



Pablo Cingolani &lt;pablo.e.cingolani@gmail.com&gt;

## FUZZ-IEEE 2012 Paper #236 Decision Notification

4 messages

James M. Keller <fuzziieee2012@ieee-cis.org>  
Reply-To: "James M. Keller" <fuzziieee2012@ieee-cis.org>  
To: pablo.cingolani@mcgill.ca, jalcala@decsai.ugr.es

Tue, Feb 21, 2012 at 1:11 PM

Dear Author(s),

Congratulations! On behalf of the FUZZ-IEEE 2012 Technical Program Committee and the program chairs, we are pleased to inform you that your paper:

Paper ID: 236  
Author(s): Pablo Cingolani and Jesus Alcala-Fdez  
Title: jFuzzyLogic: A Robust and Flexible Fuzzy-Logic Inference System Language Implementation

has been accepted for presentation at the 2012 IEEE International Conference on Fuzzy Systems and for publication in the conference proceedings published annually by IEEE. This email provides you with all the information you require to complete your paper and submit it for inclusion in the proceedings. A notification of the presentation format (oral or poster) and timing of that presentation will be sent by the end of May.

Here are the steps you must follow:

1. Please see the attached **FORMATTING REQUIREMENTS** and **REVIEWERS' COMMENTS** for your paper, 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 prepare your manuscript for final camera ready submission following the same PDF format guidelines as for the initial submission. Papers are limited to eight (8) pages in length, must be IEEE Xplore-compatible, and must follow the formatting instructions provided at:

<http://www.ieee-wcci2012.org>

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

<http://ieee-cis.org/conferences/fuzziieee2012/upload.php?PaperID=236>

to submit your final camera-ready paper. On this page you will need to use the following password:

gt85v33g

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 April 2, 2012. Any papers 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. In addition please note that the proceedings will be printed in black and white, not in color and it is the author's responsibility to ensure that all figures/plots can be printed and understood in black and white.

3. In order for your paper to be published in the conference proceedings, a **\*signed IEEE Copyright Form\*** must be submitted for each paper. FUZZ-IEEE 2012 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>, emailed it to the Publication Co-Chair, Daryl Essam ([d.essam@adfa.edu.au](mailto:d.essam@adfa.edu.au)).

**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 at <http://www.ieee-wcci2012.org> by clicking on the conference registration link on the right-hand side of the main page.

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 April 2, 2012 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.

5. Make your hotel reservation for the FUZZ-IEEE 2012 with information obtained on the hotel reservation link "Accommodation" of the main FUZZ-IEEE 2012 page at <http://www.ieee-wcci2012.org>.

If you have any questions regarding the reviews of your paper please contact James M. Keller <[fuzziieee2012@ieee-cis.org](mailto:fuzziieee2012@ieee-cis.org)>. Thank you for participating in what promises to be an excellent meeting.

Sincerely, James M. Keller <[fuzziieee2012@ieee-cis.org](mailto:fuzziieee2012@ieee-cis.org)>

#### FORMATTING REQUIREMENTS

Your paper does not need any formatting changes.

#### REVIEWERS' COMMENTS

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##### REVIEW NO. 1

Originality: Weak Accept  
Significance of topic: Accept  
Technical quality: Weak Accept  
Relevance to FUZZ-IEEE 2012: Strong Accept  
Presentation: Weak Accept  
Overall rating: Accept

Reviewer's expertise on the topic: High  
Suggested form of presentation: Oral  
Best Paper Award nomination: No

##### Comments to the authors:

This work is definitely related to the topics of the session on "Software for Soft Computing". It presents jFuzzyLogic, an open source library for making easier the design of fuzzy controllers. The manuscript is well-written and organized. I only have some minor comments and suggestions aimed to improve even more the quality of the present work:

1) In section II, authors claim "a comparison of freely available fuzzy logic software" but what about commercial software?

2) Even though the paper focuses on fuzzy control, please notice that there are some free software tools (that should be taken into account in this work) for fuzzy modeling which offer advanced methods for generation of fuzzy systems no matter the specific application domain where they will be used. Look at tools like Xfuzzy (<http://www2.imse-cnm.csic.es/Xfuzzy/>), Fispro ([http://www.inra.fr/mia/M/fispro/FisPro\\_EN.html](http://www.inra.fr/mia/M/fispro/FisPro_EN.html)), GUAJE (<http://www.softcomputing.es/quaaje>), etc. Obviously, partitions and rules designed with such tools may be later translated into the FCL format and being used with jFuzzyLogic.

3) You should remark, somehow, on Table I those five software packages that "seemed to be maintained, compiled correctly, and had extensive functionality", putting special emphasis on those two which are based on jFuzzyLogic.

4) Table I includes information about the number of membership functions (MF), but what about their type/shape?

5) Be careful, Table II (page 4) should turn up before Table III (page 3). In addition, check the use of quotation marks in Table III.

6) Are tables II to V formal tables? In fact, they are listing code. You should use verbatim package or something similar.

7) You should plot the fuzzy partitions related to the example detailed in Tables II and III. It would help to understand better the example making it much more illustrative. Moreover, the rule base defined is made up of only three rules and as a result it is incomplete, i.e., it does not cover all possible situations. What is the suggested tip in case service=1 and food=4 (in the current example none of the three rules would be fired)?

8) The notation used in Tables II, IV and V are not exactly the same. For instance, Table II does not include DEFAULT related to DEFUZZIFY. AND/ACT/ACCU are also missing in the RULEBLOCK. This fact should be corrected or explicitly noted in the paper.

9) In Section III.C authors state that "a few optimization algorithms are already implemented... other optimization algorithms can be implemented". Coming back to what I say in 2) there are many algorithms useful for fuzzy modeling that may be directly applicable in the context of jFuzzyLogic. The only thing missing is the right parser to translate from one format to other.

10) In Fig.3, be sure that variable names are in accordance with Table IV, but also with the related explanation in Section IV (page5).

11) In "Acknowledgement" use the full names of authors instead of PC and JAF.

Some minor typos:

1) "Figure" should be substituted by "Fig." according to WCCI templates.

2) "of a [the] wall following" (page5)

3) "The [main] requirement[s] ... is[are]..." (page5)

4) "More than one output variable[s]" (page5)

5) Check the use of quotation marks all along the paper.

6) Ref2. pages?

7) Ref5. "An introduction[industrial] reality"

8) Ref10. C.J. Cabrera J.A. ?

9) Ref11. I.E.C.?

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#### REVIEW NO. 2

Originality: Strong Accept  
Significance of topic: Accept  
Technical quality: Accept  
Relevance to FUZZ-IEEE 2012: Strong Accept  
Presentation: Accept  
Overall rating: Accept

Reviewer's expertise on the topic: High  
Suggested form of presentation: Oral  
Best Paper Award nomination: No

#### Comments to the authors:

The paper presents a library for designing fuzzy logic controllers. The library is called jFuzzyLogic. It is written in Java and respects the FCL (fuzzy control language) IEC-61131-7 specifications. FCL is an instruction list oriented programming language.

The aim is to provide a standardized language and parser, which could be interesting for designing industrial fuzzy controllers.

The paper is clear and easy to read.

However some points are questionable.

1-The state of the art of fuzzy logic software given in the introduction is incomplete and does not include fuzzy software such as Xfuzzy, FisPro, Guaje, Nefclass... It should absolutely be completed to avoid giving false information to the readers.

2-Another flaw is the use of misleading terms in Part IIIB. What the authors call aggregation is usually called combination in rule premises.

Similarly, activation is in fact the result of an implication operator.

Activation should not be confused with rule matching degree.

Here again, accumulation is usually called rule aggregation.

3-Part IIIb mentions that the membership functions (MFs) are systematically discretized. It seems a pity for analytical forms very easy to compute such as trapezoidal or triangular MFs.

The paper quality would be improved if the authors could address the following two topics:

1- hierarchical controllers.

How is one block linked to another one?

2- optimization.

Is the specification of the data used for optimizing the membership functions included in the FLC model?

English spelling and grammar: could be improved.

for instance: page2, these limitation -> these limitations

page 4, non negligible -> non-neglectable

page 5, gradient descend -> gradient descent

page 5, a the wall -> the wall

case of study -> case study

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REVIEW NO. 3

Originality: Accept

Significance of topic: Accept

Technical quality: Accept

Relevance to FUZZ-IEEE 2012: Strong Accept

Presentation: Accept

Overall rating: Accept

Reviewer's expertise on the topic: Medium

Suggested form of presentation: Any

Best Paper Award nomination: No

Comments to the authors:

The paper is acceptable, but I would be happier if it had stronger evaluation section.

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Jesus Alcalá-Fdez <jalcala@decsai.ugr.es>  
To: Pablo Cingolani <pablo.e.cingolani@gmail.com>

Thu, Feb 23, 2012 at 1:56

Dear Pablo.

Congratulations, the paper has been accepted.

Now, we have to do the comments of the reviewers. In order to organize this task, I can do the comments of the referees 2 and 3 and you can do the comments of referee 1. Moreover, I want to do a number of minor changes in the references because we have some mistakes. Is it OK for you?

Please, send me the last sources because I have only the pdf file.

Best regards.

Jesus

El 21/02/2012 19:11, James M.Keller escribió:

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