ACDT 2015, 22-25 April 2015, Hua Hin, Thailand

April 22 (Wed)

Registration (16:00-18:00) Function Room, Conference Hall

Reception (18:30-20:30) McFarland House

April 23 (Thu)

Registration (08:00-08:50)

Opening Ceremony (08:50-09:20) (MC: Nirut Chalainanont)

Keynote Speech (09:20-10:20) Linguistic Geometry: From Ancient Warfare to Intelligent Adversarial Reasoning (Boris Stilman) (Chair: Thanaruk Theeramunkong)

Break (10:20-10:40)

Invited Speech The Making of the Terrex Vehicle by ST Kinetics (10:40-11:20) (Chan Yi Yuen, Alan Ho) (Chair: Phermsak Siripala)

Session 1 (40 min) (11:20-12:00)

Grand Ballroom	Boardroom
Data Analysis I (Chair: Songsri Tangsripairoj) (Co-Chair: Jiradett Gerdsri)	**Explosives and Chemistry I (Chair: Monchai Duangpanya) (Co Chair: Thipvaree Wangchareansak)**
Applying Multivariate Data Analysis to Identify Key Parameters of Bi-directional Attack Flows *Korakoch Wilailux, Sudsanguan Ngamsuriyaroj*	Production and Characterization of Nanometer Explosives *Fengsheng Li, Jie Liu, Wei Jiang, Yu-jiao Wang, Xiao-de Guo*
Cyber Risk Evaluation Framework based on Risk Environment of Military Operation *Aniwat Hemanidhi, Sanon Chimmanee, Parinya Sanguansat*	Application of Low Temperature Plasma Modification Explore the Technical Processing of Nano HMX *Xiaode Guo, Binbin Dong, Fengsheng Li, Zhixiang Wang, Fei Wu*

Lunch (12:00-13:00)

Invited Speech (13:00-14:00) Defence Capability Enhancement through Collaboration (Mark Hodge) (Chair: Jirasak Jewmaidang)

Session 2 (60 min) (14:00-15:00)

Grand Ballroom	Boardroom
Data Analysis II (Chair: Songsri Tangsripairoj) (Co-Chair: Wichai Pawgasame)	**Explosives and Chemistry II (Chair: Watcharee Jornjamrus) (Co-Chair: Paisarn Apinhaphat)**
Joint Tactical Air Request Processing Via Genetic Algorithm *Jason Noble, Koji Kurata, Mohammad Reza Asharif*	The Study of Computational Chemistry Simulation of Ferrocene for Solid Propellant *Ornin Srihakulung*
Mobile Crime Incident Reporting System Using UX Dimensions Guideline *Natruja Vatanasuk, Anuthep Chomputawat, Sirikanya Chomputawat, Watchara Chatwiriya*	Applications of Surface-enhanced Raman Scattering (SERS) Substrate *Noppadon Nuntawong, Pitak Eiamchai, Saksorn Limwichean, Mati Horprathum, Viyapol Patthanasettakul, Pongpan Chindaudom*
Gunshot Noise Detection using Zero Phase Technique *Weerawut Thanhikamt*	Synthesis and Characterization of Cellulose-Microfibril Reinforced Epoxy Composite *Warut Thammawichai, Cheewita Suwanchawalit, Kullatat Suwatpipat, Navapan Poopakdee*

Break (15:00-15:20)

Session 3 (80 min) (15:20-16:40)

Grand Ballroom	Boardroom
Communication Technology (Chair: Mores Prachyabrued) (Co-Chair: Wichai Pawgasame)	**ICT and Data Management I (Chair: Thepchai Supnithi) (Co-Chair: Weetit Wannalertluk)**
Tactical Wireless Networks: A Survey for Issues and Challenges *Wichai Pawgasame, Komwut Wipusitwarakun*	Analysis and Simulation of Heat Index for Developing a Heat Alert System over Thailand *Sukrit Kirtsaeng, Panus Kirtsaeng*
Impacts of Vehicles on the Outdoor Search Area of Small Wirelessly-Controlled Robots *Supachoke Chukaew, Paisarn Sonthikron*	A Hybrid Approach for Linguistic Information Integration to Multi-Experts Multi-Attribute Decision-Making Problem *Narongsak Pongsathornwiwat, Van-Nam Huynh, Thanaruk Theeramunkong*
New Design Wireless Sensor Network based TETRA DMO Protocol *Somrak Petchartee, Peerayudh Saratayon*	Distributed Virtual Environments for Military Training Applications: Trends and Challenges *Surachai Chieochan, Prakorn Pratoomma, Chamnan Kumsap*
Reliable Data Communication Over HF Link Using System On Chip Technology *Somkheart Kraisin, Wichai Pawgasame*	Triple-mode Location-aware Android Portable System for Field Operations *Khanchai Kingkangwan, Nirut Chalainanont, Chamnan Kumsap*

Tutorial (16:40-18:40) The Essence of Discoveries: Rediscovering the No-Search Approach in Linguistic Geometry (Boris Stilman)

April 24 (Fri)

Invited Speech (09:00-10:00) Interactive Applications of Collaborative Unmanned Aircraft Systems with Humans (Patrick Doherty) (Chair: Pawat Chusilp)

Break (10:00-10:20)

Invited Speech (10:20-11:20) Development of Solid Propellant Rocket Propulsion and Related Technologies (Chesda Kiriratnikom) (Chair: Monchai Duangpanya)

Invited Speech (11:20-12:00) Probability-Based Reliability/Durability Analysis/Design (Surot Thangjitham) (Chair: Weetit Wanalertlak)

Lunch (12:00-13:00)

Session 4 (120 min) (13:00-15:00)

Grand Ballroom	Boardroom
Radar and Antenna (Chair: Peerayudh Saratayon) (Co-Chair: Weerawat Kawsuk)	**Mechanical Engineering (Chair: Phermsak Siripala) (Co-Chair: Suwicha Chankapor)**
The Study of Using Infrared as Docking Aid System for Boat *Naruebas Nakarith, Phansak Iamraksa*	Compact Counter-Recoil Design of Water Cannon Using a Single Nozzle with Backward Spray *Tonkid Chantrasmi, Siriporn Tansuwanarat, Pumyos Vallikul*
Design of COTS Dual-Circularly Polarized Conical-Scan Cassegrain Antennafor Rocket Tracking *Peerayudh Saratayon, Pattapong Sripho, Soraphob Suparchaipornitchapong*	Ballistic Analysis of 14.5 AP bullet on armor material *Tosapolporn Pornpibunsompop*
AM Transciever Based on Forced Oscillator By Using Multi-time Analysis *Kunanon Kittipute, Paramote Wardkein, Suthasin Srisook*	Real Time Kinect Based Robotic Arm Manipulation with five degree of freedom *Sunny Amatya, Somrak Petchartee*
An OFDM-based Radar for Military Safety *Lin Lai Lai Khine, Somrak Petchartee*	Design and Development of a Hull Stabilization System for Personnel Carrier *Paphat Srinontri, Theerayuth Chatchanayuenyong, Nattawoot Suwannata, Chattrakul Sombattheera*
IRIG S-Band Missile Telemetry *Peerayudh Saratayon, Somrak Petchartee*	The Damaged Analysis from Ballistic Threats on Transparent Armor *Chidchanok Chaichuenchob, Sujarinee Sinchai*
Time-Oriented Management of DTI Telemetry Data *Soraphob Suparchaipornitchapong, Thanathat Saelim, Weerawat Khawsuk*	Dynamics of Arms Race Model at Fractional Order *Yoothana Suansook*

Break (15:00-15:20)

Session 5 (80 min) (15:20-16:40)

Grand Ballroom	Boardroom
ICT and Data Management II (Chair: Chamnan Kumsap) (Co-Chair: Nithinun Tanvilaipong)	**Aeronautical Engineering (Chair: Pawat Chusilp) (Co-Chair: Janewit Keetasin)**
Dynamic Broadcast Encryption based on Braid Groups *Norranut Saguansakdiyotin, Pipat Hiranvanichakorn*	Development of Dynamic Inversion Based Outer-loop Anti-swing Control Law for a Helicopter Slung-load System *Thanan Yomchinda*
Database Management to support Automatic Placement of 3D Building Models To A Simulated Scene *Nithinun Tanvilaipong, Nirut Chalainanont, Chamnan Kumsap*	Study of Autonomous Evasive Planar-Maneuver Against Proportional-Navigation Guidance Missiles for Unmanned Aircraft *Thanan Yomchinda*
Investigation on Detection Accuracy of RFID tags on Back-to-back Queuing Objects *Choermath Hongakkaraphan, Chutima Beokhaimook, Phalakron Nilkhet*	Development of Automatic Firing Angle Calculation for Ground to Ground MLRS *Weerawut Charubhun, Pawat Chusilp*
Internal Ballistics Simulation Based on Object Oriented Programming *Roongtawan Laimek, Wichai Pawgasame*	Color Marker Detection with Varoius Imaging Conditions and Occlusion for UAV Automatic Landing Control *Montika Sereewattana, Miti Ruchanurucks, Supakorn Siddhichai, Sakol Kongkaew, Shoichi Hasegawa*

Invited Speech (16:40-17:30) New Defense Equipment Export Policy of Japan and Outline of Technical Research and Development Institute (TRDI) (Toru Hotchi) (Chair: Chatchawan Hemkiattikun)

Panel Discussion (17:30-18:30) Thailand's State of the Art Aerospace Technologies for National Security and Country Development Pongsatorn Buasup, DTI Sarun Sumriddetchkajorn, NSTDA Suthee Aksornkit, TRF Anond Snidvongs, GISTDA (Moderator: Kamol Watcharasathian, RTAF)

Banquet (18:30-21:00) Pool Lawn Area

April 25 (Sat)

Panel Discussion (09:00-9:50) Humanitarian Assistance/Disaster Relief oriented Crowdsourced Real Time Data (Peter Haddawy, Akira Namatame, Brian Steckler) (Moderator: Chamnan Kumsap)

Session 6 (40 min) (09:50-10:30)

Grand Ballroom

Explosives and Chemistry III (Chair: Monchai Duangpanya) (Co-Chair: Chidchanok Chaichuenchob)

Molecularly Imprinted Polymer for Explosive Detection *Chompoonuch Tancharoen, Wannisa Sukjee, Chak Sangma, Thipvaree Wangchareansak*

Ensuring the Safety and Quality of Meals for Security Forces through the Use of Irradiation *Suwimol Jetawattana*

Break (10:30-10:50)

Poster Presentation (10:50-11:40) (Coordinator: Pansak Wonganoo)

1. A Review of Hazards for Lithium – Ion Battery Applied in Tactical Radio
2. Application of Ni Nanoparticles in Solid Rocket Propellant
3. Application of Cu Nanoparticles in Solid Rocket Propellant
4. Application of Al Nanoparticles in Solid Rocket Propellant
5. Microanalysis Study on Explosives: Chemical Fertilizers
6. An Online Interactive Whiteboard for Military Applications: a Conceptual Design
7. A Design of Lathe Boring Tool with Rotating Cutter Principle
8. Situation Data Intelligence System for a Decision Making in Military Operation
9. Encapsulation of Carbon Nanotubes with Ferrocene by Solution Based Processing
(Posters can start to set up from the evening of April 22, 2015.)

Closing Ceremony (11:40-12:00) (MC: Nirut Chalainanont)

Lunch (12:00-13:00)

Technical Visit