# Section on Computer Science and Control Engineering

#### **Editorial Head**

Do Viet Binh

Institute of Information Technology, AMST.

Institute of Information Technology, VAST;

Institute of Information Technology, AMST;

Institute of Information Technology, AMST;

Institute of Information Technology, VAST;

Faculty of Information Technology, LQDTU;

Institute of Military Automation Engineering, AMST;

Institute of Military Automation Engineering, AMST;

Institute of Cryptography Science and Technology;

University of Engineering and Technology, *VNU;* Faculty of Information Technology, *LODTU;* 

Academy of Military Science and Technology;

Institute of Information Technology, AMST;

Institute of Information Technology, AMST;

Institute of Information Technology, AMST;

Department of Information Technology, NDA.

Le Quy Don Technical University;

Institute of Missile, AMST;

University of Engineering and Technology, VNU;

#### **Topical Editors**

Nguyen Thanh Thuy Pham The Long Nguyen Long Giang Nguyen Chi Thanh Nguyen Doan Cuong Nguyen Duc Dung Ngo Thanh Long Nguyen Quang Vinh Tran Ngoc Binh Nguyen Ngoc Hoa Ta Minh Thanh Nguyen Quang Hung Tran Duc Thuan Nguyen Hieu Minh Thai Trung Kien Pham Van Nha Tran Trung Kien Nguyen Long

### **Secretarial Staff**

Phung Nhu HaiInstitute of Information Technology, AMST;Doan Van HoaInstitute of Information Technology, AMST;Ngo Duy DoInstitute of Information Technology, AMST;Contact InformationEmail: csce@jmst.info<br/>Phone: 098.743.5118

Section on Computer Science and Control Engineering

# **TABLE OF CONTENTS**

| 01 | <b>Le Thi Nhung, Phan Thi Thu Hong, Le Thi Lan</b><br>A method for bee activities recognition from videos captured at the beehive entrance.  | 3 - 13    |
|----|--|-----------|
| 02 | <b>Pham Khac Hoan, Lai Tien De, Hoang Van Dung, Vu Son Ha</b><br>An efficient decoding of RS-BCH product codes using hybrid root-finding of<br>the polynomial over finite fields.  | 14 - 23   |
| 03 | <b>Vu Quoc Huy</b><br>State feedback sliding mode control SFSMC with pole assignment for single input bilinear systems.  | 24 - 32   |
| 04 | <b>Le Thi Thu Hong, Doan Quang Tu, Ngo Duy Do, Nguyen Sinh Huy</b><br>Coffee leaf rust disease detection using MobileNetV2-based feature extractor,<br>SVM classifier and visualization technique.   | 33 - 43   |
| 05 | <b>Truong Thi Thu Hang, Tran Trung Kien</b><br>A style transfer-based augmentation approach for detecting military camouflaged object.   | 44 - 54   |
| 06 | Nguyen Khac Diep, Pham Tuan Anh, Le Bui Thien Duc, Tran Le Tuan Dat,<br>Le Tan Anh Hao, Phan Ngoc Bao Vinh<br>Application of deep neural networks for military symbol recognition from<br>sketch images.   | 55 - 64   |
| 07 | <b>Do Tuan Minh, Tran Thanh Hai, Le Thi Lan, Tran Trung Kien</b><br>FedEC: Enhancing model federated averaging via two-sided method.   | 65 - 75   |
| 08 | <b>Pham Xuan Cong, Hoang Trung Nguyen, Tran Cao Truong, Do Viet Binh</b><br>GanTextKnockoff: stealing text sentiment analysis model functionality using synthetic data.  | 76 - 86   |
| 09 | Dang Duc Thinh, Nguyen Duc Vuong, Luong Dinh Ha, Nguyen Cong<br>Thanh, Nguyen Chi Thanh, Phung Nhu Hai<br>Intent classification for voice-based military information search on digital maps<br>using integrated BiGRU-CNN network and speech recognition technology. | 87 - 97   |
| 10 | <b>Tong Minh Duc, Dang Thanh Quyen, Bui The Truyen</b><br>Proposal for an information-hiding model in executable files.  | 98 - 107  |
| 11 | <b>Luu Hong Dung, Nguyen Kim Tuan, Nong Phuong Trang, Pham Van Quoc</b><br>A solution for constructing quantum – resistant digital signature schemes.  | 108 - 118 |