Technical Program Schedule and Contents

November 3rd, 2011 (1st day)

8:30-9:30 Registration

9:30-9:40 Opening Ceremony (Room A) Chairperson: S. SUDO (Akita Prefectural Univ.)
Koji MORI (President of the Japanese Society for Experimental Mechanics,
Osaka Electro-Communication Univ.)
Hiroshi TAKAHASHI (Chairperson of Organizing Committee of 6th ISEM, Tohoku Univ.)

9:40 -10:40 Keynote Lecture 1 (Room A) Chairperson: H. TAKAHASHI (Tohoku Univ.)
Application of Electromagnetic Processing of Materials (EPM) to Aluminum Recycling Technology
Shoji TANIGUCHI (Tohoku Univ., Japan) and Shin-ichi SHIMASAKI

10:50-12:10 Bubbly Flow
Chairpersons: K. MORI (Osaka Electro-Communication Univ.), R. TSUJINO (Setsunan Univ.)
035 Mixing Time of a Cylindrical Bath Agitated by Gas Injection through an Off-centered L-shaped Top Lance
Norifumi KOCHI and Manabu IGUCHI
046 Effects of Wettability on a Single Bubble in Partially Poorly-Wetted Vertical Pipes
Sho YOKOYAMA and Manabu IGUCHI
074 Experimental Study on Gas-Liquid Flow Distributions in Upward Multi-pass Channels - Comparison of R-134a Flow and Air-Water Flow –
Mohamad-Razlan ZURADZMAN, Hiroaki GOSHIMA, Koji TAKIGUCHI, Toshiaki TSUCHIYA,
Masaaki AJIMA, Motohide OKAMOTO, Yujiro KITAIDE, Masafumi HIROTA,
Naoki MARUYAMA and Akira NISHIMURA
104 Hollow Microcapsules Fabricated from Microbubbles Containing Cyanoacrylate Vapor
Toshinori MAKUTA, Yukina TAMAKAWA and Jun ENDO

13:10 -14:50 Fluid Engineering
Chairpersons: J.-J. MIAU (National Cheng Kung Univ.), M. TAKEI (Chiba Univ.)
040 Experimental Investigation and Numerical Computation of Fluid-Structure Interaction on a Square-Section Cylinder with Elastic Surface
Esmatullah Maiwand SHARIFY, Junnan LI, Hiroki SAITO, Shun TAKAHASHI and Norio ARAI
124 The Spatial Distribution of Ro/Vibrational Temperatures for Nitrogen Molecules Behind Hypervelocity Shock Waves by CARS Measurement
Hima Bindu VENIGALLA, Shota NIINOMI, Masashi OGURO, Masanori OTA and Kazuo MAENO
139 Investigation on Drag Reduction Mechanism over Compliant Wall
Nobuyoshi FUJIMATSU and Isao MISU
141 Integral Representation of Low-Reynolds-Number Hydrodynamics (Study of Stokes’ Paradox)
Yoshiaki UEDA and Manabu IGUCHI
150 Mixing Layer Control by Suction at Trailing Edge
Tzong-Shyng LEU

15:00-16:20 Flow Visualization
Chairpersons: C.-C. CHANG (Academia Sinica), H. ONO (Osaka Univ.)
050 Flow Past a Square Prism with Cut-Corners (Effect of the Angle of Attack)
Yoshiaki UEDA, Mitsuo KURATA, Teruhiko KIDA and Manabu IGUCHI
091 An Experimental Investigation of the Formation and Transition of a Double Eyewall Vortex
Shih-Lin HUANG, Zi-Ya LI, Cheng-Ta HSIEH, Chin-Chou CHU, Chien-Cheng CHANG
103 Three-dimensional Visualization of Hydrogen Bubble Method by Using Digital Holography
Yohsuke TANAKA, Yohsuke HIRANO and Shigeru MURATA
114 Faraday Waves and Surface Flow in a Cylindrical Container
Koji MATSUMOTO, Shigeki INNAMI, Tetsuya YANO, Muneo FUTAMURA and Seiichi SUDO

---------------------------------------------- Room B (Nov. 3, Thursday) --------------------------------------------

10:50-12:10 Strength and Stress Analysis
Chairpersons: G.-C. TSAI (National I-Lan Univ.), M. HIGUCHI (Toyohashi Univ. of Technology)
001 Description of Anisotropy and Yield Differential Effects for AZ31 Mg sheet Using Cazacu 2004 Yield Criterion
Mohammad Omar ANDAR, Toshihiko KUWABARA and Dirk STEGLICH
077 Effect of Tensile Deformation on Electric Resistance of Recycled Activated Carbon Composites
Takenobu SAKAI, Tomohiko GUSHIKEN, Jun KOYANAGI, Rolando RIOS-SOBERANIS,
Tomoki MASUKO, Satoshi MATSUSHIMA, Satoshi KOBAYASHI, Satoru YONEYAMA and
Shuichi WAKAYAMA
121 Influence of Plastic Anisotropy on Compressive Forming Limit of AZ31 Magnesium Alloy
Ichiro SHIMIZU, Koumuke OKADA, Seiki HIRANO and Naoya TADA
133 Time Series Deformation Measurement by Windowed Digital Holographic Interferometry
Ryosuke GOTO and Motoharu FUJIGAKI

13:10-14:50 Impact Behavior I
Chairpersons: S.-T. JENQ (National Cheng Kung Univ.), T. SAKAI (Tokyo Metropolitan Univ.)
002 Impact Strength of Strip with a Single Inclined Notch
Kazufumi UDA
017 Evaluation of Dynamic Properties of PLLA/PBSL Polymer Blends Using a Split Hopkinson Pressure Bar
Using a Split Hopkinson Pressure Bar
Seiya KUNO, Masahiro NISHIDA, Ikuyo KAWASHIMA, Tetsuo TAKAYAMA and Mitsugu TODO
025 Effects of Projectile Material Properties on Crater and Ejecta Size of Thick Aluminum Alloy 6061-T6 Targets
Masahiro NISHIDA, Shinji YAMAMOTO, Koichi HAYASHI and Sunao HASEGAWA
147 Dynamic Behavior of a Circular Tube Subjected to High Impact Loading
Masahiro HIGUCHI, Yasuji HAMAGUCHI, Shun SUZUKI and Tadaharu ADACHI
148 Energy Absorption of Thin-Walled Circular Tube Filled with Syntactic Epoxy Foam Subjected to Axial
Compression
Masahiro HIGUCHI, Takuma SAKA, Kenta FUJIMOTO and Tadaharu ADACHI

15:00-16:20 Evaluation, Inspection and Sensing I
Chairpersons: I. SHIMIZU (Okayama Univ.), M. FUJIGAKI (Wakayama Univ.)
008 Effect of the Aspect Ratio of the Elastic Model of a Flexible Sensor for Three-axis Load Measurement on
Normal Load and Shearing Load Measurement
Kang Ning TAN, Noboru NAKAYAMA, Sung-Moo SONG, Hiroyuku TAKEISHI and Takuya SUZUKI
013 Interference and Photoelastic Fringe Pattern Analysis Using Snapshot Imaging Polarimetry
Satoru YONEYAMA, Shuichi ARIKAWA and Yuji KUGIYAMA
071 Development of Novel Diffractive Optical Elements Using a Binary Fresnel Hologram
Shigeki NISHIDA and Yoshihiro OSHIDA
115 Development of Shape Measurement System Using Mirrors for Metallic Objects
Motoharu FUJIGAKI, Shingo MATSUMOTO, Akihiro MASAYA and Yoshiharu MORIMOTO
10:50-12:10 Materials and Processing I
Chairpersons: S. TANIGUCHI (Tohoku Univ.), T. ADACHI (Toyohashi Univ. of Technology)
015 Vibration Effect on Agitating Torque by Soil Recycling Machine
   Hiroshi TAKAHASHI, Dai NOJIRI and Tomoaki SATOMI
038 Composition Change in Al3Ni2 Microchannel Lining Layers by Alkali Leaching
   Yusuke SAITO, Tatsuya OHMI, Masatoshi SAKAIRI and Manabu IGUCHI
048 Fabrication of Free-Form Pipes Containing Microchannels from Metal-Powder Raw Materials
   Yutaro SHITARA, Tatsuya OHMI and Manabu IGUCHI
138 Reduction Behavior of Phosphorus in Oxide Melt
   Hideki ONO, Kenichi KOBATA and Tateo USUI

13:10-14:50 Materials and Processing II
Chairpersons: K. IKEDA (Univ. of Miyazaki), H. KONISHI (Osaka Univ.)
016 Study on Evaluation of Soil Strength Parameters by Using the Resistive Forces Acting on an Excavating Blade
   Tomoaki SATOMI, Chen MIN and Hiroshi TAKAHASHI
041 Anodic Oxidation of Al-Zn Alloy Lining Layer Produced by a Sacrificial-Core Method
   Masashi ISHIDA, Tatsuya OHMI, Masatoshi SAKAIRI and Manabu IGUCHI
051 Filtration of Ni-Al Alloy Containing By-Product Alumina Produced by Centrifugal Combustion Synthesis
   Tatsuya OHMI and Manabu IGUCHI
119 Thermal Strain of the Soldering Product in Traditional Metalwork
   Masaharu NISHINA, Gen SASAKI, Tetsushi KOSHINO, Takashi YOSHIKAWA,
   Yuka TAKAI, Akihiko GOTO and Hiroyuki HAMADA
151 The New Friction Welding Method with Intermediate Friction Material
   Ryoji TSUJINO, Kiyoshi MATSUURA and Takeshi HIGASHI

15:00-16:20 Biomechanics I
Chairpersons: Y. TANABE (Niigata Univ.), M. CHIBA (Tohoku Univ.)
011 Evaluation of Skills in Batting Technique in Baseball using Acceleration Sensors
   Satoru OKAMOTO
056 Stress Analysis on the Arch of the Foot Structure by Photoelasticity
   Heizo KAJIWARA and Tsutomu EZUMI
086 Basic Study for Mechanical Testing of Bone
   Yuichi ONO, Shuichi YAMAMOTO, Naohiro AKAO, Hisataka TANAKA and Toshio KAMINO
113 Design and Manufacturing of Knee Ankle Foot Orthosis (KAFO)
   Kadhim K. AL-KINANI, Shaker SAKRAN, Ali JAWAD and Akeel ZEKI
November 4th, 2011 (2nd day)

**9:50-10:50 Keynote Lecture 2 (Room A)**  Chairperson: M. IGUCHI (Hokkaido Univ.)
Transport Phenomena and Materials Processing Focused Mainly on Sustainable Development in Ironmaking and Steelmaking
Tateo USUI (Fukui Univ. of Tech., Japan), Hideki ONO, Hirokazu KONISHI and Hirotoshi KAWABATA

------------------------------------------------ Room A (Nov. 4, Friday) ------------------------------------------------

**11:00-12:00 Flow Measurement I**
Chairpersons: T. MAKUTA (Yamagata Univ.)
057 Development of Ultrahigh Accuracy Constant Temperature Bath - Part 2: The Decrease in Thermal Oscillation is Depended on the Variation of Flow Pattern
Tatsuro WAKIMOTO, Kenji KATHO, Jun TAMBA and Kazuaki YAMAZAWA
075 The Study of Vortical Structures and Spreading Characteristics on A Plane Jet Flow Under Long-Wave Excitations
Cheng-En LIU and Fei-Bin HSIAO
108 Calibration of Hot-Wire Probe at Low Velocity and Density of Flow
Vadim LEBIGA

**13:00-14:20 Multiphase Flow I**
Chairpersons: H. MONJI (Univ. of Tsukuba), T. YANO (Akita Prefectural Univ.)
029 Cold Model Study of Spout Eye Area in the Presence of the Slag Layer Simulated by Low-Density Particles
Asuka MARUYAMA and Manabu IGUCHI
049 Validation of Basic Models of Bubble Coalescence for Gas-Liquid Dispersion in a Column Reactor
Boris BOSHENYATOV
087 Inactivation of Microorganisms with a Disinfection System using Ozone Microbubbles Generated by a Hollow Ultrasonic Horn
Nonoko SYUKUYA and Toshinori MAKUTA
129 Suppression of Disintegration of Fan Liquid Sheet by Surfactant
Tatsuro WAKIMOTO and Kenji KATOH

**14:30-15:50 Environmental Fluid Flow**
Chairpersons: T. WAKIMOTO (Osaka City Univ.)
006 Wind Effect on Vibration and Scattering Behavior of Japanese Roofing Tile
Satoru OKAMOTO
007 Water Leak Phenomena of Japanese Tiled Roofs under Vibration and Scattering
Satoru OKAMOTO
010 Mathematical Modeling of Helium Enrichment from Natural Gas Processes with Low Content of Helium
A. F. FOMINA, A. S. VERESHCHAGIN and V. M. FOMIN

------------------------------------------------ Room B (Nov. 4, Friday) ------------------------------------------------

**11:00-12:00 Heat and Mass Transfer I**
Chairpersons: M. HIROTA (Mie Univ.)
005 Melting Behavior of a Rotating Ice Cylinder inside an Inclined Cylindrical Cavity Filled with a Binary Aqueous Solution
Yoshimi KOMATSU, Makoto TAGO and Masashi SATO

**11:00-12:00 Heat and Mass Transfer II**
Chairpersons: H. HIROTA (Mie Univ.)
005 Melting Behavior of a Rotating Ice Cylinder inside an Inclined Cylindrical Cavity Filled with a Binary Aqueous Solution
Yoshimi KOMATSU, Makoto TAGO and Masashi SATO
009 Cancel
023 Magnetically-Driven Heat Transport Device Using Ferrofluid
Yuhiro IWAMOTO, Xiao-Dong NIU, Hiroshi YAMAGUCHI, Haruhiko YAMASAKI and Takuya KUWAHARA
13:00-14:20 Micro Flow and Surface Phenomena
Chairpersons: S. OKAMOTO (Shimane Univ.), Y. TANAKA (Kyoto Institute of Technology)
036 Characteristics of Poorly Wetted Two Spheres Penetrating into a Water Bath
Yusuke SAKAI and Manabu IGUCHI
043 A Power-Free Microfluidic Pumping Device Utilizing Super-Hydrophobic Silicon Grass
Chun-Fei KUNG, Yu-Chen SHU, Chien-Cheng CHANG and Chin-Chou CHU
089 Spontaneous Dropping of Liquid Column in a Tilted Capillary Pipe with an Upper Lid
Kenji KATOH and Tatsuro WAKIMOTO
118 Vibration Characteristics of Liquid Bridge between Sphere and a Solid Base subject to Vertical Vibration
Seiichi SUDO, Shigeki INNAMI and Koji MATSUMOTO

14:30-15:50 Flow Transition
Chairpersons: N. FUJIMATSU (Toyo Univ.)
026 Aerodynamic Transition and Velocity Field Study of a Finite Wing in Low Reynolds Numbers
Yi TENG, Yi-Chung LIU, Di-Bao WANG and Fei-Bin HSIAO
045 An Experimental Study on the Unstable Disturbances in the Developing Region of a Pulsating Pipe Flow
Han LIU, J. J. MIAU, and Jiun-Yi DAI
052 Initial Unsteadiness Effect on Transition to Turbulence in Constant Acceleration Pipe Flow
Kazuyoshi NISHIHARA, Hisanori SAKA, Yoshiaki UEDA, Hirofumi OOYABU and Manabu IGUCHI

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Room C (Nov. 4, Friday) ---------------------------------------------------------------------
13:00-14:20 Evaluation, Inspection and Sensing II
Chairpersons: S. SUZUKI (Toyohashi Univ. of Technology), S. YONEYAMA (Aoyama Gakuin Univ.)
058 Piezoelectric Cable Composites for Application in Electrical Power Generation
Matthew SILLETO and Kazuo ARAKAWA
106 Fracture Prediction in Reinforced Concrete Using Mechanoluminescent Sensor
Chenshu LI, Chao-Nan XU, Daisuke ONO, Naohiro UENO and Yuichiro KAWABATA
110 Robot Navigation using Polarized Light Sensor without Crossed-analyzer
Yoshiyuki HIGASHI, Hiroaki TOKUAMI and Hiroshi KIMURA
127 Nonlinear Response of the Vehicle-Track-Bridge Interaction for High-Speed Trains
Ren-Zuo WANG, Chung-Yue WANG, Jou-Yi SHIH and Bin-Chang LIN

14:30-15:50 Biomechanics II
Chairpersons: Y. ONO (Tottori Univ.), C. LI (AIST)
047 Displacement Analysis of Living Human Teeth by X-ray CT Images and Coordinate Transformation
Kazuo ARAKAWA
090 The Role of Mechanical Stretching During Skeletal Muscle Organogenesis
Mirei CHIBA and Haruhide HAYASHI
092 Gene Expression Related to Osteoblast Differentiation in Mouse Calvaria-Derived MC3T3-E1 Cells Cultured in Micro-Space
Ryosuke MIYAI, Mirei CHIBA and Haruhide HAYASHI
093 Wear Characteristics of Ultra High Molecular Weight Polyethylene (UHMWPE) in Cyclic Impingement Test
Tomoya CHIBA, Yuta SHIMUR, Yuji TANABE and Hirotsugu OHASHI
14:00-15:00 Keynote Lecture 3 (Room A) Chairperson: to be announced
The Effects of Bio-Surfactant on the Oil Recovery of Oily Sludge
Edwan KARDENA (Institute of Technology Bandung, Indonesia)

9:30-10:30 Flow Measurement II
Chairpersons: K. KATOH (Osaka City Univ.)
130 Measurement of Interfacial Tension Based on a Floating Droplet Profile on a Liquid
Masashi NAKAMOTO, Toshihiro TANAKA and Takaiku YAMAMOTO
136 PIV Measurement of Unsteady Flow Field above an Airfoil Pitching at Different Waveform Conditions
142 Improved Volumetric Reconstruction Scheme for Particle Tracking Velocimetry Based On Multiple
Projections
Basanta JOSHI, Kazuo OHMI and Kazuo NOSE

15:10-16:35 Multiphase Flow II
Chairpersons: K. MAENO (Chiba Univ.), Y. UEDA (Hokkaido Univ.)
014 Study on Development of New Equipment to Recycle the Waste Asphalt Blocks Containing Roadbed
Materials
Hiroshi TAKAHASHI, Shota AOKI and Tomoaki SATOMI
082 Error of Optical Measurement on Dispersed Two-Phase Flow
Yuji ITAMOTO and Hideaki MONJI
102 Yield Improvement and Durability Enhancement of Hollow Microcapsule Fabricated by Bubble
Template Method
Yukina TAMAKAWA and Toshinori MAKUTA
137 Experimental Assessment of the Gas/Liquid Transport Performance of the Rotating Porous Disc
Tetsuya YANO, Kiyohiro KATO and Seiichi SUDO

9:30-10:30 Heat and Mass Transfer II
Chairpersons: Y. HIGASHI (Kyoto Institute of Technology)
004 Heat Transfer Performance of a Self-Oscillating Heat Pipe Using Pure Water as Working Fluid
Dao Danh TUNG and ShuiChi TORII
100 Quantitative Measurement of Natural Convection from Multiple Heat Sources Using Color-Stripe
Background Oriented Schlieren (CSBOS) CT Method
Muhammad Falak ZEB, Masanory OTA and Kazuo MAENO
446 Cancel

15:10-16:35 Impact Behavior II
Chairpersons: K. UDA (Kanagawa Institute of Technology), M. NISHIDA (Nagoya Institute of Technology)
143 Impact Analysis and Experiment Test for Carbon Fiber Composite Plate with Central Hole
(Invited Presentation)
Gwo-Chung TSAI and Yuh-Chung Hu
073 High Strain-Rate Compressive Response of Bulk Epoxy Adhesive under Nearly Uniaxial Strain Conditions
Takashi YOKOYAMA, Kenji NAKAI and Norfazrina Hayati M.Y.
111 Dynamic Tensile Properties of Nuclear-Grade Graphite IG-11
Kenji NAKAI and Takashi YOKOYAMA

145 High Strain-Rate Stress-Strain Relation for Sn-Pb37 & Unleaded SAC305 Solders at Elevated Temperature Conditions
Syh-Tsang JENQ, Yuen-Sheng CHIU, Ren-Jey LIN and Yi-Shao LAI

Room C (Nov. 5, Saturday)

9:30-10:30 Evaluation, Inspection and Sensing III
Chairpersons: K. ARAKAWA (Kyushu Univ.)

105 Development of Weight Scale Using MEMS Sensor Under Micro Gravity
Yohsuke TANAKA, Kohta HITANI and Shigeru MURATA

144 Propagation Properties of Guided Wave Transmitted Through Stem of Miniature Tomato
Kensuke KAGEYAMA and Toshikazu KURITA

146 Residual Stress Measurement of Light Bulb for Automobiles by Phase-Shifting Photoelasticity
Shinichi SUZUKI, Shohei NISHIKITA and Taiga MURAI

15:10-16:35 Materials and Processing III
Chairpersons: E. KARDENA (Institute of Technology Bandung), H. TAKAHASHI (Tohoku Univ.)

037 Structure Control of Cu-Zn Microchannel Lining Layers with Potentiostatic Dissolution
Kazuki KOBAYASHI, Tatsuya OHMI, Masatoshi SAKAIRI and Manabu IGUCHI

055 Production and Properties of Glass-Ceramics with Wollastonite Crystal from Industrial Wastes
Kiyohiko IKEDA, Hiroyuki KINOSHITA, Ryuusuke KAWAMURA, Akira YOSHIKAWA,
Osami KOBORI and Akira HIRATSUKA

131 Liquid Immiscibility of Fe-Ag-Cu-B System
Katsuhiro YAMAGUCHI, Hideki ONO, Shingo AGAWA and Tateo USUI

132 Separation of Dy by Molten Salt Electrochemical Process
Hirokazu KONISHI, Hideki ONO, Tetsuo OISHI and Toshiyuki NOHIRA

10:40-13:00 Poster Session

1. General presentation

012 Heat Balance Calculations in a New Fluidized Bed Gasifier
Takahiro MURAKAMI, Minoru ASAI and Yoshizo SUZUKI

018 Study on Gasification Characteristics of Waste Wood Chips
Koji MORI and Haruo SOEDA

027 Analysis of Dielectrophoretic force acting on particles in minichannel
Kota SUZUKI, Hiromichi OBARA, jeEun CHOI and Masahiro TAKEI

028 Compressive Deformation Behavior of Expanded Polymer Rib Structure
Hiroyuki YAMADA, Nagahisa OGASAWARA, Takahiro MINAGAWA, Shigenori OKA and
Yukinori KOBAYASHI

039 Effect of Chemical Composition on Hydrogen Embrittlement of High Tensile Steel
Mariko NAKAMURA, Hiroyuki SAITO and Takashi SAWADA

042 Mechanical Effects of Micro-thread Design in Relation to Artificial Cortical Bone Thickness of
Orthodontic Mini-screw
Chun-Li LIN, Wen-Jen CHANG, Yang-Sung LIN, and Jian-Hong YU

076 Flow and Thermal Analysis of Ultraviolet-Curable Resin during Curing Process
Hiroaki ISHIBASHI, Ryo ODAGIRI and Eisaku UMEZAKI
080 Influences of Tube Length Sunk Underwater and Water Depth on Peaceful Sound of Water Musical Instrument
Takashi TODAKA, Teruaki NAGASE, Yoshito OHUCHI and Yoichi NAKAZONO

094 Finite Element Analysis of Movement of Lower Jaw Molars Using Implant Anchor
Yoshinori TOMIZUKA Eisaku UMEZAKI Shigeyuki MATSUI Daigo KOMAZAWA and Naoto SUDA

109 Accurate Detection of Depth Information from Digital Hologram Using Two-Wavelength Reconstruction
Shigeru MURATA and Yohsuke TANAKA

126 Friction Properties of SiC Film at Reduced Pressures
Masahiko KATO, Kohei KUROSE, Hiroyuki AKEBONO and Atsushi SUGETA

128 Application of Acoustoelastic Stress Measurement System Using a Grazing SH-wave Sensor to Actual Constructions
Yoshihiko HASHIMOTO, Yorinobu MURATA, Masami IKESHITA and Hiroki TODA

149 Water Model Experiment on the Entrapment of Slag using Polymerization
Manabu IGUCHI, Yutaka SUMIDA, Koji MORI, Tatsuya OHMI, Yoshiaki UEDA and Keiji NAKAJIMA

2. Special presentation by students of high school and college of technology: S01-S20

Awarding Ceemony (12:50-13:00)

S01 An Approach by Our Science Club Aiming for the National Award at CanSat KOSHIEN
Tomoya MATOBA, Tomoyasu NAGAKAWA, Tomoaki SHIMADA and Ikuhisa FUJIKI
(Wakayama Prefectural Toin High School)

S02 Production of Touchable Replicas of Cultural Treasures Using the 3D Tools
Yuya OKADA, Yusuke KAMEI, Shinnosuke SAKAUE, Tsuyoshi SUMI, Takuya HIGASHIO,
Shunsuke FUJII, Miyu MATSUMOTO and Seiji TAKEMOTO
(Wakayama Technical High School)

S03 Design and Development of the Super Energy-Saving Competition Vehicle
Noriaki KUMAMOTO, Tomohiro BOUNO, Kiichi KITAYAMA, Keita MICHINE,
Kimitishi KAWAGUCHI and Yoshio YABUSHITA
(Kihoku Technical High School)

S04 The Creation Conditions and Performance of a Dye Sensitizing Photoelectric Cell
Tomoki YUKAWA and Mami NISHI
(Wakayama Prefectural Kainan High School)

S05 The Challenge to Cansat Koshien 2011
Atsuhide OSAKI, Sadayoshi TAKAI, Tougo HASHIDUME and Sohei KISHIDA
(Wakayama Prefectural Kainan High School)

S06 Experienced Kansai Tournament WRO JAPAN 2011
Hideya KITAYAMA, Yuki HOSHIHARA, Kosuke NAKAMATSU, Yusei KITAGAKI, Naotaka BITO,
Syo TANAKA, Yuki DEJIMA, Naoki MAEDA, Satsuki TANAKA, Keiya MASUDA, Takumi HAIKI,
Takeyoshi AGATA and Junko YAMAGUCHI
(Wakayama Prefectural Koyo High School)

S07 Phylogenetic Analysis of Citrus Using CIRE1 Retrotransposon
Nao SINGYO, Mao URAKAWA, Hazuki NAKANO, Asami HIRANO, Chizuru OKA,
Kana SUGIHARA, Tsukasa SUZUKI, Takeyoshi AGATA and Junko YAMAGUCHI
(Wakayama Prefectural Koyo High School)

S08 Small Model Tests on Anti-Seismic Reinforcements for Soil Structures
Shunki KITAGUCHI, Masahiro TAKETANI and Yasuyuki NABESHIMA
(Akashi National College of Technology)
S09 Analysis of Swimming Ability of Blue Fin and Its Application to the Robot
Yuya SAKAGUCHI, Masakazu HORIUCHI and Katsuya KUGAI
(Kinki University Technical College)

S10 Development of Kneading Machine for Cress
Takahiro YAMAMOTO, Hideki YAMAGUCHI and Katsuya KUGAI
(Kinki University Technical College)

S11 Hot Ductility of Al-Mg Alloy for Automotive Body Sheet
Hideyuki KASAI, Tomoya SHIRAKAWA and Tsutomu ITO
(Kagawa National College of Technology)

S12 Flame Behavior and Stability on Radial Horizontal Jet Diffusion Flame for Various Species of Gas Fuel
Ryuji TAKASHIMA, Koji IDEGUCHI, Yuki HARA, Kentaro TAKATERE, Kenta YANO and Takamitsu YOSHIMOTO
(Kobe City College of Technology)

S13 Frictional Pressure Drop of Microbubble Flow in a Horizontal Channel
Aina SHINKAI, Yoichi MAEDA, Takayuki SUZUKI and Hideaki SHAKUTSUI
(Kobe City College of Technology)

S14 Proposal for a Soil Clean-Up System Using a Remote Controlled Robot
Keisuke YAMANAKA and Tomoharu DOI
(Osaka Prefecture University College of Technology)

S15 Mechanical Property of Obi-Sugi Treated by Hot Pressing
Takahiro KAWABATA, Toshinobu TOYOHIRO, S. ARIMITSU, Akihiro TAKAHASHI and Naoyuki YAMAMOTO
(Miyakonojo National College of Technology)

S16 Tensile Characteristics on Bamboo Fiber at Elevated Temperatures
Daiki MORI, Akihiro TAKAHASHI, Naoyuki YAMAMOTO, Toshiki HIGASHI and Toshinobu TOYOHIRO
(Miyakonojo National College of Technology)

S17 Mechanical Properties on Pure Fe Fabricated by Severe Plastic Deformation
Ryuta ARISHIMA, Tomoya UCHIMURA, Toshiki HIGASHI, Akihiko TAKAHASHI, Naoyuki YAMAMOTO, Toshinobu TOYOHIRO and Yoshikazu TODAKA
(Miyakonojo National College of Technology)

S18 Experimental Development of Spatter Anti-Adhesive Agent on Shielding Metal Arc Welding Made of Foodstuffs and Natural Products
Toshiki HIGASHI, Akihiro TAKAHASHI, Naoyuki YAMAMOTO, Toshinobu TOYOHIRO, Katsuo TAIRA and Hideyo KUBOTA
(Miyakonojo National College of Technology)

S19 Experimental Study on Heat Transfer Characteristics of Magnetic Fluid Heat Pipe
Kishu SUGIMOTO and Hiroyuki SHIRAIWA
(Miyakonojo National College of Technology)

S20 An Application of AE Sensors for Failure Diagnosis
Hiroyuki MATSUSHITA, Tuguo HAMADA, Hideo TOYA and Toshifumi YUJI
(Miyakonojo National College of Technology)

16:45-16:55 Closing Address (Room A)
Chairperson: T. YOKOYAMA (Okayama Univ. of Science)