

ISSN 2354-1083

Tap chí

**KHOA HỌC &
CÔNG NGHỆ**
CÁC TRƯỜNG ĐẠI HỌC KỸ THUẬT

JOURNAL OF

SCIENCE & TECHNOLOGY

TECHNICAL UNIVERSITIES



No.146
2020

GENERAL GUIDELINES

1. The Journal of Science and Technology is aimed for publishing research works with novel scientific and practical values in scientific research, technological transfer and production practice. The work described must not have been published in or submitted to other scientific journals.
2. The manuscript can be written in both Vietnamese and English. Manuscript submission in English is strongly recommended.
3. The manuscript must be five-page long, typewritten in A4 size and prepared according to the journal's template.
4. All manuscripts will be double blind reviewed. Authors need to ensure that their manuscripts are prepared in a way that does not give away their identity.
5. The contribution and affiliation of each author in a paper should be clarified. One author should be assigned as the corresponding author.
6. Publications of results from research projects must have permission from the funding agencies and should include conforming acknowledgment.
7. Authors are requested to submit their manuscript and follow the review progress electronically by using the online submission system on the journal's web site.
8. The detail guidelines for authors and reviewers can be consulted on the journal's website.

Contact address:

Journal of Science and Technology

Hanoi University of Science and Technology

No. 1, Dai Co Viet Str., Hai Ba Trung District, Hanoi, Vietnam

Tel: (+8424) 3623.1739 | Fax: (+844) 3869.2136

Email: jst@hust.edu.vn | website: <http://jst.hust.edu.vn>

Publishing license No. **1741/ GP-BTTTT** (18/11/2010)

International Standard Serial Number: **ISSN 2354 - 1083**

Printed at Hoang Gia Media JSC and deposited in November 2020

JOURNAL OF SCIENCE & TECHNOLOGY

TECHNICAL UNIVERSITIES

Hanoi University of Science and Technology
University of Danang
Posts and Telecommunications Institute of Technology

Ho Chi Minh City University of Technology
Ho Chi Minh City University of Technology and Education

No. 146/2020

Editor in chief	BANH TIEN LONG
Vice Editor in chief	BUI VAN GA
	VU DINH THANH
	HA DUYEN TU
Editorial board's standing member	DINH VAN PHONG
Secretary	HO THANH NAM



EDITORIAL BOARD

- | | |
|-----------------------------|-------------------------------|
| 1. <i>Nguyen Hong Anh</i> | 2. <i>Nguyen Dang Binh</i> |
| 3. <i>Thai Ba Can</i> | 4. <i>Nguyen Duc Chien</i> |
| 5. <i>Hoang Ba Chu</i> | 6. <i>Nguyen Anh Dung</i> |
| 7. <i>Do Van Dung</i> | 8. <i>Nguyen Hoang Dung</i> |
| 9. <i>Nguyen Van Du</i> | 10. <i>Bui Van Ga</i> |
| 11. <i>Le Hieu Giang</i> | 12. <i>Nguyen Trong Giang</i> |
| 13. <i>Vu Dinh Hoang</i> | 14. <i>Nguyen Dang Hoe</i> |
| 15. <i>Le Kim Hung</i> | 16. <i>Nguyen The Hung</i> |
| 17. <i>Vu Tuan Lam</i> | 18. <i>Banh Tien Long</i> |
| 19. <i>Pham Hoang Luong</i> | 20. <i>Nguyen Huu Loc</i> |
| 21. <i>Hoang Minh</i> | 22. <i>Tran Van Nam</i> |
| 23. <i>Dinh Van Phong</i> | 24. <i>Nguyen Phung Quang</i> |
| 25. <i>Nguyen Van Quy</i> | 26. <i>Bui Cong Thanh</i> |
| 27. <i>Vu Dinh Thanh</i> | 28. <i>Ngo Van Thuyen</i> |
| 29. <i>Phan Dinh Tuan</i> | 30. <i>Ha Duyen Tu</i> |

CONTENTS

1. Fatigue Life Estimation of Elevator Car Frame with Double Floor by Stress Time History Simulation 1
*Trinh Dong Tinh**, *Nguyen Hong Thai*
- *Hanoi University of Science and Technology*
2. Residual Stress and Deformation of Butt-Welded Joint of Low Carbon Steel to Stainless Steel 6
Nguyen Tien Duong - *Hanoi University of Science and Technology*
3. Multiple Plane Fitting Algorithm to Evaluated the Accuracy of 3D Point Cloud Using Structured Light Measurement 12
*Nguyen Thi Kim Cuc**, *Nguyen Van Vinh*, *Cao Xuan Binh*
- *Hanoi University of Science and Technology*
4. Determination of Bending Failure Load of Hat-Type Folded Composite Plate Using Finite Element Method 18
Bui Van Binh^{1}*, *Tran Ich Think²*, *Tran Minh Tu³*
¹*University of Power Electric*
²*Hanoi University of Science and Technology*
³*University of Civil Engineering*
5. Numerical Modelization the Oil Film Pressure of a Hydrodynamic Tilting-Pad Thrust Bearing 25
Le Anh Dung, *Tran Thi Thanh Hai**
- *Hanoi University of Science and Technology*
6. A New Landmark Detection Approach for Slam Algorithm Applied in Mobile Robot 31
Xuan-Ha Nguyen^{1}*, *Van-Huy Nguyen²*, *Thanh-Tung Ngo¹*
¹*Hanoi University of Science and Technology*
²*CMC Institute of Science and Technology*
7. A Visualization Solution of The Stress State of Connecting-rod Big End in the Experimental Device for Lubricating Condition of the Connecting-rod Big End Bearing 37
Tran Thi Thanh Hai, *Le Anh Dung*, *Do Tien Dat*
- *Hanoi University of Science and Technology*
8. Hydrodynamic and Dynamic Analysis to Determine the Longitudinal Hydrodynamic Coefficients of an Autonomous Underwater Vehicle 43
*Le Quang**, *Phan Anh Tuan*, *Pham Thi Thanh Huong*
- *Hanoi University of Science and Technology*

9. Contact angle of Sn-8Zn-3Bi Lead Free Solder Alloy on Copper Substrate 49
Duong Ngoc Binh - Hanoi University of Science and Technology
10. Non-enzymatic Glucose Sensor Based on CuO Nanoplates 54
Chu Thi Xuan - Hanoi University of Science and Technology
11. Effect of Operating Conditions on the Ceramic Particles Drying Process by Superheated Steam in the Packed Bed Dryer 58
Thi Thu Hang Tran¹, Kieu Hiep Le^{1}, Thi Thu Huong Tran²*
¹Hanoi University of Science and Technology
²University of Economics - Technology for Industries
12. Research on Hanoi women's Demand for Sun Protective Clothing 65
Ngo Thi Quynh Chi - Hanoi University of Science and Technology