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The 9<sup>th</sup> International Conference on Digital Arts, Media and Technology (DAMT) and  
7<sup>th</sup> ECTI Northern Section Conference on Electrical, Electronics, Computer and Telecommunications Engineering (NCON)

1st February 2024: Day 2 09.00 – 10.15 Room: Chiang Saen #1

DAMT 3: Digital Transformation Session Chair: **Asst.Prof.Pradorn Sureephong, Ph.D.**

Time	Pid	Title	Author		
	19	Monitoring System for Hospitalized COVID-19 Patients in Tertiary Care Hospital, Chiang Mai	Pimpinan Khammawan, Aksara Thongprachum, Suwat Chariyalertsak and Kannikar Intawong		
	25	Developing a Tourism Promotion Digital Platform to Enhance of Technology Acceptance in the Sharing Economy	Saowakhon Nookhao, Chumpol Mokarat and Werachart Muttitanon		
	30	Digital Technologies for Food Loss and Waste in Food Supply Chain Management	Sutasinee Kusolchoo and Pittawat Ueasangkomsate		
	69	Metaverse Integration in Academic Libraries: A Library Tour for First-Year Students in Academic Research and Learning	Yakannut Yensathit, Kannikar Intawong, Perasuk Worragin, Supicha Niemsup, Pipitton Homla and Kitti Puritat		
	70	Enhancing User Engagement and Interaction in Library Automation through Gamification	Suepphong Chernbumroong, Kannikar Intawong, Perasuk Worragin, Pipitton Homla and Kitti Puritat		
	75	A Study to Automate Workload Assessment Procedure using Computer Vision	Jaekyeong Moon, Hyunchul Tae, Jong Hyun Kim and Youngjun Yoo		



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1st February 2024: Day 2 09.00 – 10.15 Room: Chiang Saen #2

NCON 2: Communication and Signal Processing NCON5: IOT and Edge Computing NCON4: Electrical Power Systems and Power

Session Chair: **Asst. Prof. Dr. Paween Khoenkaw**

Time	Pid	Title	Presenter		
	11	Revealing Traders' Stress Levels Through Physiological Signals	Wilawan Kingtrakarn, Issaya Wiggayanon, Kanokwan Kongnasorn, Sira Jampa-Ngern, Suchada Tantisatirapong and Theerasak Chanwimalueang		
	27	Patiyoot 2: Key Distribution, and Session Key for Authentication Protocol in Wireless Network	Danai Patiyoot		
	34	Optimal Design of Yagi-Uda Antenna via Meta-Hybrid Intensified Current Search Algorithm	Wattanawong Romsai, Sarot Hlangnamthip, Auttarat Nawikavatan and Deacha Puangdownreong		
	47	Study on Footprint Coverage of Communication Satellite in Cambodia	Sornya Korm, Morokot Cheat, Sothea Phann and Sreytouch Oem		
	61	A Self-Adaptive Access Control Framework Based on User Attributes Among Heterogeneous Internet of Things Platforms	Jihoon Park, Jahoon Koo and Young-Gab Kim		
	48	New Switching Commutation for an Electronic Tap Changer	Hyeonggil Joo, Doowon Chang and Seunghyoung Bae		



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1st February 2024: Day 2 09.00 – 10.15 Room: Chiang Saen #3

DAMT1: Digital Arts and Media Session Chair: **Asst.Prof.Manissaward Jintapitak, Ph.D.**

Time	Pid	Title	Presenter		
	51	Designing Interactive Mobile Application to Create Online-Learning Experience of the Future	Natcha Sirikhvunchai and Khajornsak Nakpan		
	54	The Design of Himmapan Animal Illustrations in Super Deformed (SD) Style for Using in New Media	Suleeporn Kamchompoo		
	57	Local Mascot Design by Using Universal Design for Sustainable Community Development: A Case Study of PAA YAO CRAFT MARKET	Suleeporn Kamchompoo, Chaloemphan Kaewkanta and Wanvajee Khrutnoi		
	89	Digital Threads of Heritage: Integrating Lanna Ethnic Identity into Character Design	Manissaward Jintapitak		



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7<sup>th</sup> ECTI Northern Section Conference on Electrical, Electronics, Computer and Telecommunications Engineering (NCON)

1st February 2024: Day 2 10.30 – 11.45 Room: Chiang Saen #1

DAMT 3: Digital Transformation Session Chair: **Dr.Yootthapong Tongpaeng**

Time	Pid	Title	Presenter		
	78	Identifying Potential Instagram Influencers for E-commerce through a Hybrid Approach of Social Network Analysis and Online Sales Behavior	Kittipat Kitsawad and Thapana Boonchoo		
	79	Mobile assessment for the evaluation of media and alcohol consumption behaviors among communities	Chalermchai Panyadee, Adisorn Kuntharose, Kannikar Intawong, Apichart Traisaeng and Thammaporn Tantar		
	91	Towards Digital Transformation of Vegetable Supply Chains in Developing Economies	Madushan Madhava Jayalath, H.Niles Perera, R.M. Chandima Ratnayake and Amila Thibbotuwawa		
	107	The Estimation of Sagittal Plane Shoulder Flexion/Extension Posture Endurance Time and Repetition Endurance time on Drilling Tasks from Surface Electromyography (sEMG) Signals	Jeong-Bae Ko, Kyeong-Hee Choi and Jae-Soo Hong		
	108	Assessing the Digital Transformation Maturity of SMEs: A Systematic Literature Review	W. Madushan Fernando, H. Niles Perera, R.M. Chandima Ratnayake and Amila Thibbotuwawa		
	135	Mobile health applications for monitoring children's oral health at school	Sumeth Khiawaiy, Waraporn Boonchieng and Kannikar Intawong		



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1st February 2024: Day 2 10.30 – 11.45 Room: Chiang Saen #2

NCON1: Devices, Circuits and Systems NCON 3: Control Engineering and Automation Electronics

Session Chair: Assoc.Prof. Nattapol Aunsri, Ph.D

Time	Pid	Title	Presenter		
	1	A Wideband Divide-by-2/4 Static CML Frequency Divider With Quadrature Outputs	Zhennan Li, Zhiqun Li and Xiaowei Wang		
	2	White Light Photodetection Using Vertical ZnO/CuO Heterostructure Nanowires	Sudem Daimary, K. Moatemsu Aier and Jay Chandra Dhar		
	17	Investigation of HCI effect and BTBT supported high I on /I off in Split Double-Gate Junctionless FETs	Subhash Kumar, Arun Kumar and Khongbantabam Mamota Devi		
	67	Forward Body Biasing Techniques for Low Power Null Convention Logic in SOI	Huy Nguyen Le and Paul Beckett		
	32	Optimal Tuning of PIDA Controller for Vehicle Cruise Control System by Modified Bat Algorithm	Sarot Hlangnamthip, Chirasak Sinsukudomchai, Chaiyo Thammarat and Deacha Puangdownreong		
	65	Inspection Methodology for Improving Wafer Quality in Semiconductor Production	So-Young Kwon, Young-Hyung Kim, Yong-Hwan Lee, Jong-Ik Park and Chang-Yong Lee		



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DAMT1: Digital Arts and Media Session Chair: **Dr. Suepphong Chernbumroong**

Time	Pid	Title	Presenter		
	96	Smart Facilities Management using Digital Twin with 3D Web-Based Technology	Thepparit Sinthamrongruk, Kowit Narongtuwapan, Peeradech Wongkum, Pimsiri Suangswang, Khongthat Thongphun and Tachanat Akarajaka		
	112	Cultural Representation in Digital Art: Mascot Designs Expressing the Diversity of Tai Ethnic Cultures	Manissaward Jintapitak		
	113	A Survey Study of ChatGPT Adoption in Northern Thai OTOP Skincare and Herbal Cosmetic	Chatchai Taemaneeratana and Chommapat Malang		
	29	An Immersive Sound Effects System Based on Dynamic Spatial Perception and Architectural Response	Wen-Hsing Lai, Chia-Hao Ma and Siou-Lin Wang		



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1st February 2024: Day 2 15.00 – 16.15 Room: Chiang Saen #1

DAMT 6: Artificial Intelligence and Machine Learning Session Chair: **Asst.Prof.Thana Udomsripaiboon, Ph.D.**

Time	Pid	Title	Presenter		
	4	Numerical Experiments with Artificial Life for Segmentation of Breast Ultrasound. Tests Against State-of-the-art	Stanislav Makhanov and Nalan Karunanayake		
	12	Increase Security by Analyzing Password Strength using Machine Learning	Abu Asaduzzaman, Declan Dsouza, Md Uddin and Yoel Woldeyes		
	14	Article Feed Recommendations Using Position-Aware Deep Cross Network	Dhata Muangrux, Pannawit Athipatcharawat, Pittipol Kantavat and Ekapol Chuangsuwanich		
	20	A Method of Hand Segmentation by Integrated Image Processing Techniques for Touchless-Controlled Image Viewer in an Operating Room	Pichayapa Rungpanich, Kraiyot Kiatsoontorn and Theekapun Charoenpong		
	36	Machine Learning Algorithm, Scaling Technique and the Accuracy: Application to Educational Data	Indika Wickramasinghe and Harsha Kalutarage		
	137	RECOMMENDER SYSTEM TO IDENTIFY DRUG-TARGET ASSOCIATIONS USING MATRIX FACTORIZATION	Sornsawan Phuangmalai, Apichat Surataneer and Kitiporn Plaimas		



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1st February 2024: Day 2 15.00 – 16.15 Room: Chiang Saen #2

DAMT2: Knowledge and Innovative Management Session Chair: **Dr.Tama Duangnamol**

Time	Pid	Title	Presenter		
	87	Exploring Individual Creativity Components of Anime Videos via Content Analysis: A Case Study of Bilibili	Shiyi Xiao and Wantana Areeprayolkij		
	93	Analyzing and Modelling Information and Body of Knowledge based on the Principle of Social Return on Investment Using Knowledge Engineering	Chanathip Chanbang and Jirawit Yanchinda		
	109	Study on international researcher cooperation networks to build research collaboration competence in ASEAN country.	Pongtawan Saengsawang, Phusit Kornsurin, Manaschai Aonon and Sirikorn Santirojanakul		
	116	How Chinese travelers perceive hotel room prices at different star rating levels from web design	Yuanfang Gao, Noppon Choosri, Arus Kunkhet and Boontarika Paphawasit		
	118	Nourishing the Spirit of Lanna:Stream Management and Cultural Heritage Revival through Cultural Capital, Knowledge, and Social Theory Integration	Manissaward Jintapitak, Sant Suwatcharapinun, Umpiga Shummadtayar, Chiranthanin Kitika, Pitchawut Virutamawongse and Warong Wonglangka		
	119	Exploring the Impact of Live-streaming Shopping On Chinese Customers' Experience in the Domestic Cosmetic Industry	Yin Pan and Wantana Areeprayolkij		





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DAMT2: Knowledge and Innovative Management Session Chair: **Asst.Prof. Santichai Wicha, Ph.D.**

Time	Pid	Title	Presenter		
	22	Application of Knowledge Management in Oil and Gas Projects: A Systematic Literature Review	Wei Rong, Somhatai Timsard, Jiaxing Liu and Achara Khamaksorn		
	45	Current Status of Seismic Performance Research on Bamboo Construction and its Prospective Applications in Thailand	Jiaxing Liu, Wei Rong, Nyoman Gede Maha Putra, Joseph Tah, Chayanon Hansapinyo and Achara Khamaksorn		
	55	The Effect of Innovative Corporate Social Responsibility in Supply Chain Management on Firm Performance	Phasawit Chotiyanon and Pittawat Ueasangkomsate		
	66	A Study on Sino-Thai Cross-Border E-Commerce Talent Cultivation Standard Base on Competency Gap Analysis	Ruiyun Liu and Danaitun Pongpatcharatrontep		
	81	Optimizing Cultural Promotion Strategies in Video Gaming Through the Application of the Kano Model	Zhenyu Chen and Chalermpon Kongjit		
	84	Social Networks and Knowledge Transfer in Real Estate Business in Chiang Mai	Longyu Pan, Chanunthida Chumchong and Achara Khamaksorn		



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1st February 2024: Day 2 16.30 – 17.45 Room: Chiang Saen #1

DAMT 6: Artificial Intelligence and Machine Learning Session Chair: **Asst.Prof.Thanawut Thanavanich, Ph.D.**

Time	Pid	Title	Presenter		
	97	Homecare Staff Scheduling with Three-step Algorithm	Thepparit Sinthamrongruk, Keshav Dahal, Paul Keir and Sumalee Sangamuang		
	139	Drug image classification with deep learning by using Fast Region-based Convolution Neural	Narasak Boonthep, Jirabhorn Chaiwongsai, Bowonsak Srisungsittisunti and Thana Udomsripaiboon		
	140	Preserving Performance and Reducing Energy Consumption: A Two-Phase Scheduling Approach in Cloud Computing Environments	Thanawut Thanavanich, Krittika Kantawong, Mayoona Yaibuates, Pumipong Duangtang, Atikhom Siri and Kittakorn Sriwanna		
	150	Green Peafowl Detection System for Paddy Field Value Creation in Phayao Area	Jirabhorn Chaiwongsai, Thana Udomsripaiboon, Bowonsak Srisungsittisunti, Phaisarn Jeefoo, Damrong Amorndechaphon and Mathaya Ratchakom		



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**1st February 2024: Day 2 16.30 – 17.45 Room: Chiang Saen #2**

DAMT 6: Artificial Intelligence and Machine Learning DAMT2: Knowledge and Innovative Management

Session Chair: **Asst.Prof.Mayoon Yaibuates, Ph.D.**

Time	Pid	Title	Presenter		
	8	Detection of Alzheimer's Disease using Machine Learning Classification	Ravi Kumar Sharma, Mughalu Achumi, Shyam Sunder Jannu Soloman and Nagaraju Baydeti		
	35	LSEG: Lung Segmentation for Pulmonary Disease Affected Chest Radiographs	Ankit Misra, Geeta Rani and Dr Vijaypal Dhaka		
	111	Effectiveness of Convolutional Neural Networks in Brain Tumor Detection Using Medical Images	Sonam Chhikara, Ayush Kumar, Archit Chhikara and Geeta Rani		
	131	Thai Herbs Recommendation Model	Krittika Kantawong, Sakkayaphop Pravesjit, Mayoon Yaibuates and Sontaya Sookying		
	123	Logistic cost factors of Rayong durian export to China under Regional Comprehensive Economic Partnership	Kodchanitch Wannagoat, Jiannan Jiang, Jirapat Wanitwattanakosol and Boontarika Paphawasit		



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DAMT1: Digital Arts and Media DAMT2: Knowledge and Innovative Management DAMT3: Digital Transformation

Session Chair: **Somnuek Sinthupuan Ph.D**

Time	Pid	Title	Presenter		
	72	Authenticity of Social Media Influencers: A Literature Review and Bibliometric Analysis	Yann-Jy Yang and Chih-Chien Wang		
	92	Unveiling Waste Patterns in Tea Smallholder Producer Supply Chains: A Case Study from a Developing Economy	Madushan Fernando, Amila Thibbotuwawa, R.M. Chandima Ratnayake and Niles Perera Perera		
	95	Women in Supply Chain & Logistics Management: Undergraduates' Perspectives	Ashani Piyatilake, Kasuni V. Weerasinghe, Amila Thibbotuwawa and H. Niles Perera		
	165	A digital transformation approach to scaffold tourism crowding management: pre-factum, on-factum, and post-factum	Fernando Brito E Abreu, Rui Neto Marinheiro, Inês Boavida-Portugal, Adriano Lopes, Tomás Mestre Santos, Duarte Sampaio de Almeida and Rodrigo Simões		
	71	An AI-Based Growth Assessment of Green Oak Leaf Lettuce via LINE Chatbot for Amateur Growers: A Preliminary Study	Peerapon Singka, Natthaphat Nakthap, Dahmmaet Bunnjaweht, Phisan Kaewprapha, Panchaya Raksasakul and Prasit Pongsoon		



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2nd February, 2024: Day 3 9:00 – 10:15 Room: Chiang Saen #1

DAMT 7: Data Science and Technology DAMT 4: Software Engineering Session Chair: **Asst.Prof.Part Pramokchon, D.Eng.**

Time	Pid	Title	Presenter		
	23	Attendance Checking-Based On-Device Multiple Face Recognition using Flutter Platform	Pitchayapatchaya Srikram, Patamavadee Tubthong, Siripassorn Meewawsang, Sumonjit Sangkhao and Jedsada Arunruek		
	49	Phrase Embedding for Matching Job Skills with Job Position with Low Resources	Chirawan Ronran and Pakamas Pairot		
	62	A Method for De-Identification Analysis of Encrypted Video	Deok-Han Kim and Young-Gab Kim		
	5	Usability study of mobile healthcare application for the elderly	Su Bin Kim, Hyun Chul Tae, Chang Gi Lee, Jae Kyeong Moon, Oui Sik Yoo and Jong Hyun Kim		
	100	Task Management: A Case Study on Introducing the Problem Note Management System and Xerox Benchmarking Model	Annop Klinrat, Yardfah Phungphophan and Sujitra Arwatchananukul		
	125	Comparison of the Effectiveness of Machine Learning Techniques for the Number of Road Traffic Injuries	Wirawan Puttamat, Wikanda Phaphan and Chainarong Pianpailoon		



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2nd February, 2024: Day 3 13.00 – 14.45 Room: Chiang Saen #1

SS2: Computer and Communication Engineering for Capacity Building (CCC) Session Chair: **Assoc.Prof. Nattapol Aunsri, Ph.D.**

Time	Pid	Title	Presenter		
	124	Enhancing Employee Onboarding through Gamification: A Novel Approach in Web Application Development	Tanatorn Temsirimongkol, Daranphop Samutkao, Ponthakorn Suriyachanrathong, Thanapat Kanjina, Nattapol Aunsri and Prasara Jakkaew		
	133	Industry 4.0 and Beyond – Present Trends, Emerging Solutions and Future Technologies in the Area of the Industrial Automation	Plamen Zahariev, Georgi Hristov, Roungsan Chaisricharoen, Nina Bencheva, Ivan Beloev, Nikolay Zlatov, Chi Hieu Le, Georgi Georgiev and Diyana Kinaneva		
	134	Relaxation State Assessment on Sleepy Driver through EEG-Based Ensemble Learning	Bunyarat Umsura, Roungsan Chaisricharoen, Phakharawat Sittiprapaporn and Wanus Srimaharaj		
	136	CHATBOT APPLICATION FOR INDUSTRIAL LAWS	Suttidech Jittawisuttikul, Kanchit Pamanee and Roungsan Chaisricharoen		
	138	Ensemble Framework for Bankruptcy Prediction	Supansa Chaising, Kasidit Saraphon and Wanus Srimaharaj		
	149	Auto-Calibration of PLC Input for Hardware in the Loop System	Thunwalai Thongkong and Roungsan Chaisricharoen		
	31	Development of a Capacitive Sensing Module to Detect the Concentration of Isopropyl Alcohol for Covid-19 Disinfection by Using Small Capacitance to DC Converter	Manasnit Fajaree, Witsarut Sriratana, Lerdlekha Sriratana and Sutham Satthamsakul		



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2nd February, 2024: Day 3 13.00 – 14.45 Room: Chiang Saen #2 SS2: Computer and Communication Engineering for Capacity Building (CCC)

Session Chair: **Dr.Chayapol Kamyod**

Time	Pid	Title	Presenter		
	56	Price action analysis in gold trading using deep learning techniques	Kwan Boon-Long, Pittipol Kantavat and Kridsda Nimmanunta		
	26	Regularized Pyramid Convolutional Layers for Human Skin Type Assessment	Kasidit Saraphon, Supansa Chaising, Nyi Nyein Aung and Wanus Srimaharaj		
	52	Elderly Motion Tracking System with AI-Enabled Edge Computing	Kunyarat Seksantisakul, Nichaphat Srinongwaeng, Jasmine Agness Thompson, Josef Mathieu Pattarapon Ranc and Nacha Chondamrongkul		
	77	A Study on the Digitalization Methods, Visualization Technologies, and Interactive Information Systems for Popularization of Tangible and Intangible Heritage	Georgi Hristov, Plamen Zahariev, Georgi Georgiev, Nina Bencheva, Diyana Kinaneva and Radovesta Stewart		
	120	Development of Science Virtual Reality Lab Simulation (SVLS): Enhancing Immersive Experiences	Supanat Litchaweerat, Prasopsuk Khenda, Wacharawan Intayoad, Yoothapong Tongpaeng and Pruet Putjorn		
	121	Develop board games to enhance knowledge and understanding of learning basic programming for children in remote areas	Kemachart Kemavuthanon, Anunya Panya and Phitchayapha Jampathong		
	122	Smart UV Analyzer for Pesticide Residues Detection Using TLC Based On Image Processing	Natthpon Ounyoung, Subin Jaita and Narong Mettripun		