF site which allows electronic completion of the copyright assignment process. In case it fails, please have the completed IEEE Copyright Form, found at <http://www.ieee.org/web/publications/rights/copyrightmain.html>, and email it to the Publications Chair, Manuel Roveri ([manuel.roveri@polimi.it](mailto:manuel.roveri@polimi.it)). Please don't forget to indicate your paper number as well as "copyright form" in the subject of your email message.

IMPORTANT: No paper can be published in the proceedings without being accompanied by a Completed

IEEE Copyright Transfer Form. You must complete and submit this form to have your paper included in the conference proceedings.

4. Register for the conference via

<http://www.ecomp.poli.br/~wcci2018/registration/>

IMPORTANT: Each paper must have a corresponding registered author to be included in the proceedings. Papers that do not have an associated registered author will not be included in the proceedings. The deadline for author registration is May 1, 2018 so be sure to register by that time to

ensure that your paper is included in the proceedings. Registering late may mean that your paper may

not appear in the proceedings. Please ensure that you complete your registration early. Each full

registration covers a maximum of two papers.

Each paper requires one full registration (even if all authors of the paper are students, i.e., a student registration does not cover any paper).

5. Make your hotel reservation early. You can find useful hotel information via

<http://www.ecomp.poli.br/~wcci2018/accommodation/> Please notice that to get a discount as a WCCI

attendee you must use this link, there is no special code for the conference. The official travel agency is

CrEAct.eve. You will find a list of recommended hotels. The two hotels closest to the conference center

are Windsor Oceanico and Windsor Barra. Make your reservation early to enjoy the special Congress room rates (only limited number of rooms are available)!

6. Find out if you need a visa to enter Brazil, and submit your visa application early if a visa is needed (do

not wait until the last minute). For updated information on visa exemptions and requirements, refer to

<http://www.ecomp.poli.br/~wcci2018/traveltipstransportation/>

For invitation letter from IJCNN 2018 for your visa application, please contact the Registrations Chair, Dr.

Karla Figueiredo

([karla.figueiredo@gmail.com](mailto:karla.figueiredo@gmail.com)) and Dr. Guilherme Barreto ([gbarreto@ufc.br](mailto:gbarreto@ufc.br)).

7. All papers have been reviewed in the same manner with the same standards and no distinction will be

made between oral and poster papers in the proceedings.

If you have any questions regarding the reviews of your paper or all other questions, please contact Teresa Ludermir <[tbl@cin.ufpe.br](mailto:tbl@cin.ufpe.br)>.

Sincerely,

Teresa Ludermir

IJCNN 2018 Conference Chair

## REVIEWERS' COMMENTS

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REVIEW NO. 1

Comments to the authors:

Main paper contributions:

Authors proposed the use of a vital sign measuring robotic system together with Cloud computing to intelligently process big data and ascertain the current health status of the service user.

They presented a method that enables medical professionals to visualize the data for a complete geographical region as well as for individual patients.

Positive aspects:

I like the idea to combine two separated technologies to accomplish their aim. It was smart.

Suggestions on how to improve:

Why are you measuring only BMP, RR and CRT? Why these measurements and no others? Why did you not include the other ones commented on the related works? Do these 3 measurements are enough to assure that older adult is ok and he does not need assistance? Maybe blood pressure is important too. I understand if the research is ongoing. But you could say that you are working on other vital signs or justify why these.

I recommend to put the references of the devices mentioned in the introduction like kito azoi, scanadu scout, etc.

You emphasized that your approach provides an autonomous measurement, that it does not require a user or a medical personnel interaction. But I did not

understand how does the robot (the hand) function. In what times does the robot get the measurements? How many times a day or if it is continuous? In which position should be the older adult in order to be measured by the robot?

When the robot measures the vital signals, is it comfortable to the older adult?

Did you ask these to the 12 subjects?

What benefits does the robot present compared to a wearable device? I think the robot could be more intrusive than a wearable shirt sense.

How is the CRT calculated? How does the camera work? Could you explain these section in more detail?

You commented you did measurements to 12 subjects. Are they older adults? What was their reaction to the measurements? What are the characteristics of these subjects?

The data presented in the figures are real? Where are you positioned in the research? What is next? Will you make tests with real data? You could tell us in future works, and it will give us an idea of the progress of your research.

Section II, first paragraph, row 7, it says: "to a human hand. the BioTAC biomimetic tactile sensor" and should be: "to a human hand. The BioTAC biomimetic tactile sensor".

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REVIEW NO. 2

Comments to the authors:

The paper presents a robotic solution for vital sign monitoring based on a robotic arm provided with sensors. The authors explain the monitoring, transmission, storage and visualization process.

The following are suggestions to improve the paper:

-Define tactile sensing

-Add references to scanadu, kito, Philips camera, soteria, etc.

-The authors stated: "This is because it is much more effective to access vital signs data stored in the form of a file than as a DB." It would be nice

if the authors mention why it is more effective a file than a DB.

-The authors said: "We have developed and evaluated algorithms for determining a human's BPM, Pulse to Pulse Interval (PPI), RR and Breath to Breath Interval (BBI)". The paper does not show a quantitative evaluation of the algorithms to understand how the performance compares to standard equipment. The authors must specify if the readings are accurate or if it is just a raw approximation to test the workflow of the entire system.

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#### REVIEW NO. 3

Comments to the authors:

The paper proposes the use of a vital sign measuring robotic system together with Cloud computing to intelligently process big data and ascertain the current health status of the service user.

I cannot understand in section II about "12 healthy human subjects". Why 12? Where are the results of these collect data?

The new results of this paper are about of the cloud computing to help the users of the system (patient or physicians), because the hardware ("the Shadow Hand") was developed before.

In fact, the idea and the prototype of the "the Shadow Hand" are an assistive technology very important. However, the authors must better explained the results of this new "interface" to data (for example: figures 3 and 4).

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#### REVIEW NO. 4

Comments to the authors:



The Introduction section is rather long so it would be helpful for the reader if some subsection titles were inserted (or split the section into more parts).

The contribution in this paper compared to others and own earlier work could have been described.

A possible accepted paper should use the IEEE/WCCI specified font type.

Some of the font sizes in figure 3 are too small.

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REVIEW NO. 5

Comments to the authors:

I consider this work is interesting, but out of the scope of this conference.