REVIEWER'S REPORT

Manuscript No.: IJAR-51753   Date: 22-05-2025

Title: Phytoremediation Potential of Indoor Chlorophytum Comosum (Spider Plants) for Improving Air Quality in College Campus Environments

Recommendation:
Accept as it is………………YES………….
Accept after minor revision………………
Accept after major revision ………………
Do not accept (*Reasons below*) ………

Rating	Excel.	Good	Fair	Poor
Originality		√		
Techn. Quality			√	
Clarity		√		
Significance		√		

Reviewer's Name: Tahir Ahmad

Reviewer's Decision about Paper: Recommended for Publication.

Comments (*Use additional pages, if required*)

Reviewer's Comment / Report

Abstract Review:
The abstract clearly presents the research focus on the use of indoor spider plants (Chlorophytum comosum) as a natural means to improve indoor air quality (IAQ) within college campuses. It succinctly identifies the problem of IAQ in densely occupied educational buildings and explains the limitations of traditional air purification methods. The study's design—measuring pollutant concentrations before and after plant introduction in controlled rooms—is well described, and the results indicate a positive effect of spider plants in reducing formaldehyde, benzene, and VOC levels. The abstract effectively highlights the potential of phytoremediation as a sustainable and cost-effective complementary strategy to conventional ventilation and filtration systems. The scope and significance are well conveyed, and the writing is clear and focused.

Keywords:
Though not provided in the excerpt, it would be useful to ensure keywords include terms such as *indoor air quality*, *phytoremediation*, *Chlorophytum comosum*, *volatile organic compounds*, and *college campus environments* for ease of indexing.

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Introduction Review:
The introduction effectively establishes the context and importance of indoor air quality, especially in institutional environments like college campuses. It provides a strong foundation by citing relevant literature that explains how indoor pollutant levels often exceed outdoor levels and details various pollutant sources in educational settings. The inclusion of occupancy density, building materials, ventilation, and occupant behaviors as influencing factors is thorough and well-supported by references. The health impacts of poor IAQ on occupants, including respiratory and cognitive effects, are clearly linked to the research problem. The introduction is comprehensive, logically structured, and substantiates the rationale for exploring phytoremediation using spider plants as a complementary IAQ intervention.

Overall Impression:
The paper addresses a pertinent environmental health issue with practical implications for educational institutions. The research topic is timely, given growing concerns about indoor environmental quality and sustainability. The abstract and introduction are well-articulated and reflect a sound understanding of IAQ dynamics and phytoremediation principles. The use of controlled experiments on a college campus adds applied relevance. This study promises to contribute valuable empirical evidence to support environmentally friendly indoor air quality management strategies. The presentation is clear, the argument is coherent, and the topic is of interest to environmental science, public health, and facilities management fields.