

Dr. Aradea <aradea@unsil.ac.id>

## ijies4169: Paper Submission: Inference Model for Self-Adaptive IoT Service Systems

EGUCHI Kei <eguti@fit.ac.jp>

Mon, Mar 1, 2021 at 7:59 AM

To: "Dr. Aradea" <aradea@unsil.ac.id>

Dear author(s),

Congratulations!

The 1st review for your paper was accepted.

However, we are sorry to inform you that your paper cannot be recommended for publication in IJIES, in its current form.

Please revise your paper according to the attached reviewers' comments.

Please note that if your paper is still not satisfactorily revised or cannot be returned to us within TWO months from the date of this letter, your paper will not be recommended to the journal above.

Thanks for your understanding and cooperation.

Kind Regards, IJIES Editors.

----Original Message-----

From: 江口 啓

Sent: Tuesday, February 23, 2021 1:08 AM To: Dr. Aradea <aradea@unsil.ac.id>

Subject: ijies4169: Paper Submission: Inference Model for Self-Adaptive IoT Service Systems

Dear author(s),

Thank you for your interest and support to IJIES.

I am hereby to confirm the delivery of your paper, Paper ID is "ijies4169".

It has been sent for reviewing.

The notification will be feedback within two weeks.

Appreciate your patiently wait.

If you have any question, please contact us with your paper ID.

Best regards, IJIES Editors

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差出人: Dr. Aradea <aradea@unsil.ac.id>

送信日時: 2021年2月22日 22:47

宛先: ijies@inass.org

件名: Paper Submission: Inference Model for Self-Adaptive IoT Service Systems

Dear IJIES Editor

This is our paper to be submitted to the journal (IJIES):

1. Title: Inference Model for Self-Adaptive IoT Service Systems: An Approach to Continuous Coronavirus Disease Monitoring System

Author: Aradea Aradea, Rianto Rianto, Husni Mubarok

2. Cover Letter

Best regards, Authors Dr. Aradea, S.T., M.T. KK Informatika dan Sistem Inteligen Fakultas Teknik Universitas Siliwangi Jl. Siliwangi No.24 Tasikmalaya 46115 Jawa Barat Tlp./ Fax. +62 265 323537



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#### **Intelligent Networks and Systems Society**

## **Review Form**

#### International Journal of Intelligent Engineering and Systems (IJIES)

Paper ID	Ijies4169
Paper Title	Inference Model for Self-Adaptive IoT Service Systems: An Approach to Continuous Coronavirus
	Disease Monitoring System

Recommendation for Publication			
⊟(Evaluation A:) Accept	⊟(Evaluation B:) Accept after Minor Revision		
□(Evaluation C:) Accept after Major Revision	⊟(Evaluation D:) Reject		

Comments from reviewers 1 & 2:

The reviewer fails to understand the novelty of this work. Besides, there is no need to use the proposed technique for COVID-19. Frankly speaking, the reviewer cannot understand the relationship with COVID-19. In the revised version, the authors must clarify these points.

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- In the abstract part, the novelty and key idea of the proposed method should be described. The authors only
  described that "This paper introduces an inference model consisting of an IoT structure service artifact, a
  subsystem of contextual knowledge, and a subsystem of run-time adaptability reasoning". The novelty and
  key idea are not clear.
- 2. In abstract, the result of this work must be described briefly with data. The result of this work is not clear. The authors only described that "The results of model implementation on monitoring system of coronavirus disease revealed that the ability to adapt continuously and provide various alternative solutions to handle uncertain contexts".
- 3. In the Introduction part, the new features of the proposed method and the main advantages of the results over others should be clearly described.
- 4. In the Introduction part, strong points of this proposed method should be further stated and organization of this whole paper is supposed to be provided in the end.
- 5. The problem definition of this work is not clear. In Sect.2, the drawbacks of each conventional technique should be described clearly. The authors should emphasize the difference with other methods to clarify the position of this work further.
- 6. In Sect. 3, the originality of this work is not clear. The authors must describe the originality of this work clearly.
- 7. "on a rules basis" -> "on a rule basis"
- 8. In Sect. 4, reader cannot understand the relationship with COVID-19. There is no need to use COVID-19 in this scenario.
- 9. The effectiveness of this work is not clear. Through simulations/experiments, the authors must justify the effectiveness of the proposed method by comparing with the other latest methods. Several articles are listed in references. However, no comparison is shown with these techniques. Frankly speaking, the research survey and references have no relationship with this simulation. The research survey and references are meaningless. Show comparison data.
- 10. The results of this research are not clear in Conclusions. Show the scientific contribution of this work with concrete data.

### **Review Form**

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#### From Editor:

Please improve the reference format. This is very important for indexing service. If you did not follow the following format, your paper will be rejected automatically.

\*Do not use "et al." in author names.

e.g

[1] R. Ruskone, S. Airault, and O. Jamet, "Vehicle Detection on Aerial Images", *International Journal of Intelligent Engineering and Systems*, Vol.1, No.1, pp.123-456, 2009.

(In the case of Journal Papers)

[2] R. Ruskone, L. Guigues, S. Airault, and O. Jamet, "Vehicle Detection on Aerial Images", In: *Proc. of International Conf. On Pattern Recognition*, Vienna, Austria, pp.900-904, 1996.

(In the case of Conference Proceedings)

\*Note: e.g. In the case of the author name:"John Doe", express as "J. Doe". ("John" is the first name and "Doe" is the family name.)

\* \* Please send your revised manuscript with the response letter for the 2<sup>nd</sup> review. (Please highlight modifications and additions inside the paper by red font.)

Please add "Conflicts of Interest" and "Author Contributions". (see the IJIES format.docx)

#### Conflicts of Interest (Mandatory)

Declare conflicts of interest or state "The authors declare no conflict of interest." Authors must identify and declare any personal circumstances or interest that may be perceived as inappropriately influencing the representation or interpretation of reported research results.

#### Author Contributions (Mandatory)

For research articles with several authors, a short paragraph specifying their individual contributions must be provided. The following statements should be used as follows: "conceptualization, XXX and YYY; methodology, XXX; software, XXX; validation, XXX, YYY, and ZZZ; formal analysis, XXX; investigation, XXX; resources, XXX; data curation, XXX; writing—original draft preparation, XXX; writing—review and editing, XXX; visualization, XXX; supervision, XXX; project administration, XXX; funding acquisition, YYY", etc. Authorship must be limited to those who have contributed substantially to the work reported.

Evaluation of Paper				
	The second of the second	□Highly Innovate □Sufficiently Innovate		
	Innovation	□Slightly Innovate □Not Novel		
Contents	Integrality	□Poor □Fair □Good □Outstanding		
	Presentation	□Totally Accessible □Mostly Accessible		
		□Partially Accessible □Inaccessible		

### **Intelligent Networks and Systems Society**

# **Review Form**

	Technical depth	□Superficial □Suitable for the non-specialist □Appropriate for the generally knowledgeable individual working in the field □Suitable only for an expert	
Presentation & English	□Satisfac	□Satisfactory □Needs improvement □Poor □Satisfactory □Could be improved □Poor	
Overall organization	□Satisfac		

#### RESPONSE LETTER

Paper ID : Ijies4169

Paper Title : Inference Model for Self-Adaptive IoT Service Systems

Author : Aradea Aradea, Rianto Rianto, Husni Mubarok

Author's Institution : Department of Informatics, Faculty of Engineering, Siliwangi University, Indonesia

No	Reviewer	Author	Page
1	The reviewer fails to understand the novelty of this work. Besides, there is no need to use the proposed technique for COVID-19. Frankly speaking, the reviewer cannot understand the relationship with COVID-19.	Our paper novelty has revised and depicted spesifically at section 4.3. The experimentation shown adaptation from uncertainty event that may occurs. For example in the first experiment, designed as sensor failure, so the node cannot receive data. The system will handle this as missing data, but it still will sending data to the main server with average from previous data that save in local storage or local database. In addition, the title of the paper has also been revised and is not specifically for Covid-19, but only in the form of a case study	Page 10, Sect 4.2, paragraph 3,4,5,6
2	In the abstract part, the novelty and key idea of the proposed method should be described. The authors only described that "This paper introduces an inference model consisting of an IoT structure service artifact, a subsystem of contextual knowledge, and a subsystem of run-time adaptability reasoning". The novelty and key idea are not clear.	On the abstract we have added an explanation of our work novelty, that is an example of system adaptability to overcome missing data caused by sensor failure at run-time.	Page 1, abstract, line 7,8,9 Page 10, Sect 4.2, paragraph 3,4,5,6
3	In abstract, the result of this work must be described briefly with data. The result of this work is not clear. The authors only described that "The results of model implementation on monitoring system of coronavirus disease revealed that the ability to adapt continuously and provide various alternative solutions to handle uncertain contexts".	We have described this with new explanation related to experiment. We built a simple application to simulate three uncertain contexts that is failure of sensor, network and server at run-time. The experimental results shown the main server still receive data, even though the sensor or network failure are occurs. so that the monitoring process is not interrupted.	Page 10, Sect 4.2, paragraph 2,3,4,5,6
4	In the Introduction part, the new features of the proposed method and the main advantages of the results over others should be clearly described.	New three features on IoT system has been revised, namely structure of IoT service, contextual knowledge, and adaptation reasoning.	Page 1, paragraph 2,3

6	In the Introduction part, strong points of this proposed method should be further stated and organization of this whole paper is supposed to be provided in the end.  The problem definition of this work is not clear. In Sect.2, the drawbacks of each conventional technique should be described clearly. The authors should emphasize the difference with other methods to clarify the position of this work further.	Key points of proposed method has been added at last second paragraph in introduction section. The explanation related to every main feature that proposed consist of structure IoT service, contextual knowledge, and adaptation reasoning.  Furthermore, in last paragraph of introduction has been added about how this paper be organized. The remaining paper consist of section two that describe related work, section three depict proposed method, that consists of basic model, inference model components and model of an inference rule, section four illustrate implementation model to case study that consist of case specification, experiment, and evaluate of experiment result. Lastly, this paper closed by conclusion and future work.  Problem statement in second section of this paper has been revised, that is related to adaptation problem on IoT system that located on adaptation process according to infrastructure condition, namely failures of sensor, network and server. This is related to the need to broaden the view of the adaptability of the research conducted by (P. Michiel, W. Danny and S. Marlon, K. Yentl, W. Danny ) in terms of data continuity when there are failures in the three things mentioned earlier.	Page 1, paragraph 2 Page 2, paragraph 1 Page 2, sect 2 Page 2, sect 3.1  Page 10, Sect 4.2, paragraph 2,3,4,5,6
7	In Sect. 3, the originality of this work is not clear. The authors must describe the originality of this work clearly.	The originality of this work is located in the development of a SAS model in the IoT domain knowledge service, which is can adapt independently in real-time by adopting an autonomous computing approach that formulated with Event-Condition-Action (ECA) rules. IoT system that located on adaptation process according to infrastructure condition, namely failures of sensor, network and server.	Page 2, paragraph 6,7 Page 10, Sect 4.2, paragraph 2,3,4,5,6
8	"on a rules basis" -> "on a rule basis"	On a rule basis	Page 5, paragraph 2

9	In Sect. 4, reader cannot understand the relationship with COVID-19. There is no need to use COVID-19 in this scenario.	Generally, this model not directly related to covid-19, the model can implement in various cases, but because the Covid-19 hot issue at current time, so we used it to evaluate the proposed model as has been done previously by (M. Kamal, A. Aljohani, and E. Alanazi)	Page 5, paragraph 2
10	The effectiveness of this work is not clear. Through simulations/experiments, the authors must justify the effectiveness of the proposed method by comparing with the other latest methods. Several articles are listed in references. However, no comparison is shown with these techniques. Frankly speaking, the research survey and references have no relationship with this simulation. The research survey and references are meaningless. Show comparison data.	We experiment with an application to simulate the proposed adaptation model. The experiments were carried out based on the architecture listed in Figure 6 of this paper. The adaptations tested are related to data transmission when sensor, network and server failures occur at run-time. We focus on the continuity of sending data to the main server, so that the monitoring process is not interrupted, for example, even when a sensor failure occurs, data will still be sent to the main server by the node. The data sent is the average result of the previous data stored in the local database. The result of experiment shown in figure 7,8	Page 10, Sect 4.2, paragraph 2,3,4,5,6 Figure 6,7,8
11	The results of this research are not clear in Conclusions. Show the scientific contribution of this work with concrete data.	The contribution focused on inferention model to IoT Self Adaptive Service system with ECA approach. The model can fill service context that adapt to new fact at run-time. We built a simple application to simulate three uncertain contexts that is failure of sensor, network and server at run-time. The experimental results shown the main server still receive data, even though the sensor or network failure are occurs so that the monitoring process is not interrupted.	Page 3, paragraph 2 Page 10, Sect 4.2, paragraph 2,3,4,5,6
12	Please improve the reference format. This is very important for indexing service. If you did not follow the following format, your paper will be rejected automatically.  *Do not use "et al." in author names	Reference writing has been corrected according to the prevailing format.	Page 1, paragraph 2 Page 1, paragraph 3 Page 2, paragraph 3 Page 2, paragraph 4 Page 2, paragraph 5 Page 5, paragraph 2 Page 11, Point no 21

13	letter for the 2nd review. (Please highlight modifications	The paper has been improved	All Pages
	and additions inside the paper by red font.)		
14	Please add "Conflicts of Interest" and "Author	Conflicts of Interest	Page 10 (Conflicts of
	Contributions". (see the IJIES format.docx)	Author Contributions	Interest and Author
			Contributions)