



ORAL PRESENTATION AWARD

GROUP 1

สาขาวิชาชีววิทยาและการประยุกต์ วิทยาศาสตร์การประมง
วิทยาศาสตร์สิ่งแวดล้อม วิทยาศาสตร์การเกษตร วิทยาศาสตร์สุขภาพ
จุลชีววิทยา วิทยาศาสตร์เทคโนโลยีชีวภาพ
วิทยาศาสตร์และเทคโนโลยีทางอาหาร





CERTIFICATE OF GOOD ORAL PRESENTATION

is awarded to

Suriyasak Auntan and Bunyarit Sinkangam

for the Oral Presentation entitled

PRELIMINARY YIELD TRIAL EVALUATION OF WAXY CORN HYBRIDS IN PHAYAO

presented in 14th Science Research Conference held on 25-26 May 2023
at the School of Science, University of Phayao.



Associate Prof.Dr.Chayan Boonyarak
Dean of School of Science, University of Phayao



CERTIFICATE OF GOOD ORAL PRESENTATION

is awarded to

Yuong Vorn and Bunyarit Sinkangam

for the Oral Presentation entitled

PRELIMINARY YIELD TRIAL OF FIELD MAIZE HYBRIDS IN PHAYAO PROVINCE

presented in 14th Science Research Conference held on 25-26 May 2023
at the School of Science, University of Phayao.



Associate Prof.Dr.Chayan Boonyarak
Dean of School of Science, University of Phayao



CERTIFICATE OF GOOD ORAL PRESENTATION

is awarded to

**Jeerasak Meerod, Piengpim Chidburee,
Siripun Sarin and Aphichat Chidburee**

for the Oral Presentation entitled

**EFFECTS OF THE LIGHT TYPES ON GROWTH AND YIELD QUALITY OF
CHERRY TOMATO CULTIVARS SWEET GIRL**

presented in 14th Science Research Conference held on 25-26 May 2023
at the School of Science, University of Phayao.



Associate Prof.Dr.Chayan Boonyarak
Dean of School of Science, University of Phayao



CERTIFICATE OF GOOD ORAL PRESENTATION

is awarded to

Kamolluk Deeudom, Benny K.K. Chan and Monthon Ganmanee

for the Oral Presentation entitled

**EFFECT OF THERMAL STRESS ON PHYSIOLOGICAL RESPONSE OF
BARNACLES IN SI CHANG ISLAND, CHONBURI PROVINCE**

presented in 14th Science Research Conference held on 25-26 May 2023
at the School of Science, University of Phayao.



Associate Prof.Dr.Chayan Boonyarak
Dean of School of Science, University of Phayao



CERTIFICATE OF GOOD ORAL PRESENTATION

is awarded to

**Kasama Sudtilak, Chaiyapoom Bunchasak, Phongthorn Kongmun,
K.Teepalak Rangubhet, Sombat Prasongsuk and Theerawit Poeikhampa**

for the Oral Presentation entitled

**THE EFFECT OF THE EMULSIFIER SUPPLEMENTATION IN DIETS ON PERFORMANCE,
CARCASS QUALITY, AND APPARENT METABOLIZABLE ENERGY (AME) OF BROILER CHICKENS**

presented in 14th Science Research Conference held on 25-26 May 2023
at the School of Science, University of Phayao.



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Dean of School of Science, University of Phayao



CERTIFICATE OF GOOD ORAL PRESENTATION

is awarded to

**Korapat Phukitirat, Jirapatch Choksirison,
Non Pranuch and Piyanoot Jaihan**

for the Oral Presentation entitled

COMPARISON OF *ACETOBACTER XYLINUM* CULTURE MEDIUM
FROM FRUIT JUICE IN BIOPLASTIC PRODUCTION

presented in 14th Science Research Conference held on 25-26 May 2023
at the School of Science, University of Phayao.



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Dean of School of Science, University of Phayao



CERTIFICATE OF GOOD ORAL PRESENTATION

is awarded to

Nattanitcha Ngaowkakhiaw, Phongthorn Kongmun, and K.Teepalak Rangubhet

for the Oral Presentation entitled

EFFECTS OF USING SPENT MUSHROOM SUBSTRATE ENSILED WITH WHOLE-CROP CORN ON RUMEN DIGESTIBILITY BY *IN VITRO* TECHNIQUE

presented in 14th Science Research Conference held on 25-26 May 2023
at the School of Science, University of Phayao.



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Dean of School of Science, University of Phayao



CERTIFICATE OF GOOD ORAL PRESENTATION

is awarded to

Pacharapon Inaoy, Phongthorn Kongmun and K. Teepalak Rangubhet

for the Oral Presentation entitled

NUTRITIONAL VALUE AND DIGESTIBILITY EVALUATION OF NAPIER GRASS ENSILED WITH SPENT MUSHROOM SUBSTRATE BY *IN VITRO* TECHNIQUE

presented in 14th Science Research Conference held on 25-26 May 2023
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CERTIFICATE OF GOOD ORAL PRESENTATION

is awarded to

Nongnapas Puttasaraphan, Phongthorn Kongmun, and K.Teepalak Rangubhet

for the Oral Presentation entitled

EFFECTS OF RICE STRAW QUALITY IMPROVEMENT BY LEGUMES ON RUMEN FERMENTATION
AND METHANE EMISSION BY *IN VITRO* TECHNIQUE USING THE DAISY^{II} INCUBATOR

presented in 14th Science Research Conference held on 25-26 May 2023
at the School of Science, University of Phayao.



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Dean of School of Science, University of Phayao



CERTIFICATE OF GOOD ORAL PRESENTATION

is awarded to

**Peerada Yookon, Montida Chuekham,
Rungnapha Yodkaew, and Wipasiri Soonthornchai**

for the Oral Presentation entitled

ANTIBACTERIAL ACTIVITY OF MUCUS ISOLATED FROM DIFFERENT SIZES
OF THE GIANT AFRICAN SNAIL (*LISSACHATINA FULICA*)

presented in 14th Science Research Conference held on 25-26 May 2023
at the School of Science, University of Phayao.



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CERTIFICATE OF GOOD ORAL PRESENTATION

is awarded to

**Long Chhovin, Supaporn Passorn, Khanchai Danmek
and Rawisara Ruenwai**

for the Oral Presentation entitled

PHYSICOCHEMICAL PROPERTIES OF PROTEIN ISOLATE FROM SOY SAUCE RESIDUE
AND ANTIOXIDANT POTENTIAL OF PINEAPPLE PEEL EXTRACT

presented in 14th Science Research Conference held on 25-26 May 2023
at the School of Science, University of Phayao.



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CERTIFICATE OF GOOD ORAL PRESENTATION

is awarded to

Thammanoon Temchai

for the Oral Presentation entitled

ECOLOGICAL SERVICES OF WATER YIELD AND WATER FLOW CONTROL OF
THE KAENG KRACHAN FOREST COMPLEX

presented in 14th Science Research Conference held on 25-26 May 2023
at the School of Science, University of Phayao.



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CERTIFICATE OF GOOD ORAL PRESENTATION

is awarded to

**Thanyaporn Tianubol, Pakornwan Luangkasemnit,
Pakwan Thawon, and Anukul Buranapratheprat**

for the Oral Presentation entitled

THE APPLICATION OF AN ECHO SOUNDER TO INVESTIGATE THE SHOAL OF FISH IN THE FISH
SHELTERS AT SAMAE SAN ISLAND, CHONBURI PROVINCE

presented in 14th Science Research Conference held on 25-26 May 2023
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CERTIFICATE OF GOOD ORAL PRESENTATION

is awarded to

Poorit Pootanon, Chalita Kongrit and Ekgachai Jeratthitikul

for the Oral Presentation entitled

**GENETIC ANALYSIS OF CORBICULA FLUMINEA (MÜLLER, 1774) (BIVALVIA, CORBICULIDAE)
IN NATIVE SOUTHEAST ASIAN RANGE**

presented in 14th Science Research Conference held on 25-26 May 2023
at the School of Science, University of Phayao.



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CERTIFICATE OF GOOD ORAL PRESENTATION

is awarded to

Wasin Panich, Thanawan Tejangkura, and Thapana Chontanarth

for the Oral Presentation entitled

DEVELOPMENT OF A BIOSENSOR ASSAY FOR *ASCARIDIA GALLI* DETECTION IN CHICKEN FAECES
USING LAMP COUPLED WITH LATERAL FLOW TECHNOLOGY

presented in 14th Science Research Conference held on 25-26 May 2023
at the School of Science, University of Phayao.



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CERTIFICATE OF GOOD ORAL PRESENTATION

is awarded to

Sirapat Nak-on and Thapana Chontanarth

for the Oral Presentation entitled

**EPIDEMIOLOGICAL EVALUATION FOR GASTROINTESTINAL HELMINTH INFECTION IN CATTLE
FROM SURAT THANI AND KHON KAEN PROVINCES USING MICROSCOPIC AND
MOLECULAR BASED COPROLOGICAL EXAMINATIONS**

presented in 14th Science Research Conference held on 25-26 May 2023
at the School of Science, University of Phayao.



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CERTIFICATE OF GOOD ORAL PRESENTATION

is awarded to

Chakrit Somkhayan and Kanya Anukulthanakorn

for the Oral Presentation entitled

CYTOGENETICS OF EXOTIC FISH SPECIES RED-BELLIED PACU
PIARACTUS BRACHYPOMUS (CUVIER, 1818) IN THAILAND

presented in 14th Science Research Conference held on 25-26 May 2023
at the School of Science, University of Phayao.



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CERTIFICATE OF GOOD ORAL PRESENTATION

is awarded to

**Nadthida wannarod, Thitiwattana Chunawat,
Wipasiri Soonthornchai, and Kriengkrai Seetapan**

for the Oral Presentation entitled

CONSTRUCTED WETLAND WITH WATER HYACINTHS (*EICHHORNIA CRASSIPES*) REDUCES THE
CHROMOSOMAL ABERRATION IN THE SWAMP EEL (*MONOPTERUS ALBUS*)

presented in 14th Science Research Conference held on 25-26 May 2023
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CERTIFICATE OF GOOD ORAL PRESENTATION

is awarded to

Apisit Cheukaw, Suphaporn Paenkeaw and Kittisak Buddhachat

for the Oral Presentation entitled

**RAPID DNA EXTRACTION FROM CANINE BLOOD SAMPLES BY POLYMERASE CHAIN
REACTION AND RECOMBINASE POLYMERASE AMPLIFICATION TECHNIQUES**

presented in 14th Science Research Conference held on 25-26 May 2023
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CERTIFICATE OF GOOD ORAL PRESENTATION

is awarded to

Ravipa Ukritatsadorn, Jitapa Sunjareun, and Supachai Nitipan

for the Oral Presentation entitled

CLONING AND SEQUENCE ANALYSIS OF A NOVEL LEUCINE RICH REPEAT (LRR) GENE
FROM *STREPTOCOCCUS AGALACTIAE*

presented in 14th Science Research Conference held on 25-26 May 2023
at the School of Science, University of Phayao.



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CERTIFICATE OF GOOD ORAL PRESENTATION

is awarded to

Kanokkarn Choosong, Suphada Kiriratnikom, Akkanee Pewhom and Supachai Nitipan

for the Oral Presentation entitled

DIETARY SUPPLEMENTATION WITH *CORDYCEPS MILITARIS* SPENT MUSHROOM SUBSTRATE EXTRACT AND *PEDIOCOCCUS ACIDILACTICI* TISTR 783 ENHANCING IMMUNE RESPONSE AND CYTOKINE EXPRESSION IN NILE TILAPIA (*OREOCHROMIS NILOTICUS*)

presented in 14th Science Research Conference held on 25-26 May 2023
at the School of Science, University of Phayao.



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CERTIFICATE OF GOOD ORAL PRESENTATION

is awarded to

**Tassapon Kertsook, Sukhontha Siri, Suwana Chaorattanakawee,
Wanarit Jitsamai, and Varakorn Kosaisavee**

for the Oral Presentation entitled

EFFICACY OF COFFEE GROUNDS FOR THE ELIMINATION OF ASCARIS SUUM EGG IN SLUDGE

presented in 14th Science Research Conference held on 25-26 May 2023
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CERTIFICATE OF GOOD ORAL PRESENTATION

is awarded to

Wichuda Klawech

for the Oral Presentation entitled

EFFECT OF NITROGEN SOURCES OF CORDYCEPIN PRODUCTION FROM *CORDYCEPS MILITALIS*

presented in 14th Science Research Conference held on 25-26 May 2023
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CERTIFICATE OF GOOD ORAL PRESENTATION

is awarded to

M. Natthapitch, Y. Winitchaya, P. Kulwarin, L. Hathairat, and T. Thanyaporn

for the Oral Presentation entitled

EFFECTS OF PACLOBUTRAZOL ON THE GROWTH OF *(THRIXSPERMUM SP.) IN VITRO*

presented in 14th Science Research Conference held on 25-26 May 2023
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CERTIFICATE OF GOOD ORAL PRESENTATION

is awarded to

Airada Khinghom and Wittaya Pakum

for the Oral Presentation entitled

THE EFFECT OF 6-BENZYLAMINOPURINE AND THIDIAZURON ON
IN VITRO PROPAGATION OF *KALANCHOE BEHARENSIS* DRAKE

presented in 14th Science Research Conference held on 25-26 May 2023
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CERTIFICATE OF GOOD ORAL PRESENTATION

is awarded to

**Chutima Hongcharoenthai, Satachanakamon Sankhaphong,
and Sarassawadee Pookorn**

for the Oral Presentation entitled

**STUDY ON SUITABLE TREATMENT CONTAINING 2,4-DICHLOROPHENOXYACETIC ACID ON
CALLUS INDUCTION FROM PSL-92147-1-2-4 AND LEUM PUA GLUTINOUS RICE**

presented in 14th Science Research Conference held on 25-26 May 2023
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CERTIFICATE OF GOOD ORAL PRESENTATION

is awarded to

Aphichaya Sangkaew, Tantara Treesuttacheep, and Juangjun Jumpathong

for the Oral Presentation entitled

SCREENING OF PHYLLOPLANE BACTERIA FOR CONTROLLING *XANTHOMONAS ORYZAE* PV. *ORYZAE*

presented in 14th Science Research Conference held on 25-26 May 2023
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CERTIFICATE OF GOOD ORAL PRESENTATION

is awarded to

Napath Pakdeewong and Sirijit Janpon

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THE GROWTH RATE OF THERMOTOLERANT YEAST UNDER MULTI-STRESS FACTORS

presented in 14th Science Research Conference held on 25-26 May 2023
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CERTIFICATE OF GOOD ORAL PRESENTATION

is awarded to

Manassanun Kanthatsakul, Rawisara Ruenwai and Supaporn Passorn

for the Oral Presentation entitled

EFFECTS OF NITROGEN AND CARBON SOURCES ON THE INULINASE PRODUCTION
FROM STRAIN *PENICILLIUM CITRINUM* IS13

presented in 14th Science Research Conference held on 25-26 May 2023
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CERTIFICATE OF GOOD ORAL PRESENTATION

is awarded to

Nichikarn Diewsurin, Paepilai Panyatipsakul, and Manupat Lohitnavy

for the Oral Presentation entitled

**PHYSIOLOGICALLY BASED PHARMACOKINETIC / PHARMACODYNAMIC
MODELING OF KETAMINE IN HUMANS**

presented in 14th Science Research Conference held on 25-26 May 2023
at the School of Science, University of Phayao.



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CERTIFICATE OF GOOD ORAL PRESENTATION

is awarded to

Natdanai Pan-in, Pranee Nangngam, and Charun Maknoi

for the Oral Presentation entitled

**CARBON ACCUMULATION IN ABOVE GROUND BIOMASS OF TREE IN NATURAL FOREST AT
BAN ROMKLAO BOTANICAL GARDEN PHITSANULOK UNDER THE ROYAL INITIATIVE**

presented in 14th Science Research Conference held on 25-26 May 2023
at the School of Science, University of Phayao.



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CERTIFICATE OF GOOD ORAL PRESENTATION

is awarded to

Chonlada Kajai and Sukthai Pongpathanasiri

for the Oral Presentation entitled

**ASSESSING THE CARBON FOOTPRINT AND CREATING GUIDELINES TO REDUCE GREENHOUSE GAS EMISSIONS OF HALAL FOOD PRODUCTS. CASE STUDY: SALTED GU LAO FISH PRODUCTS
KULAO THONG MAE PAN TAK BAI**

presented in 14th Science Research Conference held on 25-26 May 2023
at the School of Science, University of Phayao.



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CERTIFICATE OF EXCELLENT ORAL PRESENTATION

is awarded to

Jenjira Thamklang and Bunyarit Sinkangam

for the Oral Presentation entitled

ADVANCE YIELD TRIAL OF MAIZE HYBRIDS INTEGRATING OF
PUBLIC INSTITUTES IN PHAYAO AND LAMPANG

presented in 14th Science Research Conference held on 25-26 May 2023
at the School of Science, University of Phayao.



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CERTIFICATE OF EXCELLENT ORAL PRESENTATION

is awarded to

Chonticha Phromduang and Watanachai Lontom

for the Oral Presentation entitled

EVALUATION OF SALINITY-INDUCED PROGRESSIVE LEAF TEMPERATURE CHANGES IN RD6 AND SALT-TOLERANT RD6 RICE SEEDLINGS USING A SIMPLE THERMAL IMAGING TECHNIQUE

presented in 14th Science Research Conference held on 25-26 May 2023
at the School of Science, University of Phayao.



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CERTIFICATE OF EXCELLENT ORAL PRESENTATION

is awarded to

Supidcha Natee, Jirawat Sanitchon and Maysaya Thitisaksakul

for the Oral Presentation entitled

EVALUATING PHYSIOLOGICAL RESPONSES OF NEWLY IMPROVED RD6 RICE WITH
INTROGRESSED *SALTOL* QTL TO SALINITY STRESS

presented in 14th Science Research Conference held on 25-26 May 2023
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CERTIFICATE OF EXCELLENT ORAL PRESENTATION

is awarded to

Wongsakorn Wongla and Watanachai Lontom

for the Oral Presentation entitled

EXOGENOUS SILICON ALLEVIATES SOME SALT STRESS DAMAGE IN KDML105 RICE SEEDLINGS

presented in 14th Science Research Conference held on 25-26 May 2023
at the School of Science, University of Phayao.



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CERTIFICATE OF EXCELLENT ORAL PRESENTATION

is awarded to

Pimmada Pattrapadit and Phasini Sakulmaeka

for the Oral Presentation entitled

A STUDY ON THE EFFECT OF DAILY LIGHT INTEGRAL ON GROWTH OF ASIATIC PENNEYWORT
(CENTELLA ASIATICA L.) GROWN IN CLOSED SYSTEM

presented in 14th Science Research Conference held on 25-26 May 2023
at the School of Science, University of Phayao.



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CERTIFICATE OF EXCELLENT ORAL PRESENTATION

is awarded to

**Krit Chaiwong, Chutiwat Phuengpakdee, Thanaphat Phra-Thaen,
Kritsana Krajabthong and Rungkan Klahan**

for the Oral Presentation entitled

THE PRODUCTION OF FLATHEAD LOBSTER (*THENUS ORIENTALIS* (LUND, 1793))
IN CLOSE SYSTEM WITH SMART FARM

presented in 14th Science Research Conference held on 25-26 May 2023
at the School of Science, University of Phayao.



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CERTIFICATE OF EXCELLENT ORAL PRESENTATION

is awarded to

Donlaya Pinmuang, Phanupong Changtor and Nonglak Yimtragool

for the Oral Presentation entitled

EFFECT OF SUPPLEMENTATION OF *CENTELLA ASIATICA* CRUDE EXTRACT IN GIANT FRESHWATER PRAWN DIETS ON GROWTH PERFORMANCE, IMMUNE SYSTEM AND GUT MICROBIOME

presented in 14th Science Research Conference held on 25-26 May 2023
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CERTIFICATE OF EXCELLENT ORAL PRESENTATION

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Jiraporn Tasonthia, Dumrongsak Pekthong and Sutin Kingtong

for the Oral Presentation entitled

CHRONIC EXPOSURE OF SIMVASTATIN DISRUPTS HISTOLOGY AND PROTEIN PROFILE
OF THE HOODED OYSTER (*SACCOSTREA CUCULLATA*)

presented in 14th Science Research Conference held on 25-26 May 2023
at the School of Science, University of Phayao.



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CERTIFICATE OF EXCELLENT ORAL PRESENTATION

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**Phatchara Chaisena, Choawit Rakangtong,
Chaiyapoom Bunchasak and Wiriya Loongyai**

for the Oral Presentation entitled

EFFECT OF YEAST AUTOLYSATE ON THE PRODUCTIVITY AND IMMUNE STATUS IN LACTATING SOWS

presented in 14th Science Research Conference held on 25-26 May 2023
at the School of Science, University of Phayao.



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CERTIFICATE OF EXCELLENT ORAL PRESENTATION

is awarded to

Apisit Ongsara, Khaem Longnapa, and Arraya Jeanmas

for the Oral Presentation entitled

**EFFECTS OF CRUDE PALM OIL SUPPLEMENTATION ON EGG PRODUCTION PERFORMANCE,
EGGS QUALITY, AND BLOOD SERUM LIPID PROFILE IN LAYING HEN**

presented in 14th Science Research Conference held on 25-26 May 2023
at the School of Science, University of Phayao.



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CERTIFICATE OF EXCELLENT ORAL PRESENTATION

is awarded to

Pantaree Visessing, Chaiyapoom Bunchasak and Choawit Rakangthong

for the Oral Presentation entitled

EFFECTS OF ORGANIC MINERAL SUPPLEMENTATION IN DIET ON GROWTH PERFORMANCE AND PRODUCTION COST IN BROILER CHICKENS

presented in 14th Science Research Conference held on 25-26 May 2023
at the School of Science, University of Phayao.



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Dean of School of Science, University of Phayao



CERTIFICATE OF EXCELLENT ORAL PRESENTATION

is awarded to

**Thanathip Supcharoenkul, Nattharin Phisitaukara, Choawit Rakangtong,
Chaiyapoom Bunchasak, Komwit Surachat and Wiriya Loongyai**

for the Oral Presentation entitled

**EFFECT OF DIETARY SUPPLEMENTATION OF HABANERO PEPPER POWDER ON MEAT QUALITY AND
GROWTH PERFORMANCE OF BROILER CHICKENS**

presented in 14th Science Research Conference held on 25-26 May 2023
at the School of Science, University of Phayao.



Associate Prof.Dr.Chayan Boonyarak
Dean of School of Science, University of Phayao



CERTIFICATE OF EXCELLENT ORAL PRESENTATION

is awarded to

Suttaon Trongtokit, Keeratiyada Sanyos, and Pongsanat Pongcharoen

for the Oral Presentation entitled

**EFFECTS OF STRESS FACTORS ON CELL SURVIVAL AND ANTIOXIDANT PRODUCTION
BY THERMOTOLERANT YEAST**

presented in 14th Science Research Conference held on 25-26 May 2023
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Associate Prof.Dr.Chayan Boonyarak
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CERTIFICATE OF EXCELLENT ORAL PRESENTATION

is awarded to

Jaruwan Thepsiri, Sasiporn Audtarat and Thananchai Dasri

for the Oral Presentation entitled

**SYNTHESIS OF SILVER NANOWIRES USING HYDROTHERMAL METHOD
AND THEIR ANTIMICROBIAL APPLICATIONS**

presented in 14th Science Research Conference held on 25-26 May 2023
at the School of Science, University of Phayao.



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Dean of School of Science, University of Phayao



CERTIFICATE OF EXCELLENT ORAL PRESENTATION

is awarded to

**Peeraya Punpeng, Panida Thanyasrisung,
Prompong pienpinijtham, and Nattanan Govitvattana**

for the Oral Presentation entitled

REMINERALIZING EFFECTS OF NANO-SILVER FLUORIDE ON ARTIFICIAL DENTINE CARIES
IN A BIOFILM-CHALLENGED ENVIRONMENT (PILOT STUDY: *IN-VITRO* STUDY)

presented in 14th Science Research Conference held on 25-26 May 2023
at the School of Science, University of Phayao.



Associate Prof.Dr.Chayan Boonyarak
Dean of School of Science, University of Phayao



CERTIFICATE OF EXCELLENT ORAL PRESENTATION

is awarded to

**Kantida Chaiyo, Komsak Pintha, Payungsak Tantipaiboonwong,
Warunya Phukkhom and Wipasiri Soonthornchai**

for the Oral Presentation entitled

ANTIOXIDANT ACTIVITIES AND POLYPHENOL CONTENTS OF *BIDENS PILOSA* L. LEAF EXTRACTS

presented in 14th Science Research Conference held on 25-26 May 2023
at the School of Science, University of Phayao.



Associate Prof.Dr.Chayan Boonyarak
Dean of School of Science, University of Phayao



CERTIFICATE OF EXCELLENT ORAL PRESENTATION

is awarded to

**Chanapat Maneeted, Theeraphol Senphan,
Natthaphong Mungmuang, and Ratchanee Puttha**

for the Oral Presentation entitled

DEVELOPMENT OF DRINKING JAPANESE SWEET CORN SUPPLEMENTED WITH INULIN
TO ADD VALUE OF LOW-GRADE CORN

presented in 14th Science Research Conference held on 25-26 May 2023
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Ratchadaporn Seedad, Pornpimol Prayongpan and Kriangsak Songsrirote

for the Oral Presentation entitled

**SYNTHESIS OF SILVER NANOPARTICLES CAPPED CARBON DOTS AS FLUORESCENT
PROBE FOR CHROMIUM(III) ION DETECTION**

presented in 14th Science Research Conference held on 25-26 May 2023
at the School of Science, University of Phayao.



Associate Prof.Dr.Chayan Boonyarak
Dean of School of Science, University of Phayao



ORAL PRESENTATION AWARD

GROUP 3

สาขาวิชาคณิตศาสตร์ คณิตศาสตร์ ประยุกต์ สาขาวิชาสถิติ





CERTIFICATE OF GOOD ORAL PRESENTATION

is awarded to

Kodchapon Deein and Kanyanat Buabang

for the Oral Presentation entitled

THE EXPECTED LOTTERY PRIZE AND THE ACCURACY OF TWO DIGITS LOTTERY NUMBER

presented in 14th Science Research Conference held on 25-26 May 2023
at the School of Science, University of Phayao.



Associate Prof.Dr.Chayan Boonyarak
Dean of School of Science, University of Phayao



CERTIFICATE OF GOOD ORAL PRESENTATION

is awarded to

Attaphol Pumila and Pongpun Julta

for the Oral Presentation entitled

ON ABSORB BE-ALGEBRAS

presented in 14th Science Research Conference held on 25-26 May 2023
at the School of Science, University of Phayao.



Associate Prof. Dr. Chayan Boonyarak
Dean of School of Science, University of Phayao



CERTIFICATE OF EXCELLENT ORAL PRESENTATION

is awarded to

Natthanan Deenin and Nares Sawatraksa

for the Oral Presentation entitled

ON A PROBLEM OF PARTITIONS OF \mathbb{Z}_m WITH THE SAME REPRESENTATION FUNCTIONS

presented in 14th Science Research Conference held on 25-26 May 2023
at the School of Science, University of Phayao.



Associate Prof.Dr.Chayan Boonyarak
Dean of School of Science, University of Phayao



CERTIFICATE OF EXCELLENT ORAL PRESENTATION

is awarded to

Ekkachai Laysirikul and Natthawarun Pinin

for the Oral Presentation entitled

THE NUMBERS OF NUMERICAL SEMIGROUPS $\{0\} \cup [a, b] \cup [c, d] \cup [e, \infty)$
WITH THE SAME FROBENIUS NUMBER

presented in 14th Science Research Conference held on 25-26 May 2023
at the School of Science, University of Phayao.



Associate Prof.Dr.Chayan Boonyarak
Dean of School of Science, University of Phayao



CERTIFICATE OF EXCELLENT ORAL PRESENTATION

is awarded to

Thanapa Phothiphon and Nares Sawatraksa

for the Oral Presentation entitled

REVERSE ORDER LAWS FOR THE (b, c) - INVERSE IN Γ -RING

presented in 14th Science Research Conference held on 25-26 May 2023
at the School of Science, University of Phayao.



Associate Prof.Dr.Chayan Boonyarak
Dean of School of Science, University of Phayao



CERTIFICATE OF EXCELLENT ORAL PRESENTATION

is awarded to

Supphachai Sonwai and Chakkrid Klin-eam

for the Oral Presentation entitled

$(1 + u)$ CONSTACYCLIC AND CYCLIC CODES OVER $\mathbb{F}_2[u]/\langle u^4 \rangle$

presented in 14th Science Research Conference held on 25-26 May 2023
at the School of Science, University of Phayao.



Associate Prof.Dr.Chayan Boonyarak
Dean of School of Science, University of Phayao



CERTIFICATE OF EXCELLENT ORAL PRESENTATION

is awarded to

Usanee Janthasuwan, Suparat Niwitpong and Sa-Aat Niwitpong

for the Oral Presentation entitled

STATISTICAL ESTIMATION FOR THE MEDIAN OF THE DELTA-LOGNORMAL DISTRIBUTION

presented in 14th Science Research Conference held on 25-26 May 2023
at the School of Science, University of Phayao.



Associate Prof.Dr.Chayan Boonyarak
Dean of School of Science, University of Phayao



CERTIFICATE OF EXCELLENT ORAL PRESENTATION

is awarded to

Natchaya Ratasukharom, Sa-Aat Niwitpong and Suparat Niwitpong

for the Oral Presentation entitled

CONFIDENCE INTERVALS FOR THE MEAN OF BIRNBAUM-SAUNDERS DISTRIBUTION

presented in 14th Science Research Conference held on 25-26 May 2023
at the School of Science, University of Phayao.



Associate Prof.Dr.Chayan Boonyarak
Dean of School of Science, University of Phayao



CERTIFICATE OF EXCELLENT ORAL PRESENTATION

is awarded to

Tippaporn Wangkeeree and Thipwan Kate-in

for the Oral Presentation entitled

THE SARIMA-ANN MODELS STUDY FOR FORECASTING THE NUMBER OF
DENGUE PATIENTS IN PHITSANULOK PROVINCE

presented in 14th Science Research Conference held on 25-26 May 2023
at the School of Science, University of Phayao.



Associate Prof.Dr.Chayan Boonyarak
Dean of School of Science, University of Phayao



CERTIFICATE OF EXCELLENT ORAL PRESENTATION

is awarded to

Pongsakorn Molsin and Orawich Kumphon

for the Oral Presentation entitled

FLOOD FORECASTING MODEL AT M.5 RASRI SALAI STATION

presented in 14th Science Research Conference held on 25-26 May 2023
at the School of Science, University of Phayao.



Associate Prof. Dr. Chayan Boonyarak
Dean of School of Science, University of Phayao



CERTIFICATE OF EXCELLENT ORAL PRESENTATION

is awarded to

Mallika Chanaphai and Thipwan Kate-intra

for the Oral Presentation entitled

THE PERFORMANCE COMPARISON OF CLASSIFICATION BY STATE OF BUSINESS
ABOUT CONSTRUCTION AND REAL ESTATE IN THAILAND

presented in 14th Science Research Conference held on 25-26 May 2023
at the School of Science, University of Phayao.



Associate Prof. Dr. Chayan Boonyarak
Dean of School of Science, University of Phayao



CERTIFICATE OF EXCELLENT ORAL PRESENTATION

is awarded to

Jeerawan Patcharaprakiti, Rattikan Jakkawan and Nopporn Patcharaprakiti

for the Oral Presentation entitled

OPTIMIZATION OF BATIK PRODUCTION USING THE QUICK SIMPLEX METHOD

presented in 14th Science Research Conference held on 25-26 May 2023
at the School of Science, University of Phayao.



Associate Prof.Dr.Chayan Boonyarak
Dean of School of Science, University of Phayao



CERTIFICATE OF EXCELLENT ORAL PRESENTATION

is awarded to

Chiraphon Aphirakmongkhon and Jeerawan Patcharaprakiti

for the Oral Presentation entitled

COMPARISON OF ALGORITHM PERFORMANCE FOR A FORECASTING INSURANCE PREMIUM
PAYMENT SUSPENSION DURING THE CONTRACT OF THE INSURED
BY USING THE MACHINE LEARNING TECHNIQUE

presented in 14th Science Research Conference held on 25-26 May 2023
at the School of Science, University of Phayao.



Associate Prof. Dr. Chayan Boonyarak
Dean of School of Science, University of Phayao



CERTIFICATE OF EXCELLENT ORAL PRESENTATION

is awarded to

**Chiraphon Aphirakmongkhon, Wanlaya Keawcha,
Grienggrai Rajchakit and Jeerawan Patcharaprakiti**

for the Oral Presentation entitled

**A CLASSIFICATION OF BLACK MOLD IMAGE OF LONGAN LEAVES WITH DEEP LEARNING
TECHNIQUES BASED ON CONVOLUTION NEURAL NETWORK**

presented in 14th Science Research Conference held on 25-26 May 2023
at the School of Science, University of Phayao.



Associate Prof.Dr.Chayan Boonyarak
Dean of School of Science, University of Phayao



CERTIFICATE OF EXCELLENT ORAL PRESENTATION

is awarded to

Suwicha Dungfull, Tanakit Thianwan and Chonjaroen Chairatsiripong

for the Oral Presentation entitled

**MODIFIED JUNGCK S-ITERATION TO GENERATE POLYNOMIOGRAPHS APPLICABLE
IN NONLINEAR COMPLEX FUNCTIONS**

presented in 14th Science Research Conference held on 25-26 May 2023
at the School of Science, University of Phayao.



Associate Prof. Dr. Chayan Boonyarak
Dean of School of Science, University of Phayao



CERTIFICATE OF EXCELLENT ORAL PRESENTATION

is awarded to

Chanita Ruksakul and Sineenart Srimongkol

for the Oral Presentation entitled

A MATHEMATICAL MODEL OF HAND, FOOT, AND MOUTH DISEASE WITH
THE INVESTIGATION OF THE LOCKDOWN EFFECT

presented in 14th Science Research Conference held on 25-26 May 2023
at the School of Science, University of Phayao.



Associate Prof.Dr.Chayan Boonyarak
Dean of School of Science, University of Phayao



CERTIFICATE OF EXCELLENT ORAL PRESENTATION

is awarded to

**Sippakorn Kuntan, Akarawin Rattanawong,
Konvika Kongkul and Preuttiporn Supaphon**

for the Oral Presentation entitled

**MATHEMATICAL MODELS TO PREDICT THE INHIBITORY EFFECT OF STAPHYLOCOCCUS AUREUS
BY CLOVE EXTRACT**

presented in 14th Science Research Conference held on 25-26 May 2023
at the School of Science, University of Phayao.



Associate Prof.Dr.Chayan Boonyarak
Dean of School of Science, University of Phayao



CERTIFICATE OF OUTSTANDING ORAL PRESENTATION

is awarded to

Punnaphat Siangchin, Suphanat Phuttharak and Praphaporn Sanganusat

for the Oral Presentation entitled

ESTIMATING THE EXPECTED RETURN FROM INVESTING IN STOCKS

presented in 14th Science Research Conference held on 25-26 May 2023
at the School of Science, University of Phayao.



Associate Prof.Dr.Chayan Boonyarak
Dean of School of Science, University of Phayao



CERTIFICATE OF OUTSTANDING ORAL PRESENTATION

is awarded to

Wararit Panichkitkosolkul

for the Oral Presentation entitled

NON-PARAMETRIC BOOTSTRAP CONFIDENCE INTERVALS FOR THE POPULATION MEAN OF
THE ZERO-TRUNCATED POISSON-ARADHANA DISTRIBUTION

presented in 14th Science Research Conference held on 25-26 May 2023
at the School of Science, University of Phayao.



Associate Prof.Dr.Chayan Boonyarak
Dean of School of Science, University of Phayao



CERTIFICATE OF OUTSTANDING ORAL PRESENTATION

is awarded to

Prangthong Singkaew and Supalak Srinin

for the Oral Presentation entitled

THE k -DOMINATION NUMBER AND CONNECTED k -DOMINATION NUMBER
IN WHEEL RELATED GRAPHS

presented in 14th Science Research Conference held on 25-26 May 2023
at the School of Science, University of Phayao.



Associate Prof.Dr.Chayan Boonyarak
Dean of School of Science, University of Phayao



CERTIFICATE OF OUTSTANDING ORAL PRESENTATION

is awarded to

**Kamonwan Chawong, Panaphan Suksawat,
Supuk Seepeakaew and Yanisa Chaiya**

for the Oral Presentation entitled

UPPER BOUNDS FOR THE TOTAL DOMINATION NUMBERS OF
CARTESIAN PRODUCTS OF DIRECTED CYCLES

presented in 14th Science Research Conference held on 25-26 May 2023
at the School of Science, University of Phayao.



Associate Prof.Dr.Chayan Boonyarak
Dean of School of Science, University of Phayao



CERTIFICATE OF OUTSTANDING ORAL PRESENTATION

is awarded to

**Thanapon Plaiduang, Pattadon Keawpeai,
Nalinthip Nadsapat and Siripong Sirisuk**

for the Oral Presentation entitled

ON ISOMORPHISMS BETWEEN GENERALIZED QUATERNION RINGS AND
MATRIX RINGS OVER CERTAIN FINITE FIELDS

presented in 14th Science Research Conference held on 25-26 May 2023
at the School of Science, University of Phayao.



Associate Prof.Dr.Chayan Boonyarak
Dean of School of Science, University of Phayao



CERTIFICATE OF OUTSTANDING ORAL PRESENTATION

is awarded to

Phonthip Kanalak and Nares Sawatraksa

for the Oral Presentation entitled

ABSORPTION LAWS FOR THE (b, c) - INVERSE IN Γ -RING

presented in 14th Science Research Conference held on 25-26 May 2023
at the School of Science, University of Phayao.



Associate Prof. Dr. Chayan Boonyarak
Dean of School of Science, University of Phayao



CERTIFICATE OF OUTSTANDING ORAL PRESENTATION

is awarded to

Buddharak Sodtana, Nasha Narapinit and Chairat Modnak

for the Oral Presentation entitled

A MATHEMATICAL MODEL OF COVID-19 WITH CONTROL STRATEGIES AND ITS DYNAMICS

presented in 14th Science Research Conference held on 25-26 May 2023
at the School of Science, University of Phayao.



Associate Prof.Dr.Chayan Boonyarak
Dean of School of Science, University of Phayao



CERTIFICATE OF OUTSTANDING ORAL PRESENTATION

is awarded to

Pannathon Kreabkhontho

for the Oral Presentation entitled

STUDY OF THE 5th WAVE OF COVID-19 OUTBREAK IN THAILAND
USING MATHEMATICAL MODEL

presented in 14th Science Research Conference held on 25-26 May 2023
at the School of Science, University of Phayao.



Associate Prof.Dr.Chayan Boonyarak
Dean of School of Science, University of Phayao



ORAL PRESENTATION AWARD

GROUP 4

สาขาวิชาวิทยาศาสตร์ศึกษา และคณิตศาสตร์ศึกษา





CERTIFICATE OF GOOD ORAL PRESENTATION

is awarded to

Thanajirawat Srisuthunyavong and Nutjira Busadee

for the Oral Presentation entitled

THE ORGANIZATION OF LEARNING ACTIVITIES ON THE FACTORIZATION OF
ONE VARIABLE TWO-DEGREE POLYNOMIAL USING GAMES BASE LEARNING TO
PROMOTE ALGEBRAIC THINKING OF GRADES 8 STUDENTS

presented in 14th Science Research Conference held on 25-26 May 2023
at the School of Science, University of Phayao.



Associate Prof. Dr. Chayan Boonyarak
Dean of School of Science, University of Phayao



CERTIFICATE OF GOOD ORAL PRESENTATION

is awarded to

Phattraporn Thongkesorn and Chanyah Dahsah

for the Oral Presentation entitled

**EFFECTS OF EDUCATION PROGRAMS IN SCIENCE MUSEUM USING INQUIRY AND
STORYLINE APPROACH ON SCIENCE LEARNING MOTIVATION**

presented in 14th Science Research Conference held on 25-26 May 2023
at the School of Science, University of Phayao.



Associate Prof. Dr. Chayan Boonyarak
Dean of School of Science, University of Phayao



CERTIFICATE OF GOOD ORAL PRESENTATION

is awarded to

Jaruwat Nakwimol

for the Oral Presentation entitled

A STUDY ON THE EFFECT OF LEARNING MANAGEMENT OF INTRODUCTION TO DATA SCIENCE
COURSE WITH JARU MODEL FOR MATTHAYOMSUKSA 4 STUDENTS OF SATTHASAMUT SCHOOL

presented in 14th Science Research Conference held on 25-26 May 2023
at the School of Science, University of Phayao.



Associate Prof.Dr.Chayan Boonyarak
Dean of School of Science, University of Phayao



CERTIFICATE OF GOOD ORAL PRESENTATION

is awarded to

**Amphorn Aryiku, Phatcharapa Khongman, and
Phitsanuphakhin Chaimongkhon**

for the Oral Presentation entitled

**MODEL-BASED LEARNING ACTIVITIES COMBINED WITH GAME-BASED TEACHING METHODS
PROMOTE CRITICAL THINKING SKILLS IN THE EARTH AND NATURAL RESOURCES
LEARNING UNIT FOR JUNIOR HIGH SCHOOL STUDENTS**

presented in 14th Science Research Conference held on 25-26 May 2023
at the School of Science, University of Phayao.



Associate Prof. Dr. Chayan Boonyarak
Dean of School of Science, University of Phayao



CERTIFICATE OF GOOD ORAL PRESENTATION

is awarded to

Nathakorn Sutthiwan, Monsit Tanasittikosol and Mayuree Hansupanusorn

for the Oral Presentation entitled

STUDYING A MODEL OF HUMAN EYES BY ADJUSTABLE LIQUID LENS

presented in 14th Science Research Conference held on 25-26 May 2023
at the School of Science, University of Phayao.



Associate Prof.Dr.Chayan Boonyarak
Dean of School of Science, University of Phayao



CERTIFICATE OF GOOD ORAL PRESENTATION

is awarded to

**Natdanai Nirutmeteekul, Thodsaporn Thongyoo, Kannika Chanthaphim,
Kanchana Thongprachum and Suppamai Promkaew**

for the Oral Presentation entitled

CURRENT TRENDS TOWARD ENHANCING SCIENTIFIC LITERACY

presented in 14th Science Research Conference held on 25-26 May 2023
at the School of Science, University of Phayao.



Associate Prof.Dr.Chayan Boonyarak
Dean of School of Science, University of Phayao



CERTIFICATE OF GOOD ORAL PRESENTATION

is awarded to

**Taweedit Panyayong, Methasit Jaengklang, Thanawat Kheedkhin,
Ratchaneewan Sangpanya and Phitchaon Fongda**

for the Oral Presentation entitled

**MATHEMATICS LEARNING MANAGEMENT INNOVATION USING INFOGRAPHICS AND
WORD WALLS FOR SCHOOLS WITH TEACHER SHORTAGES**

presented in 14th Science Research Conference held on 25-26 May 2023
at the School of Science, University of Phayao.



Associate Prof.Dr.Chayan Boonyarak
Dean of School of Science, University of Phayao



CERTIFICATE OF GOOD ORAL PRESENTATION

is awarded to

Suriyon Luangtrongkit and K.Ravivuth Rangubhet

for the Oral Presentation entitled

OFFENSIVE PATTERNS ANALYSIS OF THAI NATION TEAM
IN VOLLEYBALL WOMEN'S NATIONS LEAGUE 2022

presented in 14th Science Research Conference held on 25-26 May 2023
at the School of Science, University of Phayao.



Associate Prof.Dr.Chayan Boonyarak
Dean of School of Science, University of Phayao



CERTIFICATE OF GOOD ORAL PRESENTATION

is awarded to

Pranee U-siri, Kamonthip Inprom and Phatcharaporn Wongchai

for the Oral Presentation entitled

RELATIONSHIP BETWEEN BEHAVIOR AND FOOD CONSUMPTION KNOWLEDGE ACCORDING TO NUTRITION PRINCIPLES OF EXERCISE SCIENCE AND SPORTS STUDENTS UNIVERSITY OF PHAYAO

presented in 14th Science Research Conference held on 25-26 May 2023
at the School of Science, University of Phayao.



Associate Prof.Dr.Chayan Boonyarak
Dean of School of Science, University of Phayao



CERTIFICATE OF EXCELLENT ORAL PRESENTATION

is awarded to

Thanarat Sabsom, Ratchanon Intakhun and Jatutip Kaya

for the Oral Presentation entitled

LEARNING MANAGEMENT BY USING MODEL-BASED INQUIRY AND SCIENTIFIC
EXPERIMENTS FOR DEVELOPING MENTAL MODEL
FOR 7th GRADE STUDENTS

presented in 14th Science Research Conference held on 25-26 May 2023
at the School of Science, University of Phayao.



Associate Prof.Dr.Chayan Boonyarak
Dean of School of Science, University of Phayao



CERTIFICATE OF EXCELLENT ORAL PRESENTATION

is awarded to

Thanyarat Suwannatrai and Theerapong Sangpradit

for the Oral Presentation entitled

DEVELOPMENT OF 8th GRADE STUDENTS' SCIENTIFIC ARGUMENTATION SKILLS THROUGH
ARGUMENT-DRIVEN INQUIRY WITH HIGHER ORDER QUESTIONS
IN ENERGY RESOURCES TOPIC

presented in 14th Science Research Conference held on 25-26 May 2023
at the School of Science, University of Phayao.



Associate Prof. Dr. Chayan Boonyarak
Dean of School of Science, University of Phayao



CERTIFICATE OF EXCELLENT ORAL PRESENTATION

is awarded to

Jirayute Ruennakarn and Chaninan Pruekpramool

for the Oral Presentation entitled

INVESTIGATING THAI EIGHTH GRADE STUDENTS' SCIENTIFIC PROBLEM - SOLVING ABILITY
ON GLOBAL AND NATIONAL RESOURCE TOPICS

presented in 14th Science Research Conference held on 25-26 May 2023
at the School of Science, University of Phayao.



Associate Prof. Dr. Chayan Boonyarak
Dean of School of Science, University of Phayao



CERTIFICATE OF EXCELLENT ORAL PRESENTATION

is awarded to

Chanwit Kamcharean and Kuanhathai Kuadnok

for the Oral Presentation entitled

THE USE OF PhET INTERACTIVE SIMULATION IN FUNDAMENTAL PHYSICS
LABORATORY: ELECTROMOTIVE FORCE AND INTERNAL RESISTANCE

presented in 14th Science Research Conference held on 25-26 May 2023
at the School of Science, University of Phayao.



Associate Prof.Dr.Chayan Boonyarak
Dean of School of Science, University of Phayao



CERTIFICATE OF EXCELLENT ORAL PRESENTATION

is awarded to

Adisorn Buranawong and Nirun Witit-anun

for the Oral Presentation entitled

**SIMPLE APPARATUS FOR MEASURING SPEED OF SOUND IN AIR AT VARIOUS TEMPERATURES
BY FREQUENCY DOMAIN RESONANCE TUBE**

presented in 14th Science Research Conference held on 25-26 May 2023
at the School of Science, University of Phayao.



Associate Prof. Dr. Chayan Boonyarak
Dean of School of Science, University of Phayao



POSTER PRESENTATION AWARD

GROUP 5

สาขาวิชาคอมพิวเตอร์ เทคโนโลยีสารสนเทศ วิทยาการข้อมูล





CERTIFICATE OF GOOD ORAL PRESENTATION

is awarded to

**Apichai Suesatsakulchai, Wanchana Choobanjong, and
Namida Suesatsakulchai**

for the Oral Presentation entitled

DEVELOPMENT OF DASHBOARD FOR THE SATISFACTION ASSESSMENT

presented in 14th Science Research Conference held on 25-26 May 2023
at the School of Science, University of Phayao.



Associate Prof.Dr.Chayan Boonyarak
Dean of School of Science, University of Phayao



CERTIFICATE OF GOOD ORAL PRESENTATION

is awarded to

Piyamas Kaewinta, Kaewarin Jandum and Sitthidet Vachirasricirikul

for the Oral Presentation entitled

**A DEVELOPMENT OF DVe-SAR SYSTEM TO REPORT SELF ASSESSMENT RESULTS
FOR DEPARTMENT LEVEL AT CHIANG RAI VOCATIONAL COLLEGE**

presented in 14th Science Research Conference held on 25-26 May 2023
at the School of Science, University of Phayao.



Associate Prof. Dr. Chayan Boonyarak
Dean of School of Science, University of Phayao



CERTIFICATE OF GOOD ORAL PRESENTATION

is awarded to

Nguyen Hoang Anh and Duangduen Asavasuthirakul

for the Oral Presentation entitled

**A TEAM-MEMBER RECOMMENDATION SYSTEM TO ASSIGNED TASKS
USING ANALYTIC HIERARCHY PROCESS**

presented in 14th Science Research Conference held on 25-26 May 2023
at the School of Science, University of Phayao.



Associate Prof.Dr.Chayan Boonyarak
Dean of School of Science, University of Phayao



CERTIFICATE OF GOOD ORAL PRESENTATION

is awarded to

Sivapriya Prasertsung, Kaewarin Jandum and Sitthidet Vachirasricirikul

for the Oral Presentation entitled

INFORMATION SYSTEM DEVELOPMENT FOR MANAGEMENT OF
SMALL DISTILLED LIQUOR FACTORIES OF PHAYAO AREA EXCISE OFFICE

presented in 14th Science Research Conference held on 25-26 May 2023
at the School of Science, University of Phayao.



Associate Prof.Dr.Chayan Boonyarak
Dean of School of Science, University of Phayao



CERTIFICATE OF GOOD ORAL PRESENTATION

is awarded to

Chairoj Lorpaiboon and Wirat Jareevongpiboon

for the Oral Presentation entitled

**HYBRID-DIMENSION ASSOCIATION RULE AND CUSTOMER CLUSTERING:
CASE STUDY IN CONSTRUCTION BUSINESS**

presented in 14th Science Research Conference held on 25-26 May 2023
at the School of Science, University of Phayao.



Associate Prof.Dr.Chayan Boonyarak
Dean of School of Science, University of Phayao



CERTIFICATE OF GOOD ORAL PRESENTATION

is awarded to

Siriwan Ruenrom and Niti lamchuen

for the Oral Presentation entitled

**MULTI-SCENARIO SATELLITE DROUGHT ASSESSMENT USING MOISTURE STRESS INDEX (MSI) IN
MAE SUK WATERSHED, MAE CHAI DISTRICT, PHAYAO PROVINCE**

presented in 14th Science Research Conference held on 25-26 May 2023
at the School of Science, University of Phayao.



Associate Prof.Dr.Chayan Boonyarak
Dean of School of Science, University of Phayao



CERTIFICATE OF GOOD ORAL PRESENTATION

is awarded to

Napat Menichai, Kanit Meaungsong, Grit Tongkhundam and Napat Keawpibal

for the Oral Presentation entitled

**DESIGN OF A CONTROLLED WHEELCHAIR WITH SMART WEARABLE DEVICE
USING GYROSCOPE SENSOR FOR ASSISTING PEOPLE WITH DISABILITIES**

presented in 14th Science Research Conference held on 25-26 May 2023
at the School of Science, University of Phayao.



Associate Prof. Dr. Chayan Boonyarak
Dean of School of Science, University of Phayao



CERTIFICATE OF GOOD ORAL PRESENTATION

is awarded to

**Pannathat Kantangkul, Teerapat Vatpitak,
Grit Tongkhundam and Naphat Keawpibal**

for the Oral Presentation entitled

MEDICAL APPOINTMENT SCHEDULING SOFTWARE USING Q CARE APPLICATION FOR CLINICS

presented in 14th Science Research Conference held on 25-26 May 2023
at the School of Science, University of Phayao.



Associate Prof.Dr.Chayan Boonyarak
Dean of School of Science, University of Phayao



CERTIFICATE OF GOOD ORAL PRESENTATION

is awarded to

**Pongsarit Katekeaw, Thitirat Meesawat,
Noppamas Pukkhem and Naphat Keawpiba**

for the Oral Presentation entitled

DEVELOPMENT OF MOBILE APPLICATION FOR TRACKING MEDICATIONS OF ELDERLY PATIENTS

presented in 14th Science Research Conference held on 25-26 May 2023
at the School of Science, University of Phayao.



Associate Prof.Dr.Chayan Boonyarak
Dean of School of Science, University of Phayao



CERTIFICATE OF GOOD ORAL PRESENTATION

is awarded to

Praifa Kosasirisin, Anamai Na-udom and Jaratsri Rungrattanaubol

for the Oral Presentation entitled

COMPARISON OF CLASSIFICATION MODELS PERFORMANCE WITH FINANCIAL DATA

presented in 14th Science Research Conference held on 25-26 May 2023
at the School of Science, University of Phayao.



Associate Prof.Dr.Chayan Boonyarak
Dean of School of Science, University of Phayao



CERTIFICATE OF GOOD ORAL PRESENTATION

is awarded to

Jeerabhat Supapinit and Aukrit natkaeo

for the Oral Presentation entitled

AUTOMATIC ATTENDANCE SYSTEM WITH FACIAL RECOGNITION

presented in 14th Science Research Conference held on 25-26 May 2023
at the School of Science, University of Phayao.



Associate Prof.Dr.Chayan Boonyarak
Dean of School of Science, University of Phayao



CERTIFICATE OF EXCELLENT ORAL PRESENTATION

is awarded to

**Phanu Uthaisri, Jakkrit Suwanmongkol,
Chanon Porjai and Nuttanun Phromwan**

for the Oral Presentation entitled

**A COMPARISON OF THE ACCURACY OF AERIAL IMAGERY MAPS OBTAINED
FROM SMALL UNMANNED AERIAL VEHICLES AT VARIOUS ALTITUDES**

presented in 14th Science Research Conference held on 25-26 May 2023
at the School of Science, University of Phayao.



Associate Prof.Dr.Chayan Boonyarak
Dean of School of Science, University of Phayao



CERTIFICATE OF EXCELLENT ORAL PRESENTATION

is awarded to

Siriwimon Mo-In, Patcharee Maneerat and Pisit Nakjai

for the Oral Presentation entitled

**AUTOMATIC FLOWER DETECTION FOR SOME ORCHID IDENTIFICATION
USING CONVOLUTION NEURAL NETWORKS**

presented in 14th Science Research Conference held on 25-26 May 2023
at the School of Science, University of Phayao.



Associate Prof.Dr.Chayan Boonyarak
Dean of School of Science, University of Phayao



CERTIFICATE OF EXCELLENT ORAL PRESENTATION

is awarded to

Chareewal Klomklom and Sutasinee Jitanan

for the Oral Presentation entitled

FACE EMOTION CLASSIFICATION OF HUMAN USING CONVOLUTIONAL NEURAL NETWORK TECHNIQUE OF DEEP LEARNING

presented in 14th Science Research Conference held on 25-26 May 2023
at the School of Science, University of Phayao.



Associate Prof.Dr.Chayan Boonyarak
Dean of School of Science, University of Phayao



ORAL PRESENTATION AWARD

GROUP 6

สาขาวิชาฟิสิกส์ พลังงาน ดาราศาสตร์ และวัสดุศาสตร์





CERTIFICATE OF GOOD ORAL PRESENTATION

is awarded to

**Nisamon Thongham, Suwit Pethauylung, Pornpana Buaphet,
Narit Klompong and Sutthisa Konruang**

for the Oral Presentation entitled

**EFFECT OF POTASSIUM OLEATE ON X-RAY ATTENUATION PROPERTIES OF
NATURAL RUBBER/BARIUM SULFATE COMPOSITE**

presented in 14th Science Research Conference held on 25-26 May 2023
at the School of Science, University of Phayao.



Associate Prof.Dr.Chayan Boonyarak
Dean of School of Science, University of Phayao



CERTIFICATE OF GOOD ORAL PRESENTATION

is awarded to

Pitichod Jitkaew, Waranthon Wanichnam, and Pitak Pooljareansin

for the Oral Presentation entitled

DEVELOPMENT OF pH AND HUMIDITY MEASUREMENT AND CONTROL SYSTEMS IN HYDROPONIC PLANTS GREENHOUSES WITH IoT TECHNOLOGY BY BLYNK APPLICATION ON A SMARTPHONE

presented in 14th Science Research Conference held on 25-26 May 2023
at the School of Science, University of Phayao.



Associate Prof.Dr.Chayan Boonyarak
Dean of School of Science, University of Phayao



CERTIFICATE OF GOOD ORAL PRESENTATION

is awarded to

**Noppadon Sisuk, Pattanasak Sahavisit, Surat Buran,
Piyaphon Prakhongchai and Kreangsak Promphak**

for the Oral Presentation entitled

RECOGNITION OF SQUAT STRENGTH EXERCISES BASED ON MACHINE LEARNING SYSTEM

presented in 14th Science Research Conference held on 25-26 May 2023
at the School of Science, University of Phayao.



Associate Prof. Dr. Chayan Boonyarak
Dean of School of Science, University of Phayao



CERTIFICATE OF GOOD ORAL PRESENTATION

is awarded to

**Kanticha Kankaew, Sataporn Tippayaruck, Jiraphat Phusamlee,
Natha Onintr, Nuttawut Kantham, Natthaphat Thongyoo,
Pornrad Srisawad and Phacharatouch Chaimongkon**

for the Oral Presentation entitled

ANISOTROPIC FLOW IN Au + Au COLLISION AT 1 A GeV
BY USING QUANTUM MOLECULAR DYNAMICS MODEL

presented in 14th Science Research Conference held on 25-26 May 2023
at the School of Science, University of Phayao.



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Dean of School of Science, University of Phayao



CERTIFICATE OF GOOD ORAL PRESENTATION

is awarded to

Phicharn Phommajak and Kridsanaphong Limtragool

for the Oral Presentation entitled

THEORETICAL STUDY OF ELECTRICAL PROPERTIES OF TWISTED BILAYER GRAPHENE

presented in 14th Science Research Conference held on 25-26 May 2023
at the School of Science, University of Phayao.



Associate Prof.Dr.Chayan Boonyarak
Dean of School of Science, University of Phayao



CERTIFICATE OF GOOD ORAL PRESENTATION

is awarded to

Kanjarat Piamsuwongthong and Priyakorn Rachaprommin

for the Oral Presentation entitled

TRASH SEPARATOR

presented in 14th Science Research Conference held on 25-26 May 2023
at the School of Science, University of Phayao.



Associate Prof.Dr.Chayan Boonyarak
Dean of School of Science, University of Phayao



CERTIFICATE OF GOOD ORAL PRESENTATION

is awarded to

**Sudarat Tokampang, Nattapong Apirattanon,
Noppadon Sisuk and Kreangsak Promphak**

for the Oral Presentation entitled

MEASUREMENT AND CONTROL SYSTEM FOR WATER AND NUTRIENT SUPPLY

presented in 14th Science Research Conference held on 25-26 May 2023
at the School of Science, University of Phayao.



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Dean of School of Science, University of Phayao



CERTIFICATE OF GOOD ORAL PRESENTATION

is awarded to

**Noppadon Sisuk, Tada Onkhong, Anucha Kaewpoonsuk,
Pramote Wardkien and Pott Pongpaopattanakul**

for the Oral Presentation entitled

WEARABLE ECG AND HEART RATE RECORDER FOR SMART HEALTHCARE SYSTEMS

presented in 14th Science Research Conference held on 25-26 May 2023
at the School of Science, University of Phayao.



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Dean of School of Science, University of Phayao



CERTIFICATE OF GOOD ORAL PRESENTATION

is awarded to

Chayapat Wiangnaksansuk, Tipwan Suppasat and Niyom Hongsih

for the Oral Presentation entitled

DEVELOPMENT OF A SENSOR SYSTEM FOR MEASURING SOUND FREQUENCY IN BEEHIVES TO ANALYZE THE BEHAVIOR OF BEES AFTER BEING IMPACTED BY EXTERNAL NOISE DISTURBANCE

presented in 14th Science Research Conference held on 25-26 May 2023
at the School of Science, University of Phayao.



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CERTIFICATE OF EXCELLENT ORAL PRESENTATION

is awarded to

Nanthapat Chanapai, Phitsanu Poolcharuansi, and Nopphon Saowiang

for the Oral Presentation entitled

**EFFECT OF SOURCE-TO-SUBSTRATE DISTANCE ON RADIAL DISTRIBUTION OF TA-C FILMS IN
FILTERED CATHODIC ARC DISCHARGE**

presented in 14th Science Research Conference held on 25-26 May 2023
at the School of Science, University of Phayao.



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CERTIFICATE OF EXCELLENT ORAL PRESENTATION

is awarded to

Pimchanok Pitakassawakul and Pravej Serichetaphongse

for the Oral Presentation entitled

THE EFFECT OF DIFFERENT FUNCTIONAL MONOMER OF ZIRCONIA PRIMER AND UNIVERSAL ADHESIVE
ON SHEAR BOND STRENGTH OF ZIRCONIA TO COMPOSITE RESIN USING RESIN CEMENT

presented in 14th Science Research Conference held on 25-26 May 2023
at the School of Science, University of Phayao.



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CERTIFICATE OF EXCELLENT ORAL PRESENTATION

is awarded to

Saisunee Jitkla, Kanok Boonkerd and Sirilux Poompradub

for the Oral Presentation entitled

INFLUENCE OF FORMIC ACID CONCENTRATION ON PROPERTIES OF RUBBER RIBBED SMOKED SHEET

presented in 14th Science Research Conference held on 25-26 May 2023
at the School of Science, University of Phayao.



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CERTIFICATE OF EXCELLENT ORAL PRESENTATION

is awarded to

Dachaphon Kealkaew and Atthakorn Thongtha

for the Oral Presentation entitled

INTEGRATING PHASE CHANGE MATERIALS TO THE SHERA WOOD WALL
FOR IMPROVING THE EFFICIENCY OF HEAT TRANSMISSION REDUCTION

presented in 14th Science Research Conference held on 25-26 May 2023
at the School of Science, University of Phayao.



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CERTIFICATE OF EXCELLENT ORAL PRESENTATION

is awarded to

Nattapon Kongwattana, Kaokanya Sudprasert and Chakrit Tachaapaikoon

for the Oral Presentation entitled

STUDY OF PRODUCTION OF 5-HYDROXYMETHYLFURFURAL FROM CORN COBS
BY DEHYDRATION REACTION USING FORMIC ACID AND SODIUM HYDROXIDE AS REAGENTS

presented in 14th Science Research Conference held on 25-26 May 2023
at the School of Science, University of Phayao.



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CERTIFICATE OF EXCELLENT ORAL PRESENTATION

is awarded to

**Rapatpon Thakonprajak, Wachira nukaew,
Anupoom tatiwan and Aukrit natkaeo**

for the Oral Presentation entitled

INVESTIGATION OF FIRE RESISTANCE AND PHYSICAL PROPERTIES OF
REFRACTORY BRICK USING OIL PALM BUNCH

presented in 14th Science Research Conference held on 25-26 May 2023
at the School of Science, University of Phayao.



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CERTIFICATE OF EXCELLENT ORAL PRESENTATION

is awarded to

Sasiwimon Kaewthongsorn, Sutthisa Konruang and Pornpana Buaphet

for the Oral Presentation entitled

PREPARATION OF CELLULOSE SEPARATOR FOR LITHIUM-ION BATTERY
FROM RED WATER LILY AND WATER HYACINTH FIBERS

presented in 14th Science Research Conference held on 25-26 May 2023
at the School of Science, University of Phayao.



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Dean of School of Science, University of Phayao



CERTIFICATE OF EXCELLENT ORAL PRESENTATION

is awarded to

Anucha Kaewpoonsuk

for the Oral Presentation entitled

MOIRÉ FRINGES ANALYSIS OF PARALLEL GRATINGS BY ELIMINATING
THE EFFECT OF HIGH FREQUENCY COMPONENTS

presented in 14th Science Research Conference held on 25-26 May 2023
at the School of Science, University of Phayao.



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CERTIFICATE OF EXCELLENT ORAL PRESENTATION

is awarded to

Patharacha Kongchana and Panupong Jaiban

for the Oral Presentation entitled

THE BIOFILM-BASED TRIBOELECTRIC GENERATOR FROM DURIAN PEEL

presented in 14th Science Research Conference held on 25-26 May 2023
at the School of Science, University of Phayao.



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CERTIFICATE OF EXCELLENT ORAL PRESENTATION

is awarded to

Prangwilai Phuttami and Panupong Jaiban

for the Oral Presentation entitled

TRIBOELECTRIC GENERATOR FROM THE NATURAL RUBBER

presented in 14th Science Research Conference held on 25-26 May 2023
at the School of Science, University of Phayao.



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CERTIFICATE OF EXCELLENT ORAL PRESENTATION

is awarded to

Nattapon Kongtaworn and Panupong Jaiban

for the Oral Presentation entitled

ELECTRIC ENERGY HARVESTING FROM MECHANICAL FORCE BY CASSAVA BIOPLASTIC FILMS

presented in 14th Science Research Conference held on 25-26 May 2023
at the School of Science, University of Phayao.



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Dean of School of Science, University of Phayao



CERTIFICATE OF EXCELLENT ORAL PRESENTATION

is awarded to

**Wannapa Khamjeen, Panadda Sittiketkorn, Lalana Nunthagornpituk,
Sutaphat Phansuwan, Nutkamol Suwannasri, Oraorn Kaewchot,
Kristiya Tomuang, Natthaphat Thongyoo, Yaphakhakorn Chaimongkon,
Pornrad Srisawad and Phacharatouch Chaimongkon**

for the Oral Presentation entitled

**COLLECTIVE EXPANSION OF K^+ MESONS IN HEAVY-ION COLLISIONS ON THE EFFECT OF
IN-MEDIUM KAON POTENTIAL AND THE NUCLEAR EQUATION OF STATE**

presented in 14th Science Research Conference held on 25-26 May 2023
at the School of Science, University of Phayao.



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Dean of School of Science, University of Phayao



CERTIFICATE OF EXCELLENT ORAL PRESENTATION

is awarded to

Kanjarat Piamsuwongthong and Priyakorn Rachaprommin

for the Oral Presentation entitled

HEART RATE AND BLOOD OXYGEN SATURATION MONITOR BASED ON IoT

presented in 14th Science Research Conference held on 25-26 May 2023
at the School of Science, University of Phayao.



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Dean of School of Science, University of Phayao



CERTIFICATE OF OUTSTANDING ORAL PRESENTATION

is awarded to

Tosapol Maluangnont

for the Oral Presentation entitled

TEMPERATURE DEPENDENCE OF AC ELECTRICAL PROPERTIES
IN GRAPHITIC CARBON NITRIDE COMPACT

presented in 14th Science Research Conference held on 25-26 May 2023
at the School of Science, University of Phayao.



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Dean of School of Science, University of Phayao



CERTIFICATE OF OUTSTANDING ORAL PRESENTATION

is awarded to

**Nattapong Apirattanon, Sudarat Tokampang,
Noppadon Sisuk and Kreangsak Promphak**

for the Oral Presentation entitled

DEVELOPMENT OF AN APPLICATION TO MEASURE ARTERIAL OXYGEN SATURATION AND
MONITOR FALLS IN THE ELDERLY USING ML AND IoT

presented in 14th Science Research Conference held on 25-26 May 2023
at the School of Science, University of Phayao.



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Dean of School of Science, University of Phayao



CERTIFICATE OF OUTSTANDING ORAL PRESENTATION

is awarded to

**Sutthisa Konruang, Tanyawan Rodpayung , Thawatchai Tepnual ,
Pornpana Buaphet and Narit Klompong**

for the Oral Presentation entitled

STUDY OF PHYSICAL PROPERTIES AND GAMMA-RAY SHIELDING PROPERTIES OF
NATURAL RUBBER /CALCIUM CARBONATE COMPOSITE

presented in 14th Science Research Conference held on 25-26 May 2023
at the School of Science, University of Phayao.



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CERTIFICATE OF OUTSTANDING ORAL PRESENTATION

is awarded to

Nirun Witit-anun and Adisorn Buranawong

for the Oral Presentation entitled

**INFLUENCE OF ALUMINIUM CONTENTS ON THE STRUCTURE AND HARDNESS OF
CHROMIUM ALUMINIUM NITRIDE THIN FILMS**

presented in 14th Science Research Conference held on 25-26 May 2023
at the School of Science, University of Phayao.



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Dean of School of Science, University of Phayao



CERTIFICATE OF OUTSTANDING ORAL PRESENTATION

is awarded to

**Viruntachar Kruefu, Kata Jaruwongrungee,
Narong Chanlek and Anurat Wisitsoraat**

for the Oral Presentation entitled

EFFICIENT DETECTION OF SO₂ GAS USING rGO/SnO₂ NANOCOMPOSITES-BASED SENSORS

presented in 14th Science Research Conference held on 25-26 May 2023
at the School of Science, University of Phayao.



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CERTIFICATE OF OUTSTANDING ORAL PRESENTATION

is awarded to

**Chayapon Iemsonthi, Seksit Lorwilai, Panuwit Sankaokam
Orapin Riyaprao and Cherdsak Saelee**

for the Oral Presentation entitled

THE OFF-CARDINAL ALIGNMENT OF CHIANG MAI'S CITY PLAN IN RELATION TO THE ORION'S BELT

presented in 14th Science Research Conference held on 25-26 May 2023
at the School of Science, University of Phayao.



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CERTIFICATE OF OUTSTANDING ORAL PRESENTATION

is awarded to

Araf Laerosa, Siriporn Pradit, Montri Luengchavanon and Prakrit Noppradit

for the Oral Presentation entitled

**OPTICALLY STIMULATED LUMINESCENCE DATING REVEALED THE LATE QUATERNARY
COASTAL SEDIMENTS IN SONGKHLA COAST, THAILAND**

presented in 14th Science Research Conference held on 25-26 May 2023
at the School of Science, University of Phayao.



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CERTIFICATE OF OUTSTANDING ORAL PRESENTATION

is awarded to

Pongsak Khokhuntod, Ratchanoo Katman and Attapon Amthong

for the Oral Presentation entitled

THE EFFECTS OF INITIAL NUMBERS OF DICE ON DECAY CONSTANT

presented in 14th Science Research Conference held on 25-26 May 2023
at the School of Science, University of Phayao.



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CERTIFICATE OF OUTSTANDING ORAL PRESENTATION

is awarded to

Paradorn Pakdeevanich, Sittisak Jaiyindee and Kanok Hournkumnuard

for the Oral Presentation entitled

APPLYING OPTICAL TECHNIQUE TO DETERMINE VALUE OF YOUNG'S MODULUS

presented in 14th Science Research Conference held on 25-26 May 2023
at the School of Science, University of Phayao.



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Dean of School of Science, University of Phayao



CERTIFICATE OF OUTSTANDING ORAL PRESENTATION

is awarded to

Passara Suwanasing, Kanoktip Boonkerd and Sirilux Poompradub

for the Oral Presentation entitled

PROCESS OPTIMIZATION OF RECLAIMED RUBBER PREPARATION FROM TIRE WASTE

presented in 14th Science Research Conference held on 25-26 May 2023
at the School of Science, University of Phayao.



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Dean of School of Science, University of Phayao



ORAL PRESENTATION AWARD

GROUP 7

สาขาวิชาสาขาวิชาวิทยาศาสตร์ นวัตกรรมเชิงพาณิชย์





CERTIFICATE OF GOOD ORAL PRESENTATION

is awarded to

Thanpisit Peekaw, Nophakon Kantakad and Sarit Promthep

for the Oral Presentation entitled

AN AUTOMATED GUIDED VEHICLE ROBOT FOR TRANSPORT IN CONFINED PLACE

presented in 14th Science Research Conference held on 25-26 May 2023
at the School of Science, University of Phayao.



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Dean of School of Science, University of Phayao



CERTIFICATE OF EXCELLENT ORAL PRESENTATION

is awarded to

Waritsara Jongsomboonpoka and Jinjuta Tamruang-it

for the Oral Presentation entitled

LIFTING POSTURE MONITORING APPLICATION FOR PREVENTING ERGONOMICS RISK FACTORS

presented in 14th Science Research Conference held on 25-26 May 2023
at the School of Science, University of Phayao.



Associate Prof. Dr. Chayan Boonyarak
Dean of School of Science, University of Phayao



CERTIFICATE OF EXCELLENT ORAL PRESENTATION

is awarded to

Wee Warasincahi and Boonsong Henngam

for the Oral Presentation entitled

PLASTIC BOTTLE RECYCLING MACHINE

presented in 14th Science Research Conference held on 25-26 May 2023
at the School of Science, University of Phayao.



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Dean of School of Science, University of Phayao



CERTIFICATE OF EXCELLENT ORAL PRESENTATION

is awarded to

Chunkamol Panyayong and Nattakan Sricharoen

for the Oral Presentation entitled

DEVELOPMENT OF TAMARIND SAUCE AND SPICY SAUCE
FOR READY-TO-EAT FRIED CHICKEN WITH CONSUMPTION CONVENIENCE

presented in 14th Science Research Conference held on 25-26 May 2023
at the School of Science, University of Phayao.



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ORAL PRESENTATION AWARD

GROUP 8

ROUTINE TO RESEARCH





CERTIFICATE OF GOOD ORAL PRESENTATION

is awarded to

Sita Thianwan

for the Oral Presentation entitled

THE DEVELOPMENT AND DATABASE SYSTEM FOR RISK MANAGEMENT AND INTERNAL CONTROL
FACULTY OF SCIENCE UNIVERSITY OF PHAYAO

presented in 14th Science Research Conference held on 25-26 May 2023
at the School of Science, University of Phayao.



Associate Prof.Dr.Chayan Boonyarak
Dean of School of Science, University of Phayao



CERTIFICATE OF EXCELLENT ORAL PRESENTATION

is awarded to

Suchila Phumyoo

for the Oral Presentation entitled

DEVELOPMENT OF INFORMATION SYSTEM FOR MANAGEMENT RESEARCH PROJECT FUND OF
SCIENCE FACULTY, NARESUAN UNIVERSITY

presented in 14th Science Research Conference held on 25-26 May 2023
at the School of Science, University of Phayao.



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Dean of School of Science, University of Phayao



CERTIFICATE OF EXCELLENT ORAL PRESENTATION

is awarded to

Anunsa Tonglao

for the Oral Presentation entitled

A STUDY OF MOTIVATION TO STUDY AT THE FACULTY OF SCIENCE, MAHASARAKHAM UNIVERSITY

presented in 14th Science Research Conference held on 25-26 May 2023
at the School of Science, University of Phayao.



Associate Prof. Dr. Chayan Boonyarak
Dean of School of Science, University of Phayao