

2018 International Conference on Advanced Computing and Applications (ACOMP 2018)

**Ho Chi Minh City, Vietnam
27 – 29 November 2018**



**IEEE Catalog Number: CFP18E01-POD
ISBN: 978-1-5386-9187-8**

**Copyright © 2018 by the Institute of Electrical and Electronics Engineers, Inc.
All Rights Reserved**

Copyright and Reprint Permissions: Abstracting is permitted with credit to the source. Libraries are permitted to photocopy beyond the limit of U.S. copyright law for private use of patrons those articles in this volume that carry a code at the bottom of the first page, provided the per-copy fee indicated in the code is paid through Copyright Clearance Center, 222 Rosewood Drive, Danvers, MA 01923.

For other copying, reprint or republication permission, write to IEEE Copyrights Manager, IEEE Service Center, 445 Hoes Lane, Piscataway, NJ 08854. All rights reserved.

****** This is a print representation of what appears in the IEEE Digital Library. Some format issues inherent in the e-media version may also appear in this print version.***

IEEE Catalog Number:	CFP18E01-POD
ISBN (Print-On-Demand):	978-1-5386-9187-8
ISBN (Online):	978-1-5386-9186-1

Additional Copies of This Publication Are Available From:

Curran Associates, Inc
57 Morehouse Lane
Red Hook, NY 12571 USA
Phone: (845) 758-0400
Fax: (845) 758-2633
E-mail: curran@proceedings.com
Web: www.proceedings.com

CURRAN ASSOCIATES INC.
proceedings
.com

2018 International Conference on Advanced Computing and Applications (ACOMP) **ACOMP 2018**

Table of Contents

Message from General Chairs .viii.....	
Message from Program Chairs .ix.....	
Organizing Committee .x.....	
Program Committee .xi.....	

Hardware Engineering and Internet of Things

An FPGA-Based Seed Extension IP Core for BWA-MEM DNA Alignment .1.....	
<i>Cuong Pham-Quoc (Ho Chi Minh City University of Technology, VNU-HCM), Binh Kieu-Do (Ho Chi Minh City University of Technology, VNU-HCM), and Tran Ngoc Thinh (Ho Chi Minh City University of Technology, VNU-HCM)</i>	
GPU-Accelerated Light-Field Image Super-Resolution .7.....	
<i>Trung-Hieu Tran (The University of Stuttgart), Gasim Mammadov (The University of Stuttgart), Kaicong Sun (The University of Stuttgart), and Sven Simon (The University of Stuttgart)</i>	
ODL-ANTIFLOOD: A Comprehensive Solution For Securing OpenDayLight Controller .14.....	
<i>Ngoc Thinh Tran (Ho Chi Minh City University of Technology), Tan Long Le (Ho Chi Minh City University of Technology), and Minh Anh Tuan Tran (Ho Chi Minh City University of Technology)</i>	
Smart-Config Wifi Technology Using ESP8266 for Low-Cost Wireless Sensor Networks .22.....	
<i>Minh Anh Tuan Tran (Ho Chi Minh city University of Technology), Trong Nhan Le (Ho Chi Minh city University of Technology), and Tan Phuong Vo (Ho Chi Minh city University of Technology)</i>	
Modeling the Transient Energy Margin for Accessing the Transient Stability with Double Shot Automatic Line Reclosing in Power System .29.....	
<i>H.V. Quang Luu (Ho Chi Minh City-University of Technology)</i>	
Monitoring IoT Objects in Wearable Applications: An Alloy-Based Approach .35.....	
<i>Long Phuoc Tôn (Industrial University of HCMC), Lam-Son Lê (HCMC University of Technology), Hoang-Anh Pham (HCMC University of Technology), and Bo Dao (Monash University)</i>	

Design of Web Based Dicom Processing Software System for Telemedicine with Mobile and Smart Television .42.....	
	<i>Tuan Nguyen (Ho Chi Minh City-University of Technology, VNU-HCM), Binh Pham (iNext Technology Company), Luan Pham (iNext Technology Company), Ngoc Nguyen (Ho Chi Minh City-University of Technology, VNU-HCM), Luan Tran (Ho Chi Minh City-University of Technology, VNU-HCM), and Thuong Le (Ho Chi Minh City-University of Technology, VNU-HCM)</i>
On Conflict Handling in Software-Defined Networks .50.....	
	<i>Cuong Ngoc Tran (Ludwig-Maximilians-Universität München) and Vitalian Danciu (Ludwig-Maximilians-Universität München)</i>
An Approach to Data Privacy in Smart Home using Blockchain Technology .58.....	
	<i>Thanh Long Nhat Dang (University of Information Technology, VNU-HCM) and Minh Son Nguyen (University of Information Technology, VNU-HCM)</i>
A Distributed Controller Approach Using P2P Protocol for Software Defined Networks .65.....	
	<i>Ha Manh Tran (International University VNU-HCMC), Son Thanh Le (International University VNU-HCMC), Hai-Duong Le (International University VNU-HCMC), and An Thanh Tran (International University VNU-HCMC)</i>

Computer Science and Software Engineering

Trimer Distribution Patterns in the Protein Sense and Antisense Sequences on the two Replichores of the Burkholderia Lata Chromosomes .71.....	
	<i>Thi Huyen Phan (HCMC University of Technology, VNU-HCM) and Thi Huong Thao Tran (HCMC University of Technology, VNU-HCM)</i>
Studying and Developing a Resource Allocation Algorithm in Fog Computing .76.....	
	<i>Quang-Hung Nguyen (Ho Chi Minh City University of Technology – VNU-HCM) and Thanh-An Truong Pham (Ho Chi Minh City University of Technology – VNU-HCM)</i>
Recognizing Unconstrained Vietnamese Handwriting By Attention Based Encoder Decoder Model .83.....	
	<i>Anh Duc Le (Center for Open Data in the Humanities), Hung Tuan Nguyen (Tokyo University of Agriculture and Technology), and Masaki Nakagawa (Tokyo University of Agriculture and Technology)</i>
Multi-Diagram Representation of Enterprise Architecture: Layout and Aesthetics .88.....	
	<i>Lam-Son Lê (HCMC University of Technology, HCMC)</i>
Discord Detection in Streaming Time Series with the Support of R-Tree .96.....	
	<i>Chau Pham Minh (HoChiMinh City University of Technology), Duc Bui Minh (HoChiMinh City University of Technology), and Anh Duong Tuan (HoChiMinh City University of Technology)</i>
Containerizing HPC Applications on Heterogeneous Systems for Centralized Resource Management: A Case Study .104.....	
	<i>Kien Pham (Ho Chi Minh City University of Technology), Bao Vo (Ho Chi Minh City University of Technology), Minh Chung (Ho Chi Minh City University of Technology), and Nam Thoai (Ho Chi Minh City University of Technology)</i>

Automatic Extract Handwriting Marked Regions in Business Document Images .112.....	
<i>Nam Quan Nguyen (Ho Chi Minh City-University of Technology, HCMUT),</i>	
<i>Quoc Thang Nguyen (Ho Chi Minh City-University of Technology), Ha Vu</i>	
<i>Duy Nguyen (Cinnamon AI lab), Thanh Duc Chau (Ho Chi Minh</i>	
<i>City-University of Science), and Tuan Anh Tran (Ho Chi Minh</i>	
<i>City-University of Technology)</i>	
An Old Problem with a New Therapy: Coupling Topic Modeling and Mining Sequential Patterns in	
Recommending Source Code .117.....	
<i>Dinh-Thuan Le (HCMC University of Technology, HCMC), Lam-Son Lê (HCMC</i>	
<i>University of Technology, HCMC), Nam Thoai (HCMC University of</i>	
<i>Technology, HCMC), and Trung-Viet Nguyen (HCMC University of</i>	
<i>Technology, HCMC)</i>	
An Improved Method for Building A 3D Model from 2D DICOM .125.....	
<i>Van Sinh Nguyen (Vietnam National University of HCMC), Manh Ha Tran</i>	
<i>(Vietnam National University of HCMC), and Hoang Minh Quang Vu</i>	
<i>(Vietnam National University of HCMC)</i>	
A Context-Aware Privacy-Preserving Solution for Location-Based Services .132.....	
<i>Trong Nhan Phan (HCMC University of Technology, VNU-HCM), Tran Khanh</i>	
<i>Dang (HCMC University of Technology, VNU-HCM), Tuan Anh Truong (HCMC</i>	
<i>University of Technology, VNU-HCM), and Thanh Hien Lam (HCMC</i>	
<i>University of Technology, VNU-HCM)</i>	
Author Index 141	