

서론 (지유)

- 연구 배경, 중요성
환경 오염이 심해짐에 따라, 재생 가능 에너지와 스마트팜의 본질과 필요성은 더욱 더 부각되고 있습니다.
- 리뷰 목적

빗물 수집 기술 (동현)

- 최신(현존) 기술
비닐하우스에 쓰는 거
- 가정용 스마트팜에 어떻게 결합 가능한지
 - 아직 기존에 가정용 스마트팜에 빗물수집 결합 제품 X

낙수 에너지 전환 기술 (재운)

- 기존기술
- 압전소자
- 트라이보일렉트릭

낙수 에너지 전환 기술에

<https://www.nature.com/articles/s41467-024-50872-2>

물관리와 에너지 생성 기술 융합 (예지)

- 융합 시스템 사례
 - [How Solar-Powered Desalination is Changing the Future of Water Sustainability](#)
 - [인도네시아 태양광에너지 산업 동향](#)
 - [“스마트시티서 물관리 디지털화·최적화·보호방법 결정”](#)
 -
- 가정용 스마트팜에서의 활용 가능성

가정용 스마트팜에서의 응용 (예니)

- 가능성 판단
→ https://altifarm.com/blogs/indoor-gardening/the-rise-of-smart-indoor-farming-systems-enhancing-efficiency-and-convenience?utm_
- 실제 구현에서 필요한 것

→

장점과 한계 (지유)

미래 전망 (지유)

☐ [Confidential] KIS Journal of Student Research

☐ [Confidential] KIS 특허 출원 수업 자료

<https://www.nature.com/articles/s41467-024-50872-2>

동현 (3개 이상)

http://sgr.usweb.co.kr/index.php?sub=sub02_m03_c04

<https://www.greened.kr/news/articleView.html?idxno=310816>

예지 (3개 이상)

→ <https://www.sciencedirect.com/science/article/pii/S0306261921007959>

→ <https://www.sciencedirect.com/science/article/pii/S2352554121002175>

→ <https://patents.google.com/patent/KR20100014089A/ko>

→ <https://scienceon.kisti.re.kr/srch/selectPORSrchTrend.do?cn=SCTM00201968>

재운 (3개 이상)

<https://www.sciencedirect.com/science/article/abs/pii/S2211285524007547>

<https://scienceon.kisti.re.kr/srch/selectPORSrchTrend.do?cn=SCTM00201968>

<https://www.kist.re.kr/ko/news/latest-research-results.do?mode=view&articleNo=13705>

<https://repository.kisti.re.kr/bitstream/10580/17971/1/ASTI%20MARKET%20INSIGHT%2020070%280712%29.pdf>

지유 (3개 이상)

- <https://www.cityu.edu.hk/research/stories/2020/02/06/new-droplet-based-electricity-generator-drop-water-generates-140v-power-lighting-100-led-bulbs>
- <https://www.nature.com/articles/s41586-020-1985-6>
- <https://patents.google.com/patent/CN201071308Y/en>
-

예니 (3개 이상)

<https://www.sciencedirect.com/science/article/pii/S2590123024005383>

<https://www.sciencedirect.com/science/article/abs/pii/S0306261924018129>

<https://thescienceplus.com/news/newsview.php?ncode=1065577825588800>

Submit an Article

1. Start

2. Upload Submission

3. Enter Metadata

4. Confirmation

5. Next Steps

Section

HS Research Projects

Articles must be submitted to one of the journal's sections. *

Submission Requirements

You must read and acknowledge that you've completed the requirements below before proceeding.

- ☒ The submission has not been previously published, nor is it before another journal for consideration (or an explanation has been provided in Comments to the Editor). Despite the Plagiarism check that we do, if later there are any complaints about plagiarism with proof, the submission will be immediately retracted.
- ☒ ALL FEES ARE NON-REFUNDABLE. Authors are aware and promise in good faith to pay the Post-review Article Processing Charge or APC (\$300), which will be charged only after the manuscript is accepted by the reviewers/editors for publication and a decision is emailed. Failure to pay without a follow-up email within 1-week after the editorial decision was communicated to the authors, the submission will be archived.
- ☒ WARNING: The primary author, co-authors and advisors have all agreed to submit to the Journal of Student Research by consulting and mutually consenting to do so, AND agree to the [Terms of Use](#) and [Privacy Policy](#) of this journal.
- ☒ The submission file is a **Microsoft Word** document file format (DOCX), and adheres to the requirements outlined in the [Author Guidelines](#). Submission Template is available to [Download](#)
- ☒ Documentation of Institutional Review Board (IRB) approval or exemption, if required, was secured by the authors prior to submitting the manuscript.

Article Processing Charge (APC)

Journal of Student Research utilizes an **Open Access Model** where all published articles are made freely available to anyone to read/download. We provide our authors and readers with high-quality services, such as editorial triaging of submissions, facilitating a collaborative faculty provided peer-review, plagiarism checks, quality assurance of articles, management of production services (i.e. copyediting, layout editing, and quality control checks), indexing, archiving, and long term preservation of published articles via professional preservation networks and the journal platform. To continue to provide these services the authors are required to pay the Article Processing Charge (APC).

The APC for manuscripts is paid in **Two Phases** (an additional service fee applies):

- **Pre-review** APC: USD 50 at submission.
- **Post-review** APC: USD 300 after an editorial decision is recorded and emailed to the authors.

ALL ARTICLE PROCESSING CHARGES AND FEES ARE STRICTLY NON-REFUNDABLE and SUBJECT TO CHANGE

Additional Author Charge:

Only 5 authors (including advisors) per submission are allowed to be included. Including any additional author/advisor to the manuscript's contributor list will cost a fee of \$25 per individual. The authors will pay this fee only when accepted for publication.