16TH INTERNATIONAL CONFERENCE OF THE EAST AND SOUTHEAST ASIA FEDERATION OF SOIL SCIENCE SOCIETIES

ESAFS 2024

Healthy Soils for Sustainable Development

MARCH 26-29, 2024,
Convention Center
Thai Nguyen University,
Vietnam

PROGRAM BOOK

The Organizers

Vietnam Society of Soil Science (VSSS),
The East and Southeast Asia Federation of Soil Science Societies (ESAFS),
Thai Nguyen University (TNU),

In collaboration with

Soils and Fertilizers Institute (SFRI),
Thai Nguyen University of Agriculture and Forestry (TUAF),
Thai Nguyen University of Education (TNUE),
International School of Thai Nguyen University (ISTNU),
International Union of Soil Sciences (IUSS)
SPONSORED BY TNU

ESAFS 2024
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MESSAGE
ESAFS 2024 CHAIRMAN

Assoc. Prof. Hoang Van Hung

ESAFS 2024 Chairman

"Xin chào" and warm greetings to dear scientists, colleagues and friends. We hope you and your loved ones are safe and healthy.

It is a great honor by the Conference Chairman' Prof. Hoang Van Hung to host the 16th International Conference of the East and Southeast Asia Federation of Soil Science Societies (ESAFS 2024) in Thai Nguyen University, Thai Nguyen city, Vietnam on the March 26-29th 2024.

"Healthy Soils For Sustainable Development" is the theme of ESAFS 2024. ESAFS 2024 is dedicated to the exchange of recent advances in soil science among soil scientists within the East and Southeast Asian regions and between the region and all over the World. The conference provides a platform for interaction among scientists, academician, consultants, and policy makers, who are responsible for the research and technology transfer of soil science, fertilizer management, and plant nutrition in order to cope with the rapid industrial development. Besides the conference program, attendees may have opportunities to visit many of the spectacular tourist sites in Thai Nguyen province and, Ha Long Bay, as well as other regions in the Northern region of Vietnam. Delegates to this year's ESAFS 2024 can option for a full experience on the Pre-conference tour in Hao Dat Tea Cooperation in Tan Cuong commune, as well as the Post-conference tour in Ha Long Bay, Ha Long city – A UNESCO World Heritage. In addition, some of the most distinguished world-renowned experts in the fields of Soil Science and Healthy Soils will deliver keynote speeches. Therefore, we warmly look forward to your participation in ESAFS 2024.

Welcome to the 16th International Conference of the East and Southeast Asia Federation of Soil Science Societies (ESAFS 2024).

We look forward to seeing you in Thai Nguyen city – Vietnam.

Assoc. Prof. Hoang Van Hung

President of Thai Nguyen University (TNU)

Chairman of 16th International Conference of the East and Southeast Asia Federation of Soil Science Societies (ESAFS 2024) https://esafs2024.tnu.edu.vn/

MESSAGE
IUSS's President

Dr. Edoardo A.C. Costantini

President, International Union of Soil Sciences- IUSS

Dear Esteemed Colleagues,

On behalf of the International Union of Soil Sciences (IUSS), it is with great pleasure and enthusiasm that we extend our warmest congratulations to the 16th International Conference of the East and Southeast Asia Federation of Soil Science Societies (ESAFS 2024), hosted by Thai Nguyen University of Agriculture and Forestry (TUAF) and organized by the Vietnam Soil Science Society (VSSS) and its branch in Thai Nguyen.

We applaud the dedication and efforts of the organizers, General Chairs, and all participants involved in making ESAFS 2024 a reality. Your commitment to advancing soil science and promoting collaboration within the region is truly commendable.

Furthermore, we express our sincere hope that the Soil Science Society of Vietnam (VSSS) will soon attain full membership within IUSS. We eagerly anticipate the opportunity to collaborate closely with VSSS and its nominated representatives for international affairs. Such collaboration will undoubtedly facilitate the exchange of knowledge and foster stronger ties between VSSS and IUSS in the future.

Looking ahead, IUSS eagerly anticipates collaborating with VSSS for the 23rd World Congress of Soil Science in 2026 and other preparatory activities, including Inter-Congress 2024 in China next October. As a full member of both IUSS and ESAFS, VSSS will play a pivotal role in shaping the future of soil science on a global scale.

We live in times of change. The ambition of the IUSS is to remain the global voice of Soil Scientists, ensuring the integration of Soil Science into policy decisions at all levels, in a scientific and political arena that sees soil becoming more and more of interest for global institutions, governments, and private companies.

The IUSS also aims to advocate for the recognition of soil as a vital resource, comparable to water and air, for sustainable management and conservation. Food security, the fight against desertification, combating climate change and loss of biodiversity, improving the well-being and health of citizens, recycling of effluents and organic materials, hydrogeological protection, and water safety, are all global challenges that cannot be achieved without deep scientific soil knowledge. It is our obligation to provide this knowledge in an effective, unbiased, and convincing way.

Once again, congratulations on the success of ESAFS 2024, and we extend our best wishes for continued success in all your endeavors.

Warm regards,

Dr. Edoardo A.C. Costantini President, International Union of Soil Sciences (IUSS)

MESSAGE
VSSS's President

Prof. Vu Nang Dzung

President of Vietnam Soil Science Society (VSSS)

On behalf of the leaders of the Vietnam Society of Soil Science (VSSS), Vietnamese soil scientists and more than 500 members of the Society and 25 society branches, I would like to send my warmest congratulations to the distinguished guests, presidents of ESAFS member/society/soil science associations; delegations from friendly countries, scientists in and out of the ESAFS community and all delegates of the conference are here present.

The ESAFS conference has taken place every 2 years since 1991, and this time is the 16th, but the first time to be held in Vietnam. For this, we would like to sincerely thank the great effort of Thai Nguyen University for hosting the event together with the Vietnam Society of Soil Science and organizing it in the beautiful and hospitable Thai Nguyen City.

We look forward to learn more than 150 scientific reports and high-quality discussions on 15 topics covered soil health for sustainable development in both oral and poster presentation that will take place in the next two days on the hottest issues related to soil science, soil health in relation to the environment, plant life, people and the climate.

We also prefer international delegates to have time to visit, learn more about the country and its people at the in-conference trip during the event and more for delegates who may participate in the post conference trip events.

We hope that the cooperation of our scientists will deepen and contribute better to the sustainable development of the region and the whole world.

We wish you all good health and the wonderful success of the ESAFS 16th Conference./.

Prof. Vu Nang Dzung

President of Vietnam Soil Science Society (VSSS)

KEYNOTE SPEAKERS

Prof. Ravi Naidu

Former Chair of the International Union of Soil Sciences Commission for Soil Degradation Control, Remediation and Reclamation.

Professor Ravi Naidu is a Global leader in soil ontamination studies, studying agricultural and industrial impacts on the environment.

Professor Ravi Naidu is the Chief Executive Officer (CEO), Managing Director and Chief Scientist of the Cooperative Research Centre for Contamination Assessment and Remediation of the Environment (CRC CARE), and Global Innovation Chair and Director of the Global Centre for Environmental Remediation (GCER) at University of Newcastle (UoN), Australia. Professor Ravi Naidu (MSc, PhD, DSc) has more than 25 years of experience in soil chemistry, bioavailability and bioaccessibility of contaminants in terrestrial and aquatic environments. He has global recognition in this field and currently is Chair of the International Committee on Bioavailability and is the past President of the International Society in Trace Element, Biogeochemistry and Commission on risk and reclamation of degraded land. He has supervised over 50 PhD students, 24 post docs and is author of more than 600 journal articles.

KEYNOTE SPEAKERS

Prof. Xiaoyuan Yan

Deputy Director of Institute of Soil Science, Chinese Academy of Sciences
Vice President and Secretary-General of Soil Science Society of China

Prof. Xiaoyuan Yan currently works at the Institute of Soil Science, Chinese Academy of Sciences, a professor of Soil Science and Environmental Science in the University of Chinese Academy of Sciences. He obtained his PhD from Chinese Academy of Sciences in 1998, and worked in Japan as a post doctor and research scientist for seven years, became a professor of the Institute of Soil Science, Chinse Academy of Sciences in 2006. Prof. Yan is a soil biogeochemist, works on carbon and nitrogen cycling, with special focus on mitigation of greenhouse gas emission and non-point source pollution. He has published more than 180 papers in international peer reviewed journals including Nature, Nature Food, Nature Geoscience, PNAS and etc.

Prof. Xiaoyuan Yan's research focuses are impacts of human activities on soil nitrogen and carbon biogeochemistry cycle; greenhouse gas emission; atmospheric nitrogen deposition; assessment and controls on point and non-point nitrogen pollutions and environmental management. He has published more than 180 internationally peer reviewed journal papers, with more than 13500 citations and an H-index of 55 (web of science).

KEYNOTE SPEAKERS

Prof. Steve Shirtliffe

Project Co-Lead, Crop Phenometrics Platform – Leveraging Field Phenomics tor Advancing Key Rotational Crops,

College of Agriculture and Bioresources

University of Saskatchewan, Canada

Steve Shirtliffe is a Professor in the Department of Plant Sciences at the University of Saskatchewan. Prof. Shirtliffe's primary area of research is in field crop agronomy, about which he has been conducting field-based research for over 20 years, gaining extensive experience in small plot crop agronomy. His position involves teaching, research and outreach in the areas of agronomy and weed control. Prof. Shirtliffe's past and current research projects have focused on the ecology and control of volunteer canola, cereal and pulse and oilseed agronomy, non-herbicidal weed control and agronomic applications of unmanned aerial vehicles (UAVs) or drones. Steven Shirtliffe currently works at the Department of Plant Sciences, University of Saskatchewan. Steven does research in cultural weed control, volunteer canola, crop agronomy and aerial crop imaging and phenotyping. We currently have projects in all these areas.

KEYNOTE SPEAKERS

Dr. Umakant Mishra

Principal Member of Technical Staff, Computational Biology & Biophysics

Dr. Umakant Mishra is a computational soil scientist, who studies land use and climate change impacts on soil properties and functions. Using field observations, remote sensing and environmental datasets, and geospatial and process-based modeling he quantifies anthropogenic and climatic impacts on the soil system. He has published studies on land use and climate change impacts on soil system, lifecycle analysis of bioenergy crops, spatial prediction of soil properties at regional and national scales, and benchmarking earth system model projections.

KEYNOTE SPEAKERS

Prof. Dang Van Minh

Former Deputy Director of Thai Nguyen University (TNU)
Founding member of the Institute for Agricultural and Rural Planning

Prof. Dang Van Minh has been working in Agriculture and Forestry university - Thai Nguyen University, Vietnam since 1983. He has worked in various field of education and management. He has done well on the university management and also on teaching and researching. His deep expertise focuses on soil science, with particular research on slopping agricultural land, soil quality and soil heavy metal treatment. He has published more than 100 papers in National and International Journals, 9 books and textbooks. He has conducted a lot of works with GOs and NGOs project/programs in rural development, resources and environmental protection related to sustainable agriculture, food security and food safety. His has contributed excellent works on socio-economic development in the Northern Mountainous Region of Vietnam.

KEYNOTE SPEAKERS

Assoc. Prof. Tran Minh Tien

Director of the Institute of Soils and Agrochemicals, Vietnam represented the Vietnam Soil Science Association as one of the main speakers.

Associate Professor, Dr. Tran Minh Tien was born in 27 September 1974. He has been working for the Soils and Fertilizers Institute since 1996 and holding the director position of the institute since 2020.

Dr Tien got his PhD degree in soil fertility and plant nutrition from the Copenhagen University in 2009. His main research subjects are soil fertility and plant nutrition. Dr Tien has been involved in 76 research projects (41 as project leader) since 1996, of which 6 projects are currently running. He has published 150 publications in peer-reviewed journals, scientific journals, chapters in books and proceedings.

SUBTHEMES OF SESSION

Healthy Soils for Sustainable Development

SESSION 1: **Soil Health; Soil Ecology and Biodiversity**

SESSION 2: **Soil Fertility and Plant Nutritions**

SESSION 3: **Soil Classification and Mapping; Soil Evaluation and Land Use; Information on Upland Soils; Serpentine Soils and Wetland**

SESSION 4: **Mitigation and C-Sequestration in Soil-Plant System; Land Use to Respond to Climate Change and Sea Level Rise**

SESSION 5: **Soil Poluttion; Soil Degradation and Remediation; Recent Advances in Soil Research**

SESSION 6: **Land Governance; Land Policy and Education on Land Management**

COMMITTEES

International Committee of ESAFS

Prof. Hung-Yu Lai (Chinese Society of Soil and Fertilizer Sciences - CSSFS, Taiwan)
Dr. Dipak Ranjan Biswas (Indian Society of Soil Science – ISSS, India)
Prof. Budi Mulyanto (Indonesian Society of Soil Science – ISSS, Indonesia)
Prof. Toru Fujiwara (Japanese Society of Soil Science and Plant Nutrition – JSSSPN, Japan)
Dr. Edoardo A.C. Costantini (International Union of Soil Sciences- President – IUSS)
Dr. Byung Keun Hyun (Korean Society of Soil Science and Fertilizers – KSSSF, Korea)
Prof. Rosazlin Abdullah (Malaysian Society of Soil Science – MSSS, Malaysia)
Prof. Keshav Raj Adhikari (Nepalese Society of Soil Science – NSSS, Nepal)
Dr. Karen S. Bautista (Philippine Society of Soil Science and Technology – PSSST, Philippin)
Dr. Audthasit Wongmaneeroj (Soil and Fertilizer Society of Thailand- SFST, Thailand)
Prof. S.M. Imamul Huq (Soil Science Society of Bangladesh – SSSB, Bangladesh)
Prof. Xiaoyuan Yan (Soil Science Society of China – SSSC, China)
Dr. Orchurbat Batkhishig (Soil Science Society of Mongolia – SSSM, Mongolia)
Prof. Warshi Dandeniya (Soil Science Society of Sri Lanka – SSSSL, Sri Lanka)
Prof. Vu Nang Dung (Vietnam Society of Soil Science – VSSS, Vietnam)

International Advisory Committee

- Prof. Ravi Naidu (Australia)
- Prof. Jae E. Yang (South Korea)
- Prof. Xiaoyuan Yan (China)
- Prof. Zeng-Yei Hseu (Taiwan)
- Dr. Edoardo A.C. Costantini (IUSS)
- Dr. Umakant Mishra (USA)

Local Organizing Committee - Scientific responsibility:

Chairman: Prof. Hoang Van Hung, Thai Nguyen University, Vietnam
Vice-Chairman: Prof. Nguyen The Hung, Thai Nguyen University of Agriculture and Forestry, Vietnam
Vice-Chairman: Prof. Vu Nang Dung, Vietnam Society of Soil Science
Secretary: Dr. Duong Van Thao and Dr. Nguyen Ngoc Son Hai, Thai Nguyen University of Agriculture and Forestry, Vietnam
Assistant Secretary: Dr. Nguyen Thi Giang, TUAF, Vietnam

Members of Scientific Local Organizing Committee

Assoc. Prof. Le Minh, Dr. Hoang Huu Chien, Dr. Nguyen Duy Hai, Dr. Tran Huu Tuan

Conference Secretariat

Prof. Nguyen The Hung, Dr. Mai Anh Khoa, Dr. Duong Van Thao, Dr. Nguyen Ngoc Son Hai, Dr. Nguyen Thi Giang, Dr. Nguyen Thi Thu Hoai, Dr. Tran Thanh Thuong

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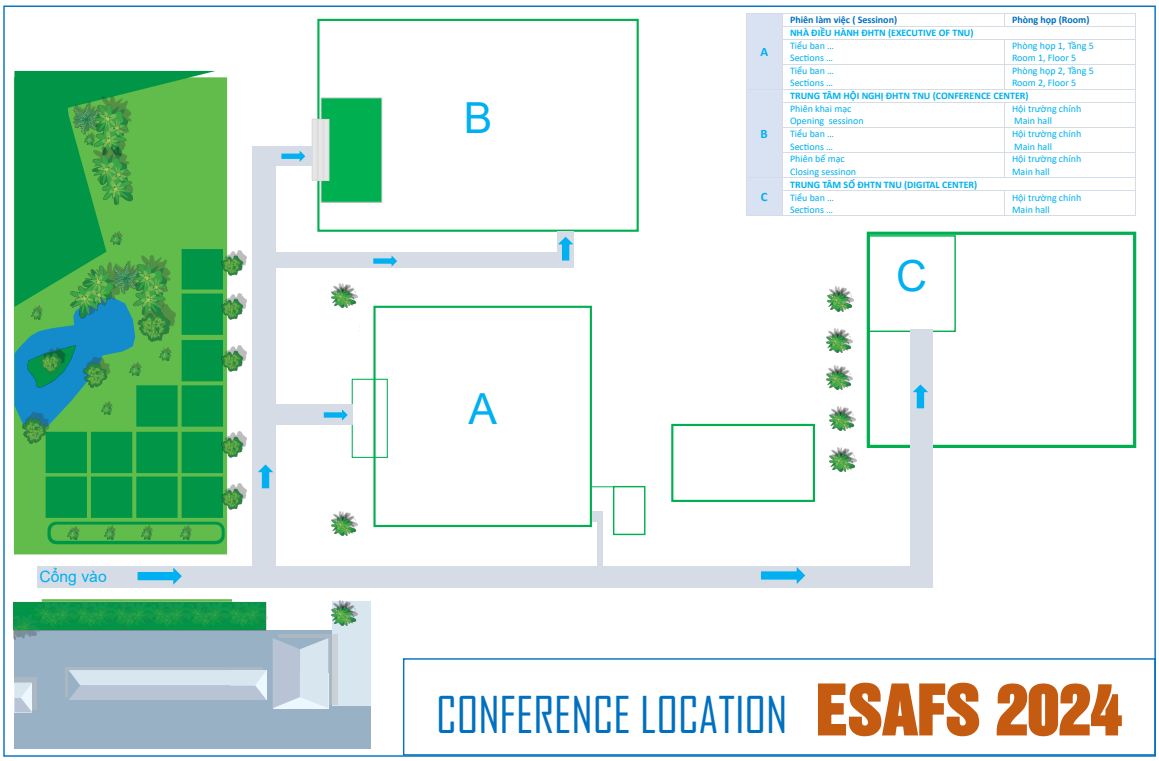
Dr. Mai Anh Khoa, Dr. Nguyen Hong Lien, Msc. Le Hoai Anh

Publicity

Dr. Duong Van Thao, Dr. Nguyen Ngoc Son Hai, Mr. Nguyen Tran Quang, Viet Bac Media

CONFERENCE VENUE LAYOUT



	Phiên làm việc (Sessinon)	Phòng họp (Room)
A	NHÀ ĐIỀU HÀNH ĐHTN (EXECUTIVE OF TNU)	
	Tiểu ban ... Sections ...	Phòng họp 1, Tầng 5 Room 1, Floor 5
	Tiểu ban ... Sections ...	Phòng họp 2, Tầng 5 Room 2, Floor 5
B	TRUNG TÂM HỘI NGHỊ ĐHTN TNU (CONFERENCE CENTER)	
	Phiên khai mạc Opening sessinon	Hội trường chính Main hall
	Tiểu ban ... Sections ...	Hội trường chính Main hall
	Phiên bế mạc Closing sessinon	Hội trường chính Main hall
C	TRUNG TÂM SỐ ĐHTN TNU (DIGITAL CENTER)	
	Tiểu ban ... Sections ...	Hội trường chính Main hall

CONFERENCE PROGRAMME

ESAFS 2024 CONFERENCE PROGRAM (DRAFT)

MONDAY, 25 March 2024	
15.00-17.00	**Registration and Welcoming Reception (May Plaza and TNU Convention Centre – Main Hall)**
18.30-20.30	**Reception Party (May Plaza)**
TUESDAY, 26 March 2024 (Convention Center, Thai Nguyen University)	
7.00-8.00	Registration
8.00-8.30	Opening ceremony , welcoming ESAFS 2024 delegates: Assoc. Prof. Hoang Van Hung Welcoming speech by Assoc. Prof. Hoang Van Hung (ESAFS 2024 Chairman) Welcoming speech by Dr. Edoardo A.C. Costantini (President, International Union of Soil Sciences- President – IUSS) Welcoming speech by Prof. Vu Nang Dung Vice-Chairman, President of Vietnam Society of Soil Science (VSSS), Vietnam Welcoming speech by FAO Dr. Nguyen Dinh Cong
Keynote Speech Chairman: Prof. Nguyen The Hung/ Prof. Toru Fujiwara	
8.30-9.00	Keynote Speech 1 Prof. Steve Shirtliffe (Canada) Title: Precision agriculture in soil, plant nutrition and fertilizers.
9.00-9.30	Keynote Speech 2 Prof. Xiaoyuan Yan (China) Title: How to Achieve Carbon Neutrality in Staple Food Production in China
9.30-10.00	Keynote Speech 3 Dr. Umakant Mishra (USA) Title: Current knowledge on the storage and fate of organic carbon in global soils.
10.00-10.30	Tea Break
10.30-11.00	Keynote Speech 4 Prof. Dang Van Minh (Vietnam) Title: Heavy metal pollution: Current situation, challenges and solutions for agricultural land in Vietnam
11.00-11.30	Keynote Speech 5 Assoc. Prof. Tran Minh Tien (Vietnam) Soil health in Vietnam - Current status and solutions
12.00-13.30	Lunch (TNU Convention Centre – Main Hall)
13:30-16:30 In-conference Educational Trip. Tuesday, March 26, 2024 Chair: Prof. Dang Van Minh/Dr. Hoang Huu Chien	
13.30-16.30	**In-conference Educational Trip in the ESAFS 2024 conference** Chair: Prof. Dang Van Minh
18.30-21.00	**Farewell Dinner (Sen Ho Botanic Gardens)** Chair: Dr. Mai Anh Khoa

ORAL PRESENTATION SESSION

WEDNESDAY, 27 March 2024 (Convention Center, Thai Nguyen University)				
Room	**TNU's Meeting Room A1**	**TNU's Meeting Room A2**	**TNU's Meeting Room A3**	**TNU's Meeting Room A4**
Session	**Session 1 : Soil health; Soil ecology and Biodiversity**	**Session 2 : Soil fertility and Plant nutritions**	**Session 3: Soil classification and mapping; Soil evaluation and land use; Information on upland soils; Serpentine soils and Wetland**	**Session 4: Mitigation and C-Sequestration in soil-plant system; Land use to respond to climate change and sea level rise**
Chair Persons	**Prof. Byung Keun Hyun / Dr. Nguyen Dinh Cong**	**Prof. Steve Shirtliffe/ Assoc. Prof. Nguyen Minh Tien**	**Prof. Zeng-Yei Hseu / Prof. Dang Van Minh**	**Prof. Xiaoyuan Yan/ Dr. Umakant Mishra**
8.30 - 8.45	OS1-1 **Evaluating the Potential of Rice-Based Spent Mushroom Substrate (SMS) Combined with Chicken Manure and Liquid Organic Plant Supplement as Soil Conditioner** Rojales, J.S., Dimaano,V.T. , Allag, D.R., Cortez, L.A., Arciaga, J.P., Samar, E.D and Bautista, K.S.	OS2-1 **Effect of applying organic fertilizer made from chicken manure on soil fertility** Lee, Y.C. & Lai, H.Y	OS3-1 **Fractionation and potential risk of rare earth elements in soils derived from felsic to ultramafic parent rocks** Wu, C.Y., Yang, C.Y. , Cascante, M.D. , Liao, W.A. , Hum, H.Z. , Wu, J.Y., Huang, K.F. & Hseu, Z.Y.	OS4-1 **The impact of basalt powder application on soybean yield and soil chemical properties on a field scale in Hokkaido, Japan** Hiroshi Uchibayashi, Ayaka Wakao, Yang Yilin, Gen Kosaka, Yan Zhou, Mona Hironaka, Yo Toma, Shoichiro Hamamoto, Atsushi Nakao, Hayato Maruyama, Toshihiro Watanabe, Takuro Shinano
8.45 - 9.00	OS1-2 **The effects of multiple inter-tillage weeding on greenhouse gas emissions in no fertilizer and pesticide rice paddy field- Results from four consecutive years** Namie, H., Shimada, K., Zhao, S., Toma, Y., Ishiguro, M., Hatano R.	OS2-2 **Cyclical use of unutilized organic fertilizer resources in a region. - An estimation it Tainai, Niigata, Japan** Shin-ichiro Mishima1	OS3-2 **Effects of drip irrigation and nitrogen management on maize yield and soil nitrous oxide emissions under equal nitrogen** Wei Xiao, Fusheng Li	OS4-2 **Roles of Soil Particle and Soil Aggregate Size Distribution on Organic Carbon Sequestration under 46-years Long-term Experiment in Thailand** Tantarawongsa, P., Chidthaisong, A. , Aramrak S., Sriphiroom P., Nobuntou W., and Amonpon W.

9.00 - 9.15	OS1-3 **Soil Tillage and Application of Organic Materials on Oil Palm Plant disc and their Effects on Soil Properties** Sabrina, T, Sembiring, M, and Nyak Akoeb, E	OS2-3 **Bioavailability and Physiological Effects of Ce, Gd, and Y to Brassica rapa in Soil-plant System** Wu, P.H. & Hseu, Z.Y.	OS3-3 **Nitrogen cycling patterns in tropical forests: A comparative study of Oxisols and Ultisols under similar soil acidity** Shibata, Johno, Watanabe, Nguyen, H.L & Funakawa	OS4-3 **Effect of different organic fertilizer on soil organic carbon transformation and soil CO2 emission** Yilin Yang, Norikazu Yamaki, Katsuro Taira, Masato Kawai, Yo Toma
9.15 - 9.30	OS1-4 **Field-scale soil salinity prediction using machine learning algorithms in the prairie area of Saskatchewan, Canada** Ha, T., Nketia, K.A., Fernando, F., Shirtliffe, S.J.	OS2-4 **Differences in properties and greenhouse gas emissions between aerobic and anaerobic composting of cattle waste in Central Vietnam** Tran Thi Minh Chau, Takashi Someya, Satoshi Akao, Masato Nakamura, Fumiko Oritate, Hiroaki Somura, Nguyen Thi Minh Nga, Nguyen Duc Huy, Morihiro Maeda	OS3-4 **Soil correlation for soil properties prediction** Vo Quang Minh , Le Dang Long , Pham Huu Phuoc, Pham Cam Dang , Mai Nhut Au	OS4-4 **Factors affecting the amounts and turnover rates of soil organic carbon fractions in paddy fields across Asian countries** Yanai, J. Suzuki, A., Nakao, A., Tanaka, S., Wagai, R., Sriprachote, A., Timbas, N., Tan, N.P., Vista, S.P., Paneru, P., Hseu, Z.Y., Kim, P.J., Arai, H & Tayasu, I.
9.30 - 10.00	**Tea Break**			
Session	**Session 1 : Soil health; Soil ecology and Biodiversity (Continue)**	**Session 2 : Soil fertility and Plant nutritions (Continue)**	**Session 3: Soil classification and mapping; Soil evaluation and land use; Information on upland soils; Serpentine soils and Wetland (Continue)**	**Session 4: Mitigation and C-Sequestration in soil-plant system; Land use to respond to climate change and sea level rise (Continue)**
Chair Persons	**Prof. Jae E. Yang/ Assoc. Prof. Mai Van Trinh**	**Prof. Keshav Raj Adhikari/ Dr. Ha Xuan Linh**	**Prof. Zeng-Yei Hseu /Dr. Nguyen Quoc Dinh**	**Prof. Hung-Yu Lai / Prof. Vo Quang Minh**
10.00 – 10.15	OS1-5 **Conservation Agriculture minimizes negative nitrogen balance and increases nitrogen use efficiency and soil carbon stock in rice paddy systems**	OS2-5 **Mineral contents in agricultural soils determined by X-ray powder diffraction analysis and their relations to selected soil properties in Japan**	OS3-5 **Overview of soil-based functions in serpentine ecosystem** Hseu, Zeng-Yei	OS4-5 **Soil Carbon Check: A Tool for Monitoring Soil Carbon Sequestration and Giving Guidance for Soil Health Solutions**

	M. Jahiruddina, M. M. R. Jahangira, M. A. Kaderbc, M. A. Haqued, M.E. Haque,c, and R.W. Bellc	Kurokawa Kohei, Atsushi Nakao, Kazuki Azuma, Atsuhito Suzuki,Shigeto Fujimura, Shokichi Wakabayashi, Junta Yanai		Chon, N.Q., Reijneveld, J.A., van Oostrum, M.J., Brolsma, K.M.&
10.15 – 10.30	OS1-6 **Some organic manures contribute excellent charges on soil system and improve crop productivity** Dr. Sanjib kar	OS2-6 **Effect of organic matter application on the nitrogen budget in a field with paddy–upland rotation on gray lowland soil in northern Japan** Takakai, F, Kohsaka, Y, Yamamoto, A., Suzuki, S, Kanamaru-Ogaya, S., Aono, Y., Hatakeyama, K., Nakagawa, S., Tanaka, S., Kaneta, Y., Sato, T.	OS3-6 **Modeling for the smart and rapid screening fertility of rural soils from serpentines in Taiwan and Vietnam** Yang, C.Y. and Hseu, Z. Y.	OS4-6 **Effect of long-term land management and residue quality on in-situ SOC accumulation in Andosols, Japan, by using 13C/15N-labeled residue** Hideaki Yasuno, Haruo Tanaka, Soh Sugihara
10.30 – 10.45	OS1-7 **Change of Population and Characteristics of Non-Symbiotic Bacteria in Tropical Peat soil by Application od Soil Ameliorant and Nitrogen Fertilizer** Joko Tandiono, Thamrin, Hapsoh, Trisla Warningsih & Sharakbah Yacob	OS2-7 **The double pot technique identified multiple nutrient deficiencies in sands of south-central coastal Vietnam for crop production** Hoang, T.T.H., Nguyen, V.B., Trinh, T.S., Mann, Surender & Bell, R.	OS3-7 **Effects of AigamoRobo, Automatic Weed Supression Robot, in an organic paddy field** Mizuhiko Nishida, Ayako Sasaki, Yoshiki Tokonami	OS4-7 **Studies on the use of locally available (Coxs Bazar and Saint Martin) renewable seaweed wastes as compost organic fertilizer resources** Durlave Roy
10.45 – 11.00	OS1-8 **The effects of multiple inter-tillage weeding on greenhouse gas emissions in no fertilizer and pesticide rice paddy field-Results from four consecutive years** Namie, H., Shimada, K., Zhao, S., Toma, Y., Ishiguro, M., Hatano R.	OS2-8 **Investigation of Rice Husk Biochar Application with or without Organic Manures and their Effects on Soil Chemical Properties Changes, Growth of Paddy Rice and Greenhouse Gas Emissions** War War Mon, Hideto Ueno	OS3-8 **Geochemical Characterization of Soils in the Ophiolite Complex of Eastern Taiwan** Cascante, M.D., Wu, C.Y., Hum, H.Z., Yang, C.Y., and Hseu, Z.Y	OS4-8 **Carbon sequestration and formation of stable carbon stock depends on some chemical components of soil which can control climate change** Dr. Sanjib kar
11.00 – 11.15	OS1-9 **Characterizing soil bacteria targeting to**	OS2-9 **Cyclical use of unutilized organic**	OS3-9 **Modeling for the smart and rapid**	OS4-9 **Soil Health, Carbon Storage (Topsoil and**

	develop a biofertilizer to reduce the use of inorganic phosphorous fertilizers in paddy cultivation Jeewanthi, P.B.D., Dandeniya Warshi.S.	**fertilizer resources in Japan.- Feasibility of "Strategy for Sustainable Food System"** Shin-ichiro Mishima	**screening fertility of serpentine soils in Eastern Taiwan** Yang, C.Y. and Hseu, Z. Y.	**Subsoil), and Crop Yield Improved by Biochar: A Solution for Carbon Farming** Nguyen Van Hien, Nguyen Cong Vinh, , Tran Sy Hai, , Nguyen Thi Thanh Tam, Mai Thi Lan Anh, Nguyen Thi Van, Tong Thi Phu, Joshep Stephen
11.15 - 11.30	OS1-10 **Preliminary assessment through contributions of organic farming to a sustainable environment** Darshini, R, Denison, J., and Eruthaiaraj, K	OS2-10 **Prediction of Plant Available Nutrient Levels Soil Using EC sensor** Su Kyeong Sin, Jeong Yeon Kim & Jin Hee Park	OS3-10 **Establishing geochemical baseline and threshold for major and trace elements in Lao Cai agricultural soil** Pham Thi Dung, Tran Tuan Anh, Tran Minh Tien, Pham Thanh Dang, Nguyen Thi Lien, Nguyen Xuan Qua, Doan Thu Tra, Vu Hoang Ly, Dang Minh Tuan, Tran Trong Hien, Tran Dang Tuan, Nguyen Trong Tai	OS4-10 **Vietnam's Forest Carbon Pools and Implication for Climate Change Mitigation** Do Dinh Sam, Vu Tan Phuong, Ngo Dinh Que
11.30-11.45	OS1-11 **Soil microbial community, carbon use efficiency and turnover rate under different soil pH in Subtropical Okinawa, Japan** Sugihara S , Fuchigami K , Seki M, Jegadeesan M , Kannan P, Hamamoto T , Ikazaki K , Arai M, Tanaka H	OS2-11 **Potential of reducing greenhouse gas emissions in rice production from improved water and rice residue managements: a case study from Vietnam** Dao Trong Hung, Nguyen Quang Hai, Markus Keck &Daniela Sauer	OS3-11 **Cross-validation Approaches for Evaluation of Landslide Susceptibility Map Accuracy** Van-Trung Chu, Shou-Hao Chiang, and Tang-Huang Lin, Ngoc-Anh Nguyen, Nguyen Quang Thi	OS3-11
10.30-11.30	**Parallel ESAFS Business Meeting during the Conference with the Presence of President of Member Countries** **Chairman: Prof. Nguyen The Hung/ Prof. Vu Nang Dung**			
12.00 - 13.30	**Lunch party (TNU Convention Centre – Main Hall)**			

WEDNESDAY, 27 March 2024 (Convention Center, Thai Nguyen University)				
Room	**TNU's Meeting Room A1 (C Building)**	**TNU's Meeting Room A2**	**TNU's Meeting Room A3**	**TNU's Meeting Room A4**
Session	**Session 5: Soil poluttion; Soil degradation and remediation; Recent advances in soil research**	**Session 2 : Soil health; Soil ecology and Biodiversity (Continue)**	**Session 6: Land governance; Land policy and Education on land management**	**Session 4: Mitigation and C-Sequestration in soil-plant system; Land use to respond to climate change and sea level rise (Continue)**
Chair Persons	**Prof. Keshav Raj Adhikari / Prof. Vu Nang Dung**	**Prof. Toru Fujiwara/ Prof. Phan Lieu**	**Prof. Warshi Dandeniya / Prof. Hoang Thi Thai Hoa**	**Prof. Rosazlin Abdullah / Prof. Nguyen Ngoc Minh**
13.30-13.45	OS5-1 **Influence of organic amendments on soil properties and bioavailability of heavy metals in the contaminated soil** K.S. Chen & H.Y. Lai	**OS2-11** **The effect of composted and pelleted quail manure on soil nitrogen mineralization.** Yeh, C.Y. & Lai, H.Y.	OS6-1 **Development of comprehensive soil education package for achieving SDGs** Kosaki, T. , Asano, Y. , Mori, K. Kadono, A. , Asano, M. , Toyota, A. , Niwa, K. and Osawa, S.	OS7-1 **Effects of plant residues quality on C accumulation patterns in the converted cropland soil from lowland paddy field in Japan** Le Van Dang, Matsuura S., Wagai R., Yasuno, H., Tanaka H., Sugihara, S.
13.45-14.00	OS5-2 **Influence of long-term fertilization on clay mineral transformation in variable charge soils areas** Liang Tao, Hui Li, Yuji Jiang & amp; Dong Liu	OS2-12 **Chemical speciation and phyto-availability of legacy phosphorus in rice paddy soils in Taiwan** Shibata, M., Johno, S., Watanabe, S., Nguyen, H.L. & Funakawa, S.	OS6-2 **Determination of Tropical Peat Soils Humification Degree using Field Emission Scanning Electron Microscope equipped with Energy Dispersive X-Ray and Digimizer** Izzatul Akmal Azmi , Nur Qursyna Boll Kassim , Soon Kong Yong & Osumanu Haruna Ahmed	OS7-2 **Application of CLUE-Mondo and SWAT models to assess land use and climate change impacts on hydrological process and potential soil erosion in Ba river basin of central highland of Vietnam** Ngo Thanh Son , Hoang Le Huong , Vu Thanh Bien, Nguyen Thu Ha , Nguyen Duc Loc
14.00-14.15	OS5-3 **Enhance the Detoxification and Adsorption Capacity of Thermoacidophilic Microalgae Cyanidiales by**	OS2-13 **Free Energy change of ion exchange reactions and cation exchange capacity estimated the potassium movement**	OS6-3 **Assessing current land use of priorities for change in Nam Nan catchment, Lao PDR** Vu Dinh Tuan, Vu	OS7-3 **Carbon sequestration in mangrove plantation sediment in Red River Mouth, Northern Vietnam**

	Oxidizing Fe(II) under Anaerobic and Acidic Conditions. Nhu Anh Thi Than , Yen-Lin Cho , Yu-Ting Liu	**and status in soil** Sourav khan and Sanjib Kar	Van Tuan, Nguyen Ngoc Khanh, Phan Ngoc Minh, Sengvilayvanh Singthavikhoune	Ha Thi Hien and Nguyen Thi Kim Cuc
14.15-14.30	OS5-4 **Silicon supplementation for sustainable yield of crops in coastal unfavorable ecosystem of Bangladesh** Haque MA, Hoque MF, Jahiruddin M, Hossain MB, Haque ME, and Bell RW	OS2-14 **Effect of soil P level on in-situ sugarcane-AMF symbiosis P absorption in tropical alkaline soil, Okinawa, Japan** Ishii Haruki, Ezawa T, Nakamura M, Miyamaru N, Tanaka H, Sugihara S	OS6-4 **Enhancing Soil Temperature Determination using Novel Remote Sensing Indices** Bui, H.A., Liou, Y.A.	OS7-4 **Agroforestry provides long-term income and sustainability over monoculture in Northwest Vietnam** Nguyen La, Hung Van Do.
14.30-14.45	OS5-5 **Application of phytoremediation and chelates to remediate heavy metal contaminated soils in Thai Nguyen mining sites** Hai N.N.S., Peter S., Nong N.N., Ravi N.	OS2-15 **Free Energy change of ion exchange reactions and cation exchange capacity estimated the potassium movement and status in soil** Dr. Sanjib kar	OS6-5 **Differences in properties and greenhouse gas emissions between aerobic and anaerobic composting of cattle waste in Central Vietnam** Tran Thi Minh Chau, Takashi Someya, Satoshi Akao, Masato Nakamura, Fumiko Oritate, Hiroaki Somura, Nguyen Thi Minh Nga, Nguyen Duc Huy, Morihiro Maeda	OS7-5
14.45-15.00	OS5-6 **A novel new T-FACE research platform advancing climate change simulation in paddy fields** Prof. Chunwu Zhu: Wei Zhou, Chuang Cai, Lian Song, Gang Liu, Chunwu Zhu	OS2-16 **Effect of rhizosphere nutrient levels on cherry tomato growth and fruit characteristics in a greenhouse** Jeong Yeon Kim, Su Kyeong Sin, Jongwon Park & Jin Hee Park	OS6-6 **Factors affecting the knowledge capacity of cadastral officials in land management in A Luoi district, Thua Thien Hue province** Le Ngoc Phuong Quy, Duong Thi Thu Ha, Tran Trong Tan, Nguyen Thi Hai, Pham Huu Ty, Ton Nu Tuyet Trinh, Le Dinh Huy, Le Viet Linh, Ho Thi Tuyet Trinh	OS7-6
15.00-15.30	**Tea Break**			

Chair Persons	**Dr. Dipak Ranjan Biswas / Dr. Nguyen Dinh Cong**	**Dr. Audthasit Wongmaneeroj / Dr. Nguyen Ngoc Son Hai**	**Assoc.Prof. Pham Quang Ha /Dr. Nguyen Thanh Hai**	**Dr. Karen S. Bautista / Dr. Hoang Huu Chien**
	Session 5: Soil poluttion; Soil degradation and remediation; Recent advances in soil research (Continue)	**Session 1 : Soil health; Soil ecology and Biodiversity (Continue)**	**Session 3: Soil classification and mapping; Soil evaluation and land use; Information on upland soils; Serpentine soils and Wetland (Continue)**	**Session 2: Soil fertility and Plant nutritions (Continue) + Session 5: Soil poluttion; Soil degradation and remediation; Recent advances in soil research (Continue)**
15.30-15.45	OS5-7 **Research on measures to reduce soil degradation for vegetable and flower cultivation in ferralitic soil in the Central Highlands region in Vietnam.** Le M. Chau, Lam V. Ha, Le T. Binh, Dang M. Nguyet	OS2-17 **Contribution of different catalytic types of peptidases to soil proteolytic activity** Nguyen Thi Huyen Trang, Markus Kleber, David D. Myrold	OS6-7 **Soil degradation status on different land use types in Can Tho province, Viet Nam** Le Dang Long, Tran Van Hung, Pham Thanh Vu, Nguyen Van Hieu,, Nguyen Trung Hieu, Pham Cam Dang, Pham Thi Thuy Kieu, Vo Quang Minh	OS7-7 **Evaluating the Potential of Alternative Organic Fertilizers in Japan's Strategy for Sustainable Food Systems** Shin-ichiro Mishima
15.45-16.00	OS5-8 **Sediment microbial fuel cells with iron addition for reduction of phosphorus release in agricultural areas** Morihiro Maeda, Gamamada Liyanage Erandi Priyangika Perera, Nguyen Tu Uyen & Tesfau Bekele	OS2-18 **Digital soil mapping of Soil pH in the Wet Zone of Sri Lanka** Vitharana, U.W.A, Mishra U. and Dhananjaya R.G.B.	OS6-8 **Assessing Land Suitability for Major Crops and Proposing to Convert Cultivation Structure On Agricultural Production Land Area of Nhu Xuan District, Thanh Hoa Province** Nguyen Thi Hue, Ha Manh Thang, Mai Van Trinh	OS7-8 **Effect of rice cultivation on abundance of iron-reducing bacteria in paddy soils** Li-Yen Lin, Zhihang Feng, Hikaru Asano, Yoshihiro Ohmori, Hirotomo Ohba, Yoko Masuda, Keishi Senoo, Toru Fujiwara
16.00-16.15	OS5-9 **Water erosion mitigation practices in the agricultural highlands of Thua Thien Hue province** Le Dinh Huy, Makoto	OS2-19 **Growth of Seedlings of Garcinia atroviridis Griff ex T. Anders on Various Growing Media and Applications of Catappa Leaf Extract**	OS6-9 **Situation of Land Use Management in the New Rural Construction in Trang Bom District, Dong Nai Province**	OS7-9 **Electrokinetic Remediation for Mercury Removal from Contaminated Soil** Huu-Tuan Tran,

	Shibata, Nguyen Van Binh, Shinya Funakawa	T. Sabrina, Mariani Sembiring, T. Irmansyah	Mai Hai Chau	Chitsan Lin, Ngoc Son Hai Nguyen, Manh Ha Bui*, Hong-Giang Hoang
16.15 –16.30	OS5-10 **Application of Spent Coffee Grounds Can Increase Soil and Clay Losses** Do Hong Nhung, Mai V. Ha, Anh T.Q. Nguyen, Minh N. Nguyen	OS2-20 **Nematodes associated with citrus in the Mekong delta and development of a quantitative detection method for Tylenchulus semipenetrans Cobb in soil by real-time PCR assay** Sinh, N.V., Toyota, K., Long, N.T., Trung, N.H., Phuc, P.N.C., Tran, T.H., Ngan, D.T.N., Hung, D.G. & Phuong, N.T.K.	OS6-10 **World Reference Base for Soil Resources – scientific and educational challenges related to "illustrated" databases** Świtoniak, M. & Charzyński, P	OS7-10 **4 per 1000 Initiative in Bangladesh: An Important Agenda of Soil Health Restoration** Uddin, M. J., Aurnab, I. T.
16:30-17:20	**Poster Section**			
17.20-17.30	**Awarding prizes in ESAFS 2024 Award, Certificates and Award prizes in the Presentation Competition: Poster Presentation Award** **Chair: Assoc. Prof. Hoang Van Hung** **Convention Center, Thai Nguyen University**			
17.30-17.45	**Closing speech and Awarding country for the 16th Organization of ESAFS 2026** **Chair: Prof. Nguyen The Hung** **Convention Center, Thai Nguyen University**			
18.00-21.00	**Gala dinner** **Chair: Assoc. Prof. Hoang Van Hung** **May Plaza Hotel**			

POSTER PRESENTATION SESSION

TUESDAY, 26 March 2024 (Convention Center, Thai Nguyen University)	
8.00-8.30	**Poster Session 1 (34 Posters)** **TNU Area Poster Place 1**
S1A	**PS1A-1** **Evaluating the Potential of Rice-Based Spent Mushroom Substrate (SMS) Combined with Chicken Manure and Liquid Organic Plant Supplement as Soil Conditioner** Rojales, J.S., Dimaano,V.T. , Allag, D.R., Cortez, L.A., Arciaga, J.P., Samar, E.D and Bautista, K.S.
	PS1A-2 **The development of a national soil health strategy and action plan for Vietnam** Nguyen Dinh Cong, Nguyen Song Ha, Caon Lucrezia, Tran Minh Tien, Tran Minh Thu

	PS1A-3 **Chemical speciation and phyto-availability of legacy phosphorus in rice paddy soils in Taiwan** Shibata, M., Johno, S., Watanabe, S., Nguyen, H.L.& Funakawa, S.
	PS1A-4 **Agricultural Soil Fertility Assessment Model and Grading** Yoon, Jeong , Jeong , Nam , Lee J.G., Kim, H.S., Kim, M.S. & Yang, J.E
	PS1A-5 **Assessing the potential for sustainable nitrogen utilization in clay-enhanced chicken manure** Chen Ting-Yu and Lai, H.Y
S1B	**PS1B-1** **Potential use of soil improvement microbial preparation for fruit trees** Nguyen Thu Ha, Nguyen Viet Hiep, Dang Thuong Thao, Truong Thi Duyen
	PS1B-2 **Research on methods to produce slow-release N, P, K fertilizers which was using silica-biochar materials from rice straw as a substrate** Nguyen X. Huan, Tran T.M. Thu, Nguyen N. Minh, Tran M. Tien
	PS1B-3 **The effect of composted and pelleted quail manure on soil nitrogen mineralization** Yeh, C.Y. & Lai, H.Y.
	PS1B-4 **The impact of chicken manure processing fertilizers made from chicken manure bedding material with various agricultural byproducts on soil properties and growth of pak choi** Yang, M.Q., Hsu, Y.H. & Lai, H.Y.
	PS1B-5 **Effect of applying organic fertilizer made from chicken manure on soil fertility and the growth of Brassica chinensis L. cv. Wrinkled leaf** Lee, Y.C. & Lai, H.Y
S1C	**PS1C-1** **Short-term impact of agricultural plastic mulches on soil labile carbon and available phosphorus in chilli (Capsicum annuum) cultivation in Sri Lanka** Dias, P.A.M., Gimhani, T.D.M., Chathurika, J.A.S., Ariyarathne, M., Karunarathna, A., Perera, C., Jones, D.L. & Chadwick, D
	PS1C-2 **Effect of decomposer enriched City Waste Compost application on growth and Yield of broccoli** Sabina Devkota and Parbati Adhikari
	PS1C-3 **Effects of continuous application of rice straw and cow-dung compost on soil fertility and rice yield in paddy fields** Yuka Sasaki, Makoto Chuzenji, Nguyen Thanh Tung and Ken-ichi Kakuda
	PS1C-4 **Assessing Land Suitability for Major Crops and Proposing to Convert Cultivation Structure On Agricultural Production Land Area of Nhu Xuan District, Thanh Hoa Province** Nguyen Thi Hue, Ha Manh Thang, Mai Van Trinh

	PS1C-5 **Application of Data Mining Techniques and GIS to Assess Suitable Land for Mango Cultivation in Cho Moi District, An Giang Province** Nguyen Huy Anh, Nguyen Trinh Minh Anh, Nguyen Phu Cuong
S1D	**PS1D-1** **Applying machine leaning to produce Soil Organic Carbon Stock map of Vietnam** Vu Manh Quyet, Nguyen Dan Tri, Tran Minh Tien
	PS1D-2 **Verifying the Semi-quantitative Soil Classification System of Vietnam Based on Soil Monoliths from the Vietnam Soil Museum** Nguyen Thanh Tuan, Ho Quang Duc, Le Thai Bat, Le Anh Tuan & Tran Thuy Chi
	PS1D-3 **Northeast Hilly Land Classification According to Fao-Unesco-Wrb Quantitative Method** Nguyen Van Toan, Nguyen Vo Kien, Duong Thanh Nam, Vu Xuan Thanh, Nguyen Thi Ha, Vu Anh Tu, Vu Xuan Thanh, Nguyen Thi Ha, Duong Thanh Nam
	PS1D-4 **Effects of rice straw mulching on trophic structure and metabolic footprints of the nematode community belowground in an alternative upland-paddy rice system** Sinh, N.V., Brooke, K., Jessica R., Hao, V.A., Thinh, N.Q., Chan, P.B., Thy, C. T. A., Phuong N.T.K., Toyoda, K. & Nghia, N.K.
	PS1D-5 **Effects of cultivation activities on deep earthworm density in the citrus orchards** Nguyen V. Hiep, Nguyen M. Hung
S1E	**PS1E-1** **Heat stress tolerance on Cucurbitaceae plant and biocontrol activity on plant parasitic nematode by endophytic fungus isolated from weeds growing under asphalt conditions** Saya Nakano, Ryota Kataoka
	PS1E-2 **Current situation and solutions to promote digital conversion of land indicators in organic agricultural production** Luyen Huu Cu, Pham Minh Hanh, Le Thai Bat
	PS1E-3 **Apply electromagnetic induction method in precise agriculture** Phan Thien Huon, Phan Thien Huong, Huu Tran, Duy Nguyen
	PS1E-4 **Prediction of Soil Organic Carbon by Vis-NIR spectrometry in Tropical and Subtropical Areas** Wu, P.H., Huang, Y.C., Wu, C.Y. & Hseu, Z.Y.
	PS1E-5 **Soil degradation status on different land use types in Can Tho province, Viet Nam** Le Dang Long , Tran Van Hung, Pham Thanh Vu, Nguyen Van Hieu, Nguyen Trung Hieu, Pham Cam Dang, Pham Thi Thuy Kieu, Vo Quang Minh
S1F	**PS1F-1** **Spatial analysis of land quality of agricultural land use types in Bac Lieu province** Nguyen Van Pho , Le Dang Long , Vo Quang Minh

	PS1F-2 **Spectroscopy and potential for soil study in the Mekong Delta, Viet Nam** Huynh Thi Thu Huong , Pham Cam Dang , Ngo Xuan Anh , Le Thanh Quyen , Nguyen Hong Phuc , Hua My Thuong, Vo Quang Minh
	PS1F-3 **Use of RothC model to predict the spatial and temporal changes in soil organic carbon sequestration potential in central Taiwan** Chien-Hui Syu, Yen, C.C. & Yang, B.J.
	PS1F-4 **Effect of Rice Straw Compost Treatment Levels on Soil Organic Matter Content and Rice Yield in Long-Term Experiment Paddy Soil** So Ye Han, Sangho Jeon, Jin-Ju Yun, Seong Heon Kim, Jay Hong Shim, Yun-Hae Lee, So ye Han, Soon ik Kwon, Byung Keun Hyun
	PS1F-5 **Greenhouse Gas Emission from Rice Cultivation in Different Soil and Ecological Conditions in Vietnam** Mai Van Trinh, Bui Thi Phuong Loan, Vu Thi Hang, Dinh Quang Hieu and Vu Duong Quynh
S1G	**PS1G-1** **Impact of rice straw Incorporation and Indigenous Microorganisms (IMO) on soil carbohydrate and nitrogen mineralization in a long-term paddy soil** Nguyen Thi Linh Phuong, Do Hong Hanh, Tran Thi Phu, Doan Chi Cuong, Vo Van Minh & Nguyen-Sy Toan
	PS1G-2 **Development of calibration curves of SOC stocks for different cropland types with BD expressed in a function of OC** Juang Kai-Wei. Fu, C.M., Sie, Y.C. , Tsai, T., Lin J.J., Hsu, Y.T.; Juang, K.W.
	PS1G-3 **Paddy field irrigation for soil total organic carbon and nitrogen form analysis** You-Cheng Chen; Shan-Li Wang
	PS1G-4 **Effects of flooding on land resources in coastal areas of Quang Ninh province under climate change conditions and proposed solutions for sustainable land use** Viet NQ, Hung PA
8.00-8.30	**Coffe Break and Poster Session 2 (34 Posters)** **TNU Area Poster Place 2**
S2A	**PS2A-1** **Developing land fund for urbanization in the context of climate change in Ho Chi Minh City** Truong Do Thuy Linh, Do Thi Tam, Vu Xuan Cuong, Xuan Thi Thu Thao
	PS2A-2 **No-tillage paddy rice can significantly reduce fuel consumption and working time but cause a decrease in rice yield** Nguyen Thanh Tung, Luc, Q.C., Katahira, M.
	PS2A-3 **Assessment the difference in heavy metal contamination between Geoaccumulation Index and Contamination Index** Jae Young Jeong, Sang Phil Lee, Seok Soon Jeong, Young Don Lee, Chan Gyu Lee, Byung Jun Park, Jun Gyu Lee, Jay E Yang, Hyuck Soo Kim

	PS2A-4 **Effects of raw gypsum and its combination with other amendments on the immobilization of As, Cd, and Pb in soil** Chaw Su Lwin, Mina Lee, Namhee Yi, Taehee Beak, Kwon-Rae Kim
	PS2A-5 **Evaluation of Heavy Metal Stabilization in Contaminated Soil by Combined Application of Compost and Phosphogypsum** Taehee Baek, Namhee Yi, Mina Lee, Chaw Su Lwin and Kwon-Rae
S2B	**PS2B-1** **Molybdenum speciation in paddy soils and its uptake and accumulation by rice plants** Yang, P.T., Wang, S,L
	PS2B-2 **Effect of combined treatment of red mud and gypsum for metal(loid)s immobilization in acidic and alkaline soils** Mina Lee, Chaw Su Lwin, Namhee Yi, Taehee Baek & Kwon-Rae Kim
	PS2B-3 **Effects of CO2 and temperature on the release of arsenic from high arsenic biochar** Nguyen Thi Quynh Anh, Hoang, T.T.T & Nguyen, M.N.
	PS2B-4 **Soil degradation status on different land use types in Can Tho province, Viet Nam** Vo Quang Minh , Pham Thanh Vu , Tran Van Hung , Nguyen Van Hieu , Nguyen Trung Hieu , Pham Cam Dang , Pham Thi Thuy Kieu
	PS2B-5 **Application of biochar derived from different agricultural waste to improve soil quality in Thai Nguyen** Duong Minh Ngoc, Nguyen Kieu Anh, Dang Van Minh, Nguyen Chi Hieu, and Nguyen Duy Hai
S2C	**PS2C-1** Environmental quality of rice growing land in Bac Ninh province (Vietnam): Current status and some solutions for reasonable use and protection Pham Huong Giang, Nguyen Thanh Mai, Nguyen Phuong Lien
	PS2C-2 **Evaluation of heavy metals (As, Cd, Cu, Pb, Zn) accumulation in native plants growing on contaminated Thai Nguyen sites, Vietnam** Hai N.N.S., Peter S. Jianhua D. , Fangjie Q. , Nong N.N, Nanthi B., Ravi N.
	PS2C-3 **Factors affecting the adsorption capacity of mg/al layered double hydroxides composite zeolite (mg/al ldh-zeolite) on heavy metals in contaminated soil in Vietnam** Nguyen Thi Bich Hanh
	PS2C-4 **Screen for stable low-risk rice genotypes for As based on environment-genotype interaction, food quality standard, and health risk assessment** Bo-Ching Chen, Juang, K.W., Tsai, T., Syu, C.H.
	PS2C-5 **Assessment Of Soil Pollution In Industrial Zones: Case Study At Industrial And Minerals Exploitation Area In Dak R'lap District, Dak Nong Province, Vietnam** Nguyen Thuy Cuong, Nguyen Van Hiep, Nguyen Ba Lam, Nguyen Xuan Vung

S2D	**PS2D-1** **Biodegradation of nitenpyram insecticide by endophytic bacterium Bacillus thuringiensis strain NIT-2, isolated from neonicotinoid-treated plant** Md. Tareq Bin Salam, Ryota Kataoka
	PS2D-2 **Predicting 137Cs and 90Sr activity concentrations in brown rice using specific activity ratios of 137Cs/Cs and 90Sr/Sr in the exchangeable fraction of soil** Tsukada, H., Takeda, A, Yamaguchi, N, Saito, T. & Thoa, N.P.
	PS2D-3 **Study on the Possibility of Soil Improvement and Treatment of Heavy Metal Pollution of Elephant Grass Va06 Growing on Land of Lead Zinc Mine Waste Land Hich Village, Tan Long commune, Dong Hy district, Thai Nguyen province** Hoang Anh Duc., Chu, V.H., Tran Do, H.N., Duong, N.Q.T., Nguyen, P.H., Hai N.N.S., Nong N.N
	PS2D-4 **Assess the current situation, changes and propose solutions for sustainable use of land resources in Ky Anh town, Ha Tinh province** Hung PA, Viet NQ
	PS2D-5 **Application of Gis Technology to Build Land Database for Provincial Planning (An Experiment for The Planning Development of the Urban System in Thai Binh Province)** Hong Hanh, N.T., Hong Yen, D., Anh Tuan, P., Hiep Nhu, D. & Le Dieu Linh, N.L.
S2E	**PS2E-1** **Land policy as part of natural resources management strategy in Viet nam in the period of 2011-2020 and to ward 2030** Nguyen Dinh Bong
	PS2E-2 **Geochemical fractionation of nickel and chromium in serpentine-derived paddy soils in the Philippines** Navarrete, I.N.Dulfo, CP
	PS2E-3 **Application of Visible and Near-Infrared Diffuse Reflectance Spectroscopy for Estimating Soil Organic Carbon** Trung Q. Lai , Eden Halpert , Minh N. Nguyen
	PS2E-4 **Development of a Model for Predicting Soil Properties in South Korea through Mid-Infrared Soil Spectroscopy** **Sangho Jeon, Jin-Ju Yun, Seong Heon Kim, Jay Hong Shim, Yun-**Hae Lee, Soyeo Han, Soon ik Kwon, Byung Keun Hyun
	PS2E-5 **Paired Observations of Arsenic Speciation in Rice Grain, Leaf, and Paddy Soil Using High-Resolution X-ray Absorption Near Edge Spectroscopy** Halpert, E.J., Ravel, B.., Mot, V., Hoeng, S., Snyder, D., McGarry, T.J., Cazacu-de Luca, A., Phan, K., Stahl, M., Sousa, D., Nicholas, S.& Bostick, B.C.
S2F	**PS2F-1** **Effects of Chicken-Feather Hydrolysate on Soil Health** Pi-Chen, Chin , Hsin-Yu, Ho , Shan-Li Wang

	PS2F-2 **Effects of in-season nitrogen application on soybean** Gong Dong Hyeok; Donghyeok Gong, Sanghun Lee, Kiyoul Jung, HyenChung Chun
	PS2F-3 **Study on leaf nutrition diagnosis to determine deficiency and use appropriate fertilizer for Ha Giang Sanh orange variety** Nguyen Duc Dung, Tran Minh Tien, La Tuan Anh, Nguyen Van Hien, Nguyen Minh Quang
	PS2F-4 **Change of soil map in Kon Plong district, Kon Tum province in the 2005 - 2023 period** Phan Hoang Vu., Pham Thanh Vu, Tran Van Hung, Vo Quang Minh, Vu Ngoc Hung
	PS2F-5 **Land accumulation and concentration in Vietnam - policy implications for agricultural develpopment** Phan Thi Thanh Huyen, Nguyen Thi Hue, Ngo Thi Ha, Le Van Tho
S2G	**PS2G-1** **Monitor the rice growing season using remote sensing images** Trang Kien Bush, Vo Quang Minh
	PS2G-2 **Study on leaf nutrition diagnosis to determine deficiency and use appropriate fertilizer for Ha Giang Sanh orange variety** Nguyen Duc Dung, Tran Minh Tien, La Tuan Anh, Nguyen Van Hien, Nguyen Minh Quang
	PS2G-3 **Update soil maps of Tan Thanh district, Long An province, Viet Nam** To Thanh Duong, Pham Thanh Vu, Phan Chi Nguyen, Vo Quang Minh
	PS2G-4 **Pedotransfer function for soil properties prediction: A case in Vinh Long province, Viet Nam** Vo Quang Minh , Nguyen Huu Phuoc, Mai Nhut Au, Pham Cam Dang

CONFERENCE POST-TOUR PROGRAMME

POST-TOUR CONFERENCE PROGRAM

- Field trip after the conference (Departing from Thai Nguyen city to Ha Long Bay, Ha Long city): Thursday - Friday, March 28-29, 2024: FIVE STARS CRUISE SCHEDULE (2 DAYS 1 NIGHT)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