Physics
Room 243

Time	Project

PHY01
09.00 – 09.15

Orbit Simulation by Using Fabric as Curved Spacetime
S. Jongwattanapaiboon, P. Oupchan, J. Boonyanuson, P. Sirimachan

PHY02
09.15 – 09.30

Sound Intensification by Amplifying with Parabolic Reflectors
N. Wadlom, T. Pullarp, P. Soontharanurak, M. Medhisuwakul

PHY03
09.30 – 09.45

Studying and modelling high-resistance layers of gallium nitride
D. Vagin, A. Pavluchenko

PHY04
09.45 – 10.00

Investigation of the Effect of Temperature on the Speed of Light in Water
S. Y. Ng, H. T. Tan

PHY05
10.00 – 10.15

How many interstellar asteroids are in the Solar System at any given time?
M. M. Smith, H. Greer, Hunter

Break

PHY06
10.30 – 10.45

Microsphere Optical Nanoscope
T. L. Y. Allysa

PHY07
10.45 – 11.00

Getting the scoop on Vanilloids; Nature's favourite flavourings
N. Hoccom, A. Kingshott, M. Clifford

Chemistry

Room 242

Time	Project
CHEM01 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
CHEM02 09.15 – 09.30	**Cost-Effective Modulator for Comprehensive Two-Dimensional Gas Chromatography** S. Jongwattanapaiboon, P. Oupchan, J. Boonyanuson, P. Sirimachan
CHEM03 09.30 – 09.45	**Synthesis of vanillin-based porphyrins and their applications** A. Kaennakham, P. Susangrat, P. Punyamung, P. Nalaoh
CHEM04 09.45 – 10.00	**Converting Biomass into Biofuel** A. Giordano, E. Schmitt, M. Waechter, M. Hinchliffe
CHEM05 10.00 – 10.15	**Synthesis of Tryptamine Derivatives-Potential Antitumor Drugs** P. Gurevich, Osipova

Break

Time	Project
CHEM06 10.30 – 10.45	**Biodiesel** K. T. Learning, Hem
CHEM07 10.45 – 11.00	**The Effect of Heating Time of Canola Oil on the Specific Heat Capacity of Biodiesel Produced** P. Malik
CHEM08 11.00 – 11.15	**Hydrogen Gas Production from Durian Shell and Sheep Dung** A. Tungwongkitsiri, S. Yoadsanit, S. Anantachaisilp

Engineering
Room 312

Time	Project

ENG01
09.00 – 09.15

Aromatherapy Automatic Control System using Brain Computer Interface
J. Hongfongfah, P. Disrattakit

ENG02
09.15 – 09.30

Xspine
S. Sirawattanakul, N. Nantapinai

ENG03
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

ENG04
09.45 – 10.00

Reversible Thermo-C fuse
P. Poprom, N. Kraivisitkul, D. Siriwanna, S. Anantachaisilp

ENG05
10.00 – 10.15

Improving the Cost Efficiency of Atmospheric Water Harvesting
E. Herbert, A. Gonzales

— Break —

ENG06
10.30 – 10.45

Manipulating Varied Electrodes to Optimize Microbial Fuel Cells
J. Castro, N. Pham, A. Gonzales

ENG07
10.45 – 11.00

Design of Dynamic Antifouling Surfaces using Protein Monolayer
L. P. Yi

ENG08
11.00 – 11.15

Sensor to detect and improve improper posture
E. van Dalen, A. Martens, I. van Grinsven, Hesselberth

ENG09
11.15 – 11.30

Intellectual notification system "Smart Window"
I. Bondarenko, A. Kuznetsov

Materials Science

Room 313

Time	Project

MAT01
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

MAT02
09.15 – 09.30

Effect of temperature on the hysteresis effect

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

MAT03
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

MAT04
09.45 – 10.00

Carbon Aerogel Derived from Watermelon Peel for Oil Spill Treatment

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

MAT05
10.00 – 10.15

Self-Healing Rigid Polyurethane Foam Synthesis by Encapsulation Method

N. Kerewanmas, N. Kongchu, J. Maneesan

Break

MAT06
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

MAT07
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

MAT08
11.00 – 11.15

***Eichhornia crassipes* as Tree-Free Paper Alternative**
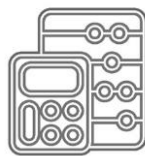
F. A. Hosea, A. Permana

MAT09
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
MATH01 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
MATH02 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
MATH03 09.30 – 09.45	**Integer complexity: a new approach** A. Mordosevich, N. Bashaev
MATH04 09.45 – 10.00	**Ruin Probability with a Constant Premium Rate in a Financial Corporation Model** R. Padungkiettiwong, S. Sirintronsopon, T. Vongvanich, T. Thanodomdech
MATH05 10.00 – 10.15	**Study of Thai Artistic Patterns in terms of Mathematical Functions** N. Poolsawad, K. Sumetpipat

Break

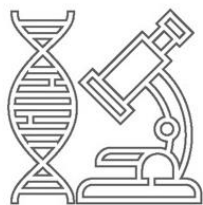| Time	Project
MATH06 10.30 – 10.45	**On the properties of knots and links constructed from planar graphs** O. Kashurin
MATH07 10.45 – 11.00	**Application of Infinite Series to Definite Integrals** W. S. Hong, Dave
MATH08 11.00 – 11.15	**A Sharp Trigonometric Double Inequality** K. Yongbeom, Yenny
MATH09 11.15 – 11.30	**Factorization of finite groups into subsets** R. Bildanov

Biology

Room 333

Time

Project

BIO01
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

BIO02
09.15 – 09.30

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

K. Thakkar, N. Adler

BIO03
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

BIO04
09.45 – 10.00

Subliminal Messages: From Myth to Reality

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

BIO05
10.00 – 10.15

Analysis of possible functional conservation between genes Oxr1 and Ncoa7

L. Kristina, D. Svistunova

Break

BIO06
10.30 – 10.45

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

U. Astashkina, S. Kurchashova

BIO07
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

BIO08
11.00 – 11.15

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

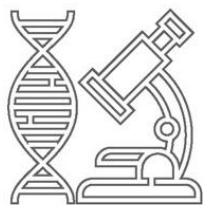T.Prucksikanont, C. Tritipchatsakun, P. danphitsanuparn

BIO09
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

BIO10
11.30 – 11.45

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

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

BIO11
11.45 – 12.00

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

S. Chalasani, Q. Cui

Lunch

BIO12
13.00 – 13.15

A Pill millipede Conglobation-inspired Motorcycle Design

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

BIO13
13.15 – 13.30

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

A. Du, J. Wu

BIO14
13.30 – 13.45

Feasibility to Evaluate Emotional Regulation Using Physiological Sensors

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

BIO15
13.45 – 14.00

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

M. H. Nguyen, P. T. Ngo

BIO16
14.00 – 14.15

Development of an Approach to the Visualization of Epigenetic Landscapes

E. Kurkina

BIO17
14.15 – 14.30

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

V.Teo

BIO18
14.30 – 14.45

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

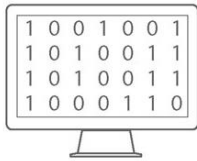K. L. Colasito, Z. Gelua, J. M. Maligaya, Hipolito

BIO19
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

COM01
09.00 – 09.15

Traveling Salesman Problem with a Time-Dependent Edge Length of the Unrestricted Model
K. Taveesak, G. Tassanasophon

COM02
09.15 – 09.30

Proteins folding prediction using neural network
M. Senina, P. Yakovlev

COM03
09.30 – 10.45

Artificial Intelligence for Thai Fabric Patterns Generation Using Genetic Algorithm
C. Thatasawakul, S. Sutthiwanna, T. Ittiphanitphong, K. Sumetpipat

COM04
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

COM05
10.00– 10.15

Bloodstain Pattern Analysis by Using Machine Learning
M. Preechatiwong, P. Lorprasertkul, K. Sawangsri

Break

COM06
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

COM07
10.45 – 11.00

A Novel Machine Learning Framework for Real Time Optimization of Taxi Dispatch Services
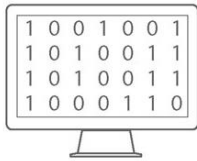S. Agrawal

COM09
11.00 – 11.15

Wifi-Controlled Irrigation System
Monyroth, Pisoth

Computer Science

Room 213

Time	Project
COM10 11.15 – 11.30	**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
COM11 11.30 – 11.45	**Simulating the optimal city** A. Yoneyama
COM12 11.45 – 12.00	**Edge-guided Anime Characters Generation** K. Namekata

Lunch

Time	Project
COM13 13.00 – 13.15	**Flow OS - Waterish -- Water Usage Monitoring and Reporting Ecosystem** S. Sirichai, P. Tainsri
COM14 13.15 – 13.30	**Study to increase the flying distance of UAV using solar panels** R. Junwhi, K. Hyeonwoo, Y. Kim

Environmental Science

Room 332

Time	Project

ENV01
09.00 – 09.15

Oil Absorbent Material Based on Natural Rubber
P. Sukjuntra, A. Chaisawat, N. Hayeemasae

ENV02
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

ENV03
09.30 – 09.45

Can casein be used to make practical, single-use biodegradable plastic cutlery?
K. Bardien, K. Thacker, P. Corkill

ENV04
09.45 – 10.00

Investigation of polyethylene degradation by *Bacillus cereus* using peptone extract from peanut shells
T. Pattarawarin, T. Kraisarin, A. Suwanchatree, A. Thirach

ENV05
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

ENV06
10.30 – 10.45

Application of aerial imagery by UAV for fault surveys around Hatyai basin, Songkhla Province
L. Lapinee, S. Jonjana

ENV07
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

ENV08
11.00 – 11.15

Australian Automatic Self-Irrigating System
R. Cowley, R. Jammu, Y. Thanawala, F. Nagel

ENV09
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

ENV10
11.30 – 11.45

● **Exploring the Use of Cattails as a Natural Fertilizer**
L. Teller, Teller

ENV11
11.45 – 12.00

● **Plasteriase: Mutating a Bacterial PET-degrading Enzyme**
O. Tsang, J. Lee, A. Tse, Yu

Lunch

ENV12
13.00 – 13.15

● **Evaluation tools for distributed small-scaled plastic recycling systems**
X. Cheah

ENV13
13.15 – 13.30

● **How to use natural zeolite for environmentally friendly purification of contaminated water**
R. Shibazaki, Takeda

ENV14
13.30 – 13.45

● **How can the composting environment be manipulated to increase the efficiency of cotton composting?**
I. McClements

ENV15
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

ENV16
14.00 – 14.15

● **Wastewater treatment and Charcoal kiln with dark smoke filtered box**
S. Silavongsith, A. Siharath, A. Shiharath

ENV18
14.15 – 14.30

● **Climate Change: The Vicious Cycle**
C. D. Yu, G. S. Tian, Candice, Lim