

IIAI AAI 2025 notification for paper 9881

From IIAI AAI 2025 <iiaiaai2025@easychair.org>

Date Tue 20/05/2025 19:24

To Rafi Md Ashifujjman (RAFIMD ASHIFUJJMAN) <rafi.md.ashifujjman.23@shizuoka.ac.jp>

Dear Md Ashifujjman Rafi,

On behalf of the Program Committee of IIAI AAI 2025, we are happy to inform you that your submission titled,

Paper ID: 9881

Title: Toward a Multi Agent Approach for LLM-Based Dynamic Vehicle Control and Communication

in Accidental Condition

Author(s): Md Ashifujjman Rafi, Naoki Fukuta

has been accepted as FULL PAPER in the 17th International Conference on Smart Computing and Artificial Intelligence and inclusion in the conference proceedings.

Congratulations!

Please read carefully the instruction for authors to complete final paper(cameraready paper) submission and registration.

Your paper meets the IEEE CPS publication policy, where is a contribution of a strong ICT scope (theory,

development and application), and thus, will be included in the proceedings published by IEEE CPS.

Each paper was sent to several reviewers and all papers received at least 3 separate reviews. To maintain

the high quality of the conference, please read the reviewers' comments and suggestions carefully and closely,

which are attached below in this mail. And please revise the manuscript based on them for the camera-ready

submission by May 30, 2025 (PST). In addition, please read carefully to proceed the cameraready paper submission

and registration as author.

1. Formatting and templates (if you use the template distributed by IIAI AAI 2025, please skip this item.)

Templates specific to your conference will be provided to you via the author kit. These templates will be

configured for the correct composition your conference is using. The following templates below, are general templates

designed for conferences using an US Letter $(8.5" \times 11")$ trim size. The format of the final manuscript should be

in a two-column format and 6 pages for full paper, 4 pages for short papers, or 2 pages for poster papers in length.

Up to an extra 2 pages can be purchased at registration time.

Please do not forget to add the author information on the paper in the cameraready version.

- Word Template (Doc)

https://www.ieee.org/content/dam/ieee-org/ieee/web/org/conferences/conference-template-letter.docx

- LaTex Template (ZIP)

https://www.ieee.org/content/dam/ieee-org/ieee/web/org/conferences/Conference-LaTeX-

template_7-9-18.zip

2. Cameraready submission

Please click on the link below to submit your cameraready version of paper and to transfer copyright of

the paper by May 30, 2025.

https://ieeecps.org/cps/v2/auth/login?ak=1&pid=6mCqpKXTrYfFEjgyyyOyrf

In the cameraready submission system, we strongly recommend to check the paper by paper validation system (PDF eXpress).

At the menu on the left, you may choose "Paper validation". Then, choose the option "I would like to upload my PDF

to PDF eXpress® for validation." After that, enter Conference ID: 67470X, your email address, and password to proceed

the PDF check. If you do not have a user account of PDF eXpress, click "New Users.

3. Registration

Please click on the link below to proceed to register the congress by May 30, 2025 (PST). https://iaiai.org/conference/aai2025/registration/

The final camera-ready copy is limited to 6 pages for full paper, 4 pages for short papers, or 2 pages for

poster papers, respectively, in the two-column IEEE CS Press proceedings manuscript style (US Letter (8.5" x 11")

trim size). You can purchase no more than two extra pages at a cost.

We recommend authors to pay with credit card, but paypal and bank transfer are also available. Authors who register and pay with bank transfer must complete to transfer the registration fee before May 30, 2025 (PST).

4. Congress Venue

Venue and access information will be available at https://iaiai.org/conference/aai2025/iiai-aai-2025/venue-and-access/

5. Congress and Presentation

IIAI AAI 2025 is planned to be held on the onsite basis, because we recognize the importance of face-to-face communication by gathering together at the venue. For people who cannot come to the venue due to Covid-19 or illness, however, online presentations

will be allowed on July 18. The presentation time might be shorten for online presenters.

6. Instruction for presenters and FAQ

https://iaiai.org/conference/aai2025/program/instruction-for-presenters/

Thank you for your contribution to IIAI AAI 2025. We look forward to seeing you in Kitakyushu, Japan.

If you have any questions, please feel free to contact us.

http://iaiai.org/conference/aai2025/contact/

Sincerely,

Kunihiko Takamatsu, IIAI AAI Congress Chair Katsuhide Fujita, IIAI AAI Program Chair

SUBMISSION: 9881

TITLE: Toward a Multi Agent Approach for LLM-Based Dynamic Vehicle Control and Communication in Accidental Condition

----- REVIEW 1 -----

SUBMISSION: 9881

TITLE: Toward a Multi Agent Approach for LLM-Based Dynamic Vehicle Control and Communication in Accidental Condition AUTHORS: Md Ashifujjman Rafi and Naoki Fukuta ----- Originality and Novelty -----SCORE: 3 (fair) ----- Significance -----SCORE: 3 (fair) ----- Reliability -----SCORE: 2 (poor) ----- Readability and Writing style -----SCORE: 2 (poor) ----- Presentation -----SCORE: 3 (fair) ----- Overall evaluation -----SCORE: 1 (weak accept) ---- TEXT: This paper presents an innovative preliminary framework integrating Large Language Models (LLMs) into a multi-agent system for autonomous vehicles, particularly in unknown or unsafe traffic conditions. The authors introduce a novel "Communication Agent" to facilitate vehicle-tovehicle (V2V) information exchange, thereby enhancing the context-awareness of the "Decision" Agent." The experimental setup using quantized LLMs and structured prompts is clearly described, with initial findings showing promising improvements in consistency and reasoning when using V2V data. The paper's strengths lie in its practical scenario modeling, systematic LLM evaluation, and thoughtful identification of consistency challenges. However, the work is still in an early stage, and lacks deeper quantitative analysis or deployment in realistic environments. The proposed scenarios are simplified and would benefit from expansion to cover more complex or edge-case conditions. Nonetheless, the research opens a valuable direction for adaptive and explainable AV control using LLMs. I recommend acceptance due to its novelty and potential impact on safety and decision-making in AV systems. ----- Paper Research Domain -----SCORE: 2 (Technical Papers in ICT Scope (theory, development and application)) ----- Reviewer's confidence -----SCORE: 3 ((medium)) ----- REVIEW 2 -----SUBMISSION: 9881 TITLE: Toward a Multi Agent Approach for LLM-Based Dynamic Vehicle Control and Communication in Accidental Condition AUTHORS: Md Ashifujjman Rafi and Naoki Fukuta ----- Originality and Novelty -----SCORE: 3 (fair) ----- Significance -----SCORE: 3 (fair) ----- Reliability -----SCORE: 2 (poor) ----- Readability and Writing style -----SCORE: 3 (fair) ----- Presentation -----SCORE: 3 (fair)

This paper explores the potential integration of Large Language Models (LLMs) within a multiagent framework for autonomous vehicles (AVs) to enhance decision-making in unknown and unsafe traffic situations. The proposal of using LLMs as decision agents in combination with

----- Overall evaluation -----

SCORE: -1 (weak reject)

---- TEXT:

vehicle-to-vehicle (V2V) communication is novel and potentially valuable for improving autonomous driving systems.

Weak points:

- 1. While the study evaluates multiple LLMs, it uses a relatively small set of traffic scenarios, which can hardly present the complex and real-world traffic situations.
- 2. The study highlights issues with consistency in the LLMs' responses to identical traffic scenarios, which is a critical concern for safety and reliability. However, it does not adequately address how to mitigate the risks of LLM mistakes in the decision-making process. In autonomous vehicles, inconsistent or incorrect outputs from LLMs could lead to serious accidents, but the paper does not propose effective fail-safe mechanisms, redundancy strategies, or real-time error detection to ensure safety in such cases. This is a critical issue that needs to be explored further to guarantee the reliability and safety of the AV system.
- 3. While the paper investigates the effect of V2V communication on decision-making, the results and analysis could be further elaborated. How does the communication data impact decision accuracy compared to scenarios without communication, and what are the potential risks or drawbacks?
- 4. The proposed multi-agent system relies on V2V communication, which might face challenges in scalability and real-time processing, especially in dense traffic environments. The paper doesn't explore potential limitations related to network congestion or latency in real-world implementations.

```
----- Paper Research Domain -----
SCORE: 2 (Technical Papers in ICT Scope (theory, development and application))
----- Reviewer's confidence -----
SCORE: 4 ((high))
----- REVIEW 3 -----
SUBMISSION: 9881
TITLE: Toward a Multi Agent Approach for LLM-Based Dynamic Vehicle Control and
Communication in Accidental Condition
AUTHORS: Md Ashifujjman Rafi and Naoki Fukuta
----- Originality and Novelty -----
SCORE: 4 (good)
----- Significance -----
SCORE: 3 (fair)
----- Reliability -----
SCORE: 4 (good)
----- Readability and Writing style -----
SCORE: 4 (good)
----- Presentation -----
SCORE: 4 (good)
----- Overall evaluation -----
SCORE: 2 (accept)
---- TEXT:
```

This study investigates how large language models (LLMs) function as decision-making agents that respond to scenario-specific text prompts derived from actual traffic situations. This study is an interesting research utilizing LLMs and is considered to be useful once completed.

At present, there are dependencies on the scenario, so mentioning safety considerations in cases where the scenario cannot be anticipated and designing the agent's behavior would improve the study. Additionally, it is hoped that this research could provide guidelines for the design of V2V protocols.