

EASI

JOURNAL OF ENGINEERING AND
APPLIED SCIENCES IN INDUSTRY



p-ISSN: 3073-1526
e-ISSN: 2953-6634

Issue 1
JANUARY - JUNE 2026



Vol. **5**

EASI: Engineering and Applied Sciences in Industry

Volume 5, Issue 1 regular
January – June 2026
University of Guayaquil

The total or partial reproduction of the content is authorized as long as the source is cited. The concepts expressed are the exclusive responsibility of their authors.

Content

Articles details	Pages
Title: Biotechnological Applications of Graphene Derivatives: Bibliometric Evaluation and Emerging Trends Gustavo Vaca Ignacio Isa-Vargas Andrea Castañeda Naomi Becerra Matt Abad <i>Universidad Estatal de Milagro. Milagro, Ecuador.</i>	1 - 15
Title: Software Engineering Framework for User Experience and Interaction Mechanics in Web Based Systems: A Systematic Literature Review Rafael Guillermo Lara Alvear Fausto Alberto Salazar Fierro <i>Information Technology Engineering Program, Faculty of Applied Sciences Engineering, Universidad Técnica del Norte. Ibarra, Ecuador.</i>	16 - 27
Title: Evolución del conocimiento científico sobre la termodinámica del ciclo Otto en motores de combustión interna Victor Pachacama-Nasimba Isis Samaniego-Santillán Jordán Moreira-Loor Britney Rodríguez-Rodríguez <i>Carrera de Ingeniería Mecánica – Facultad de Ciencias de la Ingeniería, Universidad Técnica Estatal de Quevedo. Quevedo, Ecuador.</i>	28 - 39
Title: Conceptual model for intelligent urban traffic management integrating Maxpressure and industry 4.0 technologies Jimmy Alexander Cruz Christian José Mariño <i>Faculty of Engineering, Electronics and Industrial, Universidad Técnica de Ambato. Tungurahua, Ecuador.</i>	40 - 51
Title: Portable Non-Invasive Rapid-Response Optical Device for the Detection of Pesticide Residues in Quinoa Using Reflectance Spectrometry Jorge Iver Vicente Ycuña Nestor Dennis García Ocaña Luz de los Ángeles Davalos Zelada María Belen Morales Colque Rocio Noemi Choque López	52 - 62

*Industrial Engineering Program, National Faculty of Engineering,
Universidad Técnica de Oruro, Oruro-Bolivia.*

**Title: Validación de la capacidad espumante de la saponina de quinua para
extintores sostenibles en el marco de la economía circular**

Jorge Iver Vicente Ycuña

Omar Rodolfo Nina Yucra

Delice Lizabeth Campos Rocha

Alison Geraldine Pérez Vicente

Jhoselin Achocalla Sena

*Carrera de Ingeniería Industrial, Facultad Nacional de Ingeniería,
Universidad Técnica de Oruro, Oruro-Bolivia.*

63 - 71

Editor in chief

Ing. Raquel Vera Ortega, Mgs.

Faculty of Industrial Engineering

Universidad de Guayaquil