

Review Form 1.6

Journal Name:	Journal of Engineering Research and Reports
Manuscript Number:	Ms_JERR_84084
Title of the Manuscript:	MICROWAVE RADIATION TECHNOLOGY AS A NON-DESTRUCTIVE TESTING METHOD FOR DETECTING BLACK HEART IN POTATO
Type of the Article	Original Research Article

General guideline for Peer Review process:

This journal's peer review policy states that **NO** manuscript should be rejected only on the basis of '**lack of Novelty**', provided the manuscript is scientifically robust and technically sound. To know the complete guideline for Peer Review process, reviewers are requested to visit this link:

(<https://www.journaljerr.com/index.php/JERR/editorial-policy>)

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PART 1: Review Comments

	Reviewer's comment	Author's comment (if agreed with reviewer, correct the manuscript and highlight that part in the manuscript. It is mandatory that authors should write his/her feedback here)
Compulsory REVISION comments	<p>The manuscript presents a study carried out on potato samples for testing its purity through non-destructive testing using the transmission of electromagnetic waves through it and measuring the change its di-electric properties (S_{21}). A healthy sample shall have a relatively higher S_{21} than that of a less damaged/less pure potato. Overall, the manuscript is written well and I propose some amendments to be incorporated in revised version.</p> <p>1. Review the paper for typographical errors. For eg: Abstract, line 5, “hearth” Also, there are technical writing issues. It needs significant clean up.</p> <p>2.The quality of figures is marginal. The font size is not properly visible.</p> <p>3. What if a randomly tested sample is already damaged, and there is no control/reference value at the operating frequency, how to decide if the tested sample is damaged or not?</p> <p>4. How may samples can be tested and the time required? I could not see any mention on that. Further, how this process can be used to automate testing?</p> <p>5. Have the authors checked repeatability of their measurements? No matter at pure/impure state of tested sample?</p> <p>6. How about the size of the samples? No mention on that.</p> <p>7. Does the surface of potato sample needs some polishing? An actual sample may exhibit dust/soil particles and/or small covers. Does it guarantee to measure adequately its di-electric property?</p> <p>8.More technical details on the laptop used and the experimental setup is required. I propose to add a new block diagram/update with additional details.</p>	<p>1, noted</p> <p>2. noted</p> <p>3.this is lab experiment where good one is needed to be compare with, but the system can be upgraded by optimising the standard value for comparism at any time.</p> <p>4. this is lab setup to establish the concept manually by putting one potato sample at a time. But the system can be automated with electric motors and writing control programming to desire level of operation</p> <p>5. yes the methods is repeatable even with other materials, its only area of interest reported</p> <p>6. for experimental purposes, only moderate sizes were selected</p> <p>7. the samples were only washed in tap water, the surface were not polished</p> <p>8. noted</p>
Minor REVISION comments	See above compulsory comments	
Optional/General comments	See above compulsory comments	

PART 2:

	Reviewer's comment	Author's comment (if agreed with reviewer, correct the manuscript and highlight that part in the manuscript. It is mandatory that authors should write his/her feedback here)
Are there ethical issues in this manuscript?	<i>(If yes, Kindly please write down the ethical issues here in details)</i>	