

Program Schedule

| Thursday 4 th July 2019 | |
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| 08:00 – 09:00 | Registration |
| 09:00 – 09:15 | Report (in Thai) by Assoc.Prof.Dr.Phayung Meesad , <i>Dean, Faculty of Information Technology</i> <i>King Mongkut's University of Technology North Bangkok</i> Report by Prof.Dr.-Ing. habil. Herwig Unger , <i>IC²IT2019 Technical Program Chair</i> <i>Fern University in Hagen, Germany</i> |
| 09:15 – 09:30 | Opening Ceremony by Prof. Dr. -Ing. habil. Suchart Siengchin , <i>President of King Mongkut's University of Technology North Bangkok</i> |
| 09:30 – 09:45 | <i>Group Photo</i> |
| 09:45 – 10:45 | Invited Keynote Speech I |
| 10:45 – 11:00 | <i>Coffee Break</i> |
| 11:00 – 12:00 | Invited Keynote Speech II |
| 12:00 – 13:00 | <i>Lunch</i> |
| 13:00 – 15:00 | Paper Presentation |
| 15:00 – 15:20 | <i>Coffee Break</i> |
| 15:20 – 18:00 | Paper Presentation |
| 18:00 – 22:00 | Welcome Dinner and Best Paper Award Presentation |

Thursday 4th July 2019

ROOM: I (Sensor, Networking and Related fields)

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|--------------------------------|---|
| 13:00 – 13:20 NCCIT2019-123 | Impact of Access Point placements Density on The Performance of Wireless LAN IEEE 802.11n and IEEE 802.11ac <i>Napa Wannapongsapol and Nawaporn Wisitpongphan</i> |
| 13:20 – 13:40 NCCIT2019-20 | Design and Implementation of MAC Spoofing Detection System on Software-Defined Networks <i>Pumin Jantachom, Pittaya Chansawang, Piyawad Kasabai and Panawat Khongtanakunbawon</i> |
| 13:40 – 14:00 NCCIT2019-90 | The Development of Application Logs and System Logs Visualization System for Planning and Analysis System Usage <i>Wigrom Naddakul and Tongpool Heeptaisong</i> |
| 14:00 – 14:20 NCCIT2019-7 | Ventilation System Using Internet of Things Technology <i>Jarayut Prateepvorakan, Narongdech Keeratipranon and Chaiyaporn Khemapatapan</i> |
| 14:20 – 14:40 NCCIT2019-103 | IoT Smart Farm for the Edible-Nest Swiftlet Farm Quality Control <i>Jarut Busarathid, Danai Jedsadathitkul, Suwat Tachaphetpiboon and Jutaporn Chardnarumarn</i> |
| 14:40 – 15:00 NCCIT2019-132 | A Humidity and Temperature Alert System for Data Center Using IoT <i>Wissarut Sangjong, Nalinpat Porrawatpreyakorn and Tongpool Heeptaisong</i> |
| 15:00 – 15:20 | <i>Coffee Break</i> |
| 15:20 – 15:40 NCCIT2019-6 | Internet of Things, Case Study: Intelligent Parking System <i>Chawanrat Srinounpan, Manorot Borrirakarawin, Jirawat Naksuwan, Boonnipa Kaiwman and Waeruslee Waeyunu</i> |
| 15:40 – 16:00 NCCIT2019-106 | Development of Encryption Systems for Information Security <i>Phawilai Boonkied and Watchareewan Jitsakul</i> |
| 16:00 – 16:20 NCCIT2019-87 | Forensic Chain of Custody for Digital Evidence System using by Blockchain Technology <i>Anawat Tinloei and Sakchai Tangwannawit</i> |
| 16:20 – 16:40 NCCIT2019-83 | Implementation of Smart Donation Box with control via Smart Phone <i>Khunakorn Krachao-Ngoen, Parinyaporn Promraksa and Wachirawut Thamviset</i> |
| 16:40 – 17:00 NCCIT2019-118 | Water Level Measuring System with Wireless Data Transmission <i>Purat Ratchai and Nawaporn Wisitpongphan</i> |
| 17:00 – 17:20 NCCIT2019-13 | Detecting Lane Changes Through Steering Wheel Rotation and Hidden Markov Model <i>Sooksan Panichpapiboon and Puttipong Leakkaw</i> |
| 17:20 – 17:40 NCCIT2019-127 | Electricity Usage Monitoring System with Current Sensor and Arduino <i>Nadh Ditcharoen and Ittiphon Manotham</i> |
| 18:00 – 22:00 | <i>Welcome Dinner and Best Paper Award Presentation</i> |

Thursday 4th July 2019

ROOM: II (Applications/ Information Systems and Related Fields)

| | |
|--------------------------------|---|
| 13:00 – 13:20 NCCIT2019-38 | The Development of Purchase on Commission System and Personal Interfaces with Universal Design Technique <i>Pacharapon Kamolvathin, Porvaret Vasinanurak, Jirasin Rudeekiatthamrong, Siam Sae-Chua and Naruetep Suwantada</i> |
| 13:20 – 13:40 NCCIT2019-71 | The Application of Geographic Information System for Density Estimation for Crime in Thailand <i>Wipada Pimpasaeng and Tanapon Jensuttiwetchakul</i> |
| 13:40 – 14:00 NCCIT2019-109 | A Mobile Application for Smart Catfish Farm Planning for Agriculture 4.0 <i>Matthana Prapamuang and Pudsadee Boonrawd</i> |
| 14:00 – 14:20 NCCIT2019-59 | The Development of Traffic Alert Dangerous Point on The Android Operating System Case Study of Mueang Nonthaburi District <i>Phimwalan Patthanapon and Akkarat Boonyapalanant</i> |
| 14:20 – 14:40 NCCIT2019-65 | Promotion of Unknown Tourist Attractions in Chanthaburi using Virtual Reality Technology <i>Thapakorn Sajjathum, Dechwut Wanichsan and Sukanya Aranwong</i> |
| 14:40 – 15:00 NCCIT2019-100 | The Development of Smart Phone Application for Criminal Warning <i>Piyaporn Jaiareerob, Watchareewan Jitsakul and Akkarat Boonyaplanant</i> |
| 15:00 – 15:20 | <i>Coffee Break</i> |
| 15:20 – 15:40 NCCIT2019-48 | Development of MIRT-based Computerized Adaptive Testing on Progressive Learning Management Web Application <i>Pratch Piyawongwisal, Jay Yodsang, Jakkrit Lomkeaw and Therdpong Khangrang</i> |
| 15:40 – 16:00 NCCIT2019-49 | Floteria: Web Application for Learning with Flowchart in Computer Programming <i>Pattadon Bao-Ngern, Pimpavee Urattanamane, Supannada Chotipant and Pornsuree Jamsri</i> |
| 16:00 – 16:20 NCCIT2019-78 | Attendance System by Location Base Service on Smartphone <i>Thipayarat Lertrattanasart and Tanapon Jensuttiwetchakul</i> |
| 16:20 – 16:40 NCCIT2019-60 | A Development of the Medical Benefits Reimbursement System for King Mongkut's University of Technology North Bangkok <i>Thanichanan Boonsawang</i> |
| 16:40 – 17:00 NCCIT2019-110 | A Geographic Information System Using Web Map Services to Allocate Water for Rice Cultivation <i>Nuthawong Pornanothai and Pudsadee Boonrawd</i> |
| 17:00 – 17:20 NCCIT2019-36 | Prototype of Geographic Information System for Development Cultural Tourism : Case Study of Tamod District, Phatthalung Province <i>Onjira Sitthisak, Waraphorn Tanongsak and Nariman Virasit</i> |
| 17:20 – 17:40 NCCIT2019-56 | Workflow Automation System for Regional Education Inspection <i>Ratchamongkol Plunsungkate and Maleerat Sodanil</i> |
| 18:00 – 22:00 | Welcome Dinner and Best Paper Award Presentation |

Thursday 4th July 2019

ROOM: III (Image Processing and Related Fields)

| | |
|--------------------------------|--|
| 13:00 – 13:20 NCCIT2019-55 | Improved Bicubic-Based Technique for Image Enhancement on Close Circuit Television <i>Athaporn Kingboo and Maleerat Sodanil</i> |
| 13:20 – 13:40 NCCIT2019-130 | Fruits Standard Size Classification System Using Image Processing Technique <i>Phornjira Pholhem and Watchareewan Jitsakul</i> |
| 13:40 – 14:00 NCCIT2019-95 | Image Processing for Counting the Number of Pills using Watershed Transform with Circle Hough Transform <i>Preecha Kanla and Watchareewan Jitsakul</i> |
| 14:00 – 14:20 NCCIT2019-8 | An Applied of Image Processing Techniques for Display Name and Method Planting of Vegetable Gardens on Smartphone <i>Nattavadee Hongboonmee and Anirut Narayod</i> |
| 14:20 – 14:40 NCCIT2019-24 | Road Marking Detection for Android Application <i>Duangveda Moonkhum, Sirapat Chiewchanwattana and Thanaphon Tangchoopong</i> |
| 14:40 – 15:00 NCCIT2019-76 | Automated Plant Disease Detection using Drones and Deep Learning <i>Rattanachot Phwanwilai and Thanapat Kangkachit</i> |
| 15:00 – 15:20 | <i>Coffee Break</i> |
| 15:20 – 15:40 NCCIT2019-15 | Motorcycle Wrong-Way Driving Detection <i>Takun Lamul, Kumpee Teeravech and Boonruen Pruksasithorn</i> |
| 15:40 – 16:00 NCCIT2019-133 | Development of Information System for Real time Monitoring and Face Recognition <i>Phitsanu Kertcharoen, Montean Rattanasiriwongwut</i> |
| 16:00 – 16:20 NCCIT2019-66 | Face Detection for Time Attendance Recording System <i>Samart Darin and Maleerat Sodanil</i> |
| 16:20 – 16:40 NCCIT2019-97 | Vision-based Elderly Falling Detection and Notification using Deep-learning Technology on Micro Computer <i>Tanoo Tongyam and Tongpool Heeptaisong</i> |
| 16:40 – 17:00 NCCIT2019-43 | Interactive Practicing Computer Hardware Installation using Augmented Reality Technology <i>Suracha Rungrangrong, Thanee Oapraditsataporn and Dechawut Wanichsan</i> |
| 17:00 – 17:20 NCCIT2019-46 | Detection Angle Gaze to Focus on the User's Information Device Screen from Face Image to Protect Computer Vision Syndrome <i>Wanchat Pookhantod</i> |
| 17:20 – 17:40 NCCIT2019-104 | A Driver Monitoring System for Drowsiness Detecting and Alerting <i>Krisada Pangpa and Sunantha Sodsee</i> |
| 17:40 – 18:00 NCCIT2019-134 | An Intelligent Employee Face Recognition System <i>Jira Tiwthawornwong and Tongpool Heeptaisong</i> |
| 18:00 – 22:00 | <i>Welcome Dinner and Best Paper Award Presentation</i> |

Thursday 4th July 2019

ROOM: IV (DSS, Data Mining and Related Fields)

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|--------------------------------|---|
| 13:00 – 13:20 NCCIT2019-99 | Twitter Text Mining for Sentiment Classification of a Coffee Brand Web Application <i>Maliwan Nitsuwat and Watchareewan Jitsakul</i> |
| 13:20 – 13:40 NCCIT2019-77 | An Artificial Intelligence-Based Chatbot for Weight Control Advising <i>Nutruja Jitcharoen and Phayung Meesad</i> |
| 13:40 – 14:00 NCCIT2019-82 | Developing a Practical Conditions-based Model for Smart Melon Farm Using Support Vector Machine Technique <i>Pariwut Chansawang and Supawadee Hiranpongsin</i> |
| 14:00 – 14:20 NCCIT2019-93 | Developing a Business Intelligence System for Analyzing Health and Medical Data <i>Thanaporn Kongsuk and Watchareewan Jitsakul</i> |
| 14:20 – 14:40 NCCIT2019-45 | Online Exam Recommendation System Using Rule-Based Technique <i>Chayaporn Kaensar, Supawadee Hiranpongsin and Phaichayon Kongchai</i> |
| 14:40 – 15:00 NCCIT2019-94 | The Analysis Model of News Data and Visualization of Tourist Information using by Text Mining Technique <i>Tawatchai Anuchai and Sakchai Tangwannawit</i> |
| 15:00 – 15:20 | <i>Coffee Break</i> |
| 15:20 – 15:40 NCCIT2019-80 | A Synthesis Model of Traffic Data and Intelligence Report for Anycast DNS System <i>Pantipa Potiboot and Sakchai Tangwannawit</i> |
| 15:40 – 16:00 NCCIT2019-108 | A Chatbot Mobile Application with Natural Language Processing for Student Center <i>Tanaporn Napasala and Pudsadee Boonrawd</i> |
| 16:00 – 16:20 NCCIT2019-122 | Decision Making System using Knowledge-Based Chatbot for King Mongkut's University of Technology North Bangkok Admission on Line Application <i>Warinthip Phumphinyo and Phayung Meesad</i> |
| 16:20 – 16:40 NCCIT2019-136 | Classification Model of Risk for Thailand Public Procurement Using Data Mining Techniques <i>Nitikorn Nittayachit and Sunantha Sodsee</i> |
| 16:40 – 17:00 NCCIT2019-21 | Combining Multiple Models for Predicting the Risk of Diabetes Using Multi-kernel Learning <i>Dhanamon Tansirisernkul, Chanatdaporn Onsang and Teerapong Leelanupab</i> |
| 17:00 – 17:20 NCCIT2019-54 | Commercial Spot Detection Using Siamese Networks <i>Sakkarin Nuipin and Duangjai Jitkongchuen</i> |
| 17:20 – 17:40 NCCIT2019-121 | Decision Support System based on Data Mining Techniques for Solving Communication Circuits Problem <i>Weerapat Tangkleang and Phayung Meesad</i> |
| 18:00 – 22:00 | <i>Welcome Dinner and Best Paper Award Presentation</i> |

Thursday 4th July 2019

ROOM: V (DSS, Data Mining and Related Fields)

| | |
|--------------------------------|---|
| 13:00 – 13:20 NCCIT2019-63 | Development of a Classification Model of Severe Thalassemia in Infant using Multi-Layer Perceptron Neural Network <i>Piya Nampa and Wongkot Sriurai</i> |
| 13:20 – 13:40 NCCIT2019-39 | The Development of Intelligent Farm System for Nest House with Cloud Computing Incase : For Increasing Product and Reducing Environment Impact <i>Pawitporn Kitpatanasombat, Oranit Sapmanee, Krittin Pakdeemahakun and Supapich Thitananthabut</i> |
| 13:40 – 14:00 NCCIT2019-61 | Lime Price Forecasting Model Using Time Series <i>Rattana Boonlao and Maleerat Sodanil</i> |
| 14:00 – 14:20 NCCIT2019-57 | Classification of Problems from Online Complaints <i>Kwanchanok Ampo, Rattanaporn Plianpoe and Wirat Jareevongpiboon</i> |
| 14:20 – 14:40 NCCIT2019-113 | A Human Resource Development Planning System for Government using Data Warehouse with Business Intelligence <i>Siriwit Samesawad and Pudsadee Boonrawd</i> |
| 14:40 – 15:00 NCCIT2019-86 | Business Intelligence Systems for Analyzing the Beverage Export Data <i>Wanchanok Sribanditbavon and Tongpool Heeptaisong</i> |
| 15:00 – 15:20 | <i>Coffee Break</i> |
| 15:20 – 15:40 NCCIT2019-126 | Forecast Model for Sales Product Using Time Series Analysis Techniques <i>Tiyaporn Pundee and Watchareewan Jitsakul</i> |
| 15:40 – 16:00 NCCIT2019-111 | Product Sales Support System for life Insurance using K-Means Clustering <i>Sirapop Nutaratas and Tongpool Heeptaisong</i> |
| 16:00 – 16:20 NCCIT2019-131 | Model of Early Warning System for Non-Life Insurance Industry <i>Chatchada Khrueakhrut and Watchareewan Jitsakul</i> |
| 16:20 – 16:40 NCCIT2019-11 | Forecasting of Water Volume Releasing from Dam by Support Vector Machines <i>Tontrakant Kachai, Kanyarat Nasomboon and Jantima Polpinij</i> |
| 16:40 – 17:00 NCCIT2019-29 | Thai Handwritten Character Recognition Using Character Line Level Grouping and Keeping Aspect Ratio with Convolutional Neural Network <i>Teerasak Sangsuwan and Sompong Valuvanathorn</i> |
| 17:00 – 17:20 NCCIT2019-51 | Document Candidate Retrieval in Question Answering Method for Thai <i>Surachit Laphoo, Chainarong Nongkhum and Jantima Polpinij</i> |
| 17:20 – 17:40 NCCIT2019-74 | Factors Affecting Gross Domestic Product of Thailand Using Data Mining <i>Pattarapak Nopnakeepong and Tanapon Jensuttiwetchakul</i> |
| 18:00 – 22:00 | Welcome Dinner and Best Paper Award Presentation |

Friday 5th July 2019

| | |
|---------------|---------------------------|
| 08:00 – 09:00 | Registration |
| 09:00 – 10:00 | Paper Presentation |
| 10:00 – 10:20 | <i>Coffee Break</i> |
| 10:20 – 12:00 | Paper Presentation |
| 12:00 – 13:00 | <i>Lunch</i> |

Friday 5th July 2019

ROOM: I (Sensor, Networking and Related fields)

| | |
|--------------------------------|---|
| 09:00 – 09:20 NCCIT2019-69 | A Developmental Kit of Signal Quality Testing for Frequency Waves <i>Nopparut Saelim and Panwit Tuwanut</i> |
| 09:20 – 09:40 NCCIT2019-124 | Sleep Analysis by Capturing Motion during Sleep with Raspberry pi <i>Jarin Charoensiri and Nawaporn Wisitpongphan</i> |
| 09:40 – 10:00 NCCIT2019-112 | Priority Seats Notification System for Passenger with Staff in Public Transportation <i>Yongyooth Pansawade and Sunantha Sodsee</i> |
| 10:00 – 10:20 | <i>Coffee Break</i> |
| 10:20 – 10:40 NCCIT2019-30 | Morphology-Based Atrial Fibrillation Detection from Single Lead ECG Recordings Using Deep Learning <i>Jantappapa Chanthercrob, Apiwat Lek-Uthai and Pakpum Somboon</i> |
| 10:40 – 11:00 NCCIT2019-16 | Instructional Package with Tangible User Interfaces for Developing Colors, Forms, Textures and Spatial Distinguishable Skill for Children with Autism <i>Sitthipong Jinachan, Watcharawalee Tangkuptanon and Dujdow Buranapanichkit</i> |
| 11:00 – 11:20 NCCIT2019-9 | The Development of Embedded Cluster for Software Parallel Computing <i>Supachai Thongsuk</i> |
| 12:00 – 13:00 | <i>Lunch</i> |

Friday 5th July 2019

ROOM: II (Applications/ Information Systems and Related Fields)

| | |
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| 09:00 – 09:20 NCCIT2019-50 | Development Geographic Information System to Support the Decision Epidemiology in Bang Sue Area <i>Mongkon Saeteaw and Montean Rattanasiriwongwut</i> |
| 09:20 – 09:40 NCCIT2019-85 | The Development of Information System for Hardware Management <i>Itthi Apisit and Montean Rattanasiriwongwut</i> |
| 09:40 – 10:00 NCCIT2019-101 | A Clustering Customer Relationship Management for Analyze Factors in Cancellation Using An IPTV on Mobile Application <i>Thanchanok Sankkaew and Tongpool Heeptaisong</i> |
| 10:00 – 10:20 | <i>Coffee Break</i> |
| 10:20 – 10:40 NCCIT2019-27 | A Development Framework Website of knowledge System on Stingless Bees in Chanthaburi province <i>Vicharinee Sawasdeee and Boonchom Sudjit</i> |
| 10:40 – 11:00 NCCIT2019-79 | Quality Assurance System : Case Study of Army Education <i>Supakit Hangsaad and Maleerat Sodanil</i> |
| 11:00 – 11:20 NCCIT2019-89 | Point Redemption System using Blockchain Technology <i>Nuttawut Ubontachat and Sakchai Tangwannawitt</i> |
| 11:20 – 11:40 NCCIT2019-64 | The Development of Information System for Control Marketing and Advertising & Promotion Budget on Cloud Computing <i>Praphan Thanadvanichkul and Tongpool Heeptaisong</i> |
| 12:00 – 13:00 | <i>Lunch</i> |

Friday 5th July 2019

ROOM: III (Optimization and Algorithms)

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|-------------------------------|---|
| 09:00 – 09:20 NCCIT2019-23 | Factors Influencing Game Level Design Regarding Player Enjoyment, Casual-endless Runner Game as a Case Study <i>Pumwit Sudachan and Voravika Wattanasoontorn</i> |
| 09:20 – 09:40 NCCIT2019-42 | Interactive Boxing Game <i>Soraya Kittisorayut, Sanhaphat Srijumpa, Supannada Chotipant and Anuntapat Anuntachai</i> |
| 09:40 – 10:00 NCCIT2019-10 | Modelling of Programming Game using Gamification Techniques <i>Supacha Kongmuang and Moragot Kandee</i> |
| 10:00 – 10:20 | <i>Coffee Break</i> |
| 10:20 – 10:40 NCCIT2019-18 | Electronic Passport for National Park in Thailand <i>Chainarong Janthoom and Maleerat Sodanil</i> |
| 10:40 – 11:00 NCCIT2019-33 | Optimal PI Controller Design for FOPDT Plant Model by Cuckoo Search <i>Danupon Kumpanya and Sattarpoom Thaiparnat</i> |
| 11:00 – 11:20 NCCIT2019-73 | Genetic Algorithm for K-Means and Multi-Class Support Vector Machine <i>Natthawoot Punroob and Maleerat Sodanil</i> |
| 11:20 – 11:40 NCCIT2019-22 | Feature Subset Selection for Tabular Data with Binary Particle Swarm Optimization <i>Atisit Thongbai, Wasithaphon Nukid, Sirapat Chiewchanwattana, Khamron Sunat and Thanaphon Tangchoopong</i> |
| 12:00 – 13:00 | <i>Lunch</i> |

Friday 5th July 2019

ROOM: VI (Related Information Technology)

| | |
|-------------------------------|--|
| 09:00 – 09:20 NCCIT2019-32 | Grouping Analysis for Learning Management using Group Dynamics A Case Study: Polymer Compounding Course <i>Nitinart Saetung, Chirani Maprasit and Nattapong Tongtep</i> |
| 09:20 – 09:40 NCCIT2019-53 | The Development of Project-Based Learning and AR-Technology with Web-Based Instruction to Encourage Visual Basic Programming Skills For Grade 11 Students <i>Chonnika Punjansing and Phongthanat Sae-Joo</i> |
| 09:40 – 10:00 NCCIT2019-12 | Satisfaction Comparison to Selecting a Product Purchase through Electronic Commerce of Generation X and Y between Application and Website <i>Lerluck Boonlamp and Apakorn Bunnag</i> |
| 10:00 – 10:20 | <i>Coffee Break</i> |
| 10:20 – 10:40 NCCIT2019-84 | Behaviors Affecting and Interested of E-Sports on Social Network <i>Pongsakorn Ngammoh and Tongpool Heeptaisong</i> |
| 10:40 – 11:00 NCCIT2019-40 | A Requirement Elicitation Model of Software Development in the context of State Enterprise in Thailand <i>Ajchareeya Chaipunyathat and Nalinpat Porrawatpreyakorn</i> |
| 11:00 – 11:20 NCCIT2019-52 | Behaviors Affecting and Interested of E-Sports on Social Network Information and Communication Technology Usage Behavior of New Graduate: Bachelor of Science in Technical Education Program (Electrical Engineering), KMUTNB <i>Griya Tongpasuk</i> |
| 11:20 – 11:40 NCCIT2019-91 | Factors that have an Influence on their Acceptance of QR Code Technology Payment in Bangkok <i>Suangpassorn Narkthae and Tanapon Jensuttiwetchakul</i> |
| 12:00 – 13:00 | <i>Lunch</i> |