

Physics

Room 243



Time

Project

09.00 – 09.15

Orbit Simulation by Using Fabric as Curved Spacetime

S. Jongwattanapaiboon, P. Oupchan, J. Boonyanuson, P. Sirimachan

09.15 – 09.30

Sound Intensification by Amplifying with Parabolic Reflectors

N. Wadlom, T. Pullarp, P. Soontharanurak, M. Medhisuwakul

09.30 – 09.45

Studying and modelling high-resistance layers of gallium nitride

D. Vagin, A. Pavluchenko

09.45 – 10.00

Investigation of the Effect of Temperature on the Speed of Light in Water

S. Y. Ng, H. T. Tan

10.00 – 10.15

How many interstellar asteroids are in the Solar System at any given time?

M. M. Smith, H. Greer, Hunter

Break

10.30 – 10.45

Microsphere Optical Nanoscope

T. L. Y. Allysa

10.45 – 11.00

Getting the scoop on Vanilloids; Nature's favourite flavourings

N. Hoccom, A. Kingshott, M. Clifford

Chemistry

Room 242



Time

Project

09.00 – 09.15

Synthesis of Activated Carbon Derived from Rice Husk using ZnCl_2 as Activating Agent for Heavy Metal Removal

C. Boonyata, P. Trachai, T. Suwanratsamee, P. Pootawang

09.15 – 09.30

Cost-Effective Modulator for Comprehensive Two-Dimensional Gas Chromatography

S. Jongwattanapaiboon, P. Oupchan, J. Boonyanuson, P. Sirimachan

09.30 – 09.45

Synthesis of vanillin-based porphyrins and their applications

A. Kaennakham, P. Susangrat, P. Punyamung, P. Nalaoh

09.45 – 10.00

Converting Biomass into Biofuel

A. Giordano, E. Schmitt, M. Waechter, M. Hinchliffe

10.00 – 10.15

Synthesis of Tryptamine Derivatives-Potential Antitumor Drugs

P. Gurevich, Osipova

Break

10.30 – 10.45

Biodiesel

K. T. Learning, Herm

10.45 – 11.00

The Effect of Heating Time of Canola Oil on the Specific Heat Capacity of Biodiesel Produced

P. Malik

11.00 – 11.15

Hydrogen Gas Production from Durian Shell and Sheep Dung

A. Tungwongkitsiri, S. Yoadsanit, S. Anantachaisilp

Engineering

Room 312



Time

Project

09.00 – 09.15

Aromatherapy Automatic Control System using Brain Computer Interface

J. Hongfongfah, P. Disrattakit

09.15 – 09.30

Xspine

S. Sirawattanakul, N. Nantapinai

09.30 – 09.45

Investigating the effect of electricity to the size of particle in suspension for reducing fouling in pipe

K. Kamolram, P. Kumphun, T. Udsa, S. Warintaraporn

09.45 – 10.00

Reversible Thermo-C fuse

No name, S. Anantachaisilp

10.00 – 10.15

Improving the Cost Efficiency of Atmospheric Water Harvesting

E. Herbert, A. Gonzales

Break

10.30 – 10.45

Manipulating Varied Electrodes to Optimize Microbial Fuel Cells

J. Castro, N. Pham, A. Gonzales

10.45 – 11.00

Design of Dynamic Antifouling Surfaces using Protein Monolayer

L. P. Yi

11.00 – 11.15

Sensor to detect and improve improper posture

E. van Dalen, A. Martens, I. van Grinsven, Hesselberth

11.15 – 11.30

Intellectual notification system "Smart Window"

I. Bondarenko, A. Kuznetsov

Material Science

Room 313



Time

Project

09.00 – 09.15

Development of Composite Materials from Natural Rubber with Styrene-Butadiene Rubber and Coconut Husk to Apply as Neutron Particles and Gamma Rays Shields

P. Dutsadeevettakul, M. Insuwan, K. Klaythong

09.15 – 09.30

Effect of temperature on the hysteresis effect

T. W. Zhi, Sean, C. K. Yang

09.30 – 09.45

The investigation of bio-degradable plastic for the substrate of Lingzhi mushroom spawn

K. Chusen, S. Jinapangkas, T. Khowtanapanich, S. Warintaraporn

09.45 – 10.00

Carbon Aerogel Derived from Watermelon Peel for Oil Spill Treatment

C. Hasuwannakit, N. Kuakulkiat, T. Sae-wun, K. Sawangsri

10.00 – 10.15

Self-Healing Rigid Polyurethane Foam Synthesis by Encapsulation Method

N. Kerewanmas, N. Kongchu, J. Maneesan

Break

10.30 – 10.45

Developing the Efficiency of Photovoltaic Cell by Using Carbon Nanoparticle Instead of Dye

T. Chunanant, N. Kongkaew, P. Tanalikhit, A. Khetubol

10.45 – 11.00

BIOPLASTICS PREPARATION FROM DURIAN PEEL'S CMC AND FLOURS USING TWIN SCREW EXTRUDER FOR BIODEGRADABLE FILM APPLICATION

N. Natekuekool, P. Hiranayachatri, S. Nounjeen

11.00 – 11.15

Eichhornia crassipes as Tree-Free Paper Alternative

F. A. Hosea, A. Permana

11.15 – 11.30

Investigate in making Geopolymer as a green material, prioritizing to replace wood.

N. M. Han, P. L. Vu

Mathematics

Room 212



Time

Project

09.00 – 09.15

Classes of Equally Likely Outcomes of a Riffle Shuffle on a Deck of Alternating Cards

S. Kotchasarn, P. Khampheng, T. Thanodomdech

09.15 – 09.30

Discovering the relationship between Euclid’s algorithm and the number of digits by focusing on the Fibonacci sequence

K. Irie, T. Yasukawa

09.30 – 09.45

Integer complexity: a new approach

A. Mordosevich, N. Bashaev

09.45 – 10.00

Ruin Probability with a Constant Premium Rate in a Financial Corporation Model

R. Padungkiattiwong, S. Sirintronsopon, T. Vongvanich, T. Thanodomdech

10.00 – 10.15

Study of Thai Artistic Patterns in terms of Mathematical Functions

N. Poolsawad, K. Sumetpipat

Break

10.30 – 10.45

On the properties of knots and links constructed from planar graphs

O. Kashurin

10.45 – 11.00

Application of Infinite Series to Definite Integrals

W. S. Hong, Dave

11.00 – 11.15

A Sharp Trigonometric Double Inequality

K. Yongbeom, Yenny

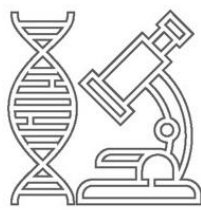
11.15 – 11.30

Factorization of finite groups into subsets

R. Bildanov

Biology

Room 333



Time

Project

09.00 – 09.15

Detection of long non-coding RNA in HIV-1 subtype CRF01_AE to explore possibilities of cure by reactivating latently infected cells

P. Dechawichitlert, P. Powwattanasuk, P. Sinweeruthai, S. Wantanawijarn

09.15 – 09.30

Effects of Genetic and Pharmacologic Loss of the Notch4 Receptor on Angiogenesis

K. Thakkar, N. Adler

09.30 – 09.45

Development of an antifungal bio-coating from mango kernel extract and chitosan against green mold rot on oranges

N. Donfai, N. Muensri, T. Rungsriwattana, A. Thirach

09.45 – 10.00

Subliminal Messages: From Myth to Reality

E. Ahzan, T. Fazel, S. Yekrangi, S. Asgharian

10.00 – 10.15

Analysis of possible functional conservation between genes Oxr1 and Ncoa7

L. Kristina, D. Svistunova

Break

10.30 – 10.45

Localization of lamins during the cell cycle of mammalian cells that express human progerin

U. Astashkina, S. Kurchashova

10.45 – 11.00

Curing Sickle Cell Anaemia using CRISPR technology to edit the sickle cell mutation, GTG, into the normal red blood cell DNA sequence, GAG

Z. Mozaffari, H. Sreelal, M. Pal

11.00 – 11.15

Computational Analysis of Glucagon Receptor (GCGR) and Antagonist Structures for Further Screening Type 2 Anti-Diabetic Compounds

T.Prucksikanont, C. Tritipchatsakun, P. danphitsanuparn

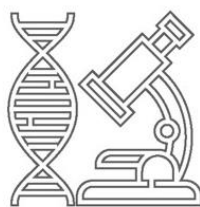
11.15 – 11.30

The Diversity of Mesofauna as Bioindicator in Mangunan Protection Forest, Dlingo, Bantul, Yogyakarta, Indonesia

K. I. Huda, V. H. Priyambodo, N. Rahmadhani, S. H. Poerwanto

Biology

Room 333



Time

Project

11.30 – 11.45

Emergency Hemostasis Gel for Inner and Outer Wound from Corn Husk Fiber

E.Thaworn, P. Puanglumyai, O. Tuntoolavest, T. Leebongam

11.45 – 12.00

Exploring Striatopallidal and Intrapallidal Circuitries in Relation to Parkinson's Disease

S. Chalasani, Q. Cui

Lunch

13.00 – 13.15

A Pill millipede Conglobation-inspired Motorcycle Design

A. Prawarnpit, P. Thanareangamon, P. Chokijpaisarn, P. Danphitsanuparn

13.15 – 13.30

Machine learning prediction of glioblastoma patient one-year survival using clinical and genomic data

A. Du, J. Wu

13.30 – 13.45

FEASIBILITY TO EVALUATE EMOTIONAL REGULATION USING PHYSIOLOGICAL SENSORS

P. Sasiangkul, S. Pinyo, T. Pongkemmanun, T. Leeboonngam

13.45 – 14.00

Development of KIT for rapid and specific detection of Escherichia coli O157:H7

M. H. Nguyen, P. T. Ngo

14.00 – 14.15

Development of an Approach to the Visualization of Epigenetic Landscapes

E. Kurkina

14.15 – 14.30

Protective Effect of Bacopasides on 7-Ketocholesterol Induced Damage in Human Brain Endothelial Cells

V.Teo

14.30 – 14.45

The Effectivity of Placenta-derived Cord Blood in Alloxan-Induced Sprague Dawley Rats

K. L. Colasito, Z. Gelua, J. M. Maligaya, Hipolito

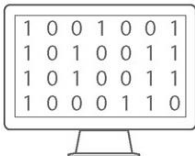
14.45 – 15.00

The use of microbial biotechnology in the extraction of precious metals from e-waste

M. J. Senghore, B. J. Damisoni, P. A. Ngendo, Irudhayaraj

Computer Science

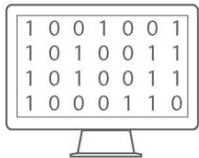
Room 213



Time	Project
09.00 – 09.15	Traveling Salesman Problem with a Time-Dependent Edge Length of the Unrestricted Model K. Taveesak, G. Tassanasophon
09.15 – 09.30	Proteins folding prediction using neural network M. Senina, P. Yakovlev
09.30 – 10.45	Artificial Intelligence for Thai Fabric Patterns Generation Using Genetic Algorithm C. Thatasawakul, S. Sutthiwanna, T. Ittiphanitphong, K. Sumetpipat
09.45 – 10.00	Image Analysis and Machine Learning For Scanning Electron Microscope Photography Classification of Fractures in Steel P. Tiyajamorn, P. Lorprasertkul, R. Assabumrungrat, A. Laoharenoo
10.00– 10.15	BLOODSTAIN PATTERN ANALYSIS BY USING MACHINE LEARNING M. Preechatiwong, P. Lorprasertkul, K. Sawangsri
Break	
10.30 – 10.45	Primary Study for the Announcement of the Automobile License Plate Through Image Processing N. Koesomboon, P. Phankingthongkum, P.Sukhum, A Mukngeon
10.45 – 11.00	A Novel Machine Learning Framework for Real Time Optimization of Taxi Dispatch Services S. Agrawal
11.00 – 11.15	Development of a Website and Database System for the Biodiversity and Vulnerable Ecosystems Research (BiVER) Program S. A. Ripalda, M. S. B. Omisol
11.15 – 11.30	Wifi-Controlled Irrigation System Monyroth, Pisoth

Computer Science

Room 213



Time

Project

11.30 - 11.45

Development of an iOS Application for Real-time Spectral Classification of Stars Based on a Convolutional Neural Network

M. J. P. D. Santos, P. E. Evangelista, J. S. Ordonio

11.45 - 12.00

Simulating the optimal city

A. Yoneyama

Lunch

13.00 - 13.15

Edge-guided Anime Characters Generation

K. Namekata

13.15 - 13.30

Flow OS - Waterish -- Water Usage Monitoring and Reporting Ecosystem

S. Sirichai, P. Tainsri

13.30 - 13.45

Study to increase the flying distance of UAV using solar panels

R. Junwhi, K. Hyeonwoo, Y. Kim

Environmental Science

Room 332



Time

Project

09.00 – 09.15

Oil Absorbent Material Based on Natural Rubber

P. Sukjuntra, A. Chaisawat, N. Hayeemasae

09.15 – 09.30

The impact that plastic waste has on marine lives: an assessment of the impact on sea turtles

Y. Funaki, I. Yamada, T. Yasukawa

09.30 – 09.45

Can casein be used to make practical, single-use biodegradable plastic cutlery?

K. Bardien, K. Thacker, P. Corkill

09.45 – 10.00

Investigation of polyethylene degradation by *Bacillus cereus* using peptone extract from peanut shells

T. Pattarawarin, T. Kraissarin, A. Suwanchatree, A. Thirach

10.00 – 10.15

What do students of the ASMS think of the Sense of Community at school and how does it compare to the current literature on Sense of Community?

K. Gwatking

Break

10.30 – 10.45

Application of aerial imagery by UAV for fault surveys around Hatyai basin, Songkhla Province

L. Lapinee, S. Jonjana

10.45 – 11.00

Environmental Monitoring Through Probable Devices: A Case Study of Urban Mico-Ecological Research

L. jia Yu, W. C. Cheng, C. K. Lok, L. K. Heng

11.00 – 11.15

Australian Automatic Self-Irrigating System

R. Cowley, R. Jammu, Y. Thanawala, F. Nagel

11.15 – 11.30

Bioremediation of Heavy Metal Lead (Pb) and Copper (Cu) in the Lapindo Mudflow using Microalgae *Chlorella pyrenoidosa*

B. Nathanael, J. Christopher, A. Permana

Environmental Science

Room 332



Time	Project
11.30 - 11.45	Exploring the Use of Cattails as a Natural Fertilizer L. Teller, Teller
11.45 - 12.00	Plasteriase: Mutating a Bacterial PET-degrading Enzyme O. Tsang, J. Lee, A. Tse, Yu
Lunch	
13.00 - 13.15	Evaluation tools for distributed small-scaled plastic recycling systems X. Cheah
13.15 - 13.30	How to use natural zeolite for environmentally friendly purification of contaminated water R. Shibazaki, Takeda
13.30 - 13.45	How can the composting environment be manipulated to increase the efficiency of cotton composting? I. McClements
13.45 - 14.00	A study on the influence of jet stream on the quantitative characteristics of fine dust adsorbent components C. Park, D. Yoon, Juhwan, Kim
14.00 - 14.15	Wastewater treatment and Charcoal kiln with dark smoke filtered box S. Silavongsith, A. Siharath, A. Shiharath
14.15 - 14.30	Seagrass Distribution Mapping of Cuatro Islas, Philippines J. L. G. Amores
14.30 - 14.45	CLIMATE CHANGE: THE VICIOUS CYCLE C. D. Yu, G. S. Tian, Candice, Lim

