

# ICRERA 2025

## 14th INTERNATIONAL CONFERENCE ON RENEWABLE ENERGY RESEARCH AND APPLICATIONS

### **Andres Santiago Santafe Silva**

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**Paper ID** : 493-A

**Paper Title** : Triangulated Spatial-Interpolation Approach for Renewable Energy Potential Analysis Using Solar-Powered IoT Weather Stations

#### **Bio :**

Santiago Santafe Silva is a Computer Engineering Bachelor student at Universidad de La Sabana, Colombia, currently on exchange at Montanuniversität Leoben, Austria, pursuing studies in Industrial Data Science.

His primary research interests include IoT systems for renewable energy, embedded systems, robotics, and user-centered design. Santiago has worked on projects such as the IEEE EPICS initiative "Empowering Rural Schools: Early Engineering and Smart Energy for Equity – Colombia" This research led to the present paper on triangulated spatial-interpolation approaches for renewable energy potential analysis.

His publications include an IEEE COLCOM 2025 paper on IoT healthcare systems. Santiago is an AWS Certified Solutions Architect with professional experience scaling cloud infrastructure for 50,000+ users, competed at RoboCup 2024 in Eindhoven developing autonomous robotics systems, and has mentored students as a Teaching Assistant for Object-Oriented Programming, receiving a nomination for the Academic Excellence Award in 2024.

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