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	Nattapong Kaewlek and Thavida Maneewarn	
FP06-3	<a href="#">Energy-Efficient Reference Gait Generation Utilizing Variable ZMP and Vertical Hip Motion Based on Inverted Pendulum Model for Biped Robots</a>	1408
	Hyeok Ki Shin and Byung Kook Kim	
FP06-4	<a href="#">Research for Gait Stability of Biped Walking using Vision</a>	1414

	Kyu Min Nam, Byoung-Soo Kim, JaeJun Kim and Soon-Geul Lee	
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	Yuuki Nakashima	
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	Thang Nguyen Duc, Tae-Seong Kim, Young-Koo Lee and Sungyoung Lee	
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	Shigeo Yoshida	
FP07-4	<a href="#">Facial Emotion Recognition using a Combining AAM with DBN</a>	1436
	Kwang-eun Ko and Kwee-Bo Sim	
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	Joo-Young choi, Dong-Hyung Kim, Chang-Jun Kim, Young-Ryul Kim, Sang-Ho Kim and Chang-Soo Han	
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	Carl Crane, Ryan Chilton and Kuk Cho	
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	Sang Ho Kim, Dong Hyung Kim, Chang Jun Kim, Young Ryul Kim, Joo Young Choi and Chang Soo Han	
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	Byungik Kahng	
FE01-2	<a href="#">Sliding Mode Controller with Circular Sliding Surface for 2-link Robot Manipulator</a>	1519
	Young-Hun Jo, Yong-Hwa LEE and Kang-Bak Park	
FE01-3	<a href="#">Smith Predictor Design by CDM for Temperature Control System</a>	1522
	Arjin numsomran	
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	Hyo-Sung Ahn and Daewon Chung	

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FE02-3	<a href="#">Development of Remote Excavation system using Real Time module</a>	1544
	Young-su Cho, Du-hwan Yun, Jin-seok Park and Soon-yong Yang	
FE02-4	<a href="#">A Manufacture and Control of Steering Assist Device of an Independent drive EV</a>	1548
	Hacksun Kim, Insung Song, Chansae Jeong and Soonyong Yang	
FE02-5	<a href="#">A Study on the Development of Multi-Stage Solenoid Valve</a>	1552
	Chan-se Jeong, Hak-Sun Kim and Soon-Yong Yang	
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	Byung-Ryong Lee, Tuong Quan Vo and Hyoung Seok Kim	

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	Kwangyul Baek and Hyochoong Bang	
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	kwang-min jung and Kwee-Bo Sim	
FE03-4	<a href="#">Position Error Correction for DGPS Based Localization using LSM and Kalman Filter</a>	1576
	Hyeon Seob Eom and MinCheol Lee	
FE03-5	<a href="#">A GPS-IMU-Camera Modelization and Calibration for 3D Localization dedicated to Outdoor Mobile Applications</a>	1580
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## FE04 : Networked Control Systems

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FE04-2	<a href="#">Command Coordination in Multi-agent Formation: Euclidean Distance Matrix Approaches</a>	1592
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FE04-3	<a href="#">Concurrent Multipath Transfer using SCTP Multihoming over Heterogeneous Network Paths</a> Taehun Kim, Jongwook Lee and Young Ik Eom	1598
FE04-4	<a href="#">Implementation of Localization Available ZigBee-based Sensor node for Configuring the Robot Environment Platform</a> Kee-Min Kim, Kyung-Jung Lee, Jae-Oh Kim, Jae-Han Park, Moon-Hong Baek and Hyun-Sik Ahn	1603
FE04-5	<a href="#">Flow Based Clustering Algorithm for Tourism Search Engine</a> jie liu, Du Junping, Zengqi Sun and Yingming Jia	1608
FE04-6	<a href="#">A Measurement Mechanism of IP Performance Metrics for Network Mobility</a> Pyung-Soo Kim	1613

## FE05 : Signal Processing III

FE05-1	<a href="#">A Gray-code Algorithmic Analog-to-Digital Converter based on Operational Conveyors</a> Amphawan Julsereewong and Wandee Petchmaneelumka	1617
FE05-2	<a href="#">Electronically Adjustable Phase Shifter using OTAs</a> Wandee Petchmaneelumka, Kanoknuch Songsuwankit and Vanchai Riewruja	1622
FE05-3	<a href="#">Audio-Visual Data Fusion for Tracking the Direction of Multiple Speakers</a> Quang Nguyen and JongSuk Choi	1626
FE05-4	<a href="#">4-20mA Current Transceiver</a> APINAI RERKRATN, Vanchai Riewruja, Thepjit Cheypoca and Komsan Chaipurimas	1631
FE05-5	<a href="#">Future Voyage Data Recorder Based on Multi-Sensors and Human Machine Interface for Real Marine Accident</a> Iman Morsi, Mohamed Zaghloul and Nermin Anwar	1635
FE05-6	<a href="#">Power Monitoring Circuit Using Operational Amplifiers</a> APINAI RERKRATN, Wandee Petchmaneelumka, Prasit Julsereewong and Vanchai Riewruja	1639

## FE06 : Haptics

FE06-1	<a href="#">Design of a Master Device for the Teleoperation of Wheeled and Tracked Vehicles</a> ba-hai nguyen and Jee-Hwan Ryu	1643
FE06-2	<a href="#">More Physics-based Haptic Display of Frictional Virtual Surface</a> Chang-Gyu Lee, Yo-An Lim, Jaeha Kim and Jeha Ryu	1649
FE06-3	<a href="#">Force Control of a New 6DOF Haptic Interface for a 6DOF Serial Robot</a> vu minh hung and Uhn Joo Na	1653
FE06-4	<a href="#">Study of a Spherical Ultrasonic Motor for Haptic Display System</a> Ryota Ishibashi, Tomohiro Ohara, Naoyuki Takesue, Jumpei Arata, Shigeki Toyama, Masahiko Hoshina, Yoshiyuki Hirai, Naoki Fukaya and Hideo Fujimoto	1659
FE06-5	<a href="#">Development of Forearm Support-Type Lift Assist System (FOLAS): System Design for Intuitive Assist Operation without Wearing</a> Suwoong LEE, Hidetaka NOZAWA and Kenji INOUE	1663
FE06-6	<a href="#">Haptic Guided Optimized Aircraft Maintenance Assembly Disassembly Path Planning Scheme</a> Syed Hassan and Jungwon Yoon	1667

## FE07 : Vision Systems & Applications

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FE07-2	<a href="#">A Real Time Window-based Image Processing Architecture using a Mapping Table</a> Min Shik Seok, Il Seuk Song, Seunghun Jin and Jae Wook Jeon	1678

FE07-3	<a href="#">Improvement in Image Retrieval Performance of Vocabulary Tree by Adding Index Storage Array and Multiple Search Algorithm</a>	1682
	Ho-Yong Seo, Ho-Hyun Lee and Ju-Jang Lee	
FE07-4	<a href="#">Human Posture Recognition using Top-view Vision for Intelligence Space Environment</a>	1687
	Weerachai Skulkittiyut and Makoto Mizukawa	
FE07-5	<a href="#">An FPGA-Based Vehicle Speed Measurement System Using an Uncalibrated Camera.</a>	1691
	JI HO SONG, Thuy Nguyen , Seunghun Jin, Dongkyun Kim and Jae Wook Jeon	

## FE08 : Kinematics and Dynamics of Robots

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FE08-2	<a href="#">Minimum-Energy Trajectory Planning on a Tangent for Battery-Powered Three-Wheeled Omni-Directional Mobile Robots</a>	1701
	Hongjun Kim and Byung Kook Kim	
FE08-3	<a href="#">A Study on Traversability of Quadruped Robot in Rough Terrain</a>	1707
	Vo-Gia Loc, Ig Mo Koo, Tran Duc Trong, Ho Moon Kim, Hyungpil Moon, Hyouk Ryeol Choi and Sangdoek Park	
FE08-4	<a href="#">Minimum-Time Grid Coverage Trajectory Planning Algorithm for Mobile Robots with Battery Voltage Constraints</a>	1712
	JaeSung Kim and ByungKook Kim	
FE08-5	<a href="#">Constant Pelvis Height ZMP-based Walking: A study on energy consumption during walking</a>	1718
	Aliza Che Amran, Fariz Ali and Atsuo Kawamura	
FE08-6	<a href="#">Slope-Walking of a Biped Robot with Position and Orientation based Inverse Kinematics Method</a>	1724
	Fariz Ali, Aliza Che Amran and Atsuo Kawamura	

## FE09 : Unmanned Vehicle Systems - Sensors & Actuators

FE09-1	<a href="#">Hardware-In-the-Loop Simulation Test for Actuator Control System of Smart UAV</a>	1729
	Changsun Yoo, Youngshin Kang and Bumjin Park	
FE09-2	<a href="#">Development of a 3D Position Determination Device using PSD Sensor</a>	1733
	Jin-Young Suk, Do-Myung Kim and Jeong-Gi Lee	
FE09-3	<a href="#">Cross country terrain segmenation based on salient features</a>	1737
	Artem Lenskiy and Jong-Soo Lee	
FE09-4	<a href="#">A Study on Application of Sensor Fusion to Collision Avoidance System for Ships</a>	1741
	Jonggu Kang, Minjung Jin, Jeehoon Park and Dongho Park	
FE09-5	<a href="#">Synthesis of Automatic System for Correction of Program Signal of</a>	1745
	Dmitry Yukhimets and Vladimir Filaretov	

## FEP : Poster Session III

FEP-1	<a href="#">A Study of Calligraphic Skill by Virtual Brush-Writing with Haptic Device —Hidden Markov Modeling of Writing Strokes—</a>	1751
	Toshio Hira and Kenichi Iida	
FEP-2	<a href="#">A Haptic Device Interface for the Operation of the Virtual Arm</a>	1755
	Chang-Hoi Kim, Seong-Hyun Kim, Hyo-Jik Lee, Jong-Kwang Lee and Ki-Ho Kim	
FEP-3	<a href="#">Investigation of the relationship between visual information and interaction force on load-on task within virtual environment</a>	1759
	Lee JAEHOON and KIM JAEHYO	
FEP-4	<a href="#">Application of Signal Compression into Medical Surgery Robot with Cable-Pulley System</a>	1765

FEP-5	YUANLONG WEI, yo hwan Kang, chi yen Kim and min cheol Lee <a href="#">Behavioral performance of multi-robots driven by human drawing</a>	1769
FEP-6	Young Rae Jo and Sungho Jo <a href="#">ROHINI : Flower Shaped Robotic Creature As an Intuitive Smart Home Interface</a>	1773
FEP-7	Seongju Chang, Sungil Ham and Dongjun Suh <a href="#">A Robot Control Approach Based on Multi-level Data Fusion</a>	1777
FEP-8	Sangseung Kang <a href="#">SITAT: Simulation-based Interface Testing Automation Tool for Robot Software Component</a>	1781
FEP-9	Jeong Seok Kang, Sang Woo Maeng, Si Wan Kim and Hong Seong Park <a href="#">Interaction without Programming: Effective Use of Pre-Programmed Reactions in a Creation &amp; Expression Contest</a>	1785
FEP-10	Hye-Kyung Cho, Youngsun Ryuh and Byoungsoo Kim <a href="#">Interactive Virtual Reality Museum for Material Packaging Study</a>	1789
FEP-11	Ratchadawan Nimnual, settachai chaisanit and Surachai Suksakulchai <a href="#">Fuzzy Clustering of Temporal Parameters of Gait during Stance Phase for Walking Speed Estimation</a>	1793
FEP-12	AURALIUS MANURUNG and Jungwon Yoon <a href="#">Development of New Soft Actuator Using Magnetic Intelligent Fluids for Flexible Walking Robot</a>	1797
FEP-13	Hironari TANIGUUCHI, Masaki Miyake and Koichi Suzumori <a href="#">Recognition of Walking Intention Using Multiple Bio/Kinesthetic Sensors for Lower Limb Exoskeletons</a>	1802
FEP-14	Eun-Hye Jang, Young-Jo Cho, Su-Young Chi, Jae-Yeon Lee, Sang Seung Kang and Byung-Tae Chun <a href="#">A Novel Design for Lower Extremity Gait Rehabilitation Exoskeleton Inspired by Biomechanics</a>	1806
FEP-15	Sang-Hun Pyo and Yoon Jungwon <a href="#">Analysis on kinematics of robot fish</a>	1812
FEP-16	Dong Won Yun, Jin Ho Kyung, Young Su Son and Soo Hyun Kim <a href="#">Online Walking Pattern Generation for Biped Walking</a>	1816
FEP-17	Tetsuya Yoshida and Hun-ok Lim <a href="#">Stable Walking Algorithm using Tilting Motion for a Bipedal Robot</a>	1822
FEP-18	ko deok hyeon, Kim Gyu Ro and Soon Geul Lee <a href="#">Development of a Snake Robot Moving in a Small Diameter Pipe</a>	1826
FEP-19	Hocheol Shin, Kyung-Min Jeong and Jeongjoo Kwon <a href="#">Development of an Overhead Crane for Remote Handling Tasks at Nuclear Facility</a>	1830
FEP-20	Hyo Jik LEE, Jong Kwang Lee, Byung Suk Park, Kiho Kim and Ho Dong Kim <a href="#">Effects of torsional stiffness, knee angle, and link ratios on the design of a biologically inspired mobile robot with two-segment legs</a>	1835
FEP-21	DongHwan Shin, Youngshik Kim and Jinung An <a href="#">Equation of motion of a wheeled inverted pendulum on an irregular terrain</a>	1839
FEP-22	se-han lee, Soojun Lee and YongKwun Lee <a href="#">Remote robotic systems for nuclear environment application</a>	1843
FEP-23	Kiho Kim <a href="#">Development of a System Integration Method using Robotic Intelligent Components</a>	1847
FEP-24	Young-Ho Choi, Jung-Woo Lee, Jin-Ho Suh, Suk-Jung Kim and Sung-Ho Hong <a href="#">Development of a control system for master-slave operation</a>	1851
FEP-25	Jong Kwang Lee, Byung Suk Park, Hyo Jik Lee, Kiho Kim and Ho Dong Kim <a href="#">Study of Feature-Based Image Capturing and Recognition Algorithm</a>	1855
FEP-26	Chih-Hong Kao, Sheng-Ping Hsieh and Chih-Cheng Peng <a href="#">Inspection of brazing joint defects in the heat exchanger using X-ray</a>	1862
FEP-27	Sang-Woo Seo and Jin-Young Kim <a href="#">Performance Analysis of Vision based Monitoring System for Passenger's Safety on Railway Platform</a>	1867
FEP-28	Sehchan Oh and Hanmin Lee <a href="#">Camera Lens Radial Distortion Compensation by Illuminating the Epipolar Lines with a Projector</a>	1871

	Yeonsoo Kim, Daesik Kim and Sukhan Lee	
FEP-29	<a href="#">Video Stabilization for Robot Eye Using IMU-Aided Feature Tracker</a>	1875
	Yeon Geol Ryu, Hyun Chul Roh and Myung Jin Chung	
FEP-30	<a href="#">Wide-Angle Laser Structured Light System Calibration with a Planar Object</a>	1879
	Daesik Kim, Seongsoo Lee, Hyunwoo Kim and Sukhan Lee	
FEP-31	<a href="#">Optimal path planning with Holonomic mobile robot using localization vision sensor</a>	1883
	DongSeok Lee, KilSoo Lee, HyungGyu Park and ManHyung Lee	
FEP-32	<a href="#">Design of Cursive Handwriting Characters Using Esthetic Evaluation</a>	1887
	Shinya Miyata and Hiroyuki Fujioka	
FEP-33	<a href="#">Impedance control of robot manipulator using artificial intelligence</a>	1891
	Han Me Kim and Kyoung Taik Park	
FEP-34	<a href="#">Master-slave Teleoperation Control using Time Delay Control</a>	1895
	Hae Jin Lim, Jong Kwang Lee, Kiho Kim, Hyo Jik Lee and E-Sok Kang	
FEP-35	<a href="#">A Hybrid Data Association Approach for Mobile Robot SLAM</a>	1900
	Baifan Chen, Zixing Cai and Zhirong Zou	
FEP-36	<a href="#">ICE Matching, a Novel Approach for Localization Problem</a>	1904
	Maziar Ahmad Sherbafi, Sanaz Taleghani, Edriss Esmaeili, Abolfazl Toraghi Haghighat and Omid Aghazadeh	
FEP-37	<a href="#">The loosely coupled integration system using a Pseudolite Ultrasonic System and a Dead-reckoning for the Autonomous Mobile Robots Localization</a>	1908
	Su Yong Kim, Kang Sup Yoon, Dong Hwal Lee and Man Hyung Lee	
FEP-38	<a href="#">Dynamic Localization based on EKF for Indoor Mobile Robots using Discontinuous Ultrasonic Distance Measurements</a>	1912
	Seong Jin Kim and Byung Kook Kim	
FEP-39	<a href="#">Development of an autonomous outdoor patrol robot in private road environment</a>	1918
	Jiyong Jin, Changbae Jung, Donghyeon Kim and Woojin Chung	
FEP-40	<a href="#">Development of High Precision Linear Transfer Module using Air Floating System for Flat Panel Display</a>	1922
	MyungJin Chung	

## SA01 : Control Systems & Applications

SA01-1	<a href="#">Load Swing Control of an Overhead Crane</a>	1926
	Pittaya Pannil, krit Smerpitak, Visitsak La-orlao and Thanit Trisuwannawat	
SA01-2	<a href="#">Collision avoidance and path following for multi-agent dynamical systems</a>	1930
	Ionela Prodan, Sorin Olaru, Cristina Stoica and Silviu-Iulian Niculescu	
SA01-3	<a href="#">Transverse Vibration Control of Axially Moving Web Systems by Regulation of Axial Tension</a>	1936
	Quoc Chi Nguyen, Quang Hieu Ngo and Keum-Shik Hong	
SA01-4	<a href="#">A New and Effective Controller for Induction Motors applying Direct-Decoupling Methodology based on Exact Linearization Algorithm and Adaptive Backstepping Technology</a>	1941
	Anh - Tuan DINH, Phung Quang NGUYEN and Minh Duc LE	
SA01-5	<a href="#">Active Horizontal Suspension System Using Negative Stiffness Control</a>	1946
	Mhia Shahadat, Takeshi Mizuno, Yuji Ishino and Masaya Takasaki	
SA01-6	<a href="#">Design and Implementation of Sliding Mode-State Feedback Control for Stabilization of Rotary Inverted Pendulum</a>	1952
	samira mir mazhari anvar, Iraj Hassanzadeh and Ghasem Alizadeh	

## SA02 : Communication Systems I

SA02-1	<a href="#">Design of Right Angle Slot Antenna for Dual Band and Dual Polarized with Wireless Network</a>	1958
	auttapon pomsathit, Chawalit Benjangkprasert, Noppin Anantrasirichai, Toshio Wakabayashi and paitoon raklua	

SA02-2	<a href="#">Effective of Transmission Power for Wireless Ad-Hoc Networks</a>	1962
	Paitoon Rakluea, auttapon pomsathit, Sirilak Areerachakul and aekkarat Iorpchian	
SA02-3	<a href="#">Adaptive Space-Time Receiver for Cooperative Relay Networks</a>	1966
	Rachaneegorn Chaisong, Chakree Tekapakvisit and Chawalit Benjangkaprasert	
SA02-4	<a href="#">Adaptive Equalizer for DS-CDMA Multi-User Communication System Based on Adaptive Laguerre Lattice Filter</a>	1970
	Adisaya Charoenphol, Mayuree Lartwatechakul and Chawalit Benjangkaprasert	
SA02-5	<a href="#">Performance Comparison of AODV and OLSR for MANET</a>	1974
	Paitoon Rakluea and Jintana Nakasuwan	
SA02-6	<a href="#">Planar UWB Antenna with Single Band-Notched Characteristic</a>	1978
	Paitoon Rakluea and Jintana Nakasuwan	

### SA03 : Robot Navigation

SA03-1	<a href="#">Robot Formation Control Based on a Multi-potential Approach</a>	1982
	Santiago Cifuentes, Jose M. Giron-Sierra and Juan F. Jimenez	
SA03-2	<a href="#">MCL-based Global Localization of Cleaning Robot Using Fast Rotation-Invariant Corner Matching Method</a>	1988
	Tae-Bum Kwon, Jae-Bok Song and Sung-Chul Kang	
SA03-3	<a href="#">Symmetrical model based SLAM [M-SLAM] for a quick map-search</a>	1993
	Jung-Suk Oh and Kwee-Bo Sim	
SA03-4	<a href="#">Hierarchical Optimal Time Path Planning Method for a Autonomous Mobile</a>	1997
	MinHyeok Kwon, GwiTae Park, ChangHwan Kim, YeonSik Kang and HeonYoung Lim	

### SA04 : Biomechanic Modeling and Simulation

SA04-1	<a href="#">Development of a particle simulator on cancer cell signaling network with PC cluster system</a>	2002
	Makoto Ogawa, Takashi Nakakuki, Chiharu Ishii and Mitsuo Kobayashi	
SA04-2	<a href="#">Frequency Analysis of intracellular signal transduction systems</a>	2006
	Hiroki Ishiyama, Takashi Nakakuki, Chiharu Ishii and Mitsuo Kobayashi	
SA04-3	<a href="#">Development of Model for Estimation of Knee Joint Extension Moment</a>	2010
	Seongnam Kim and Yoonsu Nam	
SA04-4	<a href="#">Biomechanical analysis of dynamic behavior in human postural control</a>	2014
	Youngkyun Shin and Samjin Choi	
SA04-5	<a href="#">A Study on the Bending Mechanism of the Flexible Ureteroscope</a>	2019
	Man Cheong LEI and Ruxu Du	
SA04-6	<a href="#">Control of Lumbar Spine Flexion-Extension Movement By PD Controller And Feedback Linearization Method</a>	2024
	Maryam Abedi, Mohammad Parnianpour and Gholam Reza vosoughi	

### SA05 : Signal Processing IV

SA05-1	<a href="#">Firearm Identification System with Rotation Invariance</a>	2030
	pitak thumwarin, Takenobu Matsuura, Chawarit Prasit and Kittisak Yakoompai	
SA05-2	<a href="#">Improvement of optical flow accuracy using oculomotor system</a>	2036
	Yoshitaka Nishizaka	
SA05-3	<a href="#">Vision Tracking System For Mobile Robots Using Two Kalman Filters and a Slip Detector</a>	2041
	Wonsang Hwang, Jaehong Park, Hyun-il Kwon, Muhammad Latif Anjum, Jong-hyeon Kim, Changhun Lee, Kwang-soo Kim and Dong-il Cho	
SA05-4	<a href="#">Method of measuring the parameter of object's orientation using optical flow</a>	2047



## SA06 : [OS] 3D Sound Applications in Robot and Virtual Reality

SA06-1	<a href="#">Cleansed PHAT GCC based Sound Source Localization</a>	2051
	Sangmoon Lee, Youngjin Park and Youn-sik Park	
SA06-2	<a href="#">Evaluation of three different standard head-related transfer functions using an elevation discrimination task for virtual sources displayed in the median plane</a>	2055
	Hyun Jo, William Martens and Youngjin Park	
SA06-3	<a href="#">Acoustic focusing headphone based on delay-sum beamforming</a>	2061
	Jeeln Noh, Hyun Jo, Youngjin Park and Youn-sik Park	
SA06-4	<a href="#">Calibration of measured head-related transfer function database</a>	2065
	Yongwon Ju, youngjin park, youn-sik park and Seokpil Lee	
SA06-5	<a href="#">Analysis of the PHAT technique for multiple sound source localization</a>	2070
	Byoungho Kwon, Youngjin Park and Youn-sik Park	

## SA07 : [OS] Image Processing and Pattern Recognition (IPPR)

SA07-1	<a href="#">Segmentation Method for Cardiac Region in CT Images Based on Active Shape Model</a>	2074
	Hiroki Takahashi, Masafumi Komatsu, Hyoungseop Kim, Joo Kooi Tan, Seiji Ishikawa and Akiyoshi Yamamoto	
SA07-2	<a href="#">Detection of Blood Vessel Regions Using Weighted MIP from Non-enhanced MR Imaging</a>	2078
	Yuiko Koga, Akiyoshi Yamamoto, Hyoungseop Kim, Joo Kooi Tan and Seiji Ishikawa	
SA07-3	<a href="#">Segmentation Method for Phalanges in CR Image by Use of DCT</a>	2082
	Yoshimichi Hozu, Seiichi Murakami, Hyoungseop Kim, Joo Kooi Tan, Seiji Ishikawa and Takatoshi Aoki	
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