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Title

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Abstract

Provide a concise summary of the manuscript in approximately 150–250 words. The abstract should state the background or problem, the study objective, the methodology or approach used, the main findings, and the conclusion or significance of the study. Write the abstract as a single paragraph. Do not include citations, tables, figures, footnotes, or undefined abbreviations.

Keywords; Provide 3–6 keywords, separated by semicolons. Avoid repeating words already used in the article title where possible.

Introduction

Provide the background and context of the study by explaining the importance of the topic, its relevance to the field, and the current issues or challenges associated with it. Support the discussion with appropriate and recent references to show what is already known and why further investigation is necessary.

Describe the specific problem or research gap addressed by the study. State the aim or objectives clearly, briefly explain the proposed method or approach, and highlight the expected contribution, significance, or practical value of the research. Ensure that the discussion progresses logically from the general context to the specific focus of the study.

The extended abstract must not exceed four (4) pages, including the title, author information, abstract, keywords, main text, figures, tables, acknowledgements, and references.

Methodology

Explain briefly how the technical project was designed and developed. Describe the main development process, such as identifying the system requirements, preparing the design, selecting suitable components or materials, assembling the prototype, and developing the required program or control system. Include only the most important hardware, software, tools, or technologies used. A simple block diagram, flowchart, circuit diagram, or system architecture may be included to show how the project works.

Describe how the completed project was tested and evaluated. State the functions or parameters tested, the testing conditions, the number of trials where relevant, and the criteria used to assess performance. Depending on the project, the evaluation may include functionality, accuracy, response time, efficiency, reliability, output quality, or comparison with the intended specifications. Keep the explanation focused on the development and testing process, as the extended abstract should not exceed four pages.

Results and Discussion

Present the main results obtained from the testing or evaluation of the developed project. Report only the most important findings, such as whether the system functioned as intended, the measured output, accuracy, response time, efficiency, reliability, or other relevant performance indicators. Use concise tables, graphs, photographs, or screenshots where they help readers understand the results. Avoid listing raw data that does not contribute directly to the evaluation of the project.

Discuss what the results mean in relation to the project objectives and intended specifications. Explain the strengths, limitations, errors, or unexpected outcomes observed during testing, and identify possible reasons for them. Where relevant, compare the results with previous studies, existing products, or expected

performance. End the section by stating the overall effectiveness of the developed project and briefly suggesting practical improvements or future enhancements.

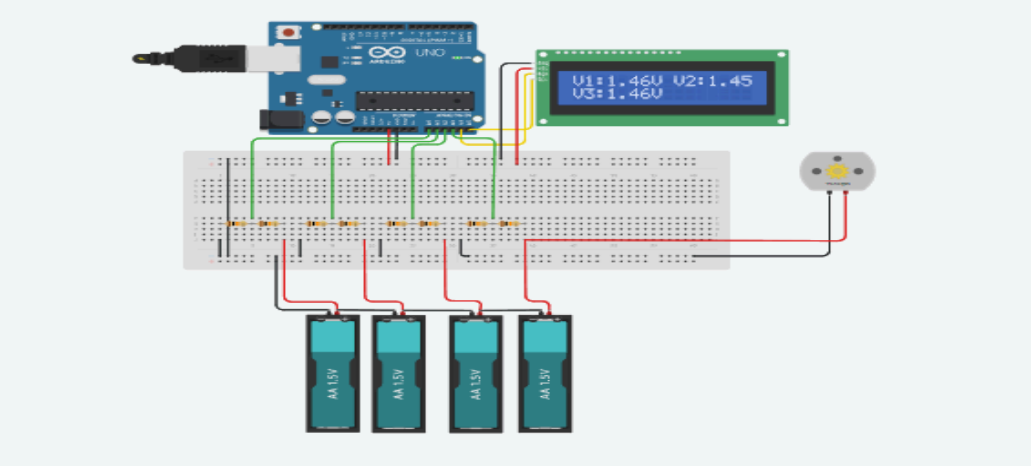


Figure 1: Schematic Diagram of Arduino BMS.

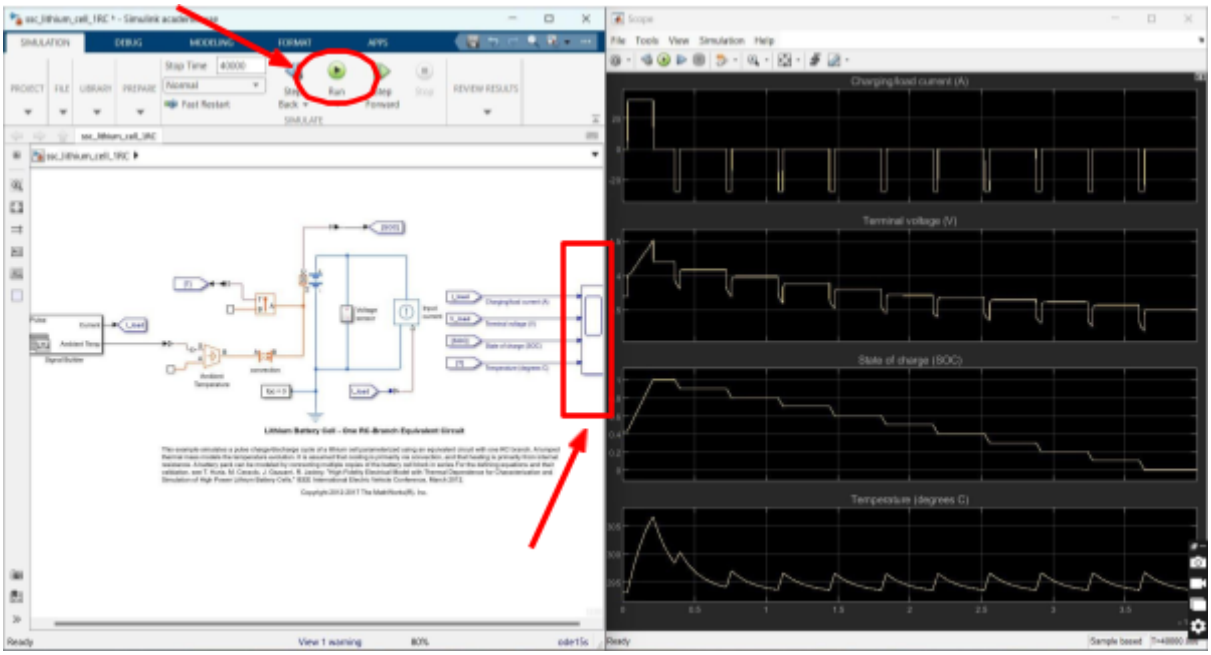


Figure 2: MATLAB Simulink simulation output for battery SOC and voltage monitoring.

[Insert the relevant result and interpretation here.]

Table 1. [Descriptive title of the table]

Variable / Trial	Measure 1	Measure 2	Outcome
[Item 1]	[Value]	[Value]	[Result]
[Item 2]	[Value]	[Value]	[Result]
[Item 3]	[Value]	[Value]	[Result]

Conclusion

Summarise the main outcome of the developed technical project and state whether the project objectives were achieved. Highlight the most important performance results, practical benefits, or contributions of the project without repeating all data from the Results and Discussion section. The conclusion should clearly reflect what was successfully developed, tested, or demonstrated.

Briefly state the main limitations of the project and suggest realistic improvements or future enhancements. These may include upgrading the hardware or software, improving accuracy or reliability, adding new functions, expanding the testing conditions, or integrating other technologies. Avoid introducing new results, lengthy explanations, citations, tables, or figures in this section.

References

[List all sources cited in the manuscript using a consistent reference style. Arrange the references alphabetically by the surname of the first author. Every source cited in the text must appear in the reference list, and every reference listed must be cited in the manuscript. Use recent and relevant sources where possible.

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Thesis or dissertation

Author, A. A. (Year). Title of thesis [Diploma project report/Master's thesis/Doctoral dissertation, Institution Name].

Example

Lee, B., & Kim, C. (2021). Development of a low-cost battery management system for lithium-ion batteries. International Journal of Energy Research, 45(6), 8452–8465.

Zhang, Y., & Wang, X. (2020). Battery modelling and state-of-charge estimation using MATLAB/Simulink. In Proceedings of the International Conference on Energy Systems (pp. 112–118). IEEE.

[Use at least 5 relevant references, preferably recent journal articles or conference papers. Avoid using unverifiable sources, anonymous webpages, Wikipedia, or incomplete references.]