APSCON 2026 Student Research Forum Decision Notification {6101}

1 message

<apscon@epapers.org> Thu, Dec 18, 2025 at 7:07 PM
Reply-to: apscon@epapers.org
To: abhiram1632005@gmail.com
Cc: apscon@epapers.org

Dear Abhiram B,

Congratulations!

Your Student Research Forum submission number 6101 entitled "Eco-Metachip Mini: a Low-Cost, Eco-Friendly Chemical Identifier Utilizing a Novel Coir-Rubber Dielectric Sensor", has been accepted for Lecture presentation at the 2026 IEEE Applied Sensing Conference, to be held in New Delhi, India from 23-25 February 2026. We look forward to your participation and presentation at APSCON 2026. If there are additional co-authors for this paper, please make sure to inform them of this decision.

The full Conference schedule will be available on the APSCON 2026 web site soon.

Be sure to check the conference web site regularly for important information: https://2026.ieee-apscon.org/

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REGISTRATION PAYMENT:
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Registration for the conference is required for you to present your work. To guarantee inclusion in the conference program one author must be registered by Dec 21, 2025 23:59 (UTC -0600).

You are allowed to cover a maximum of two papers with a single author non-student registration. A single author student registration will cover a maximum of one paper.

Register here: https://2026.ieee-apscon.org/registration

All non-Indian passport holders attending APSCON 2026 are required to submit their passport details to obtain a clearance letter here: https://2026.ieee-apscon.org/travel-and-venue/visa-guidelines

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SUBMISSION REQUIREMENTS:
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1. There are no further submission requirements. This is for presentation only. Your submission will not be published.

Please accept our thanks for your submission to the conference. We look forward to your participation.

Sincerely,
Technical Program Committee
2026 IEEE Applied Sensing Conference

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Reviewer #1 Comments
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1. Originality and Relevance
Strengths:
• The concept of a dielectric sensor based on a biodegradable coir-rubber composite is original and highly relevant for low-cost chemical detection.
• The non-invasive, LED-based visual approach offers an accessible solution for resource-limited environments.
• The integration of a patented material enhances the scientific and technological value of the work.

Suggestion: Better contextualize the limitations of conventional methods (e.g., spectroscopy, chromatography) in the literature to justify the relevance of the proposed sensor. A direct comparison with existing sensors would strengthen the argument.

2. Methodology and Technical Design
Strengths:
• Clear system architecture: dielectric sensor, Hartley oscillator, signal processing, and visual output.

• Effective use of a 100 MHz circuit with non-contact magnetic coupling.
• Selection of simple, low-cost components promotes reproducibility.

Suggestion: Provide a more detailed justification for the choice of the Hartley oscillator and the LED voltage thresholds. A discussion of possible alternatives (e.g., digital oscillators, capacitive sensors) would be beneficial.

3. Experimental Validation
Strengths:
• Clear correlation between the relative permittivity of liquids and the VDC output voltage.
• Intuitive LED visual response facilitates interpretation without complex instrumentation.
• Tests conducted with liquids of varying permittivity validate the operating principle.

Limitations:
• No statistical analysis provided (e.g., repeatability, standard deviation, number of trials).
• No evaluation of sensor stability over time or under varying environmental conditions.
• No comparison with external cohorts or real-world usage scenarios.

Suggestion: Include repeated tests with statistical analysis, and assess system robustness under temperature, humidity, or patch contamination variations.

4. Presentation and Clarity
Areas for improvement:
• Some figures (e.g., circuit schematic, setup photos) lack clarity and explicit annotations.
• The section on patch fabrication is overly detailed and could be streamlined.
• The bibliography is limited and does not sufficiently reflect recent work on eco-friendly sensors.

Suggestion: Improve figure readability, condense technical descriptions, and enrich references with recent publications on dielectric sensors and sustainable materials.

5. Perspectives and Impact
Strengths:
• Strong potential for use in educational labs, environmental monitoring, and field diagnostics.
• Promotes sustainable engineering through the use of recycled and biodegradable materials.
• Low power consumption and circuit simplicity support broad adoption.

Suggestion: Discuss future prospects for digital integration (e.g., mobile interfaces, IoT), system miniaturization, and extension to other types of liquids or gases.

Conclusion
This manuscript presents an original and promising contribution to eco-friendly chemical sensing. Through more extensive experimental validation, deeper contextual framing, and refined presentation, this work has the potential to evolve into a significantly more impactful and innovative contribution to the field.