

RAVI KANT

(Assistant Professor)



Renewable Energy Engineering

Web of Science ID Link:
<https://www.webofscience.com/wos/author/record/HSI-0902-2023>

SCOPUS ID Link :
<https://www.scopus.com/authid/detail.uri?authorId=57225358361>

Google Scholar ID Link:
https://scholar.google.com/citations?user=xo_IURUAAAAJ&hl=en

EXECUTIVE SUMMARY

I am a researcher with over four years of experience in the Solar Distillation field. I focus on development and thermodynamic analysis of Solar Distillation systems for extraction of oils from medicinal plants and distilled water.

RESEARCH INTERESTS

Thermal Engineering,
Solar energy, Heat transfer,
Desalination, Extraction

ACADEMIC BACKGROUND

**Delhi Technological University,
Delhi**

*PhD Mechanical Engineering |
August 2019 - Nov 2023*

Doctoral dissertation on "Thermodynamic analysis of solar energy integrated mentha oil distillation system"

**Maulana Azad National Institute of
Technology, Bhopal**

*M.Tech Renewable Energy | Graduated June
2018*

CGPA: 8.8

Completed a masteral dissertation on:
"Performance analysis of hybrid active and passive single slope solar still"

**Dr. A P J Abdul Kalam Technical
University, Lucknow**

*B.Tech Mechanical Engineering| Graduated
July 2015*

Percentage: 74.86%

CONTACT DETAILS

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AWARDS & PROFESSIONAL HONOURS

AWARDS

1. **Global Village Conclave Contest - ग्रामोदय 2022
(Gramodaya)**

Winner | 24th-25th January 2022

Theme: **Rural Energy**

- Organized/awarded by IIT Delhi Alumni Association (IITDA) in association with **Centre for Rural Development & Technology (CRDT), Unnat Bharat Abhiyan and CSIR-National Institute of Science Communication & Policy Research (CSIR-NIScPR)**, New Delhi for presenting idea in theme of Rural Energy

2. **Commendable Research Award**

5th Research Excellence Award - 3rd March, 2022

6th Research Excellence Award - 6th April, 2023

- Awarded by Delhi Technological University, Delhi for publishing quality research paper

3. **Research FELLOWSHIP Award**

- Awarded by Delhi Technological University, Delhi for publishing Ph.D during 2019-2023

PROFESSIONAL HONOURS

- Session Chair**, International Conference on Future Learning Aspects of Mechanical Engineering (FLAME-2024) organized by the Amity University at Noida, Uttar Pradesh from 31st July to 2nd August 2024 sponsored by Department of Science and Technology (DST), Govt of India

SPONSORED PROJECTS

- GEDA-SPRERI project on organising the training on "Renewable Energy and Energy Conservation". Amount of Grant: 17.50 Lakh (INR) funded by Gujrat Energy Development Agency (GEDA), November 2023-February, 2024 (**CO-PI: Ravi Kant**)

GATE Qualification

- 2015, 2016, 2017, 2018

PUBLISHED WORK

Peer Reviewed Journal | 9 SCI/SCIE Journal

- Ravi Kant, Mukul Kumar Dubey and Anil Kumar, 2024 "Energetic, Exergetic, Exergoeconomic, and Enviroeconomic Analysis of Solar Dish-Integrated Water Desalination System with Various Nanofluids"** Groundwater for Sustainable development, 26, 101207. **SCI: IF: 5.9**
- Ravi Kant and Anil Kumar, 2023. "Thermo-enviro-economic analysis of Conventional Steam Distillation System for Peppermint Oil extraction"** Journal of Thermal Science and Engineering Progress, 46, 120246. **SCI, IF: 4.8**
- Ravi Kant and Anil Kumar, 2023. "Energy-Economic and Exergy-Environment Performance Evaluation of Solar Energy Integrated Essential Oil Extraction System"** Solar Energy, 265, 112101 **SCI, IF: 6.7**

4. **Ravi Kant**, Anand Kushwah, Anil Kumar, Mahesh Kumar 2023 **“Solar drying of peppermint leave: Thermal characteristics, drying kinetics, and quality assessment,”** Journal of Stored Products Research, 100, p. 102068. **SCI, IF: 2.83.** <https://doi.org/10.1016/j.jspr.2022.102068>.
5. **Ravi Kant** and Anil Kumar, 2022. **“Thermodynamic analysis of solar assisted steam distillation system for peppermint oil extraction.”** Journal of Food Process Engineering, e14228. **SCI, IF: 2.88.** <https://doi.org/10.1111/jfpe.14228>
6. **Ravi Kant** and Anil Kumar, 2022, **“Review on essential oil extraction from aromatic and medicinal plants: Techniques, performance and Economic Analysis,”** Sustainable Chemistry and Pharmacy, 30, p. 100829. **SCI, IF:6.** <https://doi.org/10.1016/j.scp.2022.100829>.
7. **Ravi Kant** and Anil Kumar, 2022, **“Process optimization of conventional steam distillation system for peppermint oil extraction,”** Energy Sources, Part A, 44(2), pp. 3960-3980. **SCI, IF: 3.447.** DOI: 10.1080/15567036.2022.2069886.
8. Anil kumar, **Ravi Kant** and Samsheer, 2021, **“Review on Spray-Assisted Solar Desalination: Concept, Performance and Modeling,”** Arabian Journal for Science and Engineering, 46(12), pp. 11521–11541. **SCI, IF: 2.334.** <https://doi.org/10.1007/s13369-021-05846-7>
9. Ansika Rani, **Ravi Kant**, S. Suresh, and Anil Kumar 2021, **“experimental investigation on thermal behavior of hybrid single slope solar still,”** Journal of thermal engineering, 7(3), pp. 677-689. **ESCI, IF:0.44.** DOI: 10.18186/thermal.889191

SCOPUS Journal

1. **Ravi Kant**, Anil Kumar, 2022, **“Empirical Relation to Predict Essential Oil Yield in Conventional Distillation System”, Journal of Polymer & Composites. 2022; 10(Special Issue 1): S25–S31.** DOI (Journal): 10.37591/JoPC.ESCI
2. **Ravi Kant** and Anil Kumar, 2021, **“Advancements in Steam Distillation System for Oil Extraction from Peppermint Leaves,”** Materials Today: Proceedings, 47, pp. 5794–5799. SCOPUS.

International Conference | 05

National Conference | 01

Book Chapter | 02

PAPER PRESENTED

International Conference

1. Kant, R., and Kumar, A., 2022, “Energetic and Exergetic Analysis of Solar Still Distillation System for Peppermint Oil Extraction”, ICTFSD 2022, BIT MESRA Ranchi, (01 – 02 February 2022) SCOPUS
2. Kant, R., and Kumar, A., 2021, “Performance and exergy analysis of single slope passive solar still in clear sky condition”, Recent advances in mechanical engineering (RAME-2020), Delhi Technological University, Delhi. (September 18-19, 2020) Scopus
3. Kant, R., and Kumar, A., 2021, “Conventional Steam Distillation System for Oil Extraction from Peppermint Leaves,” International conference on energy & environment, ICEE, 2021. (April 9-10 2021) SCOPUS
4. Kant, R., and Kumar, A., 2021, “Advancements in steam distillation system for oil extraction from peppermint leaves,” International conference on Technology Innovation in Mechanical Engineering, TIME, 2021. (April 22- 23, 2021) SCOPUS
5. Kant, R., and Kumar, A., 2021, “Empirical Relation to Predict of Essential Oil Yield in Conventional Distillation System. Int. conference”, Recent advances in materials, manufacturing and thermal engineering (RAMMTE- 2022), Delhi Technological University, Delhi. (July 8-9, 2022) Scopus

National Conference

1. Kant, R., and Kumar, A., “thermal performance analysis of single slope hybrid solar passive still under clear sky condition” in National conference on Recent Advances in Thermal Engineering (RATE-2018) held on 28-29 June, 2018 at RGPV, Bhopal.

Book Chapter

1. Kant, R., Prakash, O., Tripathi, R., and Kumar, A., 2019, "Exergy Analysis of Active and Passive Solar Still," Solar desalination technology, Springer, Book. https://doi.org/10.1007/978-981-13-6887-5_12
2. Kant, R., and Kumar, A., 2021, "Performance and exergy analysis of single slope passive solar still in clear sky condition", Recent advances in mechanical engineering (RAME-2020), Series Title: Lecture Notes in Mechanical Engineering, Springer, Book. SCOPUS

Training/ Seminar/ Workshop Attended/conducted

1. contributed as member organizing Committee in the 2nd International Conference on "RECENT ADVANCES IN MECHANICAL ENGINEERING", (RAME-2020) held on September 18-19, 2020
2. Contributed as member organizing committee in One Day Seminar to celebrate "National Energy Conservation Day" organized by Delhi Technological University, Delhi on December 14, 2022.
3. Contributed as member organizing committee in One Day Seminar to celebrate "Innovative Rural Applications of Clean Energy" organized by Delhi Technological University, Delhi on February 25, 2023
4. Attended 2 days workshop on "solarizer" at IIT, Bombay during Techfest 2017-2018.
5. Participated in the short term training program on "SOLAR ENERGY SYSTEM" held at **interdisciplinary centre for energy research (ICER), Indian Institute of Science (IISc), Bengaluru** during 19th to 23rd March, 2018
6. Attended training program on "SOLAR PHOTOVOLTAIC" from 21st to 23rd November 2017 organised by School of Energy and Environment Management (SOEEM), RGPV, Bhopal
7. Participated in workshop on "E- Resources: A Gateway for research (2019)" organised by **Central Library, Delhi Technological University, Delhi**, from 2-6 September, 2019.
8. Attended one week faculty development program on "Recent Development on Renewable Systems" Sponsored by **TEQIP-III**, organized by Mechanical Engineering Department, Delhi Technological University, Delhi from 25-29th November, 2019.

References

Prof. Anil Kumar (Professor)
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Prof. Raj Kumar Singh (Professor)
Mechanical Engineering Department, DTU, Delhi
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