Computational Physics, Computational Fluid Dynamics and Solid Mechanics (PFD)

| Code | Presenter | Title |
|---------|--------------------------------|---|
| PFD-P-1 | Lanchakorn Kittiratanawasin | Finite Volume Scheme with Weighted Average Flux for Wet and Dry Shallow Water Simulations |
| PFD-P-2 | Chewa Thassana | Image Processing for Astronomical Objects |
| PFD-P-3 | Nuttapong La-Ongtup | Atomistic Simulation of Structural Evolution at Long Time Scales: Diffusion in the FCC NiAl System |
| PFD-P-4 | Sorasit Buapong | The Effects of Stone-Wales Defect on Quantum Capacitance in Carbon Nanotube |
| PFD-P-5 | Wiraporn Maithong | Stellar Spectrum Analysis from eShel Spectroscope |

Computational Chemistry (CHE)

| Code | Presenter | Title |
|----------|---------------------------------|--|
| CHE-P-1 | Narissa Kanlayakan | Effects of Different Proton Donor and Acceptor Groups on Excited-State Intramolecular Proton Transfers of Amino-type and Hydroxy-type Hydrogen-Bonding Molecules: Theoretical Insights |
| CHE-P-2 | Jack D'Amelio | Structural Screening of Photoactive Covalent Organic Frameworks |
| CHE-P-3 | Chanatkran Prommin | Theoretical Studies of Excited State Proton Transfer of 2-(2'-Hydroxyphenyl)benzimidazole, 2-Hydroxybenzaldehyde, 1-Hydroxy-2-acetonaphthone, and Their Derivatives |
| CHE-P-4 | Suparada Kimchompoo | Theoretical Study of Different Donor-and Acceptor-Type Effect in Push–Pull Porphyrin Dyes for Dye-Sensitized Solar Cells |
| CHE-P-5 | Ruangchai Tarsang | Theoretical Study on Effect of Auxiliary Acceptor in Novel D-p- π - π -A Featured Sensitizers for Dye-Sensitized Solar Cells |
| CHE-P-6 | Chattarika Sukpattanacharoen | Theoretical Study on Electronic and Optical Properties of Polythiophene, Polyfuran, Polypyrrole and Their Derivatives as Light-Emitting Materials |
| CHE-P-7 | Malinee Promkatkaew | Theoretical Study on the Structural and Spectroscopic Properties of Cyanine Dyes as Fluorescent Dyes for DNA Detection |
| CHE-P-8 | Rusrina Salaeh | Time-Dependent Density Functional Theory (TDDFT) Investigation on Electronic and Photophysical Properties of Derivatives of 3-Hydroxyflavone |
| CHE-P-9 | Worawaran Thongnuam | Aldol Condensation of Benzaldehyde and Acetophenone on Zirconium Based Metal-Organic Framework: A DFT Study |
| CHE-P-10 | Sarinya Hussadee | Carbon-Doped Boron Nitride Nanosheet: An Efficient Metal-Free Catalyst for Catalytic Oxidation of Carbon Monoxide |
| CHE-P-11 | Nattida Maeboonruan | Confinement Effect on the Adsorption of Glucose, Hydroxymethylfurfural and Levulinic Acid on H-Zeolites (H-ZSM5, H-MOR and H-BEA) |
| CHE-P-12 | Rathawat Daengngern | Dynamics Simulations of ESIPT Reactions of 2,5-bis(2'-benzoxazolyl)hydroquinone |
| CHE-P-13 | Yutthana Wongnongwa | Mechanistic Study of CO Oxidation by N ₂ O over Ag ₇ Au ₆ Cluster Investigated by DFT Methods |
| CHE-P-14 | Phornphimon Maitarad | Nitrous Oxide Decomposition with CO Reducing Agent over Oxotitanium Porphyrin: A Theoretical Study |
| CHE-P-15 | Saowalak Phikulthai | The Catalytic Reaction of Ethanol to Ethylene : A DFT Study |
| CHE-P-16 | Wasinee Panjan | The Conversion of Methane to Methanol over the [Cu-O-Cu]2+/ZSM-5 Zeolite : a Density Functional Theory Study |
| CHE-P-17 | Chanchai Sattayanon | The Effect of Small Gas Detection on Metal-Embedded MoS ₂ : DFT Study |
| CHE-P-18 | Chan Inntam | The Influence of Silver Cluster Size and Carbon Nanotubes on CO Adsorption: A DFT Study |
| CHE-P-19 | Karan Bobuatong | Theoretical Mechanistic Investigation of Au ₂₀ and Au ₁₆ Pd ₄ Catalyzed Aerobic Oxidation of Benzyl Alcohol to Benzaldehyde |

| Code | Presenter | Title |
|----------|----------------------------|---|
| CHE-P-20 | Tanabat Mudchimo | Theoretical Study on Carbon-Doped Boron Nitride Nanosheet as a Metal-Free Catalyst for NO Reduction Reaction |
| CHE-P-21 | Suppasith Assawabenjang | Theoretical Study on Olefin Polymerization Catalyst: Half- Titanocenes Containing Aryloxo Ligands |
| CHE-P-22 | Thantip Roongcharoen | Warped Nanographene $C_{80}H_{30}$ as a Promising Catalyst for Nitric Oxide Decomposition |
| CHE-P-23 | Warin Jetsadawisut | Coarse-Grained Molecular Dynamics Simulation of CorA Magnesium Channel in a Nanodisc |
| CHE-P-24 | Paptawan Suwanhom | Computational Docking Study of 4-Oxo-N-(2-(Piperidin- 1- Yl)Ethyl)-4H-Chromene-2-Carboxamide as Acetylcholinesterase and Butyrylcholinesterase Inhibitors |
| CHE-P-25 | Panisak Boonamnaj | Dimer Structure Stabilization of H _v 1 C-terminal Domain by Salt Bridge Movements |
| CHE-P-26 | Wiparat Hotarat | Enhanced Stability of Inclusion Complexes of Alpha-Mangostin with Hydrophilic Beta-Cyclodextrin; A Molecular Dynamics Simulation Study |
| CHE-P-27 | Channarong Khrutto | MD Simulation of M2 Proton Channel in Different Phospholipid Bilayer Models |
| CHE-P-28 | Pattama Wapeesittipan | Millisecond Protein Dynamics Does Not Control Catalysis in Cyclophilin A – Evidence from Molecular Dynamics Simulations |
| CHE-P-29 | Theerayut Khempach | Molecular Calculations on Host-Guest Inclusion Complexes of Natural Insecticides: Squamocin and Nicotine |
| CHE-P-30 | Nattaya Mekjirawat | Molecular Docking Investigation of WR99210 Analogues as Novel <i>M.tuberculosis</i> DHFR Inhibitors |
| CHE-P-31 | Naruedon Phusi | Structure Based Drug Design of 4-Aminoquinilone Derivatives in DNA Gyrase B Subunit for Anti-Tuberculosis Agents Using Molecular Dynamic Simulations |
| CHE-P-32 | Triet Le Huynh Minh | A Data Mining Approach to Determine the Hindered Internal Rotational Frequency for Chemical Species |

Computational Biology and Bioinformatics (BIO)

| Code | Presenter | Title |
|----------|-------------------------|---|
| BIO-P-1 | Wanwisa Panman | Amylose Wrapping on Single-wall Carbon Nanotube by Computational Study |
| BIO-P-2 | Panupong Mahalapbutr | Computer-Based Drug Screening of Mansonone G Analogs Against Human DNA Topoisomerase II ATPase Domain |
| BIO-P-3 | Phakawat Chusuth | Dynamics Behaviors of Active and Inactive EGFR TK Domains with Erlotinib Bound |
| BIO-P-4 | Sirilak Kongkaew | How a T-Cell Antigen Receptor Recognizes Self-Peptide Leading Autoimmune |
| BIO-P-5 | Nitchakan Darai | In Silico Screening of Chalcones Against Epstein-Barr Nuclear Antigen 1 Protein |
| BIO-P-6 | Kamonpan Sanachai | In Silico Screening of Targeted Proteins for Developing Anticancer Agents |
| BIO-P-7 | Napat Kongtaworn | MD Simulations of Three Designed TSX Structures with 50% Galactose-Removal in Explicit Water Solvent |
| BIO-P-8 | Chonnikan Hanpaibool | Molecular Dynamics Study on MCR-1 In Mono-Zinc and Di-Zinc Forms |
| BIO-P-9 | Peerapong Wongpituk | Structural Dynamics and Binding Free Energy of Neral Cyclodextrins Inclusion Complexes: Molecular Dynamics Simulation |
| BIO-P-10 | Bodee Nutho | Susceptibility of Potent Inhibitors Against NS2B/NS3 Serine Protease of Zika Virus: A Molecular Dynamics Study |
| BIO-P-11 | Nattawat Tantijaratchai | Virtual Screening for Tripeptide Inhibitors in Nnrti Binding Pocket of HIV-1 Reverse Transcriptase |

High Performance Computing, Cloud Computing, Computer Science and Engineering (CSE)

| Code | Presenter | Title |
|---------|--------------------|---|
| CSE-P-1 | Pairat Tulyaprawat | A Numerical Model for Optimizing a Magnetic Regenerator |
| CSE-P-2 | Prasarnphun Saisin | Automatic Control for Water Droplet on Metal Surface |