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**Development of IoT based climate smart fish dryer for producing premium and exportable dry fish products: Ensuring Food Health and Food Safety****Md. Masud Rana***University Malaysia Sarawak, Malaysia*

**Statement of the problem:** The physical and organoleptic qualities of most of the traditional sun-dried products deteriorate remarkably due to unfavourable weather (e.g., rainy, cloudy or foggy weather). Generally, the winter season is more suitable for drying process due to lower humidity. However, the fish which are dried in the day time further soak some moist of fog at night. It increases the duration of drying process and deteriorate the quality of end products. Same thing occurs.

**Methodology & amp; theoretical orientation:** The adoption of an IoT-based climate smart fish dryer allows for a more sustainable approach to fish processing. By utilizing renewable solar energy, the system reduces dependency on fossil fuels, thereby lowering greenhouse gas emissions and contributing to climate change mitigation. This aligns with global efforts to promote sustainable practices in various industries, including fisheries. The use of IoT technology in the fish drying process enables precise monitoring and control of critical parameters such as temperature, humidity, and air circulation. This level of control ensures consistent and optimized drying conditions, leading to improved product quality, reduced spoilage, and minimized losses. By embracing eco-friendly practices, the IoT-based fish dryer contributes to global efforts in mitigating climate change and promoting environmentally conscious food processing. As a result, the final dry fish products will be of premium quality, meeting international export standards and fetching higher market prices.

**Findings/ Results:** This climate-resilient approach supports the long-term sustainability of the fish processing industry, preserving food security and protecting marine ecosystems. This invention introduces a revolutionary solution that embraces renewable energy, IoT technology, and climate-resilient practices in fish processing.

**Conclusion:** This research marks a significant step towards sustainable and eco-friendly food processing practices, offering premium dry fish products for global markets while empowering local communities and supporting environmental conservation.

**Biography**

Md. Masud Rana is a PhD fellow at faculty of Resource Science and Technology, University Malaysia Sarawak, Malaysia. He is a fish processing expert and have more than 30 international publications on his field. He joined more than 20 international conferences and presents his researches successfully. He is now working with safe food, fishery products technologies related to public health.