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Fujie, Masakatsu G. — Waseda Univ.

16:40-17:00 MoC3.2

Development of a Novel Approach, "Palpation Based Needle Insertion," for Breast Cancer Treatment, pp. 505-511.

Kobayashi, Yo — Waseda Univ.
Suzuki, Makiko — Waseda Univ.
Konishi, Kozo — Kyushu Univ.
Hashizume, Makoto — Kyushu Univ.
Fujie, Masakatsu G. — Waseda Univ.

17:00-17:20 MoC3.3

Design and Testing of Assistive Knee Brace with Magnetorheological Actuator, pp. 512-517.

Liao, Wei-Hsin — The Chinese Univ. of Hong Kong
Chen, Jinzhou — The Chinese Univ. of Hong Kong

17:20-17:40 MoC3.4

Gastrectomy Surgical Assistive Instrument for Accurate Remnant Stomach Volume, pp. 518-523.

Dib, Nancy — American Univ. of Beirut
Elhajj, Imad — American Univ. of Beirut
Antoun, Sally — American Univ. of Beirut
Al-Hajj, Georges — Middle East Inst. of Health

17:40-18:00 MoC3.5

Adaptive Filtering of Physiological Tremor for Real-Time Compensation, pp. 524-529.

Veluvolu, Kalyana Chakravarthy — Nanyang Tech. Univ.
Tan, U-Xuan — Nanyang Tech. Univ.
Tun Latt, Win — Nanyang Tech. Univ.
Shee, Cheng Yap — Nanyang Tech. Univ. Singapore
Ang, Wei Tech — Nanyang Tech. Univ.

18:00-18:20 MoC3.6

Initial Analysis of EMG Signals of Hand Functions Associated to Rehabilitation Tasks, pp. 530-535.

Huang, Y.Y. — Nanyang Tech. Univ.
Low, K. H. — Nanyang Tech. Univ.
Lim, Hup Boon — Nanyang Tech. Univ.

MoC4 — Room D: Saithip

Human-Machine Interface/Interaction III (Regular Sessions)

Chair: Wang, Zhidong — Chiba Inst. of Tech.
Co-Chair: Yuan, Jianjun — Shanghai Jiao Tong Univ. China

16:20-16:40 MoC4.1

Behavior-Based Steering Control for Four Wheel Independent Steering Vehicle, pp. 536-541.

Lam, Tin Lun — The Chinese Univ. of Hong Kong
Qian, Huihuan — The Chinese Univ. of Hong Kong
Xu, Yangsheng — The Chinese Univ. of Hong Kong

16:40-17:00 MoC4.2

Extending Task Analysis in HTA to Model Man-Machine Collaboration in Cell Production, pp. 542-547.

Tan, Jeffrey Too Chuan — ARAI Lab. Department of Precision Engineering, School of
Duan, Feng — The Univ. of Tokyo
Zhang, Ye — ARAI Lab. Department of Precision Engineering, SchoolofEngineeri
Arai, Tamio — Univ. of Tokyo

17:00-17:20 MoC4.3

Personal Identification and Visualization of Relationships by Using Human Trajectories, pp. 548-553.

Kurita, Yuichi — Nara Inst. of Science and Tech.
Kobayashi, Junya — Nara Inst. of Science and Tech.
Suenaga, Tsuyoshi — Nara Inst. of Science and Tech.
Takemura, Kentaro — Nara Inst. of Science and Tech.
Matsumoto, Yoshio — Osaka Univ.
Ogasawara, Tsukasa — Nara Inst. of Science and Tech.

17:20-17:40 MoC4.4

Scaled Vehicle for Interactive Dynamic Simulation, pp. 554-559.

Wannasuphopasit, Witaya — Chulalongkorn Univ.
Chundang, Krissada — Chulalongkorn Univ.
Wattananukulchai, Parinya — Chulalongkorn Univ.

17:40-18:00 MoC4.5

A Bio-Inspired Haptic Interface for Tele-Robotics Applications, pp. 560-565.

Folgheraiter, Michele — DFKI
Bongardt, Bertold — DFKI Bremen
Albiez, Jan Christian — DFKI Bremen
Kirchner, Frank — Univ. of Bremen

18:00-18:20 MoC4.6

RTM-Based Robot System for Supporting Book Acquisition, pp. 566-571.

Jia, Songmin — Univ. of Electro-Communications
Sheng, Jinbuo — Univ. of Electro-Communications
Chugo, Daisuke — Univ. of Electro-Communications
Takase, Kunikatsu — Univ. of Electro-communications

MoC5 Room E: Bangkok Panorama 1

Humanoid Robots III (Regular Sessions)

Chair: Park, Jong Hyeon — Hanyang Univ.
Co-Chair: Kikuchi, Koki — Chiba Inst. of Tech.

16:20-16:40 MoC5.1

Robust Real-Time Landmark Recognition for Humanoid Robot Navigation, pp. 572-577.

Elmogy, Mohammed — Hamburg Univ.
Zhang, Jianwei — Univ. of Hamburg

16:40-17:00 MoC5.2

Offline and Online Trajectory Generation with Sequential Physical Constraints, pp. 578-583.

Ruchanurucks, Miti — Kasetsart Univ.
Nakaoka, Shin'ichiro — AIST

17:00-17:20 MoC5.3

Incremental Development of a Passive-Dynamics-Based Walking Machine, pp. 584-589.

Trifonov, Kalin Boykov — Waseda Univ.
Hashimoto, Shuji — Waseda Univ.

17:20-17:40 MoC5.4

A New Transformable Mini-Humanoid Robot: Design and Algorithm, pp. 590-595.

Chung, Wing Kwong — The Chinese Univ. of Hong Kong
Liang, Yuanjie — The Univ. of Chicago
Xu, Yangsheng — The Chinese Univ. of Hong Kong

17:40-18:00 MoC5.5

Whole-Body Motion Imitation Using Human Modeling, pp. 596-601.

Kim, Seungsu — Korea Inst. of Science and Tech.
Kim, ChangHwan — Korea Inst. of Science and Tech.
You, Bum Jae — KIST

18:00-18:20 MoC5.6

Independent Joint Dynamic Sliding Mode Control of a Humanoid Robot Arm, pp. 602-607.

Kuan, Jiun-Yih — National Taiwan Univ.
Huang, Han-Pang — National Taiwan Univ.

MoC6 Room F: Bangkok Panorama 2

Mobile Robotics II (Regular Sessions)

Chair: Dailey, Matthew N. — Asian Inst. of Tech.
Co-Chair: Gao, Xueshan — Beijing Inst. of Tech.

16:20-16:40 MoC6.1

Common-Patterns Based Mapping for Robot Navigation, pp. 608-614. Attachment

Kawewong, Aram — Tokyo Inst. of Tech.
Honda, Yutaro — Tokyo Inst. of Tech.
Tsuboyama, Manabu — Tokyo Inst. of Tech.
Hasegawa, Osamu — Tokyo Inst. of Tech.

16:40-17:00 MoC6.2

Ef_; Cient Geometrical Obstacle Reshaping for Inevitable Collision States Avoidance, pp. 615-620.

Bastani, Hamed — Jacobs Univ. Bremen
Mirmohammad-Sadeghi, Hamid — Isfahan Uni. of Tech.

17:00-17:20 MoC6.3

A Teleoperation System for Mobile Robot BCAR-01 with Multiple Viewpoints Virtual Scene, pp. 621-626.

Jiang, Zhijian — Beijing Univ. of Civil Engineering and Architecture
Zhang, Lei — Bejing Univ. of Civil Engineering and Architecture
Gao, Xueshan — Beijing Inst. of Tech.

17:20-17:40 MoC6.4

A Teleoperation System for Mobile Robot with Whole Viewpoints Virtual Scene for Situation Awareness, pp. 627-632.

Zhang, Lei — Bejing Univ. of Civil Engineering and Architecture
Li, Yingzi — Beijing Univ. of Civil Engineering and Architecture
Zhang, Peihua — Beijing Univ. of Civil Engineering and Architecture
Yang, Na — Beijing Univ. of Civil Engineering and Architecture
Li, Zheng — Beijing Univ. of Civil Engineering and Architecture
Gao, Xueshan — Beijing Inst. of Tech.

17:40-18:00 MoC6.5

A Modular System Architecture for Autonomous Robots Based on Blackboard and Publish-Subscribe Mechanisms, pp. 633-638.

Limsoonthrakul, Somphop — Asian Inst. of Tech.
Dailey, Matthew N. — Asian Inst. of Tech.

Tongphu, Suwan — Asian Inst. of Tech.
Srisupundit, Methee — Asian Inst. of Tech.
Parnichkun, Manukid — Asian Inst. of Tech.

18:00-18:20 — MoC6.6
Dynamic Modeling of a Mobile Humanoid Robot, pp. 639-644.
Wang, Jingguo — Univ. of Macau
Li, Yangmin — Univ. of Macau

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TuA1 — Room A: Queen's Park 4
Biologically Inspired Robot I (Regular Sessions)
Chair: Marchand, Nicolas — GIPSA-Lab. CNRS/U of Grenoble/INRIA
Co-Chair: Sfakiotakis, Michael — FORTH

09:40-10:00 — TuA1.1
Reduced Mean Model for Controlling a Three-Dimensional Eel-Like Robot, pp. 645-650.
El Rafei, Maher — INPG
Alamir, Mazen — LAG
Marchand, Nicolas — GIPSA-Lab. CNRS/U of Grenoble/INRIA
Porez, Mathieu — IRCCyN
Boyer, Frédéric — Ec. des mines de Nantes

10:00-10:20 — TuA1.2
Pedundulatory Robotic Locomotion: Centipede and Polychaete Modes in Unstructured Substrates, pp. 651-658. Attachment
Sfakiotakis, Michael — FORTH
Tsakiris, Dimitris — FORTH

10:20-10:40 — TuA1.3
Biomimetic Localization Using the Electrolocation Sense of the Electric Fish, pp. 659-664.
Baffet, Guillaume — Ec. des Mines de Nantes
Gossiaux, Pol Bernard — Ec. des Mines de Nantes
Boyer, Frédéric — Ec. des Mines de Nantes

10:40-11:00 — TuA1.4
Curiosity-Driven Acquisition of Sensorimotor Concepts Using Memory-Based Active Learning, pp. 665-670.
Roa, Sergio — German Res. Center for AI
Kruijff, Geert-Jan — German Res. Center for AI
Jacobsson, Henrik — DFKI

TuA2 — Room B: Queen's Park 5
Interaction and Intelligence (Invited Sessions)
Chair: Hirata, Yasuhisa — Tohoku Univ.
Co-Chair: Takasaki, Masaya — Saitama Univ.

09:40-10:00 — TuA2.1
Pen Tablet Type Surface Acoustic Wave Tactile Display Combined with Phantom (I), pp. 671-675.
Takasaki, Masaya — Saitama Univ.
Tamon, Ryo — Saitama Univ.
Kotani, Hiroyuki — Saitama Univ.
Mizuno, Takeshi — Saitama Univ.

10:00-10:20 — TuA2.2
Development of Omni-Directional Mobile Base with Servo Brakes for Passive Dance Partner Robot (I), pp. 676-681.
Hirata, Yasuhisa — Tohoku Univ.
Koike, Yoshinori — Tohoku Univ.
Liu, Zhao — Tsinghua Univ.
Kosuge, Kazuhiro — Tohoku Univ.

10:20-10:40 — TuA2.3
Development of Anteversion Posture Support System (I), pp. 682-686.
Kobayashi, Hiroshi — Tokyo Univ. of Science
Nozaki, Hirokazu — Tokyo Univ. of Science

10:40-11:00 — TuA2.4
Real-Time Written-Character Recognition Using MEMS Motion Sensors: Calibration and Experimental Results (I), pp. 687-691.
Dong, Zhuxin — Univ. of Arkansas
Wejinya, Uchechukwu C. — Univ. of Arkansas
Li, Wen J. — The Chinese Univ. of Hong Kong

TuA3 — Room C: Queen's Park 6
Medical Robotics (Regular Sessions)
Chair: Jia, Songmin — Univ. of Electro-Communications
Co-Chair: Gao, Xueshan — Beijing Inst. of Tech.

09:40-10:00 — TuA3.1
A Moving Control of a Robotic Walker for Standing, Walking and Seating Assistance, pp. 692-697.

Chugo, Daisuke — Univ. of Electro-Communications
Asawa, Tai — The Univ. of Electro-Communictions
Kitamura, Takuya — The Univ. of Electro-Communications
Jia, Songmin — Univ. of Electro-Communications
Takase, Kunikatsu — Univ. of Electro-communications

10:00-10:20 TuA3.2

The Development of a New Type of Compound Peristaltic Micropump, pp. 698-702.

Guo, Shuxiang — Kagawa Univ.
Sun, Xuesong — Harbin Engineering Univ.
Hao, Yanling — Harbin Engineering Univ.
Ye, Xiufen — Harbin Engineering Univ.
Yan, Xiaonan — Harbin Engineering Univ.

10:20-10:40 TuA3.3

A Semi-Autonomous Micro-Robotic System for Colonoscopy, pp. 703-708.

Chen, Gang — Unilever R&D UK
Pham, Minh Tu — INSA de Lyon (Inst. National des Sciences Appliquee)
Redarce, Tanneguy — INSA de Lyon (Inst. National des Sciences Appliquees)

10:40-11:00 TuA3.4

Safety Design of an Assisting Robotic Arm for Minimally Invasive Thoracic Surgery, pp. 709-714.

Hu, Ying — Shenzhen Inst. of Advanced Tech. ShenZhen, China
Zhang, Jun — SIAT of CAS
Li, Chao — Shenzhen Inst. of Advanced Tech.
Cheng, Sheng — Shenzhen Inst. of Advanced Tech. Chinese Acad.
Wang, Ludan — Shenzhen Inst. of Advanced Tech. ChineseAcademyofScienc
Zhang, Jianwei — Univ. of Hamburg

TuA4 — Room D: Saithip

Advanced Control Systems and Methodologies I (Regular Sessions)

Chair: Jung, Seul — Chung Nam National
Co-Chair: Shimizu, Sota — Waseda Univ.

09:40-10:00 TuA4.1

New Fuzzy Logic-Based Arithmetic and Visual Representations for Systems' Modelling and Optimization, pp. 715-722.

Dorrah, Hassen Taher — Cairo Univ.
Gabr, Walaa Ibrahim Mahmoud — SDA Engineering Consultants Inc.

10:00-10:20 TuA4.2

Development of Fuzzy Logic-Based Arithmetic and Visual Representations for Systems' Modelling and Optimization of Interconnected Networks, pp. 723-730.

Dorrah, Hassen Taher — Cairo Univ.
Gabr, Walaa Ibrahim Mahmoud — SDA Engineering Consultants Inc.

10:20-10:40 TuA4.3

Multi-Objective Linear Optimization Using Fuzzy Logic-Based Arithmetic and Visual Representations with Forward and Backward Tracking, pp. 731-738.

Dorrah, Hassen Taher — Cairo Univ.
Gabr, Walaa Ibrahim Mahmoud — SDA Engineering Consultants Inc.

10:40-11:00 TuA4.4

A Robust Active Control Method to Reduce Brake Noise, pp. 739-744.

Mailah, Musa — Univ. Teknologi Malaysia
Hashemi-Dehkordi, Sayed-Mahdi — Univ. Teknologi Malaysia
Abu Bakar, Abd Rahim — Univ. teknologi malaysia

TuA5 — Room E: Bangkok Panorama 1

Materials and Actuators (Regular Sessions)

Chair: Stefanini, Cesare — Scuola Superiore Sant'Anna
Co-Chair: Hashimoto, Minoru — Shinshu Univ.

09:40-10:00 TuA5.1

A Contraction Type Soft Actuator Using Poly Vinyl Chloride Gel, pp. 745-750.

Hashimoto, Minoru — Shinshu Univ.
Yamano, Misaki — Shinshu Univ.
Ogawa, Naoki — Shinshu Univ.

10:00-10:20 TuA5.2

The Identification of Discrete Preisach Model Based on IPMC, pp. 751-755.

Li, Zhi — Northeastern Univ.
Hao, Lina — Northeastern Univ.

10:20-10:40 TuA5.3

Vibration Suppression Control Using a Pattern Generator for a Robot Driven by Air Actuators, pp. 756-761.

Harada, Tomoki — Osaka Univ.
Nakamura, Yutaka — Osaka Univ.
Matsumoto, Yoshio — Osaka Univ.
Ishiguro, Hiroshi — Osaka Univ.

10:40-11:00 TuA5.4

Research on Basic Electro-Mechanical Performance of Electroactive Dielectric Elastomer, pp. 762-767.

Zhang, Yichao — Sun Yat-sen Univ.
Qi, Xinmei — Sun Yat-sen Univ.
Dai, Fengjia — Univ.
Zheng, Shousen — Univ.

TuA6 Room F: Bangkok Panorama 2
Legged Robots I (Regular Sessions)

Chair: Wörgötter, Florentin — Univ. of Göttingen
Co-Chair: Li, Bing — Shenzhen Graduate School, Harbin Inst. of Tech.

09:40-10:00 TuA6.1

SWAT - Surveillance Wall Acclivitous Tracker, pp. 768-773.

Raman, Arun — Univ. of Texas at Dallas

10:00-10:20 TuA6.2

Proprioceptive Control of a Hybrid Legged-Wheeled Robot, pp. 774-779. Attachment

Eich, Markus — DFKI GmbH, German Res. Center for Artificial
Grimminger, Felix — German Res. Center for Artificial Intelligence
Kirchner, Frank — Univ. of Bremen

10:20-10:40 TuA6.3

A Novel Visualization Technique in Bond-Graph Method for Modeling of a Generalized Stewart Platform, pp. 780-785.

Yildiz, Ibrahim — Yildiz Tech. Univ.
Omurlu, Vasfi Emre — Yildiz Tech. Univ.
Sagirli, Ahmet — Yildiz Tech. Univ.

10:40-11:00 TuA6.4

Neural Preprocessing of Auditory-Wind Sensory Signals and Modular Neural Control for Auditory and Wind-Evoked Escape Responses of Walking Machines, pp. 786-793. Attachment

Manoonpong, Poramate — Univ. of Goettingen
Wörgötter, Florentin — Univ. of Göttingen
Pasemann, Frank — Fraunhofer Gesellschaft

TuB1 Room A: Queen's Park 4
Biologically Inspired Robot II (Regular Sessions)

Chair: Ma, Shugen — Ritsumeikan Univ.
Co-Chair: Saegusa, Ryo — Italian Inst. of Tech.

11:20-11:40 TuB1.1

Active Motor Babbling for Sensorimotor Learning, pp. 794-799. Attachment

Saegusa, Ryo — Italian Inst. of Tech.
Metta, Giorgio — Univ. of Genoa
Sandini, Giulio — Italian Inst. of Tech.
Sakka, Sophie — Univ. of Poitiers

11:40-12:00 TuB1.2

Impact Absorption of a Dual-Crawler-Driven Robot, pp. 800-805.

Quan, Qiquan — Ritsumeikan Univ.
Ma, Shugen — Ritsumeikan Univ.
Liu, Rongqiang — Harbin Inst. of Tech.
Li, Bin — Shenyang Inst. of Automation

12:00-12:20 TuB1.3

Yuragi-Based Adaptive Searching Behavior in Mobile Robot: From Bacterial Chemotaxis to Levy Walk, pp. 806-811.

Nurzaman, Surya G. — Osaka Univ.
Matsumoto, Yoshio — Osaka Univ.
Nakamura, Yutaka — Osaka Univ.
Koizumi, Satoshi — Osaka Univ.
Ishiguro, Hiroshi — Osaka Univ.

12:20-12:40 TuB1.4

1-DOF Swimming Robot Inspired by Bacterial Motion Mechanism, pp. 812-817.

Shirai, Kazumichi — Osaka Univ.
Matsumoto, Yoshio — Osaka Univ.
Koizumi, Satoshi — Osaka Univ.
Ishiguro, Hiroshi — Osaka Univ.

TuB2 Room B: Queen's Park 5
Robot Vision I (Regular Sessions)

Chair: Liu, Yunhui — Chinese Univ. of Hong Kong
Co-Chair: Li, Ze-Nian — Simon Fraser Univ.

11:20-11:40 TuB2.1

Real-Time Multiple Object Tracking in Smart Environments, pp. 818-823. Attachment

You, Wei — Univ. of British Columbia
Jiang, Hao — Boston Coll.

Li, Ze-Nian — Simon Fraser Univ.

11:40-12:00 — TuB2.2

Face Recognition Using AAM and Global Shape Features, pp. 824-827.

Chen, Jia Hong — National Taiwan Univ.
Huang, Han-Pang — National Taiwan Univ.

12:00-12:20 — TuB2.3

3D SLAM for Omnidirectional Camera, pp. 828-833. Attachment

Suttasupa, Yuttana — Chulalongkorn Univ.
Sudsang, Attawith — Chulalongkorn Univ.
Niparnan, Nattee — Chulalongkorn Univ.

12:20-12:40 — TuB2.4

Indoor Mobile Robot Obstacle Detection Based on Linear Structured Light Vision System, pp. 834-839.

Wei, Boyu — Beijing Inst. of Tech.
Gao, Junyao — Beijing Inst. of Tech.
Li, Kejie — Beijing Inst. of Tech.
Fan, Ying — Beijing Inst. of Tech.
Gao, Xueshan — Beijing Inst. of Tech.
Gao, Baoquan — Beijing Inst. of Tech.

TuB3 — Room C: Queen's Park 6

Rehabilitation Robotics (Regular Sessions)

Chair: Wejinya, Uchechukwu C. — Univ. of Arkansas
Co-Chair: Akdogan, Erhan — Marmara Univ.

11:20-11:40 — TuB3.1

Impedance Control of Ankle Rehabilitation Robot, pp. 840-845.

Tsoi, Yun Ho — Univ. of Auckland
Xie, Shane — Univ. of Auckland

11:40-12:00 — TuB3.2

Objective and Quantitative Assessment Methodology of Hand Functions for Rehabilitation, pp. 846-851.

Huang, Y.Y. — Nanyang Tech. Univ.
Low, K. H. — Nanyang Tech. Univ.
Lim, Hup Boon — Nanyang Tech. Univ.

12:00-12:20 — TuB3.3

The Cybernetic Rehabilitation Aid: A Novel Concept for Direct Rehabilitation, pp. 852-858.

Akdogan, Erhan — Marmara Univ.
Shima, Keisuke — Hiroshima Univ.
Kataoka, Hitoshi — Hiroshima Univ.
Hasegawa, Masaki — Prefectural Univ. of Hiroshima
Otsuka, Akira — Prefectural Univ. of Hiroshima
Tsuji, Toshio — Hiroshima Univ.

12:20-12:40 — TuB3.4

Fuzzy Based Gains Tuning PD Controller for Joint Position Control of AIT Leg Exoskeleton-I (ALEX-I), pp. 859-864.

Aphiratsakun, Narong — Asian Inst. of Tech.
Parnichkun, Manukid — Asian Inst. of Tech.

TuB4 — Room D: Saithip

Advanced Control Systems and Methodologies II (Regular Sessions)

Chair: Panomruttanarug, Benjamas — King mongkut's Univ. of Tech. thonburi
Co-Chair: Yuan, Jianjun — Shanghai Jiao Tong Univ. China

11:20-11:40 — TuB4.1

The Ultimate Bound of Discrete Sliding Mode Control System for the Sampled-Data System with Short Sampling Time under the Existence of Constant Disturbance, pp. 865-870.

Park, Kang-Bak — Korea Univ.

11:40-12:00 — TuB4.2

Design and Analysis of Current Control for Shunt Active Filter Based on Repetitive Control Technique Using Optimization in the Frequency Domain, pp. 871-876.

Cheowait, Bhumiphan — King mongkut's Univ. of Tech. thonburi
Panomruttanarug, Benjamas — King mongkut's Univ. of Tech. thonburi
Lenwari, Wanchak — King mongkut's Univ. of Tech. thonburi

12:00-12:20 — TuB4.3

A Statistical Approach towards Performance Analysis of Multimodal Biometric Systems, pp. 877-882.

Yuan, Xiaobu — Univ. of Wndsor
Gan, Wei — Univ. of Wndsor

12:20-12:40 — TuB4.4

Measurement Loss Effect on Power System State Estimation, pp. 883-888.

Greyson, Kenedy Aliila — School of Electrical Engineering, Inst. of Engineering, Sura
Oonsivilai, Anant — Suranaree Univ. of Tech.

TuB5 — Room E: Bangkok Panorama 1

Grasping and Manipulation I (Regular Sessions)

Chair: Hirai, Shinichi — Ritsumeikan Univ.
Co-Chair: Nagata, Kazuyuki — National Inst. of AIST

11:20-11:40 — TuB5.1
Manipulation with a Multi-Fingered Robot Hand Based on Cooperation of Finger Primitive Operations, pp. 889-894.
Nagata, Kazuyuki — National Inst. of AIST
Saito, Fuminori — Toyota Motor Corp.

11:40-12:00 — TuB5.2
Parallel-Distributed Model of Soft Fingertips in Three-Dimensional Grasping and Manipulation, pp. 895-902.
Inoue, Takahiro — Okayama Prefectural Univ.
Hirai, Shinichi — Ritsumeikan Univ.

12:00-12:20 — TuB5.3
Task-Oriented Accuracy Measure for Dexterous Manipulation, pp. 903-908.
Yashima, Masahito — National Defense Acad. of Japan
Yamawaki, Tasuku — National Defense Acad. of Japan

12:20-12:40 — TuB5.4
Robot Catching with High Manipulability Grasp Configuration Using Vision, pp. 909-914. Attachment
Yamawaki, Tasuku — National Defense Acad. of Japan
Asano, Shiro — National Defense Acad. of Japan
Miyashita, Hideyuki — National Defense Acad. of Japan
Yashima, Masahito — National Defense Acad. of Japan

TuB6 — Room F: Bangkok Panorama 2
Legged Robots II (Regular Sessions)

Chair: Chen, S.Y. — Imperial Coll. London
Co-Chair: Li, Bing — Shenzhen Graduate School, Harbin Inst. of Tech.

11:20-11:40 — TuB6.1
Stair Recognition with Laser Range Scanning by Limb Mechanism Robot "ASTERISK", pp. 915-920.
Theeravithayangkura, Chayooth — Osaka Univ.
Takubo, Tomohito — Osaka Univ.
Mae, Yasushi — Osaka Univ.
Arai, Tatsuo — Osaka Univ.

11:40-12:00 — TuB6.2
A Four-Legged Robot Based on GZ-I Modules, pp. 921-926.
Li, Yong — Zhejiang Univ. of Tech.
Zhang, Houxiang — Computer Science
Chen, S.Y. — Zhejiang Univ. of Tech.

12:00-12:20 — TuB6.3
Development of a Mesoscale Self-Contained Bounding Robot, pp. 927-932.
Ho, Thanhtam — Konkuk Univ.
Choi, Sunghac — Konkuk Univ.
Lee, Sangyoon — Konkuk Univ.

12:20-12:40 — TuB6.4
Jumping Mini-Robot with Bio-Inspired Legs, pp. 933-938.
Li, Fei — Zhejiang Univ.
Bonsignori, Gabriella — Scuola Superiore Sant'Anna
Scarfogliero, Umberto — CRIM Lab. Scuola Superiore Sant'Anna Pisa
Chen, Dajing — Zhejiang Univ.
Stefanini, Cesare — Scuola Superiore Sant'Anna
Liu, Weiting — Scuola Superiore Sant'Anna
Dario, Paolo — Scuola Superiore Sant'Anna
Fu, Xin — Zhejiang Univ.

TuPA7 — 3rd Floor lobby
Poster Session I (Poster Sessions)

Chair: Yu, Yong — Kagoshima Univ.

09:30-13:00 — TuPA7.1
Development of Intelligent Foot with Six-Axis Force/Moment Sensors for Humanoid Robot, pp. 939-944.
Kim, Gab-Soon — Gyeongsang National Univ.
Yoon, Jungwon — Gyeongsang National Univ.
Kim, Hyeon-Min — Univ. of Gyeongsang National

09:30-13:00 — TuPA7.2
Octopus-Inspired Grasp-Synergies for Continuum Manipulators, pp. 945-950. Attachment
McMahan, William — Univ. of Pennsylvania
Walker, Ian — Clemson Univ.

09:30-13:00 — TuPA7.3
Application of GA to Design LQR Controller for an Inverted Pendulum System, pp. 951-954.
Wongsathan, Chaiporn — North-Chiang Mai Univ.
Sirima, Chanapoom — North-Chiang Mai Univ.

09:30-13:00 TuPA7.4

Quantitative Determination of Protein Content in Chocolates Using Near Infrared Reflectance Spectroscopy with GSVR Method, pp. 955-960.

Gao, Qiao — Univ. of Sicence and Tech. of China (USTC)
Zhang, Bin — Chinese Acad. of Sciences/The Chinese Univ. ofHongKong
Deng, Lei — Shenzhen Inst. of Advanced Tech. Acad. Sci
Wu, Xinyu — Shenzhen Inst. of Advanced Tech.
Xu, Yun — Univ. of Sicence and Tech. of China (USTC)
Xu, Yangsheng — The Chinese Univ. of Hong Kong

09:30-13:00 TuPA7.5

Insect Based Automatic Precise Navigation of Piezo Driven Micro Robots for Artificial Insemination, pp. 961-966.

Misaki, Daigo — Shizuoka Inst. of Science and Tech.
Aoyama, Hisayuki — Univ. of Electro-Communications

09:30-13:00 TuPA7.6

Design and Implementation of Humanoid Robot HIT-2P;, pp. 967-970.

Zhong, Qiubo — Harbin Inst. of Tech.
Pan, Qishu — Harbin Inst. of Tech.
Hong, Bingrong — Harbin Inst. of Tech.
Piao, Songhao — Harbin Inst. of Tech.

09:30-13:00 TuPA7.7

Control Architecture for a Lower Limbs Rehabilitation Robot System, pp. 971-976.

Koceska, Natasa — Univ. of L'Aquila
Koceski, Saso — Univ. of L'Aquila
Beomonte Zobel, Pierluigi — Univ. of L'Aquila
Durante, Francesco — Univ. of L'Aquila

09:30-13:00 TuPA7.8

Platform-Level Design for a Biomimetic Amphibious Robot, pp. 977-982.

Ding, Rui — Inst. of Automation, Chinese Acad. of Sciences
Yu, Junzhi — Inst. of Automation, Chinese Acad. of Sciences
Yang, Qinghai — Inst. of Automation, Chinese Acad. of Sciences,Beijing, Ch
Hu, Xiaolei — Inst. of Automation, Chinese Acad. of Sciences,Beijing, Ch
Tan, Min — Inst. of Automation,Chinese Acad. of Sciences

09:30-13:00 TuPA7.9

Analysis of a Novel Parallel Manipulator for Rotary Humanoid Wrist Based on Screw Theory, pp. 983-987.

Zhu, Dachang — Jiangxi Univ. of Science and Tech.
Fang, Yuefa — Beijing Jiaotong Univ.
Zhu, Jianwu — Jiangxi Univ. of Science and Tech.

09:30-13:00 TuPA7.10

Hysteresis Modeling of Piezo Actuator Using Neural Networks, pp. 988-991.

Yang, Xuefeng — China Univ. of Mining and Tech.

09:30-13:00 TuPA7.11

Sub-Harmonic Resonance and Complex Movement Analysis of Flexible Manipulator in Temperature Field, pp. 992-996.

Cui, Yi-hui — Beihang Univ.
Yun, Chao — Beijing Univ. of Aeronautics and Astronautics
Tang, Qing — InterSmart Robotic Systems Co., Ltd.

09:30-13:00 TuPA7.12

A Differential Magnetic Localization Method for Bionic Micro-Machine Guided by External Magnetic Field, pp. 997-1001.

Wang, Zhe — Inst. of electrical engineering, Chinese Acad. ofsciences;
Song, Tao — Inst. of electrical engineering, Chinese Acad. ofsciences
Wang, Jinguang — Inst. of Electrical Engineering, Chinese Acad. ofSciences
Wang, Zheng — Inst. of Electrical Engineering, Chinese Acad.
Yang, Cenyu — Inst. of ElectricalEngineering,ChineseAcademyofSciences

09:30-13:00 TuPA7.13

Skill-Assist Control of Omnidirectional Wheelchair Using Human-Friendly Interface, pp. 1002-1007.

Kitagawa, Hideo — Gifu National Coll. of Tech.
Miyoshi, Takanori — Toyohashi Univ. of Tech.
Terashima, Kazuhiko — Toyohashi Univ. of Tech.

09:30-13:00 TuPA7.14

Face Detection and Tracking in Color Images Using Color Centroids Segmentation, pp. 1008-1013.

Zhang, Qieshi — Waseda Univ.
Kamata, Sei-ichiro — Waseda Univ.
Zhang, Jun — Waseda Univ.

09:30-13:00 TuPA7.15

Curvilinear Thresholding Method for Noisy Images Based on 2D Histogram, pp. 1014-1019.

Zhang, Jun — Waseda Univ.
Hu, Jinglu — Waseda Univ.

09:30-13:00 TuPA7.16

The Collision Avoidance Planning in Multi-Robot System by Genetic Fuzzy Control Algorithm, pp. 1020-1025.

Yan, Yongjie — N o.28 Res. Inst. of China ElectronicsTechnologyGroup Co

09:30-13:00 TuPA7.17

Collision Avoidance Planning in Multi-Robot Based on Improved Artificial Potential Field and Rules, pp. 1026-1031.

Yan, Yongjie — N o.28 Res. Inst. of China ElectronicsTechnologyGroup Co

09:30-13:00 TuPA7.18

Two Types of Flexible Tactile Sensor Arrays of Robot for Three-Dimension Force Based on Piezoresistive Effects, pp. 1032-1037.

Huang, Ying — Hefei Univ. of Tech.

09:30-13:00 TuPA7.19

A Novel Parallel Rhombus-Chain-Connected Model for Real-Time Softness Haptic Rendering, pp. 1038-1042.

Zhang, Xiaorui — Southeast Univ.
Song, Aiguo — Southeast Univ.
Sun, Wei — Southeast Univ.

09:30-13:00 TuPA7.20

Robot Docking Station for Automatic Battery Exchanging and Charging, pp. 1043-1046.

Wu, Yi-Cheng — Industrial Tech. Res. Inst.
Teng, Ming-Chang — Industrial Tech. Res. Inst.
Tsai, Yi-Jeng — Industrial Tech. Res. Inst.

09:30-13:00 TuPA7.21

Automatic Fluorescent Lamp Detection Technique for Electronic Ballasts, pp. 1047-1052.

Navaratana, Piyasawat — King Mongkut's Univ. of Tech. Thonburi
Sangsawang, Anawach — King Mongkut's Univ. of Tech. Thonburi
Naetiladdanon, Sumate — King Mongkut's Univ. of Tech. Thonburi

09:30-13:00 TuPA7.22

Biomimetic Flapping Wing Aerial Vehicle, pp. 1053-1058.

Fenelon, Michael Angelo Amith — IRIS (C/o CAIR, DRDO)

09:30-13:00 TuPA7.23

Nonlinear Robust Control Method for Active Vibration Isolation Using a Stewart Platform, pp. 1059-1064.

Yang, Tao — Inst. of Automation, Chinese Acad. of Sciences
Ma, Jia — Inst. of Automation, Chinese Acad. of Sciences

09:30-13:00 TuPA7.24

Simultaneous Pedestrian and Multiple Mobile Robots Localization Using Distributed Extended Kalman Filter, pp. 1065-1069.

Song, Il Young — Gwangju Inst. of Science and Tech.
Kim, Du Yong — Gwangju Inst. of Science and Tech.
Ahn, Hyo-Sung — Gwangju Inst. of Science and Tech. (GIST)
Shin, Vladimir — Gwangju Inst. of Science and Tech.

09:30-13:00 TuPA7.25

GSPN-Based Modeling and Analysis for Robotized Assembly System, pp. 1070-1075.

Qin, Yong-fa — Yangzhou Univ.
Xu, Rong-you — Yangzhou Univ.

09:30-13:00 TuPA7.26

A Novel Wireless Electrical Muscle Simulator for Female Urinary Incontinence, pp. 1076-1080.

Wang, Xiaoyuan — Harbin Inst. of Tech. Inst. ofAdvanceTechn
Chao, Hu — Shenzhen Inst. of Advanced Tech. ChinessAcademyof Scie
Wang, Haibin — Shenzhen Inst. of Advanced Tech. Chinese Acad. of Sci
Wu, Jie — Shenzhen Inst. of Advance Tech. Chinese Acad. of Scie
Meng, Max — The Chinese Univ. of Hong Kong

09:30-13:00 TuPA7.27

Wireless Acquisition System for the Real Ambulance Field, pp. 1081-1086.

Chao, Hu — Shenzhen Inst. of Advanced Tech. ChinessAcademyof Scie
Wei, Liu — Shenzhen Inst. of Advanced Tech. ChinessAcademyof Scie
Yingzi, Pan — Res. Center for Interlligent Sensing
Zhiyong, Liu — Shenzhen Inst. of Advanced Tech. Chiness Acad. of Sc
Jingsheng, Liao — Shenzhen Inst. of Advanced Tech. Chiness Acad. of Sc
Meng, Max — The Chinese Univ. of Hong Kong

09:30-13:00 TuPA7.28

Design of WSN Node Based on CC2431 Applicable to Lunar Surface Environment, pp. 1087-1092.

Zhang, Zhuancheng — Inst. of Intelligent Machines,Chinese Acad.
Meng, Max Q.-H. — Inst. of Intelligent Machines,Chinese Acad. of Sciences
Wu, Fuqing — Inst. of Intelligent Machines,Chinese Acad.
Chen, Xijun — Inst. of Intelligent Machines,Chinese Acad. of Sciences

09:30-13:00 TuPA7.29

Research on Knowledge-Based Dirt Separator Automatic Design System, pp. 1093-1098.

Wang, Bin — Yancheng Inst. of Tech.
Liu, Defang — Yancheng Inst. of Tech.
Zhou, Linzhen — Yancheng Inst. of Tech.

09:30-13:00 TuPA7.30

Robotic Assistants for Health Care, pp. 1099-1104.

Barea, Rafael — Univ. of Alcala
Bergasa, Luis Miguel — Univ. of Alcala
Lopez, Elena — Univ. of Alcala

Ocańa, Manuel — Univ. of Alcala
Schleicher, David — Univ. of Alcala

09:30-13:00 TuPA7.31
Driver Fatigue Detection System, pp. 1105-1110.
Barea, Rafael — Univ. of Alcala
Bergasa, Luis Miguel — Univ. of Alcala
Lopez, Elena — Univ. of Alcala

09:30-13:00 TuPA7.32
Tracking System of Motion Object for Scout Robot, pp. 1111-1116.
Chen, Diansheng — Beihang Univ.
Bai, Feng — Beihang Univ.
Xie, Yi — Beijing Mapabc Co., Ltd
Wang, Tianmiao — Beihang Univ.

09:30-13:00 TuPA7.33
A Swarm Robotic Approach to Distributed Object Pushing Using Fuzzy Controllers, pp. 1117-1122.
Khozaee, Aida — K.N.Toosi Univ. of Tech.
Aminaiee, Abdol Hossein — Univ. of Tehran
Ghaffari, Ali — K. N. Toosi Univ. of Tech.

09:30-13:00 TuPA7.34
Signature Based Task Description and Perception for Motion Trajectory Oriented Robot Learning, pp. 1123-1128.
Wu, Shandong — City Univ. of Hong Kong
Li, Y.F. — City Univ. of Hong Kong
Zhang, Jianwei — Univ. of Hamburg

09:30-13:00 TuPA7.35
The Design and Application of a Suav System for Antarctic Expedition, pp. 1129-1134.
Chen, Diansheng — Beihang Univ.
Wang, Ting — Beihang Univ.
Liang, Jianhong — Beihang Univ.
Wang, Tianmiao — Beihang Univ.

09:30-13:00 TuPA7.36
Robotic Model for Simulating Human Upper Body Movement, pp. 1135-1139.
Lura, Derek — Univ. of South Florida
Carey, Stephanie — Univ. of South Florida
Dubey, Rajiv — Univ. of South Florida
Highsmith, Michael — Univ. of South Florida

TuC1 — Room A: Queen's Park 4
Underwater Robot (Regular Sessions)

Chair: Guo, Shuxiang — Kagawa Univ.
Co-Chair: McKee, Gerard — Univ. of Reading

14:00-14:20 TuC1.1
A Simplified Dynamics Modeling of a Spherical Underwater Vehicle, pp. 1140-1145.
Lin, Xichuan — Harbin Engineering Univ.
Guo, Shuxiang — Kagawa Univ.
Hao, Yanling — Harbin Engineering Univ.
Ye, Xiufen — Harbin Engineering Univ.
Qiu, Chenguang — Harbin Engineering Univ.
Du, Juan — Harbin Engineering Unversity

14:20-14:40 TuC1.2
Estimating Hydrodynamic Parameters of a Lake Surface Cleaning Robot Using Numerical Methods, pp. 1146-1151.
Wang, Zhongli — The Chinese Univ. of Hong Kong
Liu, Yunhui — Chinese Univ. of Hong Kong

14:40-15:00 TuC1.3
A Small Remote Operated Robotic Fish Actuated by IPMC, pp. 1152-1156.
Xu, Su — Northeastern Univ.
Hao, Lina — Northeastern Univ.
Liu, Bin — Northeastern Univ.

15:00-15:20 TuC1.4
A Multi-Task Fuzzy Control for Underwater Welding Manipulator, pp. 1157-1163.
Sadigh, Mohamad Jafar — Isfahan Univ. of Tech.
Arjmand, Ehsan — Isfahan Univ. of Tech.

15:20-15:40 TuC1.5
A Swarm Pattern Transformation Method Based on Macroscopic Parameter Operations, pp. 1164-1169.
Varghese, Blesson — Univ. of Reading, Reading,
McKee, Gerard — Univ. of Reading

TuC2 — Room B: Queen's Park 5
Robot Vision II (Regular Sessions)

Chair: Kubota, Takashi — JAXA ISAS

Co-Chair: Laksanacharoen, Sathaporn — King Mongkut's Inst. of Tech. North Bangkok

14:00-14:20 — TuC2.1

Vision Based Navigation by Landmark for Robotic Explorer, pp. 1170-1175.

Kubota, Takashi — JAXA ISAS

14:20-14:40 — TuC2.2

Development of Vision Service in Robotics Studio for Road Signs Recognition and Control of Lego Mindstorms Robot, pp. 1176-1181.

Trung, Pham — Asian Inst. of Tech. Thailand
Afzulpurkar, Nitin — Asian Inst. of Tech.
Bodhale, Dhananjay — Asian Inst. of Tech. Thiland

14:40-15:00 — TuC2.3

A Biologically-Inspired and Resource-Efficient Vision System Using Mobile Mini-Robots for Obstacle Avoidance, pp. 1182-1187. Attachment

Chinapirom, Teerapat — Heinz Nixdorf Inst. Univ. of Paderborn
Witkowski, Ulf — Heinz Nixdorf Inst. Univ. of Paderborn

15:00-15:20 — TuC2.4

Bearing Only FastSLAM Using Vertical Line Information from an Omnidirectional Camera, pp. 1188-1193.

Wongphati, Mahisorn — Chulalongkorn Univ.
Niparnan, Nattee — Chulalongkorn Univ.
Sudsang, Attawith — Chulalongkorn Univ.

15:20-15:40 — TuC2.5

Real-Time Binary Shape Matching System Based on FPGA, pp. 1194-1199.

Kim, Dongkyun — Sungkyunkwan Univ.
Jin, Seunghun — Sungkyunkwan Univ.
Nguyen, Duc Dung — SungKyunKwan Univ.
Jeon, Jae Wook — Sungkyunkwan Univ.

15:40-16:00 — TuC2.6

An Illumination Adaptive Color Object Recognition Method in Robot Soccer Match, pp. 1200-1205.

Wang, Wei — Chinese Univ. of Hong Kong
Liu, Yunhui — Chinese Univ. of Hong Kong

TuC3 — Room C: Queen's Park 6

Medical Robot System (Regular Sessions)

Chair: Zheng, Yuan F. — The Ohio State Univ.
Co-Chair: Ang, Wei Tech — Nanyang Tech. Univ.

14:00-14:20 — TuC3.1

Frequency Response Dependence to Vibration Sensitivity by Pressing, pp. 1206-1211.

Jeong, Hie-yong — Osaka Univ.
Gosho, Takumi — Osaka Univ.
Higashimori, Mitsuru — Osaka Univ.
Kaneko, Makoto — Osaka Univ.

14:20-14:40 — TuC3.2

Toward Robot-Assisted Dental Surgery: Path Generation and Navigation System Using Optical Tracking Approach, pp. 1212-1217.

Lorsakul, Auranuch — Mahidol Univ.
Suthakorn, Jackrit — Mahidol Univ.
Sinthanayothin, Chanjira — National Science and Tech. Development Agency
Tharanon, Wichit — National Science and Tech. Development Agency

14:40-15:00 — TuC3.3

Wireless and Wearable EKG Device with Lossless Compression for On-Line Post-Surgery Heart Monitoring System, pp. 1218-1223.

Sopavanit, Cherdkul — Chulalongkorn Univ.
Desudchit, Tayard — Chulalongkorn
Riyamongkol, Panomkhawn — Naresuan Univ.

15:00-15:20 — TuC3.4

Adaptive Estimation of EEG-Rhythms for Event Classification, pp. 1224-1229.

Veluvolu, Kalyana Chakravarthy — Nanyang Tech. Univ.
Tan, Hock Guan — Nanyang Tech. Univ.
Kavuri, Swathi Sri — Nanyang Tech. Univ.
Tun Latt, Win — Nanyang Tech. Univ.
Shee, Cheng Yap — Nanyang Tech. Univ. Singapore
Ang, Wei Tech — Nanyang Tech. Univ.

15:20-15:40 — TuC3.5

A Self-Organizing Approach to Generate Training Data for EMG Classification, pp. 1230-1235.

Kita, Kahori — The Univ. of Tokyo
Kato, Ryu — The Univ. of Tokyo
Yokoi, Hiroshi — The Univ. of Tokyo

15:40-16:00 — TuC3.6

Automatic Mixing of Highly Viscous Bio-Samples with Orbital Shaking Using Micro Channels, pp. 1236-1241.

Yuan, Liang — The Ohio State Univ.
Zheng, Yuan F. — The Ohio State Univ.

TuC4 — Room D: Saithip

Advanced Control Systems and Methodologies III (Regular Sessions)

Chair: Podlech, Steffen — Aalborg Univ.
Co-Chair: Jung, Seul — Chung Nam National

14:00-14:20 TuC4.1
An Identification of System Key Attributes in Structural Reasoning for Formal Validation of Industrial Programming, pp. 1242-1248.
Lobov, Andrei — Tampere Univ. of Tech.
Martinez Lastra, Jose Luis — Tampere Univ. of Tech.

14:20-14:40 TuC4.2
Theoretical Modeling Issue in Active Noise Control for a One-Dimensional Acoustic Duct System, pp. 1249-1254.
Yang, Zhenyu — Aalborg Univ.
Podlech, Steffen — Aalborg Univ.

14:40-15:00 TuC4.3
Tracking Object in Video Pictures Based on Background Subtraction and Image Matching, pp. 1255-1260.
Dharamadhat, Thammapong — Chulalongkorn Univ.
Thannasoontornlerk, Kittipong — Chulalongkorn Univ.
Kanongchaiyos, Pizzanu — Chulalongkorn Univ.

15:00-15:20 TuC4.4
Shifted Gamma Distribution and Long-Range Prediction of round Trip Timedelay for Internet-Based Teleoperation, pp. 1261-1266.
Chen, Dan — Chinese Acad. of Sciences
Fu, Xiuhui — Chinese Acad. of Sciences
Wei, Ding — Chinese Acad. of Sciences
Li, Hongyi — Shenyang Inst. of Automation, CAS
Xi, Ning — Michigan State Univ.
Wang, Yuechao — Shenyang Inst. of Automation

15:20-15:40 TuC4.5
Study on Target Localization System Based on Auditory of Mobile Robot, pp. 1267-1272.
Zu, Linan — Hebei Univ. of Tech.
Chen, Lingling — Hebei Univ. of Tech.
Rong, Maocheng — Hebei Univ. of Tech.
Yang, Peng — Hebei Univ. of Tech.

15:40-16:00 TuC4.6
A Mixed Autonomy Coordination Methodology for Multi-Robotic Traffic Control, pp. 1273-1278.
Teja, Aditya — IIIT Hyderabad
Devalla, Viswanath — International Inst. of Information Tech.
Krishna, Madhava — IIIT Hyderabad

TuC5 — Room E: Bangkok Panorama 1
Grasping and Manipulation II (Regular Sessions)

Chair: Li, Bing — Shenzhen Graduate School, Harbin Inst. of Tech.
Co-Chair: Wejinya, Uchechukwu C. — Univ. of Arkansas

14:00-14:20 TuC5.1
Robust Control Algorithm for Safe Grasping Based on Force Sensing, pp. 1279-1284.
Sadigh, Mohamad Jafar — Isfahan Univ. of Tech.
Ahmadi, Habib — Isfahan Univ. of Tech.

14:20-14:40 TuC5.2
Weeding Manipulator Exploiting Its Oscillatory Motion for Force Generation: Verification of the Effectiveness by Simulations Using Open Dynamics Engine, pp. 1285-1290.
Kobayashi, Jun — Kyushu Inst. of Tech.

14:40-15:00 TuC5.3
Uncertainty of Estimated Parameters of Contact Conditions by Active Force Sensing, pp. 1291-1297.
Yamada, Takayoshi — Nagoya Inst. of Tech.
Mouri, Tetsuya — Gifu Univ.
Shimosaka, Kyouhei — Nagoya Inst. of Tech.
Mimura, Nobuharu — Niigata Univ.
Funahashi, Yasuyuki — Chukyo Univ.

15:00-15:20 TuC5.4
Sparse Distributed Memory for Experience-Based Robot Manipulation, pp. 1298-1303.
Jockel, Sascha — Univ. of Hamburg
Lindner, Felix — Univ. of Hamburg
Zhang, Jianwei — Univ. of Hamburg

15:20-15:40 TuC5.5
Flexible Fixturing System Design Based on a Family of Novel Parallel Robots, pp. 1304-1309.
Yu, Hongjian — Shenzhen Graduate School, Harbin Inst. of Tech.
Li, Bing — Shenzhen Graduate School, Harbin Inst. of Tech.
Yang, Xiaojun — Shenzhen Graduate School_;Harbin Inst. of Tech.
Hu, Hong — Shenzhen Graduate School, Harbin Inst. of Tech.

TuC6 — Room F: Bangkok Panorama 2
Dynamics Analysis (Regular Sessions)

Chair: Guan, Yisheng — South China Univ. of Tech.
Co-Chair: Li, Yangmin — Univ. of Macau

14:00-14:20 — TuC6.1
Simulation Research on Structural Strength of the Hub Plate, pp. 1310-1312.
Liu, Xintian — Shanghai Univ. of Engineering Science

14:20-14:40 — TuC6.2
Analysis of Two Vibrating Suction Methods, pp. 1313-1318.
Wang, Kun — Beihang Univ.
Wang, Wei — Beihang Univ.
Li, Dazhai — Beihang Univ.
Zhang, Houxiang — Computer Science
Zhang, Jianwei — Univ. of Hamburg
Deng, Zhicheng — Nokia (China) Investment CO.,LTD.
Zong, Guanghua — BHU

14:40-15:00 — TuC6.3
Force Modeling of Inhomogeneous Material Using Unsupervised Learning and Model Identification, pp. 1319-1324.
Zhao, Chen — Tech. Univ. of Munich
Ulbrich, Heinz — Tech. Univ. Muenchen

15:00-15:20 — TuC6.4
A Study on the Model of 3D-Coordinate Measuring Machine Dynamic Characteristic, pp. 1325-1328.
Liu, Jie — Harbin Inst. of Tech.
Hao, Shuanghui — Harbin Inst. of Tech.
Liu, Jizhu — Harbin Inst. of Tech.
Hao, Minghui — Harbin Inst. of Tech.
Tang, Zili — Harbin Inst. of Tech.

15:20-15:40 — TuC6.5
Balancing Autonomy and Environmental Response with Hierarchical Chaotic Dynamics, pp. 1329-1336.
Funabashi, Masatoshi — Ec. Pol.
Aoki, Shunsuke — Donghua Univ.

15:40-16:00 — TuC6.6
Numerical Optimization Analysis of Dynamic Absorber of Power Machinery, pp. 1337-1341.
Liu, Zhiqiang — Harbin Engineering Univ.
Wu, Yanhong — Harbin Engineering Univ.
Han, Guangcai — Harbin Engineering Univ.

TuD1 — Room A: Queen's Park 4
Flying and Space Robots (Regular Sessions)

Chair: Liu, Yunhui — Chinese Univ. of Hong Kong
Co-Chair: Li, Yangmin — Univ. of Macau

16:20-16:40 — TuD1.1
System Identification and Attitude Control of a Small Scale Unmanned Helicopter, pp. 1342-1347.
Fan, Caizhi — National Univ. of Defense Tech.
Baoquan, Song — Univ. of Toronto
Cai, Xuanping — The National Univ. of Defense Tech.
Liu, Yunhui — Chinese Univ. of Hong Kong

16:40-17:00 — TuD1.2
A Robotic Small Satellite for Space Debris Capture, pp. 1348-1353.
Nishida, Shin-Ichiro — Japan Aerospace Exploration Agency
Yoshikawa, Tsuneo — Ritsumeikan Univ.

17:00-17:20 — TuD1.3
Path Generation for Ground Target Tracking of Airplane-Typed UAV, pp. 1354-1358.
Ruangwiset, Annop — King Mongkut's Univ. of Tech. Thonburi

17:20-17:40 — TuD1.4
Reactionless Resolved Acceleration Control with Vibration Suppression Capability for JEMRMS/SFA, pp. 1359-1364.
Fukazu, Yusuke — MI Tech.
Hara, Naoyuki — Musashi Tech.
Nenchev, Dragomir — Musashi Inst. of Tech.
Sato, Daisuke — Musashi Inst. of Tech.

17:40-18:00 — TuD1.5
A New Approach Method for Colored Satellite Image Enhancement, pp. 1365-1370.
Attachoo, Boonwat — King Mongkut's Inst. of Tech. Ladkrabang
Pattanasethanon, Petcharat — King Mongkut's Inst. of Tech. Ladkrabang

TuD2 — Room B: Queen's Park 5
Robot Vision III (Regular Sessions)

Chair: Lin, Chyi Yeu Jerry — National Taiwan Univ. of Science and Tech.
Co-Chair: Shimizu, Sota — Waseda Univ.

16:20-16:40 — TuD2.1
Object Orientation Recognition Based on SIFT and SVM by Using Stereo Camera System, pp. 1371-1376.

Lin, Chyi Yeu Jerry — National Taiwan Univ. of Science and Tech.
Setiawan, Edwin — National Taiwan Univ. of Science and Tech.

16:40-17:00 TuD2.2
Eccentricity Estimator for Wide-Angle Fovea Sensor by FMI Descriptor Approach, pp. 1377-1382.
Shimizu, Sota — Waseda Univ.
Burdick, Joel — California Inst. of Tech.

17:00-17:20 TuD2.3
IV-FMC: An Automated Vision Based Part Modeling and Reconstruction System for Flexible Manufacturing Cells, pp. 1383-1387.
Ng, Sok Choo — Univ.
Ismail, Napsiah — Univ.
Mohd. Yusof, Juraina — Univ.
Mohd. Kassim, Muhamad Saufi — Univ.
Abdul Rahman, Khairuddin — Univ.

17:20-17:40 TuD2.4
Eye State Detection in Facial Image Based on Linear Prediction Error of Wavelet Coefficients, pp. 1388-1392.
Cheng, Erkang — Inst. of Intelligent Machine, Chinese Acad. ofScience
Kong, Bin — Inst. of Intelligent Machine, Chinese Acad. ofScience
Hu, Rongxiang — Inst. of Intelligent Machine, Chinese Acad. of Science
Zheng, Fei — Inst. of Intelligent Machine, Chinese Acad. of Science

17:40-18:00 TuD2.5
Optimal Camera Placement Considering Mobile Robot Trajectory, pp. 1393-1396.
Nikolaidis, Stefanos — Univ. of Tokyo
Ueda, Ryuichi — The Univ. of Tokyo
Hayashi, Akinobu — Univ. of Tokyo
Arai, Tamio — Univ. of Tokyo

TuD3 — Room C: Queen's Park 6
Robot System Design (Regular Sessions)

Chair: Yu, Yong — Kagoshima Univ.
Co-Chair: Yuan, Jianjun — Shanghai Jiao Tong Univ. China

16:20-16:40 TuD3.1
The Correlation between Perception of Motion Lag and Phase Lag in Tele-Operation Robot System, pp. 1397-1402.
Toyoda, Kazutaka — Waseda Univ.
Okamoto, Jun — Waseda Univ.
Fujie, Masakatsu G. — Waseda Univ.

16:40-17:00 TuD3.2
Fundamental Study of Force Control Method for Pelvis-Supporting Body Weight Support System, pp. 1403-1408.
Watanabe, Takao — Waseda Univ.
Ando, Takeshi — Waseda Univ.
Ohki, Eiichi — Waseda Univ.
Fujie, Masakatsu G. — Waseda Univ.

17:00-17:20 TuD3.3
A Guiding Principle to Optimize Crutch, pp. 1409-1414.
Liu, Guangyu — The Univ. of Auckland
Xie, Shane — Univ. of Auckland
Yu, Longguang — Jilin Univ.
Li, Shaobing — Dongfeng Motor Co
Chu, Dongning — Dongfeng Motor Co

17:20-17:40 TuD3.4
Development of Big Danger Disposal Manipulator — Proposal and Mechatronic System Design —, pp. 1415-1420.
Yuan, Jianjun — Shanghai Jiao Tong Univ. China
Zhang, Weijun — Shanghai Jiao Tong Univ.
Tao, Jun — Shanghai Jiao Tong Univ.

17:40-18:00 TuD3.5
The Optimal Scheme for EOD Robot Based on Supervising Control Architecture, pp. 1421-1426.
Zhang, Weijun — Shanghai Jiao Tong Univ.
Yuan, Jianjun — Shanghai Jiao Tong Univ. China
Li, Jianhua — Shanghai Jiao Tong Univ.
Tang, Zhixia — Henan Administration Coll.

TuD4 — Room D: Saithip
Advanced Control Systems and Methodologies IV (Regular Sessions)

Chair: Huang, Qingjiu — Tokyo Inst. of Tech.
Co-Chair: Yashima, Masahito — National Defense Acad. of Japan

16:20-16:40 TuD4.1
Robotic Juggling by Iterative Learning Control Using Optimization, pp. 1427-1432. Attachment
Miyashita, Hideyuki — National Defense Acad. of Japan
Yamawaki, Tasuku — National Defense Acad. of Japan
Yashima, Masahito — National Defense Acad. of Japan

16:40-17:00 TuD4.2

Augmented Control for Mobile Robot Using PocketPC, pp. 1433-1437. Attachment

Charoenseang, Siam — King Mongkut's Univ. of Tech. Thonburi
Kingkangwan, Khanchai — King Mongkut's Univ. of Tech. Thonburi

17:00-17:20 TuD4.3

An Improved Method of Speed Damping for a Stepper Motor with a Smooth Speed Estimation, pp. 1438-1443.

Le, Ngoc Quy — Sungkyunkwan Univ.
Jeon, Jae Wook — Sungkyunkwan Univ.

17:20-17:40 TuD4.4

Hybrid Position, Posture, Force and Moment Control of Robot Manipulators, pp. 1444-1450.

Huang, Qingjiu — Tokyo Inst. of Tech.
Enomoto, Ryota — Tokyo Inst. of Tech.

17:40-18:00 TuD4.5

Force Compliant Trajectory Optimization, pp. 1451-1456.

Graham, Andrew Evan — The Univ. of Auckland
Xie, Shane — Univ. of Auckland

TuD5 — Room E: Bangkok Panorama 1

Manipulator and Control (Regular Sessions)

Chair: Wejinya, Uchechukwu C. — Univ. of Arkansas
Co-Chair: Muramatsu, Naoki — Nagoya Univ.

16:20-16:40 TuD5.1

Stable Adaptive Control of Manipulators with Improved Transients, pp. 1457-1462.

de la Sen, Manuel — Univ. Pais Vasco

16:40-17:00 TuD5.2

Control of Stabilized Platform for Two-Link Planar Manipulator Arm under Parallel Base Motion Disturbance with Passivity-Based Adaptive Control, pp. 1463-1468.

Fongjun, Theerapong — Chulalongkorn Univ.
Wongsaisuwan, Manop — Chulalongkorn Univ.
Phoojaruenchanachai, Suthee — National Electronics and Computer Tech. Center

17:00-17:20 TuD5.3

Study on a Novel 6-DOF Combinational Parallel Manipulator, pp. 1469-1473.

Zhao, Wei — Harbin Inst. of Tech. Shenzhen, P R China
Li, Bing — Shenzhen Graduate School, Harbin Inst. of Tech.
Hu, Ying — Shenzhen Inst. of Advanced Tech. ShenZhen, China
Yu, Hongjian — Shenzhen Graduate School, Harbin Inst. of Tech.

17:20-17:40 TuD5.4

Efficiency of Gripping Mechanism Using Buckling Phenomenon of Long Column, pp. 1474-1479.

Muramatsu, Naoki — Nagoya Univ.
Ando, Hiroki — Nagoya Univ.

17:40-18:00 TuD5.5

Tactile Sensor and Algorithm to Detect Slip in Robot Grasping Processes, pp. 1480-1485.

Goeger, Dirk — Univ. Karlsruhe
Ecker, Nico — Univ. of Karlsruhe (TH)
Woern, Heinz — Univ. Karlsruhe

TuD6 — Room F: Bangkok Panorama 2

Virtual Reality and Motion Planning (Regular Sessions)

Chair: Tan, Jindong — Michigan Tech. Univ.
Co-Chair: Kanongchaiyos, Pizzanu — Chulalongkorn Univ.

16:20-16:40 TuD6.1

Advantages of Smooth Trajectory Tracking As Crane Anti-Swing Schemes, pp. 1486-1490.

Liu, Guangyu — The Univ. of Auckland

16:40-17:00 TuD6.2

A Collision Detection Algorithm Using Adaptive Particle Sensor, pp. 1491-1496.

Rungcharoenpaisal, Thiti — Chulalongkorn Univ.
Kanongchaiyos, Pizzanu — Chulalongkorn Univ.

17:00-17:20 TuD6.3

Motion Cues Visualisation of a Motion Base for Driving Simulator, pp. 1497-1502.

Chiew, Yeong Shiong — Univ. Teknologi Malaysia
Abdul Jalil, Mohamad Kasim — Univ. Teknologi Malaysia
Hussein, Mohamed — Univ. Teknologi Malaysia

17:20-17:40 TuD6.4

Remote Hybrid Controller with an Adaptive Environment Observer, pp. 1503-1508.

Kakizoe, Yuki — Nara Inst. of Science and Tech.
Nakamura, Hisakazu — Nara Inst. of Science and Tech.
Nishitani, Hirokazu — Nara Inst. of Science and Tech.

17:40-18:00 TuD6.5

Human Motion in Cooperative Tasks: Moving Object Case Study, pp. 1509-1514.
Miossec, Sylvain — IUT de Bourges, Univ. of Orleans
Kheddar, Abderrahmane — JRL CNRS

TuPB7 — 3rd Floor lobby
Poster Session II (Poster Sessions)
Chair: Wang, Zhidong — Chiba Inst. of Tech.

13:30-17:00 — TuPB7.1
A Novel Propulsion Mechanism Using a Fin with a Variable-Effective-Length Spring, pp. 1515-1521.
Nakabayashi, Masataka — Shinshu Univ.
Kobayashi, Shunichi — Shinshu Univ.

13:30-17:00 — TuPB7.2
A CDMA Acoustic Communication System for Multiple Underwater Robots, pp. 1522-1526.
Guo, Shuxiang — Kagawa Univ.
Zhao, Zixin — Kagawa Univ.
Pan, Qinxue — Kagawa Univ.

13:30-17:00 — TuPB7.3
Measuring Method of Concrete Pump Discharge Based on Pressure, pp. 1527-1531.
Liu, Huiyong — Zhejiang Univ.
Li, Wei — Zhejiang Univ.
Zhao, Qing — Guizhou Univ.

13:30-17:00 — TuPB7.4
Research on Determining the Key Technology of New Product Plan and Design, pp. 1532-1537.
Li, Xin — beijing Univ. of Tech.
Huang, Lucheng — beijing Univ. of Tech.

13:30-17:00 — TuPB7.5
Performance Simulation and Experimental Evaluation for a Magnet-Rheological Damper under Impact Load, pp. 1538-1543.
Hu, Hongsheng — Univ. of Jiaxing
Wang, Jiong — NanjingUniversity of Science and Tech.

13:30-17:00 — TuPB7.6
Modular Design and Control Method of Underwater Robot Test-Platform, pp. 1544-1549.
Wang, Yujia — Harbin Engineering Univ.
Zhao, Jie — Harbin Inst. of Tech.
Zhang, Mingjun — Harbin Engineering Univ.

13:30-17:00 — TuPB7.7
A Multi-Agent Planning Approach Integrated with Learning Mechanism, pp. 1550-1555.
Zhang, Tao — Tsinghua Univ.
Zheng, Liang — Tsinghua Univ.
Ueno, Haruki — National Inst. of Informatics

13:30-17:00 — TuPB7.8
A Study of Performances on an Automatic IEEE 802.11g Wireless-Standard Robot Using Infrared Sensors, pp. 1556-1560.
Leelasantitham, Adisorn — Univ. of the Thai Chamber of Commerce
Chaiprapa, Prawat — Univ. of the Thai Chamber of Commerce

13:30-17:00 — TuPB7.9
Fuzzy Neural Network Control of AUV Based on IPSO, pp. 1561-1566.
Zhang, Lei — Harbin Engineering Univ.
Pang, Yongjie — Harbin Engineering Univ.
Wan, Lei — Harbin Engineering Univ.
Li, Ye — Harbin Engineering Univ.

13:30-17:00 — TuPB7.10
Efficient Implementation of RMVB for Eyeblink Artifacts Removal of EEG Via STF-TS Modeling, pp. 1567-1572.
Wongsawat, Yodchanan — Mahidol Univ.

13:30-17:00 — TuPB7.11
The Underactuation and Motion-Coupling in Robotic Fingers and Two New 1-DOF Motion-Coupling Anthropomorphic Fingers, pp. 1573-1578.
Liu, Yuwang — Chinese Acad. of Sciences
Wang, Hongguang — Shenyang Inst. of Automation, Chinese Acad. of Sciences
Li, Bin — Shenyang Inst. of Automation
Zhou, Weijia — Univ. of Wisconsin-Madison

13:30-17:00 — TuPB7.12
Using Neuro-Fuzzy Control to Enhance Maneuverability of Master-Slave System in Position Feedback Frameworks, pp. 1579-1584.
Po-Ngaen, Watcharin — King Mongkut's Univ. of Tech. North Bangkok

13:30-17:00 — TuPB7.13
Real-Time Inter-Processing for PC Based Robot Controllers in Tele-Robotic and Gantry Robotic Controller System, pp. 1585-1589.
Po-Ngaen, Watcharin — King Mongkut's Univ. of Tech. North Bangkok

13:30-17:00 — TuPB7.14
A Comparison Study on Pneumatic Muscles and Electrical Motors, pp. 1590-1594.
Tavakoli, Mahmoud — Univ. of Coimbra

Marques, Lino — Univ. of Coimbra
de Almeida, Anibal — Univ. of Coimbra

13:30-17:00 TuPB7.15
Design and Characteristics Analysis of a Novel Motion System for Validation Platform of Driverless Vehicle, pp. 1595-1600.
Tang, Guoming — Inst. of Intelligent Machines,Chinese Acad. ofSciences,Uni

13:30-17:00 TuPB7.16
Improved Performance of a Plasma Cutting Machine Using a Half-Bridge DC/DC Converter, pp. 1601-1606.
Sanajit, Narongrit — Mahanakorn Univ. of Tech.
Jangwanitlert, Anuwat — King Mongkut's Inst. of Tech. Ladkrabang

13:30-17:00 TuPB7.17
Analogue Space Vector Modulator for Two-Phase Loads Using a Three-Leg Voltage Source Inverter, pp. 1607-1612.
Charumit, Chakrapong — King mongkut's Inst. of Tech. ladkrabang
Kinnares, Vijit — King mongkut's Inst. of Tech. ladkrabang

13:30-17:00 TuPB7.18
Discrete Wavelet Transform and Back-Propagation Neural Networks Algorithm for Fault Location on Single-Circuit Transmission Line, pp. 1613-1618.
Ngaopitakkul, Atthapol — King Mongkut's Inst. of Tech. Ladkrabang
Pothisarn, Chaichan — Faculty of Engineering, King Mongkut's Inst. of Tech. L

13:30-17:00 TuPB7.19
Analysis and Modelling of an Ozone Generator Using a Phase-Shift PWM Full Bridge Inverter, pp. 1619-1624.
Kinnares, Vijit — King mongkut's Inst. of Tech. ladkrabang
Hothongkham, Prasopchok — King Mongkut's Inst. of Tech. Ladkrabang

13:30-17:00 TuPB7.20
A Novel Hybrid Fuzzy-PID Controller for Tracking Control of Robot Manipulators, pp. 1625-1630.
Norouzzadeh Ravari, Alireza — KREC
Taghirad, Hamid — K.N.Toosi Univ. of Tech.

13:30-17:00 TuPB7.21
Adaptive Neural Network Controller of a Stewart Platform with Unknown Dynamics for Active Vibration Isolation, pp. 1631-1636.
Ma, Jia — Inst. of Automation, Chinese Acad. of Sciences
Yang, Tao — Inst. of Automation, Chinese Acad. of Sciences

13:30-17:00 TuPB7.22
Fuzzy Control of the Lateral Position of a Moving Web in Roll-To-Roll Processes, pp. 1637-1642.
Ho, Thanhtam — Konkuk Univ.
Shin, Hyeunhun — Konkuk Univ.
Lee, Sangyoon — Konkuk Univ.

13:30-17:00 TuPB7.23
Palmprint Image Enhancement Using Phase Congruency, pp. 1643-1646.
Punsawad, Yunyong — Mahidol Univ.
Wongsawat, Yodchanan — Mahidol Univ.

13:30-17:00 TuPB7.24
A Modified Serpenoid Equation for Snake Robots, pp. 1647-1652. Attachment
Dehghani, Mohammad — Tehran Univ. KNTU (Khajeh Nasir Toosi Usinversity)
Mahjoob, Mohammad — Univ. of Tehran

13:30-17:00 TuPB7.25
Optimization of Mobile Robot Based on Projection Method and Harmony Search, pp. 1653-1658.
Xu, He — Harbin Engineering Univ.
Zhang, Zhenyu — Harbin Engineering Univ.
Tan, Dawei — Harbin Engineering Univ.
Gao, Xiaozhi — Helsinki Univ. of Tech.
Peng, Gaoliang — Harbin Inst. of Tech.
Yu, Shuanghe — Dalian Maritime Univ.

13:30-17:00 TuPB7.26
An Innovative Reconfigurable Mobile Robot with Multi-Maneuver Modes, pp. 1659-1664.
Xu, He — Harbin Engineering Univ.
Tan, Dawei — Harbin Engineering Univ.
Zhang, Zhenyu — Harbin Engineering Univ.
Ma, Y.L. — Harbin Inst. of Tech.
Peng, Gaoliang — Harbin Inst. of Tech.

13:30-17:00 TuPB7.27
Development of New Brain Computer Interface Based on EEG and EMG, pp. 1665-1670.
Chang, Byung Chan — Kyungpook National Univ.
Seo, SeoBo Hyeok — Kyungpook National Univ.

13:30-17:00 TuPB7.28
High-Quality Path Planning for Autonomous Mobile Robots with ·; 3-Splines and Parallel Genetic Algorithms, pp. 1671-1677.
Chang, Han-Chih — Acad. Sinica
Liu, Jing-Sin — Acad. Sinica

13:30-17:00 TuPB7.29
Non-Linear Radial Force Simulation of Switched Reluctance Motors Based on Finite Element Model, pp. 1678-1682.

Zhang, Jingjun — Hebei Univ. of Engineering
Wang, Lili — Hebei Univ. of Engineering
Zhang, Haijun — Hebei Univ. of Engineering
Gao, Ruizhen — Hebei Univ. of Engineering

13:30-17:00 TuPB7.30
Development of a Robot Hand with an Adjuster Mechanism for Joint Compliance, pp. 1683-1688.
Kajikawa, Shinya — Tohoku Gakuin Univ.

13:30-17:00 TuPB7.31
Decentralized Navigation of Networks of Wheeled Mobile Robots with Limited Communication, pp. 1689-1692.
Savkin, Andrey — Univ. of New South Wales
Teimoori Sangani, Hamid — The Univ. of New South Wales (UNSW)

13:30-17:00 TuPB7.32
The Perk Station: Systems Design for Percutaneous Intervention Training Suite, pp. 1693-1697.
U-Thainual, Paweena — Queen's Univ.
Fischer, Gregory — Worcester Pol. Inst.
Iordachita, Iulian — Johns Hopkins Univ.
Vikal, Siddharth — Queen's Univ.
Fichtinger, Gabor — Queen's Univ.

13:30-17:00 TuPB7.33
Semi-Supervised Learning in a Complex Arm Motor Control Task, pp. 1698-1703.
Burfoot, Daniel — Univ. of Tokyo
Kuniyoshi, Yasuo — The Univ. of Tokyo

13:30-17:00 TuPB7.34
Using Biological Approaches for the Control of a 9-DoF Wheelchair-Mounted Robotic Arm System: Initial Experiments, pp. 1704-1709.
Palankar, Mayur — Univ. of South Florida
De Laurentis, Kathryn — Univ. of South Florida
Dubey, Rajiv — Univ. of South Florida

13:30-17:00 TuPB7.35
Preparation for Turning a Bucket Wheel Reclaimer into a Robotic Arm, pp. 1710-1715.
Lu, Tien-Fu — Univ. of Adelaide

February 25, 2009

WeA1 — Room A: Queen's Park 4
Localization and Mapping I (Regular Sessions)

Chair: Zhang, Hong — Univ. of Alberta
Co-Chair: Tan, Jindong — Michigan Tech. Univ.

09:40-10:00 WeA1.1
Improving Position Estimation on RFID Tag Floor Localization Using RFID Reader Transmission Power Control, pp. 1716-1721.
Park, Youngsu — POSTECH
Lee, Je Won — POSTECH
Kim, SangWoo — POSTECH

10:00-10:20 WeA1.2
Implementation and Calibration of a Bayesian Binaural System for 3D Localisation, pp. 1722-1727.
Ferreira, João Filipe — ISR, FCT - Univ. of Coimbra (NIF: 502971142)
Pinho, Cátia — ISR - Inst. of Systems and Robotics, FCT-Univ. ofCoimbr
Dias, Jorge — Univ. of Coimbra

10:20-10:40 WeA1.3
Global Localization of Mobile Robots by Reverse Projection of Sensor Readings, pp. 1728-1733.
Korrapati, Hemanth — IIIT Hyderabad
Krishna, Madhava — IIIT Hyderabad
Teja, Aditya — IIIT Hyderabad

10:40-11:00 WeA1.4
Intelligent Household Surveillance Robot, pp. 1734-1739.
Wu, Xinyu — Shenzhen Inst. of Advanced Tech.
Gong, Haitao — shenzhen Inst. of advanced Tech. chinese Acad. of sci
Chen, Pei — Sun Yat-sen Univ.
Zhong, Zhi — The Chinese Univ. of Hong Kong
Xu, Yangsheng — The Chinese Univ. of Hong Kong

WeA2 — Room B: Queen's Park 5
Robot Vision IV (Regular Sessions)

Chair: Kagami, Shingo — Tohoku Univ.
Co-Chair: Lin, Chyi Yeu Jerry — National Taiwan Univ. of Science and Tech.

09:40-10:00 WeA2.1
Automatic Parameters Selection Method of Edge Detector in the Unstructured Environment, pp. 1740-1743.
Xia, Xinghua — Shenyang Inst. of Automation, Chinese Acad.
Wu, Chengdong — Shenyang Inst. of Automation, Chinese Acad. ofSciences

Li, Bin — Shenyang Inst. of Automation

10:00-10:20 — WeA2.2

Intelligent Auto Tracking in 3D Space by Image Processing, pp. 1744-1749.

Al-Khateeb, Khalid A. S. — International Islamic Univ. Malaysia
Awang, Mat Kamil — Telekom Res. and Development, Malaysia
Khalifa, Othman — International Islamic Univ. Malaysia

10:20-10:40 — WeA2.3

Illumination-Based Real-Time Contactless Synchronization of High-Speed Vision Sensors, pp. 1750-1755.

Hou, Lei — Tohoku Univ.
Kagami, Shingo — Tohoku Univ.
Hashimoto, Koichi — Tohoku Univ.

10:40-11:00 — WeA2.4

Detection of Hand-Raising Gestures Based on Body Silhouette Analysis, pp. 1756-1761.

Duan, Xiaodong — Peking Univ.
Liu, Hong — Peking Univ.

WeA3 — Room C: Queen's Park 6

Sensing (Regular Sessions)

Chair: Laksanacharoen, Sathaporn — King Mongkut's Inst. of Tech. North Bangkok
Co-Chair: Liu, Yong — Harbin Inst. of Tech.

09:40-10:00 — WeA3.1

Towards HMM Based Human Motion Recognition Using MEMS Inertial Sensors, pp. 1762-1766.

Shi, Guangyi — Peking Univ. Shenzhen Graduate School
Zou, Yuexian — Peking Univ. Shenzhen Graduate School
Jin, Yufeng — Peking Univ.
Li, Wen J. — The Chinese Univ. of Hong Kong

10:00-10:20 — WeA3.2

Simple Method for Generating Dynamic Object Map, pp. 1767-1772. Attachment

Ishizuka, Yuusuke — Osaka Univ.
Mae, Yasushi — Osaka Univ.
Ohara, Kenichi — National Inst. ofAdvancedIndustrialScienceandTechnology(AIST
Takubo, Tomohito — Osaka Univ.
Arai, Tatsuo — Osaka Univ.

10:20-10:40 — WeA3.3

Study on a Novel Absolute Magnetic Encoder, pp. 1773-1776.

Hao, Shuanghui — Harbin Inst. of Tech.
Liu, Yong — Harbin Inst. of Tech.
Hao, Minghui — Harbin Inst. of Tech.

10:40-11:00 — WeA3.4

Impact of LEGO Sensors in Remote Controlled Robot, pp. 1777-1782.

Mohamed Ismail, Seyed Mohamed Buhari — Univ. Brunei Darussalam
Ong, Wee-Hong — Univ. Brunei Darussalam
Chin, Kenneth Chiang-Yu — Univ. Brunei Darussalam

WeA4 — Room D: Saithip

Intelligent Control I (Regular Sessions)

Chair: Chantranuwathana, Supavut — Chulalongkorn Univ.
Co-Chair: Parnichkun, Manukid — Asian Inst. of Tech.

09:40-10:00 — WeA4.1

Robust Adaptive Control with Leakage Modification for a Nonlinear Model of Ionic Polymer Metal Composites (IPMC), pp. 1783-1788.

La, Hung — Oklahoma State Univ.
Sheng, Weihua — Oklahoma State Univ.

10:00-10:20 — WeA4.2

Adaptive Controller Modularization Using Dwell Time for a Set of Stabilizing Controllers, pp. 1789-1793.

Chantranuwathana, Supavut — Chulalongkorn Univ.

10:20-10:40 — WeA4.3

Adaptive Cruise Control for an Intelligent Vehicle, pp. 1794-1799.

Pananurak, Worrawut — Asian Inst. of Tech.
Thanok, Somphong — Asian Inst. of Tech.
Parnichkun, Manukid — Asian Inst. of Tech.

10:40-11:00 — WeA4.4

Control of Supercavitating Vehicles in the Vertical Plane Using Sliding Mode, pp. 1800-1805.

Zhao, Guoliang — Harbin Engineering Univ.
Fan, Jiali — Harbin Engineering Univ.
Lv, XiaoLong — Harbin Engineering Univ.

WeA5 — Room E: Bangkok Panorama 1

Climbing Robot (Regular Sessions)

Chair: Zhang, Jianwei — Univ. of Hamburg

Co-Chair: Yamaguchi, Tomoyuki — Waseda Univ.

09:40-10:00 — WeA5.1

High Stiffness Pneumatic Actuating Scheme and Improved Position Control Strategy Realization of a Pneumatic Climbing Robot, pp. 1806-1811.

Zhang, Houxiang — Computer Science
Wang, Wei — Beihang Univ.
Zhang, Jianwei — Univ. of Hamburg

10:00-10:20 — WeA5.2

Study on Pneumatic Wall Climbing Robot Adhesion Principle and Suction Control, pp. 1812-1817.

Jiang, Zhijian — Beijing Univ. of Civil Engineering and Architecture
Li, Jun — Beijing Inst. of Tech.
Gao, Xueshan — Beijing Inst. of Tech.
Fan, NingJun — Beijing Inst. of Tech.
Wei, Boyu — Beijing Inst. of Tech.

10:20-10:40 — WeA5.3

Development of a Telescopic-Arm Type, Climbing Support Robot, pp. 1818-1823.

Sorioka, Yoshiaki — Waseda Univ.
Yamaguchi, Tomoyuki — Waseda Univ.
Hashimoto, Shuji — Waseda Univ.

10:40-11:00 — WeA5.4

Vacuum-Based Wet Adhesion System for Wall Climbing Robots -Lubricating Action and Seal Action by the Liquid, pp. 1824-1829.

Miyake, Tohru — Kagawa Univ.
Ishihara, Hidenori — Kagawa Univ.
Tomino, Tatsuya — Kagawa Univ.

WeA6 — Room F: Bangkok Panorama 2

Rescue Robot I (Invited Sessions)

Chair: Suthakorn, Jackrit — Mahidol Univ.
Co-Chair: Huang, Qingjiu — Tokyo Inst. of Tech.

09:40-10:00 — WeA6.1

On the Design and Development of a Rough Terrain Robot for Rescue Missions (I), pp. 1830-1835.

Suthakorn, Jackrit — Mahidol Univ.
Shah, Syed Saqib Hussain — Faculty of Engineering, Mahidol Univ.
Jantarajit, Suratana — Faculty of Engineering, Mahidol Univ.
Onprasert, Woratit — Faculty of Engineering, Mahidol Univ.
Saensupo, Watcharawit — Faculty of Engineering, Mahidol Univ.
Saeung, Supawat — Mahidol Univ.
Nakdhamabhorn, Sakol — Mahidol Univ.
Sa-Ing, Vera — Mahidol Univ.
Reaungamornrat, Sureerat — Mahidol Univ.

10:00-10:20 — WeA6.2

Treaded Control System for Rescue Robots in Indoor Environment (I), pp. 1836-1843.

Mano, Hayato — The Univ. of Electro-Communications
Kon, Kazuyuki — Univ. of Elictro-Communications
Sato, Noritaka — The Univ. of Electro-Communications
Ito, Masataka — The Univ. of Electro-Communications
Mizumoto, Hisashi — The Univ. of Electro- Communications
Goto, Kiyohiro — The Univ. of Electro-Communications
Chatterjee, Ranajit — Univ. of Electro-Communications
Matsuno, Fumitoshi — The Univ. of Electro-Communications

10:20-10:40 — WeA6.3

Flexible Interface for Multiple Autonomous and Teleoperated Rescue Robots (I), pp. 1844-1849.

Mizumoto, Hisashi — The Univ. of Electro- Communications
Sato, Noritaka — The Univ. of Electro-Communications
Kon, Kazuyuki — Univ. of Elictro-Communications
Mano, Hayato — The Univ. of Electro-Communications
Shin, Hayato — The Univ. of Electro-Communications
Chatterjee, Ranajit — Univ. of Electro-Communications
Matsuno, Fumitoshi — The Univ. of Electro-Communications

10:40-11:00 — WeA6.4

Adaptive Line Extraction Algorithm for SLAM Application (I), pp. 1850-1855.

Yaghobi, Mostafa — I. Azad Univ. of Qazvin
Jadaliha, Mahdi — Sharif Univ. and Tech.
Zolghadr, Javad — Islamic Azad Unversity branch of Qazvin
Norouzi, Mohammad — Islamic Azad Univ. Qazvin Branch,MechatronicsResearchLab (M

WeB1 — Room A: Queen's Park 4

Localization and Mapping II (Regular Sessions)

Chair: Gao, Xueshan — Beijing Inst. of Tech.
Co-Chair: Chevaleyre, Yann — Univ. PARIS DAUPHINE

11:20-11:40 WeB1.1
Indoor Localization for Autonomous Mobile Robot Based on Passive RFID, pp. 1856-1861.
Park, Sunhong — Waseda Univ.
Hashimoto, Shuji — Waseda Univ.

11:40-12:00 WeB1.2
An Improved Method for Multi-Robot Cooperative Localization Based on Relative Bearing, pp. 1862-1867.
Wang, Ling — National Univ. of Defense Tech.
Cai, Xuanping — The National Univ. of Defense Tech.
Fan, Weihong — National Univ. of Defense Tech.
Zhang, Hengyang — National Univ. of Defense Tech.

12:00-12:20 WeB1.3
An Improved Probabilistic Approach for Collaborative Multi-Robot Localization, pp. 1868-1875.
Wu, Dan — Univ. of Windsor
Su, Huaicheng — Univ. of Windsor

12:20-12:40 WeB1.4
The Robot Swarm Re-Localization Problem, pp. 1876-1881.
Bredeche, Nicolas — Univ. Paris Sud
Chevaleyre, Yann — Univ. PARIS DAUPHINE

WeB2 Room B: Queen's Park 5
Robot Vision V (Regular Sessions)
Chair: Li, Yf — CityU
Co-Chair: Kanongchaiyos, Pizzanu — Chulalongkorn Univ.

11:20-11:40 WeB2.1
A Modified Edge Detection for Bump Inspection Using Genetic Algorithms, pp. 1882-1887.
Kaitwanidvilai, Somyot — Faculty of Engineering, King Mongkut'sInstituteofTechnology Ladk
Kanprachar, Surachet — Naresuan Univ.
Saenthon, Anakkapon — King Mongkut's Inst. of Tech. Ladkrabang
Kunakorn, Anantawat — King Mongkut's Inst. of Tech. Ladkrabang
Ngamroo, Issarachai — King Mongkut's Inst. of Tech. Ladkrabang

11:40-12:00 WeB2.2
Poultry Tracking System with Camera Using Particle Filters, pp. 1888-1893. Attachment
Fujii, Toshiyuki — The Univ. of Tokyo
Yokoi, Hiroshi — The Univ. of Tokyo
Tada, Tatsuya — National Inst. of Animal Health
Suzuki, Kotaro — National Inst. of Animal Health
Tsukamoto, Kenji — National Inst. of Animal Health

12:00-12:20 WeB2.3
Robust Multi-TAR of Barycenter Contour for Multiple Views Shape Matching and Retrieval, pp. 1894-1898.
Thourn, Kosorl — King Monkut's Inst. of Tech. Ladkrabang
Kitjaidure, Yuttana — King Monkut's Inst. of Tech. Ladkrabang

12:20-12:40 WeB2.4
Enhanced Depth Estimation by Using Object Placement Relation, pp. 1899-1904.
Futragoon, Natchapon — Chulalongkorn Univ.
Kanongchaiyos, Pizzanu — Chulalongkorn Univ.

WeB3 Room C: Queen's Park 6
Modular Robot and Multi-Robot Systems I (Regular Sessions)
Chair: Guan, Yisheng — South China Univ. of Tech.
Co-Chair: Ma, Shugen — Ritsumeikan Univ.

11:20-11:40 WeB3.1
1-DOF Robotic Joint Modules and Their Applications in New Robotic Systems, pp. 1905-1910.
Guan, Yisheng — South China Univ. of Tech.
Jiang, Li — South China Univ. of Tech.
Zhang, Xianmin — South China Univ. of Tech.

11:40-12:00 WeB3.2
Error Characterization in the Vicinity of Singularities in Multi-Robot Cluster Space Control, pp. 1911-1917.
Mas, Ignacio — Santa Clara Univ.
Acain, Jose — Santa Clara Univ.
Petrovic, Ognjen — Santa Clara Univ.
Kitts, Christopher — Santa Clara Univ.

12:00-12:20 WeB3.3
Dynamic Deployment Rule of Transfer Cranes in Container Terminal, pp. 1918-1923.
Hino, Hisato — The Univ. of Tokyo
Hoshino, Satoshi — Tokyo Inst. of Tech.
Fujisawa, Tomoharu — Ministry of Land, Infrastructure, Transport and Tourism
Maruyama, Shigehisa — Japan Association of Cargo-handling Machinery Systems
Ota, Jun — The Univ. of Tokyo

12:20-12:40 WeB3.4

A Control Allocation Approach for Energetic Swarm Control of Wheeled Mobile Robots, pp. 1924-1931.

Pedrami, Reza	Concordia Univ.
Wijenddra, Sivaram	Concordia Univ.
Baxter, Jamie	Concordia Univ.
Gordon, Brandon	Concordia Univ.

WeB4 Room D: Saithip
Intelligent Control II (Regular Sessions)

Chair: Jung, Seul	Chung Nam National
Co-Chair: Inamura, Tetsunari	National Inst. of Informatics

11:20-11:40 WeB4.1
Robust Control of a Mobile Inverted Pendulum Robot Using a RBF Neural Network Controller, pp. 1932-1937.

Jung, Seul	Chung Nam National
Noh, Jin Seok	Chungnam national Univ.
Lee, GeunHyeong	Chungnam national Univ.
Choi, Hojin	Chungnam National Univ.

11:40-12:00 WeB4.2
Modeling of Unmanned Small Scale Rotorcraft Based on Neural Network Identification, pp. 1938-1943.

Putro, Idris Eko	KONKUK Univ.
Budiyono, Agus	Konkuk Univ.
Yoon, Kwang Joon	Konkuk Univ.
Kim, Dh	Konkuk Univ.

12:00-12:20 WeB4.3
Fixed-Structure Hinfinity Loop Shaping Control of a PCMC Buck-Boost Converter Using Genetic Algorirthms, pp. 1944-1949.

Kaitwanidvilai, Somyot	Faculty of Engineering, King Mongkut'sInstituteofTechnology Ladk
Olarnthichachart, Piyapong	Faculty of Engineering, King Mongkut's Inst. ofTechnology La
Saenthon, Anakkapon	King Mongkut's Inst. of Tech. Ladkrabang

12:20-12:40 WeB4.4
A Sample Discarding Strategy for Rapid Adaptation to New Situation Based on Bayesian Behavior Learning, pp. 1950-1955.

Tareeq, Saifuddin Md.	The Graduate Univ. for Advanced Studies
Inamura, Tetsunari	National Inst. of Informatics

WeB5 Room E: Bangkok Panorama 1
Wheeled Mobile Robot (Regular Sessions)

Chair: Nakajima, Shuro	Chiba Inst. of Tech. Japan
Co-Chair: Li, Guangyong	Univ. of Pittsburgh

11:20-11:40 WeB5.1
Distance-Only Based Navigation of Wheeled Mobile Robots with Obstacle Avoidance, pp. 1956-1961.

Teimoori Sangani, Hamid	The Univ. of New South Wales (UNSW)
Savkin, Andrey	Univ. of New South Wales

11:40-12:00 WeB5.2
Equiangular Navigation Guidance of a Wheeled Mobile Robot with Local Obstacle Avoidance, pp. 1962-1967.

Teimoori Sangani, Hamid	The Univ. of New South Wales (UNSW)
Savkin, Andrey	Univ. of New South Wales

12:00-12:20 WeB5.3
Development of Four-Wheel-Type Mobile Robot for Rough Terrain and Verification of Its Fundamental Capability of Moving on Rough Terrain, pp. 1968-1973.

Nakajima, Shuro	Chiba Inst. of Tech. Japan

12:20-12:40 WeB5.4
Distributed Calibration of a Camera Sensor Network, pp. 1974-1979.

Mehta, Vimal	Oklahoma State Univ.
Sheng, Weihua	Oklahoma State Univ.

WeB6 Room F: Bangkok Panorama 2
Rescue Robot II (Invited Sessions)

Chair: Kimura, Tetsuya	Nagaoka Univ. of Tech.
Co-Chair: Huang, Qingjiu	Tokyo Inst. of Tech.

11:20-11:40 WeB6.1
Autonomous Staircase Detection and Stair Climbing for a Tracked Mobile Robot Using Fuzzy Controller (I), pp. 1980-1985.

Mihankhah, Ehsan	K.N. Toosi Univ. of Tech.
Kalantari, Arash	K. N. Toosi Univ. of Tech.
Aboosaeedan, Ehsan	K.N. Toosi Univ. of Tech.
Taghirad, Hamid	K.N.Toosi Univ. of Tech.
Moosavian, S. Ali A.	K. N. Toosi Univ. of Tech.

11:40-12:00 WeB6.2
Plasma-RX: Autonomous Rescue Robots (I), pp. 1986-1990.

Suttasupa, Yuttana	Chulalongkorn Univ.
Chongstitvattana, Prabhas	Chulalongkorn Univ.

12:00-12:20 WeB6.3

Development of a USAR Robot Considering Camera View Angle and Grouser Shape of Crawler (I), pp. 1991-1994.
Kimura, Tetsuya — Nagaoka Univ. of Tech.

WeC1 — Room A: Queen's Park 4
Mobiligence (Invited Sessions)

Chair: Kurabayashi, Daisuke — Tokyo Inst. of Tech.
Co-Chair: Chugo, Daisuke — Univ. of Electro-Communications

14:00-14:20 — WeC1.1
Extraction of Behavior Primitives in Human Standing-Up Motion for Development of Power Assisting Machine, pp. 1995-2000.
An, Qi — The Univ. of Tokyo
Ikemoto, Yusuke — Univ. of Toyo
Asama, Hajime — The Univ. of Tokyo
Matsuoka, Hiroki — Univ.
Chugo, Daisuke — Univ. of Electro-Communications
Takakusaki, Kaoru — Asahikawa Medical Coll.

14:20-14:40 — WeC1.2
Adaptive Formation Transition among a Mobile Robot Group Based on Phase Gradient, pp. 2001-2006.
Kurabayashi, Daisuke — Tokyo Inst. of Tech.
Choh, Tatsuki — Toshiba Corp.
Cheng, Jia — the Univ. of Tokyo
Funato, Tetsuro — Kyoto Univ.

14:40-15:00 — WeC1.3
Multiple Robot Rearrangement Problem Using an Extended Project-Scheduling Problem Solver, pp. 2007-2012.
Fujii, Norisuke — The Univ. of Tokyo
Inoue, Reiko — Tokyo Univ.
Ota, Jun — The Univ. of Tokyo

15:00-15:20 — WeC1.4
Rearrangement of Multiple Objects by a Robot Group Having a Multi-Task Function, pp. 2013-2018.
Inoue, Reiko — Tokyo Univ.
Fujii, Norisuke — The Univ. of Tokyo
Takano, Ryunosuke — The Univ. of Tokyo
Ota, Jun — The Univ. of Tokyo

15:20-15:40 — WeC1.5
Motion Classification by Epidural Potential Measurement of Rat for Low-Invasive Brain-Machine Interface, pp. 2019-2023.
Uejima, Takeshi — The Univ. of Tokyo
Fujii, Toshiyuki — The Univ. of Tokyo
Takita, Masatoshi — National Inst. of Advanced Industrial Science and Tech.
Yokoi, Hiroshi — The Univ. of Tokyo

15:40-16:00 — WeC1.6
An Oscillator Network with a Temporary Memory Function, pp. 2024-2029.
Moriyama, Takuro — Tokyo Inst. of Tech.
Kurabayashi, Daisuke — Tokyo Inst. of Tech.

WeC2 — Room B: Queen's Park 5
Sensor Networks (Regular Sessions)

Chair: Meng, Max — The Chinese Univ. of Hong Kong
Co-Chair: Tan, Jindong — Michigan Tech. Univ.

14:00-14:20 — WeC2.1
Wireless Data Acquisitioning and Inherent Distributed Control Utilizing SS Communication, pp. 2030-2033.
Hasseli, Abdolazim — PIDEC

14:20-14:40 — WeC2.2
Wireless Sensor Network-Based Navigation for Human-Aware Guidance Robot, pp. 2034-2039.
Enriquez, Guillermo — Waseda Univ.
Hashimoto, Shuji — Waseda Univ.

14:40-15:00 — WeC2.3
The Study and Improvement of Memory Management Based on SOS, pp. 2040-2044.
Wu, Fuqing — Inst. of Intelligent Machines,Chinese Acad.
Meng, Max Q.-H. — Inst. of Intelligent Machines,Chinese Acad. of Sciences
Wu, Lingfei — Inst. of Intelligent Machines,Chinese Acad. of Sciences
Zhang, Zhuancheng — Inst. of Intelligent Machines,Chinese Acad.
Chen, Xijun — Inst. of Intelligent Machines,Chinese Acad. of Sciences

15:00-15:20 — WeC2.4
Sensor Fusion of Delay and Non-Delay Signal Using Kalman Filter with Moving Covariance, pp. 2045-2049.
Pornsarayouth, Sirichai — Chulalongkorn Univ.
Wongsaisuwan, Manop — Chulalongkorn Univ.

15:20-15:40 — WeC2.5
Target Tracking in Sensor Networks Using Statistical Graphical Models, pp. 2050-2055.
Shi, Lufeng — Michigan Tech. Univ.
Tan, Jindong — Michigan Tech. Univ.

15:40-16:00 WeC2.6

Conflict and Coalition Models in Inhomogeneous Power Allocation for Wireless Sensor Networks, pp. 2056-2060.

Ren, Hongliang — The Chinese Univ. of Hong Kong
Meng, Max — The Chinese Univ. of Hong Kong
Xu, Li-Sheng — School of Control Science and Engineering, Shandong

WeC3 — Room C: Queen's Park 6

Modular Robot and Multi-Robot Systems II (Regular Sessions)

Chair: Akin, H. Levent — Bogazici Univ.
Co-Chair: Hu, Huosheng — Univ. of Essex

14:00-14:20 WeC3.1

Embedded Intelligent Capability of a Modular Robotic System, pp. 2061-2066.

Zhang, Houxiang — Computer Science
Gonzalez-Gomez, Juan — Univ. Autonoma de Madrid
Chen, S.Y. — Univ. of Hamburg
Zhang, Jianwei — Univ. of Hamburg

14:20-14:40 WeC3.2

Layered Framework for Formation Control of Multiple Mobile Robots – a State Based Approach, pp. 2067-2072.

Ramanathan, Kuppan Chetty — Indian Inst. of Tech. Madras
Makaram, Singaperumal — Indian Inst. of Tech. Madras
T, Nagarajan — Indian Inst. of Tech. Madras

14:40-15:00 WeC3.3

Generating Optimal Two-Robot Street Walk Schedules, pp. 2073-2078.

Zhang, John — Univ. of Lethbridge

15:00-15:20 WeC3.4

Soccer without Intelligence, pp. 2079-2084.

Mericli, Tekin — Bogazici Univ.
Akin, H. Levent — Bogazici Univ.

15:20-15:40 WeC3.5

A New Method of Simulation and Development for Digital Controlled AC Servo System, pp. 2085-2088.

Hao, Shuanghui — Harbin Inst. of Tech.
Zheng, Weifeng — Harbin Inst. of Tech.
Hao, Minghui — Harbin Inst. of Tech.

WeC4 — Room D: Saithip

Intelligent System I (Regular Sessions)

Chair: Kurita, Yuichi — Nara Inst. of Science and Tech.
Co-Chair: Wang, Zhidong — Chiba Inst. of Tech.

14:00-14:20 WeC4.1

Autonomous Control of Electromagnetic Aircraft Launch System Based on Decentralized Architecture, pp. 2089-2092.

Liu, Jizhu — Harbin Inst. of Tech.
Hao, Shuanghui — Harbin Inst. of Tech.
Tang, Zili — Harbin Inst. of Tech.

14:20-14:40 WeC4.2

Research on Generating Unit Vibration Signal by Means of Wavelet-Fractal Theory, pp. 2093-2097.

Hou, Rongtao — Nanjing Univ. of information science & Tech.

14:40-15:00 WeC4.3

Rectangular Object Tracking Based on Standard Hough Transform, pp. 2098-2103.

Nguyen, Thuy Tuong — Sungkyungkwan Univ.
Pham, Xuan Dai — Sungkyunkwan Univ.
Jeon, Jae Wook — Sungkyunkwan Univ.

15:00-15:20 WeC4.4

Semantic Web Services Framework for Manufacturing Industries, pp. 2104-2108.

Lobov, Andrei — Tampere Univ. of Tech.
Fernando, Ubis Lopez — Tampere Univ. of Tech.
Villaseñor, Herrera, Vladimir — Tampere Univ. of Tech.
Puttonen, Juha — Tampere Univ. of Tech.
Martinez Lastra, Jose Luis — Tampere Univ. of Tech.

15:20-15:40 WeC4.5

Indoor Ionic Propulsion Technology High Voltage Power System Design, pp. 2109-2114.

Li, Wen J. — The Chinese Univ. of Hong Kong
Poon, Ho Shing — The Chinese Univ. of Hong Kong
Lam, Mark K. K. — The Chinese Univ. of Hong Kong
Chow, Maxwell — The Chinese Univ. of Hong Kong

WeD1 — Room A: Queen's Park 4

Planning and Navigation (Regular Sessions)

Chair: Parnichkun, Manukid — Asian Inst. of Tech.
Co-Chair: Guan, Yisheng — South China Univ. of Tech.

16:20-16:40 WeD1.1

Path Planning for a Mobile Robot in a Dynamic Environment, pp. 2115-2120.

Bodhale, Dhananjay — Asian Inst. of Tech. Thiland
Afzulpurkar, Nitin — Asian Inst. of Tech.
Thanh, Nguyen Thanh — Asian Inst. of Tech. Thailand

16:40-17:00 WeD1.2

Navigation of an Intelligent Vehicle by Using Stand-Alone GPS, Compass and Laser Range Finder, pp. 2121-2126.

Wuthishuwong, Chairit — Asian Inst. of Tech.
Silawatchananai, Chaiyaporn — Asian Inst. of Tech.
Parnichkun, Manukid — Asian Inst. of Tech.

17:00-17:20 WeD1.3

Recursive Line Extraction Algorithm from 2D Laser Scanner Applied to Navigation a Mobile Robot, pp. 2127-2132.

Norouzi, Mohammad — Islamic Azad Univ. Qazvin Branch,MechatronicsResearchLab (M
Yaghobi, Mostafa — I. Azad Univ. of Qazvin
Rezai Siboni, Mohammad — Azad Univ. of Qazvin, Mechatronics Res. Lab. (MRL)
Jadaliha, Mahdi — Sharif Univ. and Tech.

17:20-17:40 WeD1.4

Dynamics Design and Simulation for Mobile Robots Navigation Systems, pp. 2133-2138.

Melo, Leonimer Flavio de — State Univ. of Londrina
Franca, Jose Alexandre de — State Univ. of Londrina
Cervantes, Silvia Galvao de Souza — State Univ. of Londrina
Koyama, Marcela Hitomi — State Univ. of Londrina

17:40-18:00 WeD1.5

A Hardware Design of Navigation Receiver's Signal Processing Platform, pp. 2139-2143.

Wang, Wei — Harbin Engneering Univ.
Wang, Chuncheng — Harbin Engneering Univ.
Hao, Yanling — Harbin Engneering Univ.

18:00-18:20 WeD1.6

Development of an Active Flapping Wing Using Piezoelectric Fiber Composites, pp. 2144-2149.

Ming, Aiguo — The Univ. of Electro-Communications
Huang, Ya-Wen — Tokyo Inst. of Tech.
Fukushima, Yuichi — The Univ. of Electro-Communications
Shimojo, Makoto — Univ. of Electro-COmmunications

WeD3 — Room C: Queen's Park 6

Sensing and Learning (Regular Sessions)

Chair: Ohno, Kazunori — Tohoku Univ.
Co-Chair: Laksanacharoen, Sathaporn — King Mongkut's Inst. of Tech. North Bangkok

16:20-16:40 WeD3.1

A Multi-Target Tracking Algorithm Using Texture for Real-Time Surveillance, pp. 2150-2155.

Zhao, Zhixu — Univ. of Electronics Science and Tech. of China
Yu, Shiqi — Chinese Acad. of Sciences
Wu, Xinyu — Shenzhen Inst. of Advanced Tech.
Wang, Congling — Univ. of Electronics Science and Tech. of China
Xu, Yangsheng — The Chinese Univ. of Hong Kong

16:40-17:00 WeD3.2

Dynamic Simulation of a Reconfigurable Spherical Robot, pp. 2156-2160.

Laksanacharoen, Sathaporn — King Mongkut's Inst. of Tech. North Bangkok
Jearanaisilawong, Petch — King Mongkut's Univ. of Tech. North Bangkok

17:00-17:20 WeD3.3

Development of 3D Laser Scanner for Measuring Uniform and Dense 3D Shapes of Static Objects in Dynamic Environment, pp. 2161-2167.

Attachment

Ohno, Kazunori — Tohoku Univ.
Kawahara, Toyokazu — Tohoku Univ.
Tadokoro, Satoshi — Tohoku Univ.

17:20-17:40 WeD3.4

Complex Robot Training Tasks through Bootstrapping System Identification, pp. 2168-2173.

Akanyeti, Otar — Univ. of Essex
Nehmzow, Ulrich — Univ. of Essex
Billings, Stephen Alec — Univ. of Sheffield

17:40-18:00 WeD3.5

Automatic Counting Method Using Fast Radial Symmetry Transform, pp. 2174-2177.

Viriyasaksathian, Boonyarat — Mahidol Univ.
Wongsawat, Yodchanan — Mahidol Univ.

18:00-18:20 WeD3.6

From Thresholding Dimension Reduction to Informative Component Extraction, pp. 2178-2183.

Chen, Mei — Washington Univ. in St. Louis
Liu, Yan — Tongji Univ.

WeD4 Room D: Saithip

Intelligent System II (Regular Sessions)

Chair: Niparnan, Nattee — Chulalongkorn Univ.

Co-Chair: Yun, Chao — Beijing Univ. of Aeronautics and Astronautics

16:20-16:40 WeD4.1

DOF Analysis of the Ultrasonography Technique for Improving Ergonomy in Tele-Echography, pp. 2184-2189.

Courreges, Fabien — Limoges Univ.

Vieyres, Pierre — Lab. Vision et Robotique

Poisson, Gérard — Univ. d'Orléans

16:40-17:00 WeD4.2

A Neuroinspired Cognitive Behavioral Control Architecture for Visually Driven Mobile Robotics, pp. 2190-2196. Attachment

Beck, Cornelia — Univ. of Ulm

Olcese, Umberto — Scuola Superiore Sant'Anna

Montagner, Alberto — Sant'Anna School of Advanced Studies

Ringbauer, Stefan — Univ. of Ulm

Neumann, Heiko — Univ. of Ulm

Frisoli, Antonio — Scuola Superiore Sant'Anna

Almeida, Rita — Univ. Pompeu Fabra

Bergamasco, Massimo — Scuola Superiore S.Anna

Deco, Gustavo — Univ. Pompeu Fabra

17:00-17:20 WeD4.3

New Combination of Programmable Force Fields for Fast Planar Part Manipulation with Guaranteed Unique Configuration, pp. 2197-2202.

Thonnagith, Peerapong — Chulalongkorn Univ.

Pipattanasomporn, Peam — Chulalongkorn Univ.

Niparnan, Nattee — Chulalongkorn Univ.

Sudsang, Attawith — Chulalongkorn Univ.

17:20-17:40 WeD4.4

Bounded Attitude Stabilization of Rigid Bodies without Attitude Estimation and Velocity Measurement, pp. 2203-2209.

Guerrero Castellanos, José Fermi — Univ. Pol. de Puebla

Rifai, Hala — GIPSA-Lab.

Marchand, Nicolas — GIPSA-Lab. CNRS/U of Grenoble/INRIA

Poulin, Guylaine — G2E-Lab.

17:40-18:00 WeD4.5

The Planning of Dense Storage Input/Output Based on a Minimum Time Algorithm, pp. 2210-2214.

Zang, Jiyuan — BEIHANG Univ.

Yun, Chao — Beijing Univ. of Aeronautics and Astronautics

Li, Aiming — Hebei Pol. Univ.

Zhang, Zhiqiang — Beihang Univ.