## 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 (재윤)

- 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
  - → <a href="https://altifarm.com/blogs/indoor-gardening/the-rise-of-smart-indoor-farming-syste">https://altifarm.com/blogs/indoor-gardening/the-rise-of-smart-indoor-farming-syste</a>
    <a href="mailto:ms-enhancing-efficiency-and-convenience?utm">ms-enhancing-efficiency-and-convenience?utm</a>
- 실제 구현에서 필요한 것

 $\rightarrow$ 

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
- → <a href="https://www.sciencedirect.com/science/article/pii/S2352554121002175">https://www.sciencedirect.com/science/article/pii/S2352554121002175</a>
- → <a href="https://patents.google.com/patent/KR20100014089A/ko">https://patents.google.com/patent/KR20100014089A/ko</a>
- → <a href="https://scienceon.kisti.re.kr/srch/selectPORSrchTrend.do?cn=SCTM00201968">https://scienceon.kisti.re.kr/srch/selectPORSrchTrend.do?cn=SCTM00201968</a>

# 재윤(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%2007
0%280712%29.pdf

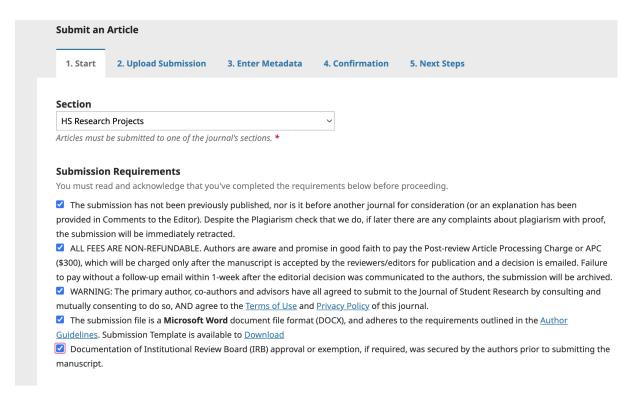
#### 지유 (3개 이상)

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

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#### 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



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