(As of November ●, 2015)

Poster Session

12:30-14:00 Poster Display Room (Sakura)

PS 1-1 Reconstruction innovation

PS 1-1-1
The Recycling Work for Pratt Truss built about 119 years ago - Katsumi Bridge made of Egasaki Bridge (Sumidagawa Bridge)
Junto Ueno (Oriental Consultants Ltd., Japan)

PS 1-1-2
Resilience Evaluation of Girder Bridges in Japan
Heang Lam (Civil and Environmental Engineering, Waseda University, Japan)

PS 1-1-3
Floating Type Temporary Cofferdam Method: Innovative Dam Redevelopment, A New Coffering System for Underwater Work
Takayuki Kambe (Kajima Corporation, Japan)

PS 1-1-4
A holistic approach into the impact of sodium hypochlorite on polypropylene fibre reinforced concrete
Peter Hughes (HISAC, University of Fukui, Japan)

12:30-14:00 Poster Display Room (Sakura)

PS 1-2 Land/city conservation and disaster mitigation

PS 1-2-1
Attempt at reinforcing the crisis management capability against large-scale sediment disasters through the use of the PDCA cycle
Youichi Sako (Sabo Frontier Foundation, Japan)

PS 1-2-2
Estimating residential damage costs from Tsunami of great earthquakes along the Nankai trough: The case of Kochi Prefecture, Japan
Hiroshi Sao (Faculty of Environmental Studies, Tokyo City University, Japan)

PS 1-2-3
New developed in-situ apparatus for evaluating the liquefaction susceptibility of soils
Shunichi Sawada (Engineering Headquarters, OYO corporation, Japan)

PS 1-2-4
The disaster prevention base of the 'Michi-no-Eki' (Roadside Station)
Satoshi Akiyama (Road Policy Group, Japan Institute of Country-ology and Engineering, Japan)

PS 1-2-5
Proposal of a method to visualize the risk of a landslide dam disaster
Miki Chiba (SABO Frontier Foundation, Japan)

PS 1-2-6
Applying airborne disaster monitoring system for the 2014 Hiroshima landslides
Susumu Takagishi (PASCO CORPORATION, Japan)

PS 1-2-7
Study on the Variation Regularity of the Strength Index of Xigeda-Soil-Dam Reinforced with Bamboo along with the Change of Saturation
Wenjie Dai (Economics and Management School, Jiujiang University)

PS 1-2-8
Impact assessment of climate change on water-related disasters for building up an adaptation strategy
Yasuto Tachikawa (Department of Civil and Earth Resources Engineering, Graduate School of Engineering, Kyoto University, Japan)

PS 1-2-9
River Embankment Monitoring by MMS, UAV and Handy-Laser
Gaku Takamatsu (Central Japan District Division Technical Center, PASCO CORPORATION, Japan)

PS 1-2-10
A STUDY ON MODELING OF PILE AXIAL BEHAVIOR AT THE TIME OF EARTHQUAKE
Akito Sone (Port and Coastal Engineering Group, NEWJEC Inc., Japan)

PS 1-2-11
Actions for Maintenance and Lifespan keeping of SABO Facilities
Hisashi Watanabe (SABO FRONTIER FOUNDATION (SFF), Japan)

PS 1-2-12
A STUDY ON RIVER EMBANKMENT EROSION DUE TO OVERTOPPING FLOW
Toshiaki Yoden (NEWJEC Inc., Japan)

PS 1-2-13
Efforts for disaster prevention and mitigation for the future in the area of river management with the aim to national resilience
Masato Okabe (Water Resources Policy Group, Japan Institute of Country-ology and Engineering)

PS 1-2-14
A framework for disaster early recovery support using CIM model based on Photogrammetric Techniques
Katsunori Miyamoto (Systems Engineering Department and Construction Information Research Institute, Japan Construction Information Center Foundation, Japan)

PS 1-2-15
Development of System for Distributing Urgent Evacuation Information during Tsunami
Fumitoshi Imamura (International Research Institute of Disaster Science (IRIDeS), Tohoku University, Japan)

PS 1-2-16
Slope Failure on the Foot of Volcano in Izu-Oshima Island by Wipha (The 26th Typhoon in 2013)
Satoshi Nonami (Kansai Regional Branch, Oyo Corporation, Ltd., Japan)

PS 1-2-17
A Maintenance and Repair Plan of Dams
Kiyonori Miyashita (Domestic Operation, Steel Structures Group, NEWJEC Inc., Japan)

PS 1-2-18

EARTHQUAKE-RESISTANT DESIGN OF THE SHIELDED TUNNEL RUNNING ACROSS ACTIVE FAULT

Katsuji Iwata (EJ-Research Center for Disaster Risk Reduction, Eight-Japan Engineering Consultants Inc.)

PS 1-2-19

International Flood Initiative activities toward robustness for flood management

Masahiko Murase (International Centre for Water Hazard and Risk Management (ICHARM), Public Works Research Institute, Chief Researcher, ICHARM/PWRI, Japan)

PS 1-2-20

Seismic retrofitting method using only reinforcing bars and small members (RB Method)

Takehiro Suzuki (Structural Engineering Center, East Japan Railway Company, Japan)

PS 1-2-21

The Planning Context of Emergency Shelter Park in Urban Area- Cases in Taiwan

Jieh-Jiuh Wang (Architecture Department, Ming Chuan University, Chinese Taipei)

PS 1-2-22

Development of Novel Flood Forecasting System for the Chao Phraya River Basin of Thailand based on Rainfall-Runoff-Inundation Model

Yasushi Inoue (Planning & Coordination Division, Foundation of River & Basin Integrated Communications, Japan (currently CTI Engineering Co., Ltd.), Japan)

PS 1-2-23

Introduction of Experimental and Calculation System for Tsunami Risk Management: TECS-TRM

Yasuo Kotake (Technical Research Institute, Toyo Construction Co., Ltd., Japan)

PS 1-2-24

GIS-based shelter site selection principles for emergency situation

Mohammad Kazem Naseri (Information Engineering, Faculty of Information Engineering, University of the Ryukyus, Japan)

12:30-14:00 Poster Display Room (Sakura)

PS 1-3 Robot technology used at disaster sites and its operating system

PS 1-3-1

Robotic solutions for environment monitoring and disasters prevention

Michal Grzes (Bialystok University of Technology, Poland)

PS 1-3-2

An Autonomous Transfer System for Debris Occurring by Demolition Work in Radioactive Area

Satoru Miura (Kajima Technical Research Institute, Kajima Corporation, Japan)

12:30-14:00 Poster Display Room (Sakura)

PS 1-4 Strengthening national interests and creating new industries using big data

PS 1-4-1

Urban OS as an integrated social service platform

Hisato Matsuo (Center for Co-evolutions Social Systems, Kyushu University, Japan)

PS 1-4-2

<Withdrawal>

12:30-14:00 Poster Display Room (Sakura)

PS 2-1 Wider applications for fossil resources: Conventional and non-conventional resources

PS 2-1-1

Development of 700bar Super High Pressure-Robust Compressor

Satoshi Saburi (Technology & Innovation Headquarters, Mitsubishi Heavy Industries, LTD., Japan)

PS 2-1-2

Wind/PV Hybrid of DC Electric Vehicle Charging Station with Bi-directional Converter

Maged N. F. Nashed (Power Electronic and Energy Conversion Dept., Electronics Research Institute, Egypt)

PS 2-1-3

The use of green environmental protection comprehensive sustainable development of ecological agriculture straw biogas engineering

Ruidong Cao Wang (None, China)

PS 2-1-4

Oxyfuel power plant for CO_2 capture in Callide Oxyfuel Project

Toshihiko Yamada (R&D Dept, Energy & Plant Operations, IHI Corporation, Japan)

PS 2-1-5

Characteristic of Three Polish Coals in Dual Fluidized Bed Steam Gasifier

Anchan Paethanom (Corporate Research & Development, IHI Corporation, Japan)

PS 2-1-6

Stable catalytic activity of Co/LSAO-perovskite catalyst on steam reforming of toluene

Kent Takise (Applied Chemistry, Waseda University, Japan)

12:30-14:00 Poster Display Room (Sakura)

PS 2-2 Power generation technology

PS 2-2-1

Progress Update of MHI Air Blown IGCC and Oxygen Blown Gasification Plant

Junichiro Yamamoto (Technology & Innovation Headquarters, Mitsubishi Heavy Industries, Ltd., Japan)

PS 2-2-2

High power High-Efficiency Gas Engine with 2stage turbo-charger and the latest technics for engine development

Akihiro Yuki (Mitsubishi Heavy Industries, LTD., Japan)

PS 2-2-3

Key Technologies and Load Map for Ultra High Temperature Gas Turbine

Koichi Ishizaka (Takasago Research & Development Center, Mitsubishi Heavy Industries, Ltd., Japan)

PS 2-2-4

Concepts and Features of ATMEA1 as the latest 1100MWe Class 3-Loop PWR Plant

Nobuki Uda (Technology & Innovation Headquarters, Mitsubishi Heavy Industries, Ltd., Japan)

PS 2-2-5

Utilization of Low-Valued Iron Ores as High Performance Materials to Develop a Novel Hot Gas Cleanup Method for an Integrated Gasification Combined Cycle

Naoto Tsubouchi (Center for Advanced Research of Energy and Materials, Hokkaido University, Japan)

PS 2-2-6

RBWR (Resource-renewable BWR) for Recycling and Transmutation of Transuranium Elements

Masaya Ohtsuka (Hitachi Research Laboratory, Hitachi Ltd., Japan)

PS 2-2-7

DEVELOPMENT OF THE NEXT GENERATION LARGE SCALE SOFC TOWARD REALIZATION OF HYDROGEN SOCIETY

Yoshinori Kobayashi (Fuel Cell Business Department, Mitsubishi Hitachi Power Systems, LTD., Japan)

PS 2-2-8

Study on Lightning Impulse and Switching Impulse Test Voltage Waveform for UHV-class Electric Power Equipment

Toshihiro Tsuboi (High Voltage & Insulation Group, R&D Center, Tokyo Electric Power Company, Japan)

PS 2-2-9

Stability of Pt_2Ru_3 anode catalysts against CO in PEFC using multiscale modeling

Md. Khorshed Alam (Department of Environmental and Energy Chemistry, Kogakuin University, Japan)

PS 2-2-10

Recent Research on Image Crystals: discovery of shape-controllable cavities surrounded by facets in ceramics

Hiroyuki Serizawa (Nuclear Science and Engineering Center, Japan Atomic Energy Agency, Japan)

12:30-14:00 Poster Display Room (Sakura)

PS 2-3 Renewable energy sources and energy storage technologies

PS 2-3-1

Development of Numerical Simulation Technique for Combustion with Solid transportation

Hideshi Shingeya (Technology & Innovation Headquarters Yokohama Research & Development Center, Mitsubishi Heavy Industries, LTD.)

PS 2-3-2

Optimal Sizing of Distributed Generation and Energy Storage in a Standalone Power System Considering Reliability and CO_2 Emission

Ying Yi Hong (Electrical Engineering, Chung Yuan Christian University, Chinese Taipei)

PS 2-3-3

Study of an electrical characteristics for a hot-spots diagnose of single-crystal Si photovoltaic by a contactless type

Tsugutomo Kudoh (Electrical and Electronic Engineering, Kanagawa Institute of Technology, Japan)

PS 2-3-4

MobileBioGas: Mobile filling station of cleaned and compressed biogas

Sebastian Koziolek (Mechanical Engineering, Wroclaw University of Technology, Poland)

PS 2-3-5

The effects of metal ions and L-cysteine on hydA gene expression and hydrogen production by Clostridium beijerinckii RZF-1108

Xin Zhao (College of Resource & Civil Engineering, Northeastern University, China)

PS 2-3-6

Local Biomass Resource Utilization in Sewage Treatment Plants in Japan

Sadahiro Ito (Japan Institute of Wastewater Engineering and Technology, Japan)

PS 2-3-7

<Withdrawal>

PS 2-3-8

Performance assessment of porous burner firng fuel with low heating value

Jarruwat Charoensuk (Mechanical Engineering, King Mongkut's Institute of Technology Ladkrabang, Thailand)

PS 2-3-9

Development of a simple and quantitative evaluation technique for the potential of unused thermal energy

Akira Tomigashi (Technical development department, Yachiyo Engineering Co., Ltd., Japan)

PS 2-3-10

Hydrogen production from ammonia as energy carrier by pulsed plasma

Yukio Hayakawa (Gifu University, Japan)

PS 2-3-11

Global ocean wind energy resources for the next 20 years

Chong-Wei Zheng (College of Meteorology and Oceanography, People's Liberation Army University of Science and Technology, China / National Key Laboratory of Numerical Modeling for Atmospheric Sciences and Geophysical Fluid Dynamics (LASG), Institute of Atmospheric Physics, the Chinese Academy of Sciences / Dalian Naval Academy)

PS 2-3-12

High efficiency Power conditioning system for residential photovoltaic power generation

Toshikazu Okubo (Research & Development Group, Power Electronics Systems Research Department, Hitachi, Ltd., Japan)

PS 2-3-13

Analysis of Diagnosis and Warning for Key Errors in Yaw Braking System of Wind Turbines

Tao Kang (Technical Center, Guodian United Power Technology Co., Ltd, China / National Key Laboratory of Wind Power Equipment and Control)

PS 2-3-14

MW-scale Grid Connected Redox Flow Battery Systems

Yongrong Dong (Power System R & D Center, Sumitomo Electric Industries, Ltd., Japan)

PS 2-3-15

STUDY OF PHOTO- REACTORS FOR CO_2 PHOTO-CATALYTIC CONVERSION INTO SOLAR FUEL

Olusegun Koleola (Chemical Engineering, Herriot-Watt University, United Kingdom)

PS 2-3-16

Design and Construction of a Direct Passive Solar dryer for Tilapia fish filets

Elijah G. Ikrang (Agricultural & Food Engineering, University of Uyo, Nigeria)

PS 2-3-17

Impact of Distributed Generation Size on Distribution System When Fault Occurrence

Santipont Ananwattanaporn (Department of Electrical Engineering, Faculty of Engineering, King's Mongut Institute of Technology Ladkrabang)

PS 2-3-18

Determination of effect factor for effective parameter on saccharification of lignocellulosic material by concentrated acid

Sina Aghili (Chemical engineering, Islamic Azad university- Quchan Branch -Quchan - Iran, Iran)

12:30-14:00 Poster Display Room (Sakura)

PS 2-4 Energy saving and efficient energy use

PS 2-4-1

RADIANT TIMES SERIES (RTS) FOR EQUATORIAL CLIMATES

Christopher Jantai Boniface (Mechanical and Manufacturing Engineering Department, Faculty of Engineering, University Malaysia Sarawak, Malaysia)

PS 2-4-2

Concept of new heating and cooling network-system (Smart Heat Grid)

Takeshi Nagai (Tokyo Institute of Technology, Japan)

PS 2-4-3

Flat Glass Furnaces Waste Heat Utilization for Combined Heat and Power - A Case Study

Zhiwei Li (Cleaning Combustion and Energy Utilization Research Center of Fujian Province, Jimei University, China)

PS 2-4-4

Entropy Based Evaluation of Thermodynamical Potentials of Oxy-fuel Combustion, Normal Air Combustion and Regenerative Combustion

Kenichi Sato (Hokkaido University, Japan)

PS 2-4-5

Effect of Pore Density of ceramic foam on Stabilization of Premixed LPG flame

Ponepen Laphirattanakul (Department of Mechanical Engineering, King Mongkut's Institute of Technology Ladkrabang, Thailand)

PS 2-4-6

Promote the Heat Supply Metering Charging System of China by Legal Method

Li Luo (School of Law, Beijing Institute of Technology, China)

PS 2-4-7

Hydrogen separation through silica hybrid membranes

Mikihiro Nomura (Shibaura Institute of Technology, Japan)

PS 2-4-8

Acetic acid separation through novel ceramic membranes

Kotone Oura (Shibaura Institute of Technology, Japan)

PS 2-4-9

Inorganic reverse osmosis membranes synthesized by using a chemical vapor deposition method

Ayumi Ikeda (Shibaura Institute of Technology, Japan)

PS 2-4-10

Effective ethanol extraction through silicalite zeolite membranes

Gabriel Gama (Shibaura Institute of Technology, Japan)

PS 2-4-11

Geometric improvement of pulsating heat pipes with radial channels for LED lightings

Shigemasa Yamagami (The University of Kitakyushu, Japan)

PS 2-4-12

The Application of Value Engineering for Improving the Environmental Pollution Status in China

Xiangkun Yang (Shanxi Construction Engineering (Group) Corp.)

PS 2-4-13

DESIGN AND MANUFACTURING OF AN AXIAL FLUX PERMANENT MAGNET MOTOR WITH HIGH EFFICIENCY FOR AN ELECTRIC CAR

Benoit Boudour (Physic, Polytech Clermont Ferrand, France)

PS 2-4-14

On Sustainable Vehicle Management

Katsumi Moriwaki (Mechanical Engineering, Daido University, Japan)

PS 2-4-15

Energy Harvesting by Piezoelectric Power Generation using Mechanical-acoustic Coupling

Hirotarou Tsuchiya (School of Science and Technology, Graduate School of Tokai University, Japan)

PS 2-4-16

Development of energy consumption reduction systems based on the Ionic Semiconductor and relation technologies

Kenji Tamura (Department of General Education, Tokyo Metropolitan College of Industrial Technology, Japan)

PS 2-4-17

Increasing Thermal Efficiency for Hot Air Generator using Biomass Gas Stove for Drying Processes with Change Direction of Hot Air

Parkpoom Sriromreun (Mechanical Engineering, Srinakharinwirot University, Thailand)

PS 2-4-18

High-efficiency solar thermophotovoltaic system using selective absorber and emitter consists of multilayer coating

Asaka Kohiyama (Graduate School of Engineering, Tohoku University, Japan)

PS 2-4-19

The validation study of energy saving technology for high performance housing in coldest climate in Japan

Kiyoko Kamada (Hokkaido Bunkyo University, Japan)

PS 2-4-20

Development of Three-phase Superconducting Power Transformer

Tohru Eguchi (Research Institute, Kyushu Electric Power Co., Inc., Japan)

PS 2-4-21

The status of High Temperature Superconducting Cable Project in Japan

Tomoo Mimura (TEPCO Research Institute, Tokyo Electric Power Company, Japan)

PS 2-4-22

Development of 450MVA-STATCOM to improve power system stability and mitigate overvoltage for the long distance power transmission

Kenji Masaki (Mitsubishi Electric Corporation, Japan)

PS 2-4-23

Analysis of Harmonic Problems for Light Emitting Diode (LED) Roadway Lighting

Suntiti Yoomak (Department of Electrical Engineering, Faculty of Engineering, King's Mongut Institute of Technology Ladkrabang)

PS 2-4-24

Economics cost of Solar PV Rooftop less than 10 kW commercialise to Provincial Electricity Authority in THAILAND

Nuchtita Suttisinthong (Department of Electrical Engineering, Faculty of Engineering, King's Mongut Institute of Technology Ladkrabang)

PS 2-4-25

Performance Evaluation of Solar Rooftop System in Different Region of Thailand

Nuchtita Suttisinthong (Department of Electrical Engineering, Faculty of Engineering Thonburi University)

PS 2-4-26

Energy Consumption and CO_2 Emissions at a Steel Fabrication Plan - A Case Study

Guomin Zhang (School of Civil, Environmental and Chemical Engineering, RMIT University, Australia)

PS 2-4-27

Pt-Fe porous hollow nanocapsule with highly enhanced oxygen reduction activity and durability for polymer electrolyte fuel cells

Hidenori Kuroki ("Next-generation High-efficiency Fuels Cells" Project, Kanagawa Academy of Science and Technology, Japan / Chemical Resources Laboratory, Tokyo Institute of Technology)

PS 2-4-28

CO_2 separation using mixed matrix membranes

Hidetoshi Kita (Graduate School of Science and Engineering, Yamaguchi University, Japan)

PS 2-4-29

High temperature carbon separation with ceramic-based sorbents

Izumi Kumakiri (Graduate School of Science and Engineering, Yamaguchi University, Japan)

PS 2-4-30

Analysis of Water Transport and Prediction of the Fuel Cell Performances in PEFCs

Yuhei Oshiba (Chemical Resources Laboratory, Tokyo Institute of Technology, Japan)

PS 2-4-31

Design and Implementation of Intelligent Energy Efficient Conveyor System for Object Identification and Placement System using Robotic Vehicles

Irfan Ahmed Halepoto (Electronics Engineering, Mehran University of Engineering & Technology Jamshoro, Pakistan)

PS 2-4-32

Efficient Radical Alternating Copolymerization of Diene Monomer and Oxygen in Liquid Marbles and Their Application to Functional Adhesive Materials

Eriko Sato (Department of Applied Chemistry and Bioengineering, Graduate School of Engineering, Osaka City University, Japan)

PS 2-4-33

Energy Saving Alternative in Nigeria Market

Afonrinwo Patrick Olugbenga (Engineering Department, British American Tobacco (Nigeria) Limited, Nigeria)

12:30-14:00 Poster Display Room (Sakura)

PS 3-1 Satellite-based technology, land and marine survey, resource investigation, disaster monitoring

PS 3-1-1

Large scale flood predictions using a Rainfall-Runoff-Inundation Model and satellite based information

Takahiro Sayama (ICHARM, Public Works Research Institute, Japan)

PS 3-1-2

Research on a Buoy System for Alarming and Tracking Spilled-oil

Jinling Bao (China Waterborne Transport Research Institute, Jiaoyun Center, China / China Waterborne Transport Research Institute)

PS 3-1-3

Disaster monitoring for the Great East Japan Earthquake utilizing SAR satellite-based technology

Kazuo Yoshikawa (PASCO CORPORATION Satellite Business Division, Japan)

PS 3-1-4

Field observations of tidal current in Isahaya Bay

Takuya Oba (Maritime Engineering, Kyushu University, Japan)

PS 3-1-5

Long-term Global Changes of mean sea level and semi-diurnal tidal amplitudes

Kaori Tanaka (Maritime Engineering, Kyushu University, Japan)

PS 3-1-6

SPH, shallow water equation, coastal ocean

Yosuke Morimoto (Maritime Engineering, Kyushu University, Japan)

12:30-14:00 Poster Display Room (Sakura)

PS 3-3 Water resource and environmental management

PS 3-3-1

Project Update of 500 TPD CO_2 Capture Demonstration Plant for Coal-fired Power Plant

Takuya Hirata (Hiroshima Research & Development Center, Mitsubishi Heavy Industries, Ltd., Japan)

PS 3-3-2

Enhancing desalination by reactivation of carbon materials and membrane capacitive deionization

Yan Zhao (School of Resources and Civil Engineering, Northeastern University, China)

PS 3-3-3

Treatment of rural non-point source domestic water by moving bed biofilm reactor (MBBR)

Binhui Jiang (College of Resources and Civil Engineering, Northeastern University, China)

PS 3-3-4

Development of Autonomous-Mobile Floating-Robot for Velocity Measurement in Natural Rivers

Tsuyoshi Nagasaka (Dept. of Civil and Earth Resources Engineering, Kyoto University, Japan)

PS 3-3-5

Effects of strip roughness on surface velocity divergence in open-channel flows

Shinya Gotou (Dept. of Civil and Earth Resources Engineering, Kyoto University, Japan)

PS 3-3-6

Protection of geysers as tourism and environmental resources : Applications of the dynamical model of a geyser induced by gas inflow

Hiroyuki Kagami (School of Medicine, Fujita Health University, Japan)

PS 3-3-7

Integrating adsorption on carbon nanostructures and advanced oxidation processes for depolluting wastewaters with persistent organic pollutans

Ulises J. Jauregui Haza (Facultad de MEdio Ambiente, Instituto Superior de Tecnologias y Ciencias Aplicadas (InSTEC), Cuba)

PS 3-3-8

Takizawa dam construction project; creation of new landscape in a national park and compilation of gravity dam construction technologies by Japan Water Agency

Tatsuo Kunieda (Department of Dam Construction and Management, Japan Water Agency, Japan)

PS 3-3-9

Adsorptive treatment of dye wastewater using a chitosan-based particulate hydrogel: preparation and characterization as a pH-responsive adsorbent

Kaori Saito (Graduate School of Engineering, Tokyo City University, Japan)

PS 3-3-10

A Research and Demonstration Project:The patterns of functional genes and microbial floras in multimedia constructed wetlands in expressway service area in cold region

Xuexin Liu (China Academy of Transportation Sciences, China)

PS 3-3-11

DEA MODEL FOR REGIONAL FLOODWATER UTILIZATION EFFICIENCY ASSESSMENT

Hongyuan Fang (Yangzhou University, China)

PS 3-3-12

Introduction of a water quality simulation model which requires low computational load (WEC model)

Sadao Takahashi (Planning Department, Japan Water Resouses Environment Center)

PS 3-3-13

STUDY ON EFFECT OF THE SPATIAL DISTRIBUTION OF RAINFALL ON THE DISCHARGE IN TONE UPPER BASIN

Yuta Shimizu (Civil and Environmental Engineering, Chuo University, Japan)

PS 3-3-14

The relationship between the rainfall intensity, the water level and untreated water in Edo-castle outer moat in Tokyo, Japan

Yuki Tsushima (Civil and Environmental Engineering, Chuo University, Japan)

PS 3-3-15

A STUDY ON THE DISSOLVED OXYGEN CONCENTRATION IN EDO CASTLE OUTER MOATS

Miji Choi (Civil and Environmental Engineering, Chuo University, Japan)

PS 3-3-16

The effects on water quality changes in Nihonbashi River from untreated sewage water inflow during rainfall

Shanshan Chen (Civil Development Engineering, Chuo University, Japan)

PS 3-3-17

A study on the short-term characteristics of rainfall phenomenon

Yoshihiro Nagata (Civil and Environmental Engineering, Chuo University, Japan)

PS 3-3-18

A Basic Study of the Reliability Evaluation of Levee Stability Based on the Theory of Stochastic Process

Kazuhiro Yoshimi (Chuo University, Japan)

PS 3-3-19

Integrated sediment management for reservoir and river basin sustainability

Tetsuya Sumi (Disaster Prevention Research Institute, Kyoto University, Japan)

PS 3-3-20

Study for Water Resources Master Plan in Malawi

Masakazu Miyagi (CTI Engineering International Co., Ltd., Japan)

PS 3-3-21

Centralized Wastewater Management Kabul City, Afghanistan

Zabihullah Farkhari (Department of Civil Engineering and Architecture, Faculty of Engineering, University of the Ryukyus, Japan)

PS 3-3-22

Save the Surface Water from the Wastes in Dhaka City

Mohammad Asaduzzaman (Department of Civil Engineering and Architecture, Faculty of Engineering, University of the Ryukyus, Japan)

PS 3-3-23

Rain Gauge Network Desing In Kabul Rive Baisn

Fazlullah Durrani (Department of Civil Engineering and Architecture, Faculty of Engineering, University of the Ryukyus, Japan)

PS 3-3-24

An Advanced Solution of Solid Waste Management at Kabul City

Abdul Wahid Amiri (Department of Civil Engineering and Architecture, Faculty of Engineering, University of the Ryukyus, Japan)

PS 3-3-25

Climate Change Impacts on Water Resources in Kabul River Basin, Afghanistan

Jamal Abdul Naser Shokory (Water Resources Directory, Ministry of Energy and Water, Afghanistan / Department of Civil Engineering and Architecture, Faculty of Engineering, University of The Ryukyus)

PS 3-3-26

Ozone Micro-bubble Process for Safe and Secure Water Reuse

Ichiro Embutsu (Hitachi Research Laboratory, Hitachi, Ltd., Japan)

12:30-14:00 Poster Display Room (Sakura)

PS 3-4 Advanced recycling technology

PS 3-4-1

Removal and Recovery of Gold (III) by Sorption and Reduction Using Microorganism

Takehiko Tsuruta (Hachinohe Institute of Technology, Japan)

PS 3-4-2

Production of Carbon Nano-tubes from Agricultural and Municipal Wastes

Ranjana S. Baruah (Chemical Engineering, India)

PS 3-4-3

Extraction and characterization of geopolymers, synthesized from auriferous mining waste

Walter L. Pardave (School of Metallurgical Engineering and Materials Science, Industrial University of Santander, Colombia)

PS 3-4-4

SUSTAINABLE CONCRETE WASTE RECYCLING
- Engineering Developments on Appropriate Use of Recycled Aggregate for Concrete -

Yasuhiro Dosho (Department of Environmental Science and Technology, Faculty of Science and Technology, Meijo University, Japan)

PS 3-4-5

Superheated Steam Degreasing System for Oily Metal Waste Recycling

Naoki Maruyama (Division of Mechanical Engineering, Graduate School of Engineering, Mie University, Japan)

PS 3-4-6

Simple, Low-cost, and High-efficient New Apparatus "Emulsion Flow Extractor" for Liquid-Liquid Extraction of Minor Metals

Hirochika Naganawa (Nuclear Science and Engineering Center, Japan Atomic Energy Agency (JAEA), Japan)

12:30-14:00 Poster Display Room (Sakura)

PS 4-1 Environmental friendly and sustainable cities & housing

PS 4-1-1

CASE STUDY ON THE RESIDENTIAL ENVIRONMENT AND A MULTIGENERATIONAL RESIDENCE IN THE HISTORICAL DISTRICTS, MORI AND HIROSE OF YASUGI CITY, SHIMANE PREFECTURE IN JAPAN

Tomohisa Hosoda (Department of Architecture, National Institute of Technology, Yonago College, Japan)

PS 4-1-2

Feasibility Assessment of Sustainable Urban Drainage Systems (SUDS) in Ho Chi Minh city using an Analytic Hierarchy Process (AHP) approach

Loc Huu Ho (Graduate School of Engineering, Kyoto University, Research Center for Environmental Quality Management, Japan)

PS 4-1-3

The planning and Design exploration of Chinese Affordable housing based on Sustainable development

Guoping Xiong (Urban Planning, Southeast University, China)

PS 4-1-4

Environmental and social impact assessment (ESIA) of different development subprojects throughout Bangladesh to ensure sustainable urban growth

Swakshar Saha (Civil Engineering, Bangladesh University of Engineering and Technology, Bangladesh)

PS 4-1-5

Opening data exchange for information sharing about C&D waste recycles

Yoshiyuki Yokoyama (Systems Engineering Department, Japan Construction Information Center, Japan)

PS 4-1-6

Comparative study on neighborhood walkability between Chinese and American cities

Lei Peng (School of Architecture and Urban Planning, HUAZHONG University of Science and Technology, China)

PS 4-1-7

Mitigation of Summer Thermal Environment in Railroad Stations

Yoshiki Ikeda (Frontier Service Development Laboratory, East Japan Railway Company, Japan)

PS 4-1-8

Smart buildings adaptable for seasonal change
-The application of the principle of "adaptation" in Life Theories

Agnes Nyilas (Freelance Architect, Japan)

PS 4-1-9

A summer measurement of thermal environment in temporary housing complex of the Great East Japan Earthquake

Motofumi Marui (Kanazawa Institute of Technology, Japan)

PS 4-1-10

Analysis of the heat and water balance of moss through outdoor experiment - Study on the thermal environment coordination effect of moss in city -

Motofumi Marui (Kanazawa Institute of Technology, Japan)

PS 4-1-11

Seniors friendly concept of transport accessibility -The case study of Cracow

Lidia Zakowska (Section of Transport, Cracow University of Technology, Poland)

PS 4-1-12

Investigation about Possibility of Re-transport of fallen Pollen on Roofs from the Point of View of Pollen Exposure

Ichiro Nakane (Mechanical Engineering, Kanagawa Institute of Technology, Japan)

PS 4-1-13

Development of the Three-dimensional Seismic Isolation System and Application for the Apartments

Tetsuya Tomizawa (Structural Design Dept., Kozo Keikaku Engineering Inc., Japan)

PS 4-1-14

Consciousness survey of the role of shrine forest Study on the neighborhood residents of shrines in paddy field area and urban area

Ryo Kawazoe (Architecture, Kanazawa Institute of Technology, Japan)

PS 4-1-15

Effect of Reallocation of Road Space on Traffic Flow

Takanori Sunagawa (Osaka Office, CTI Engineering Co., Ltd.)

PS 4-1-16

Multi-agent simulation approach for optimizing the urban transportation systems

Atsushi Sakai (Department of Information Systems Engineering, Toyama Prefectural University)

PS 4-1-17

Relationship of cold indoor environment with long-term care in Japanese nursing homes: A multiple logistic regression analysis

Yukie Hayashi (Graduate School of Science and Technology, Keio University, Japan)

PS 4-1-18

Effect of community environment on going out and physical activity among the elderly

Moeka Ubukata (Graduate School of Science and Technology, Keio University, Japan)

PS 4-1-19

Strategies for Sustainable Development in Construction through National Spanish and European Projects

Julia Ayuso Sanchez (Department of Building and Architectural Technology-DCTA, Technical University of Madrid-UPM, Spain)

PS 4-1-20

Exercise fulfillment on mental and housing and neighborhood environments: A field survey in a suburban residential area

Maki Ito (Graduate School of Science and Technology, Keio University, Japan)

PS 4-1-21

A COMPARATIVE ANALYSIS OF NEIGHBOORHOOD SUSTAINABILITY ASSESSMENT TOOLS

Serkan Yildiz (Department of Civil Engineering, Turkish Military Academy, Turkey)

12:30-14:00 Poster Display Room (Sakura)

PS 4-2 Net zero energy building technology, new air-conditioning and sanitary technology, green building technology, water utilization technology

PS 4-2-1

Enhancing Efficiency of Heat Transfer and Indoor Air Motion by Combining New Vented Block with Concrete Wall

Waraporn Klinbun (Automotive Manufacturing Engineering, Panyapiwat Institute of Management, Thailand)

PS 4-2-2

Basic Research into Countermeasures for Station Restroom Odors

Masayoshi Sasazawa (Frontier Service Development Laboratory, East Japan Railway Company, Japan)

PS 4-2-3

Investigation of Link between Energy Consumption and New Metric, Thermal Autonomy, for Naturally Ventilated Buildings

Yoshinao Sato (Yamaguchi University)

PS 4-2-4

Quantitative analysis of lighting energy consumption in a room with light shelf

Kentaro Miyauchi (Yamaguchi University)

PS 4-2-5

Study on the performance of high insulation wooden sash

Koichiro Arai (Architecture, Shinshu University, Japan)

PS 4-2-6

Research on Thermal Comfort Zone of Railway Stations with Air-conditioned Spaces

Kiyoshi Sakamoto (Frontier Service Development Laboratory, East Japan Railway Company, Japan)

PS 4-2-7

Research on the full precast concrete underground station in metro engineering

Deyun Ding (Beijing Urban Construction Design & Development Group Co., Limited, China)

PS 4-2-8

New Approach to Sustainable Buildings Economical and Suitable Ways for Work Style in Japan

Katsuhiro Miura (Building Environment Group, Kajima Technical Research Institute, Japan)

PS 4-2-9

Environment and Facilities at the Takenaka Carpentry Tools Museum

Hiroaki Nakagawa (Design Department Mechanical and Electrical Engineering G, TAKENAKA Corporation, Japan)

PS 4-2-10

SHIMIZU HEAD OFFICE - Eco-Friendly Office Building -

Mitsugu Kawamura (Environment & Technical Solution Division, SHIMIZU CORPORATION, Japan)

PS 4-2-11

Approarch to Zero Energy Building (ZEB) of Obayashi Corporation Technical Research Institute Main Building "Techno-Station"

Hajime Onojima (Technology Division, Obayashi Corporation, Japan)

PS 4-2-12

EXPERIMENTAL STUDY TOWARDS URBAN ZEB REALIZATION

Takuya Tanaka (Technology Center, TAISEI CORPORATION, Japan)

12:30-14:00 Poster Display Room (Sakura)

PS 4-3 Measuring, control, security technology, robot technology

PS 4-3-1

A Process for Identifying Structural Modal Parameters based on Gabor Frames

Weichih Su (National Center for High-Performance Computing, Chinese Taipei)

PS 4-3-2

Composition of point cloud and global thermal image and its application to urban and architectural environment analysis

Miki Nagamoto (Yamaguchi University)

PS 4-3-3

Development of a Simulation System Allowing Prediction of Changes in Flow of Passengers on Platforms

Keiichi Yoshida (Frontier Service Development Laboratory, East Japan Railway Company, Japan)

PS 4-3-4

High-Resolution Remote Sensing Technique of Moving Objects for Next-Generation 140 GHz Radars

Kenshi Saho (Dept. of Electronic and Computer Engineering, Ritsumeikan University, Japan)

PS 4-3-5

Fatigue Test and Remaining Life Assessment of Riveted Steel Truss Bridge in Service

Bo Geng (China Merchants Chongqing Communications Research & Design Institute Co., Ltd., China)

PS 4-3-6

The Best Combination Model of Expressway Bridge-Tunnel Sections Based on Operation Safety

Dianliang Xiao (Research Center for Environment Protection and Transportation Safety, China Academy of Transportation, China)

PS 4-3-7

The research of methodologies of ecological urban design based on cybernetic

Hongya Tang (School of Architecture, University College London, China)

PS 4-3-8

Process based disaster management system

Muneyoshi Numada (Institute of Industrial Science (IIS), University of Tokyo, Japan)

PS 4-3-9

Riemannian Geometry Based Accelerated Life Test Method for the Automotive Industry

Long Chengwu (Defense Technology Research and Test Center, Chinese Aerospace Science and Industry Corporation, China)

PS 4-3-10

Challenge of On Site Visualization

Mitsugu Nomura (Tohoku Office, CTI Engineering Co., Ltd., Japan)

PS 4-3-11

An Negotiation-rules Acquisition Method in AGV Transportation Systems by Reinforcement Learning

Masato Nagayoshi (Niigata College of Nursing, Japan)

PS 4-3-12

Nondestructive testing of underwater structures using nonlinear acoustic imaging method

Kei Fujisawa (The University of Tokyo, Japan)

PS 4-3-13

Development of Walking Guidance Device for the Visually Impaired

Atsushi Imadu, Yusuke Maekawa, Hitoshi Asano (Osaka City University, Japan)

12:30-14:00 Poster Display Room (Sakura)

PS 4-4 Next generation broadcasting systems

PS 4-4-1

Dynamic Optical Path Network: a network beyond the Internet in the ultra-high definition video era

Shu Namiki (AIST, Japan)

PS 4-4-2

Development of Laser Backlight LCD TV

Saki Maeda (Opt-Mechanism, Advanced Technology R&D Center, Mitsubishi Electric Corporation, Japan)

PS 4-4-3

Automatic Japanese to Japanese Sign Language Translation System utilizing CG Animation Technique

Nobuyuki Hiruma (Science and Technology Research Laboratories Human Interface Research Division, NHK, Japan)

12:30-14:00 Poster Display Room (Sakura)

PS 5-1 Railway technology, high-speed train, urban transportation, maintenance technology

PS 5-1-1

THE MONITORING SYSTEM FOR RAILWAY SIGNAL EQUIPMENT USING RADIO COMMUNICATION

Masahiko Suzuki (EAST JAPAN RAILWAY COMPANY, Japan)

PS 5-1-2

<Withdrawal>

PS 5-1-3

Development of a gauge in sprayable Minihoki

Toru Sasaki (Research and Development Center of JR East Group, EAST JAPAN RAILWAY COMPANY, Japan)

PS 5-1-4

Location-Routing Problem and Its Application

Ali Gul Qureshi (Department of Urban Management, Kyoto University)

PS 5-1-5

New Stations in Japan Reflecting New Age

Ewa Maria Kido (Research Center for Sustainable Communities, CTI Engineering Co., Ltd. Consulting Engineers, Japan)

PS 5-1-6

Toward safer and sustainable railway systems

Ryuji Tsuchiya (International Affairs Division, Railway Technical Research Institute, Japan)

PS 5-1-7

The 'N700-I Bullet'
International Excellent High-Speed Rail System

Masaaki Hasegawa (Technology R&D Department, General Technology Division, Central Japan Railway Company, Japan)

PS 5-1-8

The SCMAGLEV
Next Generation Transportation System

Tomoaki Seki (Maglev Systems Development Division, Central Japan Railway Company, Japan)

12:30-14:00 Poster Display Room (Sakura)

PS 5-2 Automotive technology, society and mobility in 2030

PS 5-2-1

Innovative Technologies for Automotive Turbochargers Enabling a Sustainable Future

Seiichi Ibaraki (Mitsubishi Heavy Industries, Ltd., Japan)

PS 5-2-2

Assist Control for Single-Track Vehicles

Masami Iwase (Department of Robotics and Mechatronics, Tokyo Denki University, Japan)

12:30-14:00 Poster Display Room (Sakura)

PS 5-3 Marine technology, ships, ocean energy utilization, marine resource developments

PS 5-3-1

Air Lubrication Technology for GHG Reduction

Chiharu Kawakita (Mitsubishi Heavy Industries, Ltd., Japan)

PS 5-3-2

Development of High-Efficiency Mitsubishi Exhaust Gas Turbocharger for Marine Diesel Engine

Fumito Hiratani (Mitsubishi Heavy Industries, Ltd., Japan)

12:30-14:00 Poster Display Room (Sakura)

PS 5-4 Aeronautical technology

PS 5-4-1

Active Wake Control over a Long Flat Plate with DBD Plasma Actuator

Yoshifumi Jodai (Mechanical Engineering, National Institute of Technology, Kagawa College, Japan)

12:30-14:00 Poster Display Room (Sakura)

PS 6-1 Creating value and solving social issues through the big data revolution

PS 6-1-1

Cross Database Reference among Several Independent Organizations

Tsutomu Yoshigi (Japan Construction Information Center, Japan)

PS 6-1-2

Statistical Process Monitoring allied to Data Visualization and their Implications on Industrial Chemical Processes

Matheus S. Escobar (Department of Chemical Engineering, The University of Tokyo, Japan)

12:30-14:00 Poster Display Room (Sakura)

PS 6-2 Trends in utilizing intellectual property for promoting innovation

PS 6-2-1

How strategic planning integrating your innovation protection can optimize your Intellectual Property Rights

Yvette Ramos (SWISS ENGINEERING - Geneva Chapter, Switzerland)

12:30-14:00 Poster Display Room (Sakura)

PS 6-3 Role of finance in industrial innovation

PS 6-3-1

Crowdfunding for innovative entrepreneurs

Essobmadje Reine (WFEO - Women In Engineering, France)

12:30-14:00 Poster Display Room (Sakura)

PS 6-4 Value-added manufacturing for competitiveness

PS 6-4-1

<Withdrawal>

PS 6-4-2

High speed & quality laser drilling technology by using prism rotator

Toshiya Watanabe (Yokohama R&D Center, Mitsubishi Heavy Industries, Ltd., Japan)

PS 6-4-3

Cleaner production in a steel industry

Yuri Fischer (Universidade Federal de Pernambuco, Brazil)

PS 6-4-4

Chatter vibration control with time domain analysis of audio signals in machining

Kazuki Takahei (Advanced Technology R&D Center, Mitsubishi Electric Corporation, Japan)

PS 6-4-5

TopSE : Intellectual Manufacturing Education Program based on Science

Kenji Tei (Grace Center, National Institute of Informatics, Japan)

12:30-14:00 Poster Display Room (Sakura)

PS 7-1 Design of safe and secure communities, reflections on human and robot

PS 7-1-1

Establishing Stronger Safety Culture and Systemic Procedures on the Data Transfer and Information Integrity in Radiation Oncology

Takumi Gotoh (Department of Radiation Oncology, Ichinomiya Nishi (West) Hospital, Japan)

PS 7-1-2

Residents' Opinions of Gardiens of Sectional-owned Apartment Houses in Paris

Hana Sekikawa (Okayama University, Japan)

PS 7-1-3

Pedestrian support system using visible-light communication for Individuals with Visual Impairment

Saeko Oshiba (Kyoto Institute of Technology, Japan)

PS 7-1-4

Air quality monitoring in urban areas, as a tool to reduce the risk of selected diseases of the respiratory and cardiovascular systems

Artur J. Badyda (Department of Informatics and Environment Quality Research, Warsaw University of Technology, Faculty of Environmental Engineering, Poland)

PS 7-1-5

DAILY LIFE ASSISTANT

Maciej Nikodem (Faculty of Electronics, Wroclaw University of Technology, Poland)

PS 7-1-6

The Ideas on Engineering Education in Bangladesh

Haragobinda Baidya (NGO, Affiliated with Bangladesh Government, Bangladesh)

12:30-14:00 Poster Display Room (Sakura)

PS 7-2 Molecular imaging in early diagnosis/ treatment

PS 7-2-1

Oncometer

Priyajit Ghosh (Electronics and Communication Engineering, Asansol Engineering College, India)

12:30-14:00 Poster Display Room (Sakura)

PS 7-3 Recovery from disease: Part 1 (Nanomedicine)

PS 7-3-1

Investigation of Co-crystal Formation between Piroxicam and Saccharin Induced by Solvent-assisted Grinding Process and Thermal Stress

Shan Yang Lin (Biotechnology and Pharmaceutical Technology, Department of Biotechnology and Pharmaceutical Technology, Yuanpei University of Medical Technology, Chinese Taipei)

PS 7-3-2

Controlled preparation of lipid vesicles as carriers for hydrophilic drugs with high encapsulation efficiensy by using water-in-oil-in-water multiple emulsions

Akihiko Suzuki (Graduate School of Engineering, Tokyo City University, Japan)

PS 7-3-3

Formulation of stimuli-responsive gelatin microspheres coated with polysaccharides and their controlled release properties for biopolymers

Takahiro Fujii (Graduated School of Engineering, Tokyo City University, Japan)

PS 7-3-4

Internal circuit system for cancer treatment and other wholesome uses

Priyajit Ghosh (Electronics and Communication Engineering, Asansol Engineering College, India)

PS 7-3-5

Encapsulation of propolis with different material

Parisa Shaltooki (Chemical Engineering, Islamic Azad University Quchan Branch-Quchan-Iran, Iran)

12:30-14:00 Poster Display Room (Sakura)

PS 7-4 Recovery from disease: Part 2 (Minimally invasive therapy and personalized treatment)

PS 7-4-1

An Advanced Proton Beam Therapy System with Real-time Tumor Tracking and Spot Scanning Irradiation Technologies

Kazuo Hiramoto (Research & Development Group, Hitachi, Ltd., Japan)

PS 7-4-2

Present status of Particle therapy system

Shinji Sato (Advanced Technology R&D Center, Mitsubishi Electric Corporation, Japan)

12:30-14:00 Poster Display Room (Sakura)

PS 8-1 Social missions of engineering and ethics for engineers

PS 8-1-1

Serving The Community-The Role of Bahrain Society of Engineers

Masoud Alhermi (Bahrain Society of Engineers, Bahrain)

PS 8-1-2

ELECTRONIC BIDDING CORE SYSTEM, WHICH IS A DE FACTO STANDARD OF PUBLIC WORKS PROCUREMENT PROCEDURES IN JAPAN

Hiroyuki Ishiwata (Systems Engineering Department, Japan Construction Information Center General Incorporated Foundation (JACIC), Japan)

PS 8-1-3

The construction of Yangtze River economic belt and the development of Shanghai port

Peng Wu (CCCC Water Transportation Consultants Co., Ltd., China)

PS 8-1-4

Transfer Mode Choice of Comprehensive Passenger Transportation Terminal based on Mixed Logit in China

Mei Liu (Tongji University Architectural Design Research Institute (Group) Limited, China)

PS 8-1-5

The influence of engineering, engineering for the society in the society

Xiyun Wei (Shanxi Second Construction Group Co., Ltd., China)

12:30-14:00 Poster Display Room (Sakura)

PS 8-2 Science & technology based on the societal trust & communication, Part 1: Fukushima Daiichi--the lessons learned

PS 8-2-1

Study on the changes of Taiwan's Radiation Hazard Risk Management Structure-The Lessons Learned from Fukushima Daiichi Incident in Japan

Sawyer Mars (Department of Urban Planning and Disaster Management, Mingchuan University, Chinese Taipei)

12:30-14:00 Poster Display Room (Sakura)

PS 9-1 Promoting female leaders in engineering

PS 9-1-1

Fostering Female Leadership in Engineering: A Bangladesh Perspective

Sinha Lamia Sultana (Civil Engineering, Research Assistant, Bangladesh University of Engineering and Technology, Bangladesh)

PS 9-1-2

Reports of International Survey for Recruitment and Promotion of Women Researchers in East Asia

Chikako Yoshida-Noro (Department of Applied Molecular Chemistry, College of Industrial Technology, Nihon University, Japan / Survey Committee, Japan International Science and Technology Exchange Center (JISTEC))

12:30-14:00 Poster Display Room (Sakura)

PS 9-2 Promoting young women in engineering: Part 2 Social infrastructure technology

PS 9-2-1

Development of societal base course problems for inclusion and retention of female undergraduate students

Pamela L. Dickrell (College of Engineering, University of Florida, United States)

PS 9-2-2

Women in STEM: The Challenges of Culture, Climate and Confidence

Karen Horting (AAES/Society of Women Engineers, United States)

PS 9-2-3

JWSE and Women Engineers in Japan

Mizue Y. Kissho (JWSE (Division of Japan Women Engineers Support), JSSPRM, Japan)

PS 9-2-4

How can we get more girls to choose for an engineering major?

Kumiko Morimura (School of Engineering, The University of Tokyo, Japan)

PS 9-2-5

A journey with young girls in High School in Cameroon

Essobmadje Reine (WFEO - Women In Engineering, France)