



Preface

The Graduate School, Suan Sunandha Rajabhat University, is honored to present the proceedings of the International Conference “Innovation and Integration of Multidisciplinary Knowledge for Sustainable Social Development,” held on August 3–5, 2026, at the National Library of Foreign Literature, Budapest, Hungary.

The conference provides an important platform for researchers, academics, practitioners, and students from diverse disciplines to exchange knowledge, share research findings, and establish academic networks and collaborations in response to contemporary global challenges.

This conference proceedings comprises 25 research articles covering a wide range of multidisciplinary fields, including education, management, technology, social sciences, health sciences, humanities, and related areas. The contributions reflect innovative ideas, interdisciplinary approaches, and practical solutions that promote sustainable social development and are aligned with the United Nations Sustainable Development Goals (SDGs).

The Graduate School, Suan Sunandha Rajabhat University, sincerely expresses its appreciation to all authors, reviewers, conference committee members, partner institutions, and all contributors for their valuable support and cooperation in making this international conference a success.

We sincerely hope that these proceedings will serve as a valuable source of knowledge and contribute to further research, academic development, and international academic collaboration.

Conference Committee

Advisory Committee

President
Vice President for Administration
Vice President for Academic Affairs
Vice President for Planning and
Quality Assurance
Vice President for Student Affairs
Vice President for Research and
Development
Vice President for Digital Technology
Vice President of Nakhon Pathom Campus
Vice President of Samut Songkhram Campus
Dean of Graduate School

Steering Committee

[illegible]

Organizing Committee

Chairperson
Vice Chairperson
Vice Chairperson
Committee Member
Committee Member
Committee Member
Committee Member

Mr. Kritsada Kamonsarn	Committee Member
Mr. Ponkrit Chidchob	Committee Member
Miss Kanthanut Sinsomboon	Committee Member
Mr. Worathep Narkwong	Committee Member
Mrs. Chutima Mingkhwansakul	Committee Member
Miss Suwannee Punsiri	Committee Member
Miss Kamonwan Suktussanee	Committee Member
Mr. Kittituch Ekkun	Committee Member
Miss Sirinapha Thaimai	Committee Member
Miss Phenphak Sawang	Committee Member
Miss Kanjana Baosri	Committee Member
Miss Yanipas Nookong	Committee Member
Miss Kulpatsorn Mankhatitham	Committee Member
Miss Yupa Haploy	Committee Member
Miss Rassamee Kirayade	Committee Member
Miss Patcharin Laimek	Committee Member
Miss Janjira Phetkhaothong	Committee Member
Miss Waraporn Chantamart	Committee Member
Miss Supaporn Sarat	Committee Member
Miss Suthasinee Deemul	Committee Member
Miss Napachnan Ramdecha	Committee Member
Mr. Kittipong Deekhunthod	Committee Member
Miss Paweena Sribunrueng	Committee Member
Miss Wirongrong Tamyao	Committee Member
Miss Wimonpak Seuadomnan	Committee Member and Secretary

Organized by:
Graduate School, Suan Sunandha Rajabhat University, Thailand

In collaboration with:



Message from the President of Suan Sunandha Rajabhat University

It is my great honor and pleasure to welcome all distinguished scholars, researchers, academics, professionals, and participants to the International Conference on Multidisciplinary Innovation for Sustainable Social Development.

This conference serves as an important academic platform for the exchange of knowledge, ideas, and perspectives across diverse disciplines. The 25 scholarly papers included in this conference proceedings represent a rich diversity of academic interests and research perspectives, reflecting the value of multidisciplinary collaboration in responding to the complex challenges of our rapidly changing world.

In an era characterized by technological advancement, social transformation, and global interconnectedness, meaningful progress requires knowledge and innovation that transcend disciplinary boundaries. The research presented at this conference demonstrates the potential of interdisciplinary approaches to generate new insights, foster collaboration, and develop innovative solutions that contribute to sustainable social development.

I would like to express my sincere appreciation to all authors for sharing their research and insights, as well as to the reviewers, Conference Committee, speakers, and participants whose dedication and contributions have made this conference possible. Your collective efforts have strengthened the spirit of academic exchange and collaboration that lies at the heart of this conference.

I sincerely hope that the knowledge and ideas shared through these 25 contributions will inspire further research, encourage new academic partnerships, and lead to meaningful innovations for the advancement of communities and society.

May this conference be a fruitful forum for intellectual exchange and a stepping stone toward a more sustainable, inclusive, and innovative future.

Associate Professor Dr. Chutikarn Sriviboon
President, Suan Sunandha Rajabhat University

Message from the Vice-President for Academic Affairs

It is my great pleasure to welcome all scholars, researchers, academics, and participants to the International Conference on Multidisciplinary Innovation for Sustainable Social Development.

This conference provides a valuable platform for exchanging knowledge and research findings across diverse disciplines. The 25 scholarly papers included in these proceedings reflect the richness of academic perspectives and the importance of multidisciplinary integration in generating innovative ideas and approaches to address societal challenges and promote sustainable development.

I would like to express my sincere appreciation to all authors, reviewers, organizers, speakers, and participants for their valuable contributions and commitment to making this conference a meaningful academic forum.

I hope that this conference will inspire further knowledge exchange, academic collaboration, and innovative initiatives that contribute to sustainable social development.

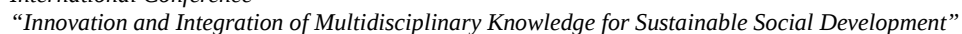
Asst. Prof. Dr. Nutthapat Kaewrattanapat
Vice-President for Academic Affairs
Suan Sunandha Rajabhat University

[illegible]

It is my great pleasure to welcome all scholars, researchers, academics, and participants to the International Conference on Multidisciplinary Innovation for Sustainable Social Development.

The Graduate School is committed to promoting research, innovation, and the development of emerging researchers. This conference provides a valuable opportunity to strengthen academic networks, exchange ideas, and foster future research collaborations.

Asst. Prof. Dr. Wanchak Noichan
Dean of the Graduate School
Suan Sunandha Rajabhat University



Prof. Josep Nelson	The United States of America
Prof. Gorana Pesakovic	The United States of America
Asst. Prof. Dr. Krik Person	The United States of America
Dr. Vinh Truong Hoang	Ho Chi Minh City Open University, Vietnam
Assoc. Prof. Ts. Dr. Yulita Hanum P Iskandar	Universiti Sains Malaysia, Malaysia
Prof. Dr. You Jianpeng	Guangxi University of Chinese Medicine, China
Prof. Zhao Yunshan	Inner Mongolia Medical University, China
Assoc. Prof. Dr. Mohd Rizaimy Shaharudin	Universiti Teknologi, Mara, Malaysia
Assoc. Prof. Dr. Suthinan Pomsuwan	Bangkok University, Bangkok, Thailand
Asst. Prof. Dr. Wanchak Noichan	Suan Sunandha Rajabhat University, Bangkok, Thailand

Onsite Schedule for International Conference “Innovation and Integration of Multidisciplinary Knowledge for Sustainable Social Development”

August 3 - 5, 2026

at National Library of Foreign Literature Budapest, Hungary

Activities	No.	Title	Presenter
International present August 3, 2026 9.00 a.m. - 04.00 p.m. Chairman Asst. Prof. Dr. Wanchak Noichan (SSRU, Thailand) Asst. Prof. Dr. Thongchai Surinwarangkoon (SSRU, Thailand)	1	GREEN SYNTHESIS OF SILVER NANOPARTICLES AND THEIR ANTIBACTERIAL ACTIVITY AGAINST FOODBORNE PATHOGENS	SOPID SAWANGJIT
	2	DEVELOPMENT OF A FUNCTIONAL PROTEIN BAR ENRICHED WITH ANTIOXIDANT COMPOUNDS DERIVED FROM CACAO (THEOBROMA CACAO L.)	SIRILAK NAMWONG
	3	PHYSICAL PROPERTIES OF CUPCAKES SUBSTITUTED WITH BANANA FLOUR	PIYADA ACHAYUTHAKAN*
	4	EVALUATION OF ACADEMIC SERVICE PROVISION FOR COMMUNITIES: A PROJECT TO IMPROVE QUALITY OF LIFE AND ENHANCE INCOME FOR GRASSROOTS COMMUNITIES THROUGH SCIENCE, TECHNOLOGY, AND INNOVATION IN SAMUT SONGKHRAM PROVINCE, FISCAL YEAR 2025.	PANISARA NITUTORN
	5	FACULTY SATISFACTION IN THE FACULTY OF SCIENCE AND TECHNOLOGY WITH THE SERVICES PROVIDED BY THE RESEARCH AND ACADEMIC SERVICES DEVELOPMENT DIVISION: A CASE STUDY OF THE FACULTY OF SCIENCE AND TECHNOLOGY, SUAN SUNANDHA RAJABHAT UNIVERSITY	PANAWAT THONGSOOK
	6	FACULTY SATISFACTION WITH THE CAPACITY OF THE RESEARCH AND ACADEMIC SERVICE DEVELOPMENT DIVISION, FACULTY OF SCIENCE AND TECHNOLOGY, SUAN SUNANDHA RAJABHAT UNIVERSITY.	THANAPORN WILASUWAN
	7	THE STUDY OF THE EFFECTIVENESS OF FUND DISBURSEMENT IN THE PROJECTS OF THE PERSONNEL AT THE FACULTY OF SCIENCE AND TECHNOLOGY, SUAN SUNANDHA RAJABHAT UNIVERSITY	JIRANAN PATTAPHONG
	8	DEVELOPMENT OF STRATEGIES FOR THE FACULTY OF SCIENCE AND TECHNOLOGY USING SWOT ANALYSIS	SUPAKIT KHACHONKITTIMASAK

Activities	No.	Title	Presenter
International present August 4, 2026 09.00 a.m. - 04.00 p.m. Chairman Asst. Prof. Dr. Wanchak Noichan (SSRU, Thailand) Asst. Prof. Dr. Thongchai Surinwarangkoon (SSRU, Thailand)	1	NEEDS AND EXPECTATIONS OF 12TH GRADE STUDENTS FOR ADMISSION TO THE BACHELOR'S DEGREE PROGRAM IN THE FACULTY OF SCIENCE AND TECHNOLOGY, SUAN SUNANDHA RAJABHAT UNIVERSITY	WARONG CHUENKRUT
	2	THE SATISFACTION AND THE OPINION OF STAKEHOLDERS ON THE PERFORMANCE OF GRADUATES WHO GRADUATED IN THE ACADEMIC YEAR 2023: THE CASE STUDY OF THE FACULTY OF SCIENCE AND TECHNOLOGY, SUAN SUNANDHA RAJABHAT UNIVERSITY	PAWITH KONGPRASERT
	3	THE STUDY OF SATISFACTION WITH THE USE OF EQUIPMENT IN THE HYBRID LEARNING CLASSROOM FACULTY OF SCIENCE AND TECHNOLOGY, SUAN SUNANDHA RAJABHAT UNIVERSITY	KITTISAK PHUAMORN
	4	THE STUDY ON SERVICE SATISFACTION OF THE ACCOUNTING AND PROCUREMENT DEPARTMENT, FACULTY OF SCIENCE AND TECHNOLOGY, FOR THE FISCAL YEAR 2024, SUAN SUNANDHA RAJABHAT UNIVERSITY.	KOBKUL KHAMSUWAN
	5	SATISFACTION OF INTERNAL SERVICE RECIPIENTS TOWARD THE ANNUAL PROGRAM-LEVEL QUALITY ASSURANCE ASSESSMENT IN THE ACADEMIC YEAR 2024: A CASE STUDY OF THE FACULTY OF SCIENCE AND TECHNOLOGY, SUAN SUNANDHA RAJABHAT UNIVERSITY	THANAPON BANTERNGSUK
	6	A STUDY ON THE FACTORS AFFECTING ACADEMIC PROMOTION OF LECTURERS AT SUAN SUNANDHA RAJABHAT UNIVERSITY A CASE STUDY OF THE FACULTY OF SCIENCE AND TECHNOLOGY, SUAN SUNANDHA RAJABHAT UNIVERSITY	PORNPUN SUNGKORNPUMINT
	7	A TRAINING MODEL FOR COMPETENCY ENHANCEMENT OF UNIVERSITY PERSONNEL: A CASE STUDY OF SUAN SUNANDHA RAJABHAT UNIVERSITY	TIDARAT CHAROENPAK
	8	PERCEPTION AND PARTICIPATION OF SUPPORTING STAFF IN THE DEVELOPMENT TOWARD THE EDUCATION CRITERIA FOR PERFORMANCE EXCELLENCE (EDPEX) AT THE OFFICE OF THE PRESIDENT, SUAN SUNANDHA RAJABHAT UNIVERSITY.	WACHIRAPORN NA PHOL

Activities	No.	Title	Presenter
International present August 5, 2026 09.00 a.m. - 04.00 p.m. Chairman Asst. Prof. Dr. Wanchak Noichan (SSRU, Thailand) Asst. Prof. Dr. Thongchai Surinwarangkoon (SSRU, Thailand)	1	JOB SATISFACTION OF PERSONNELS AT DEMONSTRATION SCHOOL OF SUAN SUNANDHA RAJABHAT UNIVERSITY	MAUNKWAN JARONGHNU
	2	A STUDY OF STUDENT SATISFACTION WITH BLENDED LEARNING PROCESSES IN THE ACADEMIC YEAR 2024 AT THE INTERNATIONAL COLLEGE, SUAN SUNANDHA RAJABHAT UNIVERSITY	WIPAVADEE WONGPUTILERT
	3	THE "KHON LA KHRUENG PLUS" SCHEME: REFLECTING THE ROLE OF ELITES IN PUBLIC POLICY FORMULATION	VILASINEE JINTALIKHITDEE
	4	UTILIZATION OF SUGAR PALM FRUIT SHELL WASTE FOR THE PRODUCTION OF SUSTAINABLE PACKAGING	JITLADA CHUMEE*
	5	DEVELOPMENT OF VALUE-ADDED PRODUCTS FROM LOW-GRADE POMELO: A STRATEGY FOR WASTE REDUCTION AND INCOME GENERATION IN SAMUT SONGKHRAM, THAILAND	SAKUNTRA KUMCHOO
	6	ASSESSMENT OF THE RELATIONSHIP BETWEEN MICROBIAL COMMUNITY STRUCTURE AND WATER QUALITY FROM THE ACTIVATED SLUDGE SYSTEM OF WASTEWATER TREATMENT PLANT	KANITTADA THONGKAO
	7	FACTORS RELATING TO HEALTH BEHAVIOR OF SPORTS SCIENCE STUDENTS SUANSUNANDHA RAJABHAT UNIVERSITY	JAROSPORN PUSSAKHAM
	8	EFFECTS OF PLYOMETRIC TRAINING ON BASKETBALL DRIBBLING AGILITY OF MALE SUAN SUNANDHA RAJABHAT UNIVERSITY.	MELANIE URASANIT

****Thank you very much for your participation in the Conference****

Contents

	<i>Page</i>
Preface	<i>ii</i>
Organizing Committee	<i>iii</i>
Message from the President of Suan Sunandha Rajabhat University	<i>v</i>
Message from the Vice-President for Academic Affairs	<i>vi</i>
Message from the Dean of the Graduate School	<i>vii</i>
Peer Review Committee	<i>viii</i>
Conference Schedule	<i>ix</i>
Contents	<i>xii</i>

PHYSICAL PROPERTIES OF CUPCAKES SUBSTITUTED WITH BANANA FLOUR

Piyada Achayuthakana and Nattapol Prathengjit *1*

UTILIZATION OF SUGAR PALM FRUIT SHELL WASTE FOR THE PRODUCTION OF SUSTAINABLE PACKAGING

Jitlada Chumee, Saowanee Kumpun, Ploysai Ohama, Sarisa Pinkham, Natkamol Peungsamran and Noppadon Sangwalpetch *5*

GREEN SYNTHESIS OF SILVER NANOPARTICLES AND THEIR ANTIBACTERIAL ACTIVITY AGAINST FOODBORNE PATHOGENS

Sopid Sawangjit *12*

THE "KHON LA KHRUENG PLUS" SCHEME: REFLECTING THE ROLE OF ELITES IN PUBLIC POLICY FORMULATION

Vilasinee Jintalikhitdee, Natnicha Chotpittayanon and Paranee Srikeaw *19*

DEVELOPMENT OF A FUNCTIONAL PROTEIN BAR ENRICHED WITH ANTIOXIDANT COMPOUNDS DERIVED FROM CACAO (*Theobroma cacao* L.)

Sirilak Namwon, Natkamol Peungsamran and Phaowana Laoongphao *27*

DEVELOPMENT OF VALUE-ADDED PRODUCTS FROM LOW-GRADE POMELO: A STRATEGY FOR WASTE REDUCTION AND INCOME GENERATION IN SAMUT SONGKHRAM, THAILAND

Sakuntra Kumchoo *34*

	<i>Page</i>
ASSESSMENT OF THE RELATIONSHIP BETWEEN MICROBIAL COMMUNITY STRUCTURE AND WATER QUALITY FROM THE ACTIVATED SLUDGE SYSTEM OF WASTEWATER TREATMENT PLANT	
<i>Kanittada Thongkao and Yuttana Sudjaroen</i>	39
FACTORS RELATING TO HEALTH BEHAVIOR OF SPORTS SCIENCE STUDENTS SUANSUNANDHA RAJABHAT UNIVERSITY	
<i>Jarosporn Pussakham, Melanie Urasanit and Jaturabhuj Busara</i>	47
EFFECTS OF PLYOMETRIC TRAINING ON BASKETBALL DRIBBLING AGILITY OF MALE SUAN SUNANDHA RAJABHAT UNIVERSITY	
<i>Panupol Ratanapanadda and Melanie Urasanit</i>	55
EVALUATION OF ACADEMIC SERVICE PROVISION FOR COMMUNITIES: A PROJECT TO IMPROVE QUALITY OF LIFE AND ENHANCE INCOME FOR GRASSROOTS COMMUNITIES THROUGH SCIENCE, TECHNOLOGY, AND INNOVATION IN SAMUT SONGKHRAM PROVINCE, FISCAL YEAR 2025	
<i>Panisara Nitutorn and Narong Sangwaranatee</i>	60
FACULTY SATISFACTION IN THE FACULTY OF SCIENCE AND TECHNOLOGY WITH THE SERVICES PROVIDED BY THE RESEARCH AND ACADEMIC SERVICES DEVELOPMENT DIVISION: A CASE STUDY OF THE FACULTY OF SCIENCE AND TECHNOLOGY, SUAN SUNANDHA RAJABHAT UNIVERSITY	
<i>Panawat Thongsook and Sopid Sawangjit</i>	65
FACULTY SATISFACTION WITH THE CAPACITY OF THE RESEARCH AND ACADEMIC SERVICE DEVELOPMENT DIVISION, FACULTY OF SCIENCE AND TECHNOLOGY, SUAN SUNANDHA RAJABHAT UNIVERSITY	
<i>Thanaporn Wilasuwan and Rinrada Pattanayaiying</i>	70
THE STUDY OF THE EFFECTIVENESS OF FUND DISBURSEMENT IN THE PROJECTS OF THE PERSONNEL AT THE FACULTY OF SCIENCE AND TECHNOLOGY, SUAN SUNANDHA RAJABHAT UNIVERSITY	
<i>Jiranan Pattaphong and Nich Wongsongja</i>	77
DEVELOPMENT OF STRATEGIES FOR THE FACULTY OF SCIENCE AND TECHNOLOGY USING SWOT ANALYSIS	
<i>Supakit Khachonkittimasak and Kanyarat Busaban</i>	83

	<i>Page</i>
NEEDS AND EXPECTATIONS OF 12 TH GRADE STUDENTS FOR ADMISSION TO THE BACHELOR'S DEGREE PROGRAM IN THE FACULTY OF SCIENCE AND TECHNOLOGY, SUAN SUNANDHA RAJABHAT UNIVERSITY	
<i>Warong Chuenkrut and Montarop Sudhadham</i>	90
THE SATISFACTION AND THE OPINION OF STAKEHOLDERS ON THE PERFORMANCE OF GRADUATES WHO GRADUATED IN THE ACADEMIC YEAR 2023: THE CASE STUDY OF THE FACULTY OF SCIENCE AND TECHNOLOGY, SUAN SUNANDHA RAJABHAT UNIVERSITY	
<i>Pawith Kongprasert and Montharop Suthatham</i>	98
THE STUDY OF SATISFACTION WITH THE USE OF EQUIPMENT IN THE HYBRID LEARNING CLASSROOM FACULTY OF SCIENCE AND TECHNOLOGY, SUAN SUNANDHA RAJABHAT UNIVERSITY	
<i>Kittisak Phuamorn and Nich Wongsongja</i>	106
THE STUDY ON SERVICE SATISFACTION OF THE ACCOUNTING AND PROCUREMENT DEPARTMENT, FACULTY OF SCIENCE AND TECHNOLOGY, FOR THE FISCAL YEAR 2024, SUAN SUNANDHA RAJABHAT UNIVERSITY	
<i>Kobkul Khamswan and Kittikhun Meethongjan</i>	111
SATISFACTION OF INTERNAL SERVICE RECIPIENTS TOWARD THE ANNUAL PROGRAM-LEVEL QUALITY ASSURANCE ASSESSMENT IN THE ACADEMIC YEAR 2024: A CASE STUDY OF THE FACULTY OF SCIENCE AND TECHNOLOGY, SUAN SUNANDHA RAJABHAT UNIVERSITY	
<i>Thanapon Banternasuk and Kanyarat Busaban</i>	115
A STUDY ON THE FACTORS AFFECTING ACADEMIC PROMOTION OF LECTURERS AT SUAN SUNANDHA RAJABHAT UNIVERSITY A CASE STUDY OF THE FACULTY OF SCIENCE AND TECHNOLOGY, SUAN SUNANDHA RAJABHAT UNIVERSITY	
<i>Pornpun Sungkornpumint and Chanun Chanhom</i>	124
A TRAINING MODEL FOR COMPETENCY ENHANCEMENT OF UNIVERSITY PERSONNEL: A CASE STUDY OF SUAN SUNANDHA RAJABHAT UNIVERSITY	
<i>Tidarat Charoenpak and Chanun Chanhom</i>	131
JOB SATISFACTION OF PERSONNELS AT DEMONSTRATION SCHOOL OF SUAN SUNANDHA RAJABHAT UNIVERSITY	
<i>Maunkwan Jaronghnu and Tanawat Srisiriwat</i>	138

