CSET 2024

The 2nd International Conference on Sustainability and Emerging Technologies

DONG NAI TECHNOLOGY UNIVERSITY

https://dntu.edu.vn/

206 Nguyen Khuyen Str.,Quarter 5, Trang Dai Ward, Bien Hoa City, Dong Nai Province

CSET 2024

The 2nd International Conference on Sustainability and Emerging Technologies

INTRODUCTION

The Conference on Sustainability and Emerging Technologies (CSET) is an international event that has been established to promote sustainable research directions and foster collaboration among experts, scholars, and industry professionals from around the world. Building on the success of the inaugural CSET 2023 conference, which was organized by Dong Nai Technology University, the CSET 2024 edition is poised to extend the impact and reach of this important platform.

CSET 2024 will be held from June 16th – 17th, 2024, at Dong Nai Technology University in Vietnam. The conference is co-organized by four prestigious institutions: Dong Nai Technology University, Deakin University (Australia), National Chung Cheng University (Taiwan), and Nanhua University (Taiwan). By bringing together this diverse consortium of leading academic and research organizations, CSET 2024 aims to foster greater international collaboration and knowledge exchange in the field of sustainability and emerging technologies.

By providing a dedicated platform for the presentation and discussion of the latest research, innovations, and best practices in these critical areas, CSET 2024 seeks to accelerate the development and implementation of sustainable solutions to address global challenges.

Building on the success and momentum of CSET 2023, the 2024 edition of the conference aims to further strengthen the global sustainability research community, foster interdisciplinary collaborations, and contribute to the ongoing efforts to create a more sustainable future. We invite researchers, engineers, policymakers, and industry professionals from around the world to join us at CSET 2024 and be a part of this important dialogue and exchange of ideas.

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LIST OF COMMITTEES

STEERING COMMITTEE

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Dr. Manh Quynh, Doan

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Ms. Hoang Yen Nhi, Nguyen
Mr. Thanh Duy, Nguyen

AGENDA - CSET 2024 - 16 June, 2024

TIME	MAIN CHANNEL
07:00 - 09:30	**PLENARY SESSION** **Complex Center Building (Building G)**
07:00 - 08:00	Guest Welcoming
08:00 - 08:20	Dong Nai Technology University Introduction Video
08:20 - 08:40	Welcome Speech from Dr. Phan Ngoc Son - the Chairman of Dong Nai Technology University
08:40 - 09:15	Conference Opening Speech and Scientific Report from Prof. Colin Barrow
09:15 - 09:30	Photo Session
09:30 - 10:00	**PANEL SESSION** **Tea Break | Library and Information Center (Building C)**

10:00 - 12:00	**SESSION 1** **Green Technology and Sustainable Solutions** **Prof. Colin Barrow** **Dr. Nguyen Hoang Chinh** **Dr. Nguyen Thanh Cong** (*morning session*) **Dr. Luu Hong Quan** (*afternoon session)* *Interpreter: M.A. Tran Thi Thanh Tram* ***(Meeting room 1)***	**SESSION 2** **Green Economy** **Prof. Wann-Yih Wu** **MBA. Tran Thi Kim Phuong** **Dr. Vu Thinh Truong** (*morning session)* **Dr. Huynh Tan Nguyen** (*afternoon session*) *Interpreter: M.A. Nguyen Thi Kim Ngoc* ***(Meeting room 3)***	**SESSION 3** **Smart Technology for Sustainability Development** **Prof. Pao-Ann Hsiung** **Dr. Le Ngoc Dung** **Dr. Le Thanh Lanh** (*morning session*) **Dr. Nguyen Minh Tan** (*afternoon session*) *Interpreter: M.A. Nguyen Thi Thanh Hue* ***(1st floor of the Library)***
10:00	**VALORISATION OF SEAWEED FOR MULTI-PRODUCT PRODUCTION** *Keynote speaker: Dr. Nguyen Hoang Chinh*	**THE POWER OF ENTREPRENEURIAL ORIENTATION AND DIGITAL LEADERSHIP ON INFORMATION PROCESSING AND NEW PRODUCT DEVELOPMENT** *Keynote speaker: Prof. Wann-Yih Wu*	**AI FOR SOCIAL GOOD (AI4SG)** *Keynote speaker: Prof. Pao-Ann Hsiung*
20 minutes presentation	**CSET-24-036** **ETHYL BIODIESEL PRODUCTION VIA ELECTROLYSIS.** *Thi Hang Dang, Hoang Chinh Nguyen, Fu Ming Wang, Chia Hung Su*	**CSET-24-063** **CORPORATE SOCIAL RESPONSIBILITY AND GREEN SERVICE INNOVATION IN THE HOSPITALITY INDUSTRY: THE MEDIATING ROLE OF GREEN HUMAN CAPITAL.** *Thuy Linh Pham, Yung Fu Huang, Thac Dang Van*	**CSET-24-034** **EFFICIENT MULTI-PERSON ACTION RECOGNITION USING YOLOV7-POSE AND DEEP LEARNING MODELS.** *Trinh Dinh Thang, Hamka Mudin Parah, Nguyen Khanh An*
	CSET-24-008 **EXTRACTION OPTIMIZATION OF ANTIOXIDANT POLYSACCHARIDE FROM Acanthophora spicifera.** *Leonilo F. Endoma Jr., Seasha G. Gonzales, Thea B. Ynion, Hoang Chinh Nguyen*	**CSET-24-010** **A CLOSER LOOK AT THE EFFECT OF FOREIGN DIRECT INVESTMENT AND AIR QUALITY POLLUTION (PM 2.5)- THE CASE OF GLOBAL VIEW AND STIRPAT MODEL.** *Kuo Hsuan Chin, Nhan Nguyen Thanh*	**CSET-24-011** **REAL-TIME FACE SWAPPING AND FACIAL LANDMARK DETECTION USING COMPUTER VISION TECHNIQUES.** *Nam Dong Truong*
12:00	**CSET-24-031** **FORENSIC ANALYSIS OF CRYPTOCURRENCY TRANSACTIONS: INSIGHTS FROM ANDROID DEVICES CONNECTED TO HARDWARE WALLETS.** *Van Ba Tai, Chen Min Huang*	**CSET-24-043** **THE VILLAGE-STAY: A NEW APPROACH FOR SUSTAINABLE AND INCLUSIVE COMMUNITY-BASED TOURISM DEVELOPMENT IN VIETNAM** *Le Tien Tung*	**CSET-24-049** **FORECASTED MODELING FOR AIR QUALITY INDEX IN VIETNAMESE TOURIST DESTINATIONS: LEVERAGING DEEPLEARNING APPROACHES** *Tu Anh Hoang Nguyen, Quang-Dieu Nguyen, Cong-Bang Luan Nguyen, Nguyen Trung Ky*

12:00 - 13:00	**LUNCH BREAK** **Cafeteria UniService**		
13:00 - 13:30	**POSTER EXHIBITION** **Library and Information Center (Building C)**		
13:30	**CSET-24-026** FABRICATION AND CHARACTERIZATION OF CHITOSAN-GELATIN COMPOSITE FILM *Tuyen B. Ly, Giang T.C. Tran, Hoang Chinh Nguyen, Phung K. Le*	**CSET-24-048** SUSTAINABILITY INDICATORS THE CASE OF SUN MOON LAKE'S SPORT EVEN IN TAIWAN. *Danh Na Phan, Nhan Nguyyen Thanh, Su Le, Phuong Thao*	**CSET-24-050** OPTIMIZING BOTANICAL FARM CROP VARIETY SELECTION: INTEGRATION OF MACHINE LEARNING MECHANISMS FOR GREEN TECHNOLOGY AND SUSTAINABLE SOLUTIONS *Ngo Ho Anh Khoi, Vo Khuong Duy, Nguyen Anh Duy, Ngo Ho Anh Khoa*
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14:30	**CSET-24-046** DESIGNS OF GRAPHENE METASURFACE WITH ENCODING CAPABILITIES (2,3,4 BITS) FOR CYANIDE DETECTING SENSOR APPLICATIONS. *Shobhit K. Patel, Jaymit Surve, Mya Mya Htay, Osamah Alsalman, Juveriya Parmar, and Truong Khang Nguyen*	**CSET-24-064** EXPLORING THE IMPLEMENTATION AND OBSTACLES OF SUSTAINABILITY ACCOUNTING PRACTICES IN VIETNAMESE SMES. *Phuong Thi Kim Tran, Thien Nguyen Huu, Irene Wei Kiong Ting, Lam Khanh Tran,, Mai Dai Duong, Nguyen Hoang Anh Thu*	**CSET-24-038** ADVANCEMENTS IN AUTOMOTIVE SIGNAL LIGHT DESIGN: A NOVEL APPROACH INCORPORATING LIGHT SHAPING DIFFUSER TECHNOLOGY. *Le Thanh Lanh, Pham Ngoc Dang Khoa, Nguyen Khanh An*
14:30 - 15:00	**DNTU CAMPUS TOUR** **Pickleball Tournament | Pickleball Court** **Traditional Day (DNTU Day)**		
15:00 - 16:00	**CLOSING CEREMONY**		

Time	Activities	In charge
12:00	**Lunch at local Restaurant.** Appetizer: Lotus root salad with Shrimp – Meat Mussel Pancakes – Spring Roll Main Menu: Deep Fried Elephant ear Fish Deep fried sticky Rice ball Grilled Chicken with Lemon leaves Stir fried Water Morning Glory with Garlic Braised Pork ribs with Pepper Fish sour soup Rice Fruit, Tea, Soft drink	
13:00	**Ennjoying the fresh fruits and listen to the traditional music "Tai tu"** – the lovely and romantic melody of one of the tribes in Mekong Delta. Relaxing on rowing boat along the small canal of Mekong river. Return to My Tho Pier.	
14:00	**Back to DNTU by Trung Luong Highway**	
16:00	**Arriving to DNTU**	

INCLUDE:
- Breakfast.
- WoodenBoat. Sampan (rowing boat).
- English speaking guide.
- All entrance fees: fruits & honey tea, traditional musical performance.
- Lunch at local restaurant.

EXCLUDE:
- Additional drink/beverage. Things are not indicated in the program.
- Personal expenses.

LAVENDER
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Địa chỉ: 62/26, KP1, Phường Quang Vinh, Tp. Biên Hòa, tỉnh Đồng Nai
Điện thoại: 0983 576 676 – 0342469694
Email: travel.lavender.co@gmail.com

Payment of the Field Trip registration fees: 40USD/per person

For Local and DNTU participant, the conference fee will be transferred to the following bank account:

Chủ tài khoản:
TRƯỜNG ĐẠI HỌC CÔNG NGHỆ ĐỒNG NAI
Số tài khoản: 5900201006856
Ngân hàng Agribank - CN Đồng Nai
Nội dung chuyển khoản: Field trip CSET2024 – Họ và tên

Account name:
TRUONG DAI HOC CONG NGHE DONG NAI
Account number (USD): 5900201011993
Bank name: AGRIBANK – BRANCH DONG NAI
SWIFT code: VBAAVNVX610

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CSET-24-015	REAL-TIME HEURISTICS FOR BALANCING MIXED-MODEL ASSEMBLY LINES
CSET-24-016	EXPLORING EFFECTIVE STRATEGIES FOR EFFICIENT EXCIPLEX EMISSION IN ORGANIC LIGHT-EMITTING DIODES
CSET-24-018	IMPLICATION OF SOME SUSTAINABLE DEVELOPMENT SOLUTIONS FOR VIETNAM'S AGRICULTURE
CSET-24-019	ADVANCING RAILWAY SAFETY AND EFFICIENCY: DEVELOPMENT OF A HUMAN-FOLLOWING TRANSPORT ROBOT
CSET-24-020	EVALUATION OF DRYING METHODS AND STORAGE STABILITY OF PROTEIN POWDER FROM SALTED EGG WHITES
CSET-24-022	APPLICATION OF TWO-DIMENSIONAL HYDRODYNAMIC MODEL (MIKE21HD/FM) TO ASSESSING THE IMPACT OF SAND MINING IN THE LO RIVER AREA AND PROPOSING MANAGEMENT SOLUTIONS
CSET-24-023	STUDY OF THE ROOM-TEMPERATURE LASING OF LEAD BROMIDE PEROVSKITE THIN FILMS VIA SOLVENT ENGINEERING
CSET-24-025	FABRICATION OF BIO-COMPOSITES MATERIAL FROM WATER HYACINTH (EICHHORNIA CRASSIPES) AND POLYESTER RESIN
CSET-24-026	FABRICATION AND CHARACTERIZATION OF CHITOSAN-GELATIN COMPOSITE FILM
CSET-24-028	EXTRACTION OF FLAVONOIDS FROM ROSA LAEVIGATA MICHX USING DEEP EUTECTIC SOLVENTS AND EVALUATION OF ANTIOXIDANT ACTIVITY OF THE EXTRACT
CSET-24-030	SIMULTANEOUS EXTRACTION OF PHENOLICS AND POLYSACCHARIDES FROM PADINA GYMNOSPORA USING ENZYME-ASSISTED METHOD
CSET-24-033	EFFECT OF SEAWEED EXTRACT ON THE GROWTH OF BRASSICA JUNCEA

CSET-24-036	ETHYL BIODIESEL PRODUCTION VIA ELECTROLYSIS
CSET-24-040	INVESTIGATING THE IMPACT OF HIGH-VELOCITY OXYGEN FUEL SPRAYING PROCESS PARAMETERS ON THE HARDNESS OF WC-12Co COATING FOR INTERNAL SURFACE IN PIPES.
CSET-24-046	DESIGNS OF GRAPHENE METASURFACE WITH ENCODING CAPABILITIES (2,3,4 BITS) FOR CYANIDE DETECTING SENSOR APPLICATIONS
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SESSION 2	
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CSET-24-043	THE VILLAGE-STAY: A NEW APPROACH FOR SUSTAINABLE AND INCLUSIVE COMMUNITY-BASED TOURISM DEVELOPMENT IN VIETNAM
CSET-24-045	TOURIST SATISFACTION, TRAVEL EXPERIENCE, AND INTENTION TO REVISIT BUNG RIENG, VUNG TAU PROVINCE
CSET-24-048	SUSTAINABILITY INDICATORS THE CASE OF SUN MOON LAKE'S SPORT EVEN IN TAIWAN
CSET-24-060	LINKING ACCOUNTING INFORMATION SYSTEMS PERFORMANCE AND COMPETITIVE ADVANTAGES OF SMES
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CSET-24-064	EXPLORING THE IMPLEMENTATION AND OBSTACLES OF SUSTAINABILITY ACCOUNTING PRACTICES IN VIETNAMESE SMES
CSET-24-065	COMPLETING THE DRIED COCONUT VALUE CHAIN OF BEN TRE PROVINCE IN A SUSTAINABLE DIRECTION
CSET-24-066	AN ASSESSMENT OF SUSTAINABLE DEVELOPMENT IN THE PORT INDUSTRY

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CSET-24-021	COMPARATIVE ANALYSIS OF BLOCKCHAIN-BASED VOTING SYSTEMS USING MACHINE LEARNING TECHNIQUES
CSET-24-024	A DEEP LEARNING APPROACH FOR ACCURATE FACIAL WRINKLE SEGMENTATION USING UNET++ MODEL WITH DICE AND FOCAL LOSS FUNCTIONS
CSET-24-029	LIGHTWEIGHT DEEP LEARNING-BASED PRODUCT OBJECT CLASSIFICATION SCHEME FOR EDGE SERVERS
CSET-24-031	FORENSIC ANALYSIS OF CRYPTOCURRENCY TRANSACTIONS: INSIGHTS FROM ANDROID DEVICES CONNECTED TO HARDWARE WALLETS
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CSET-24-050	OPTIMIZING BOTANICAL FARM CROP VARIETY SELECTION: INTEGRATION OF MACHINE LEARNING MECHANISMS FOR GREEN TECHNOLOGY AND SUSTAINABLE SOLUTIONS
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(CSET-24-054)

SOIL QUALITY OF SOME TYPICAL SLOPING LAND USES IN AGRICULTURE AND AFORESTATION IN BACH THONG DISTRICT, BAC KAN PROVINCE

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ABSTRACT

This article studies on soil quality of typical land uses of Bach Thong district with three main land use types - cultivated land use, productive forest land use, and protective forest land use. Soil samples were taken at 10 locations in Bach Thong district in 2023 October 12-13th. Soil samples were analyzed for mechanical composition, pH, and organic carbon content. The analyzed results show that mechanical composition in crop soil samples is dominated by the medium while heavy mechanical composition is dominant in forest soil samples. pH in soil samples collected from Bach Thong district often ranges from acidic to very acidic, fluctuating from 3,65 to 5,32 for nearly all soil samples. The highest organic carbon content is detected in protective forest soil samples while lower organic carbon content values are found in productive forest soil samples. Organic carbon content in cultivated soil samples is lowest, especially in maize and rice crop soil samples. The acidic soil here is mainly due to sloping soil and sandy soil structure, so alkaline earth ions can easily be washed away, causing the soil to become acidic. Furthermore, organic carbon content is lower in productive forests and crop soil samples mainly due to sloping land without dense ground cover, organic carbon is easily washed away during heavy rain. Some suggestions for sustainable use of sloping land are increasing plant species diversity in afforestation; Cultivation along contour lines and intercropping with diversity of plants on sloping land to preserve soil to avoid erosion and washing away when heavy rain occurs.

Keywords: *contour lines, intercropping, organic carbon, productive forest, protective forest…*