2016 International Conference on Advanced Mechatronic Systems (ICAMechS 2016)

Melbourne, Australia 30 November – 3 December 2016



IEEE Catalog Number: ISBN:

CFP1618R-POD 978-1-5090-5347-6

Copyright © 2016 by the Institute of Electrical and Electronics Engineers, Inc All Rights Reserved

Copyright and Reprint Permissions: Abstracting is permitted with credit to the source. Libraries are permitted to photocopy beyond the limit of U.S. copyright law for private use of patrons those articles in this volume that carry a code at the bottom of the first page, provided the per-copy fee indicated in the code is paid through Copyright Clearance Center, 222 Rosewood Drive, Danvers, MA 01923.

For other copying, reprint or republication permission, write to IEEE Copyrights Manager, IEEE Service Center, 445 Hoes Lane, Piscataway, NJ 08854. All rights reserved.

***This publication is a representation of what appears in the IEEE Digital Libraries. Some format issues inherent in the e-media version may also appear in this print version.

 IEEE Catalog Number:
 CFP1618R-POD

 ISBN (Print-On-Demand):
 978-1-5090-5347-6

 ISBN (Online):
 978-1-5090-5346-9

ISSN: 2325-0682

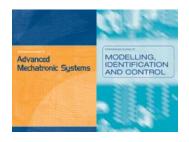
Additional Copies of This Publication Are Available From:

Curran Associates, Inc 57 Morehouse Lane Red Hook, NY 12571 USA Phone: (845) 758-0400

Fax: (845) 758-2633

E-mail: curran@proceedings.com Web: www.proceedings.com





2016 International Conference on **Advanced Mechatronic Systems**



Nov. 30 - Dec. 3, 2016 Melbourne, Australia



CONTENTS

Optimization Methods and Applications I (ThuM01)	
Design of a GMDH-PID Controller using a Database	
Akihiro Ishimura, Shin Wakitani, and Toru Yamamoto	1
Data-Driven Generalized Minimum Variance Regulatory Control with Unknown Disturbance	
Ryota Uematsu and Shiro Masuda	5
$Data-driven\ Update\ of\ the\ Free\ Parameter\ of\ the\ Youla-Kucera\ Parametrization\ in\ Disturbance\ Attenuation\ FRIT\ based\ on\ Variance\ Evaluation$	
Yuki Ishii and Shiro Masuda	11
Data-driven Generalized Minimum Variance Regulatory Control with Constrained Controller Structure	
Ryoko Yokoyama and Shiro Masuda	17
Development of the Trimmer-type Mowing System Against a Slope	
Yuki Iwano, Takashi Hasegawa, Akihiro Tanaka, and Kojiro Iizuka	23
Advanced Intelligent Control Design (ThuM02)	
Robust Nonlinear Control Design for A Bio-inspired Robot Arm with Measurement Uncertainties	
Zhengxiang Ma, Tiejun Chen, and Aihui Wang	29
A Finite-Time Disturbance Compensation Approach to Robust Control of Nonlinear Semi-Strict Feedback Systems	
Zijiang Yang	33
Robust Nonlinear Control Experiment Performance Analysis of a Semiconductor Refrigeration Device	
Aihui Wang, Junming Xiao, Dongyun Wang, Wudai Liao, Yuguo Chen	39
Robot-assisted Wireless Relay Deployment Strategy for Unknown Environments	
Phillip Smith, Marshall Simons, Jiong Jin, Boda Ning	44
Operator-based Robust Control for Nonlinear System with Input and Output Nonlinearities	
Shuhui Bi, Chunyan Han, and Lei Wang	50
New Approaches in Power Electronics (ThuM03)	
Friction Compensator based Repetitive Control with Application to a Brushless DC Servo Motor	
Raymond Chuei, Zhenwei Cao, and Zhihong Man	56
Sliding Mode based Repetitive Control for Parameter Uncertainty of a Brushless DC Servo Motor	
Raymond Chuei, Zhenwei Cao, and Zhihong Man	62
Coordinate Control of Distributed Generation and Power Electronics Loads in Microgrid	
Guangqian Ding, Song Zhang, Feng Gao, Xingong Cheng, and Hongyu Wang	68
Linear Quadratic Control Design in Electric Power Steering System	
T. Abe, Y. Fujimura, T. Hirose, Seiji Hashimoto, M. Kajitani, K. Sato, K. Gonpei	73
Counteracting the Effects of Symmetrical and Asymmetrical Voltage Sags on DFIG-Based Wind Power Systems	

Tapash K. Das and Jingxin Zhang	79
Novel Nonlinear Control in Robotics I (ThuM04)	
Development of Magnetic Levitation Device for Active Vibration Control	
Changan Jiang and Satoshi Ueno	85
Teleoperation System with Virtual 3D Diorama for Moving Operation of a Tracked Rescue Robot	
Ryo Asami, Yasuhiko Sawai, Noritaka Sato, Yoshifumi Morita, Takahiro Endo and Fumitoshi Matsuno	90
Development of the Software to Build Kinematics for Module based Robot Automatically	
Taeyong Choi, Hyunmin Do, Dongil Park, and Youngsoo Son	96
Development of a Cloud-enhanced Investigative Mobile Robot	
Akhlaqur Rahman, Jiong Jin, Yew Wee Wong, and Kwun Shan Lam	104
Optimization Methods and Applications II (ThuP01)	
An Iterative Approach to the Mixed H ₂ /H ₋ Synthesis Problem based on the Exterior-point Approach	
Yuki Imanishi, Yasushi Kami, and Eitaku Nobuyama	110
Quantitative Comparison of Technical Differences in Baseball Batting Motion by Motion Analysis	
Daiki Hirayama, Kosei Yoshizawa, Hiroyuki Sogo, and Tomohiro Henmi	115
Two-Degree-of-Freedom Multirate Generalized Predictive Control based on State-Space Representation	
Takao Sato, Akira Yanou, Shiro Masuda, Nozomu Araki, and Yasuo Konishi	121
Direct Design Method of Force Controller based on Input/Output Data	
Naoki Yamamoto, Kazuhiro Yubai, Daisuke Yashiro, and Satoshi Komada	126
Data-Driven Controller Tuning for Sensitivity Minimization	
Tomoki Hori, Kazuhiro Yubai, Daisuke Yashiro, and Satoshi Komada	132
Complex Systems Modeling, Control and Application I (ThuP02)	
A Fractional-order Zero-phase Notch Filter for Active Damping in a LC-filter-based Inverter	
Qiangsong Zhao, Yongqiang Ye, Shengjun Wen, and Fuzhuan Wu	138
Design of Nonlinear Observer for Strap-down Missile Guidance Law via Sliding Mode Differentiator and Extended State Observer	
Seokwon Lee and Youdan Kim	143
$An \ Image \ Enhancement \ Method \ for \ Non-uniform \ Illumination \ with \ Illumination \ Constraints \ for \ Visionguided \ AGV$	
Jun Yu, Yuguo Chen, Ling Ouyang, Wudai Liao, and Shuhui Bi	148
Multiple Model Adaptive Control of a Nonlinear Active Vehicle Suspension	
Sallehuddin M. Haris and Wajdi S. Aboud	153
Fractional Order based Robust Right Coprime Factorization Control for an Inverted Pendulum	
Shengjun Wen, Jun Yu, Guanfu Guo, Shuhui Bi, Aihui Wang, and Dongyun Wang	159
Current Researches on Mechatronic Systems (ThuP03)	
Residual Vibration Suppression of a Tomatoes' String Picking Robot: A Cascade Design Method	
Shiwen Tong, Dianwei Qian, Jianjun Fang, and Min Cui	164
Vibration Reduction of Flexible Fruit Picking Robot by Adaptive Input Shaping Method	
Dexin Liu, Jianjun Fang	169
Research on Acoustic Positioning System in Robot Audition	
Junqing Zhang, Dianwei Qian	174
Study on Leader-Follower Control in the Metro Unattended Train Operation	
Dapeng Zhang, Dianwei Qian	179
Research of Terrain Recognition for Off-road Robot based on Extreme Learning Theory	
Yanxia Liu, Jianjun Fang, and Caixia Liu	184
Newd New Process Cont. 12 D. L. C. M. (Th. D. A.)	
Novel Nonlinear Control in Robotics II (ThuP04)	

An English J. J. Done Wee Model Lorend Adjusting Control for Mirror Desidenting of Country Astronomy	
An Extended Bouc-Wen Model based Adaptive Control for Micro-Positioning of Smart Actuators Mohd Hanif Mohd Ramli and Xinkai Chen	189
Geometry-based 6D-Pose Visual Servoing System Enabling Accuracy Improvements of Industrial Robots	109
A. Buschhaus, H. Grünsteudel, and J. Franke	195
	175
Early Detection of Plant Faults by using Machine Learning	•
Tomohiro Henmi, Akira Inoue, Mingcong Deng, and Sin-ichi Yoshinaga	201
Validation Testing of Anti-Vibration Apparatus using Switching Control by DI Value Meter	206
Kotaro Ueda and Shinji Wakui	206
Advanced Control Design for a Vehicle Steer-by-wire System by using Adaptive Fast Nonsingular Terminal Sliding Mode Zhe Sun, Jinchuan Zheng, and Zhihong Man	212
Zhe Sun, Jinchuan Zheng, and Zhinong Ivian	212
Advanced Control System Design (ThuE01)	
Multivariable Fixed-Structural Controller Design for H Loop Shaping Method by Iterative LMI Optimization using Frequency Response Data	
Tomohiro Usami, Kazuhiro Yubai, Daisuke Yashiro, and Satoshi Komada	218
ASPR based Adaptive Output Tracking Control System Design with an Adaptive PFC for Minimum-Phase Systems	
Ikuro Mizumoto, Nobuyuki Kawabe, and Masato Sano	224
Nonlinear Feedback Control Design based on Operator Theory for Loosely Coupled Wireless Power Transfer Systems	
Xudong Gao, Kodai Masaki, Mingcong Deng, and Longguo Jin	230
Operator-based MPPT Control System for Thermoelectric Generation by Measuring the Open-circuit Voltage	
Kei Suzuki and Mingcong Deng	236
Compley Systems Modeling Control and Application II (ThuE02)	
Complex Systems Modeling, Control and Application II (ThuE02)	
Parameters Optimization of Classifier and Feature Selection based on Improved Artificial Bee Colony Algorithm Haiguan Wang, Hangnian VV, Oian Thomas Shung, Cong, Wudai Line, and Forbing Thu	242
Haiquan Wang, Hongnian Yu, Qian Zhang, Shuang Cang, Wudai Liao, and Fanbing Zhu Immune Algorithm-based Transportation Planning	242
Liping Zhang, Zongxiao Yang, and Gensheng Li	248
Remarks on a Quantum Neural Network using Qubit Neurons with Application to Control of a MIMO System	2.0
Kazuhiko Takahashi, Kazutaka Nagahashi, Yuka Wakaume, and Masafumi Hashimoto	254
Trajectory Optimization for a Missile with Strap-down Seeker against Hypersonic Target	
Sungjun Ann and Youdan Kim	260
Control Methods Improvement and Applications (ThuE03)	
Pressure Mode Control of Pneumatic Isolation Table with Two Degrees-of-Freedom	
Yui Aoki and Shinji Wakui	265
Integrated Terminal Sliding with Enhanced Repetitive Control for Nono-Positioing Stage	
Ali Al-Ghanimi, Jinchuan Zheng, Jasim Khawwaf, and Zhihong Man	271
Performance Improvement of Model Following Control for a Pneumatic Stage	277
Riku Takei and Shinji Wakui	277
Fuzzy Parameter Tuning Sliding Mode Control for Longitudinal Motion of Underground Mining Electric Vehicles based on a Single Wheel Mode. Wenjie Ye, Weixiang Shen, Jinchuan Zheng, Damon Honnery, and Daya Dayawansa	283
Weight 10, Weixing Stein, Shelium Zheng, Bullon Holliery, and Buyu Buyuwansu	203
New Control Methods and Applications (ThuE04)	
A Novel Sliding Mode Control for Lane Keeping in Road Vehicles	
Hong Du, Zhihong Man, Hai Wang, and Yong Zhao	289
Discrete-Time Sliding Mode Learning based Congestion Control for Connection-Oriented Communication Networks	
Manh Tuan Do, Jiong Jin, Zhihong Man and Hai Wang	295
Automatic Detection of Lizards	
Yok-Yen Nguwi, Abbas Z. Kouzani, Jayanth J. Kumar, and Don Driscoll	300

Poster Session	
Frequency Domain Identification of a Tapered Beam Embedded by Piezoelectric Layer	
Afshin Banazadeh, Fatemeh Farvardin Ahranjani, and Zahrah Kamankesh	312
Study on the Application of Acoustic Emission Testing Technique in Monitoring 16Mn Steel Welding Defects	
Jingjing Zhao, Haiyan Sheng, and Xiaoguang Zhou	318
Blurred Video Detection Algorithm based on Support Vector Machine of Schistosoma Japonicum Miracidium	
Mingzhe Zhao, Ningzhong Liu, and Qiangyi Li	322
Non-contact Manipulation of a Single Solid Object on a Plane Surface using Multiple Air Jets	
Naoki Tsuchihashi, Kazuki Yoshinaga, Satoshi Iwaki, and Tetsushi Ikeda	328
Simulation Analysis based Performance Comparison for Vertical Axis Wind Turbines	
Lei Song, Hongzhao Liu, Zongxiao Yang, and Guanqiang Dong	334
A FEC-based Packet Loss Recovery Scheme using RS Codes Built by Improved Vandermonde Matrices	
Hao Wang, Shimin Wei, and Xiaoguang Zhou	340
Grey Relational Analysis and LS-SVM Modeling for the Fingerprint-efficacy Study of Yinhuang Granules	
Ke Li, Yan Gao, Bianli Wang, Ling Lv, Bonian Zhao, and Hongpeng Zhao	344
Inverse Kinematics Solution for 6R Serial Manipulator based on RBF Neural Network	
Chao Ma, Yong Zhang, Jin Cheng, Bin Wang, and Qinjun Zhao	350
APSCAD Simulation Method for Digital Relay in Smart Grid	
Yiqing Liu, Qifan Yang, Guobin Chen, and Yunjin Shen	356
Research on the Control of EPS based on the Change of Road Adhesion Coefficient	
Yanling Cao, Zeng Cao, and Zhiqiang Guo	362
Eigen-value Analysis of Numerical Mode-matching Method in Resistivity Logging	
Yueqin Dun, Yu Kong, and Yaling Wang	368
Three-dimensional Fuzzy Control of Mini Quadrotor UAV Trajectory Tracking under Impact of Wind Disturbance	200
Chi Zhang, Xiaoguang Zhou, Hang Zhao, Aini Dai, and Huiling Zhou	372
Experimental Study on Operator based Robust Two Loop Nonlinear Free Vibration Control of a Flexible Plate	3,2
Guang Jin and Mingcong Deng	378
Sequential Fusion for State Estimation in Multirate Wireless Sensor Networks	370
Lin Yuan and Chunyan Han	383
Integrated Optimization of Electric Power Steering System based on Isight	303
Yanling Cao, Zeng Cao, and Zhiqiang Guo	389
Autonomous Aerial Payload Delivery with Quadrotor using Varying Length Cable	367
Farhad A. Goodarzi	304
ramau A. Goodai Zi	394
Estimation and Control of Mechatronic Systems (FriM01)	
Robot System Identification using 3D Simulation Component Applied on VIPRO Platform	
Luige Vlădăreanu, Florentin Smarandache, Mumtaz Ali, Victor Vlădăreanu, and Mingcong Deng	406
Applying Dijkstra Algorithm for Solving Neutrosophic Shortest Path Problem	
Said Broumi, Assia Bakali, Mohamed Talea, Florentin Smarandache, and Luige Vlădăreanu	412
Computation of Shortest Path Problem in a Network with SV-Trapezoidal Neutrosophic Numbers	
Said Broumi, Assia Bakali, Mohamed Talea, Florentin Smarandache, and Luige Vlădăreanu	417
CSP and "omics" Technology Apllied on Versatile and Intelligent Portable Platform for Modeling Complex Bio-medical Data	
Luige Vlădăreanu, Mihaiela Iliescu, Hongbo Wang, Yongfei Feng, Victor Vlădăreanu, Hongnian Yu, and Florentin Smarandache	423
Intellgent Adaptive Precrash Control for Autonmous Vehicle Agents	
Bassant Mohamed Elbagoury, Abdel-Badeeh M. Salem, and Luige Vlădăreanu	429
	/

Advanced Modeling, Control and Application (FriM02)	
A New Dynamic Neural Modelling for Mechatronic System Prognostics	
Mengqiu Tao, Zhihong Man, Jinchuan Zheng, Antonio Cricenti, and Wenyi Wang	437
Integrated Mechatronic System for Reformer Tube Internal Geometric Distortion Inspection	
Liqiong Tang, Morio Fukuoka, Bernard Huggins, and Johan Potgieter	443
Tooth Error Analysis and Control of Internal Helical Gear Form Grinding	
Xiaozhong Ren, Jianxin Su, and Mingming Liu	449
Modeling Crack Growth of Aluminum Alloy under Variable-Amplitude Loading using Dynamic Neural Network	
Linxian Zhi, Zhihong Man, Zhenwei Cao, Mengqiu Tao, and Pengcheng Wang	453
How to Predict Dropped Motion Samples in Haptic Impedance Devices	
Omid F. Nadjarbashi, Zoran Najdovski, and Saeid Nahavandi	459
Control and Optimization (FriM03)	
Fast Retrievals of Test-pad Coordinates from Photo Images of Printed Circuit Boards	
Swee Chuan Tan and Schumann Tong Wei Kit	464
Danger Situations Detection for the Senior in Toilet Room using the Center of Gravity	
Lin Meng, Xiangbo Kong, and Daiki Taniguti	468
A Fast-Scan Cyclic Voltammetry Device with Programmable Excitation Waveform	
Scott Adams and Abbas Z. Kouzani	472
Hierarchical Sliding Mode Control Applied to a Single-Link Flexible Joint Robot Manipulator	
Kamal Rsetam, Zhenwei Cao, and Zhihong Man	476
Verification of a Hypothesis that the Coupling Rigidity Influences on the Response of the Mirror	
Keisuke Nakade and Shinji Wakui	482
New Directions in Control Strategy (FriP01)	
New Directions in Control Strategy (FriP01) Development of a Feedback Device of Temperature Sensation for a Myoelectric Prosthetic Hand by using Peltier Element	
	488
Development of a Feedback Device of Temperature Sensation for a Myoelectric Prosthetic Hand by using Peltier Element	488
Development of a Feedback Device of Temperature Sensation for a Myoelectric Prosthetic Hand by using Peltier Element Yuki Ueda and Chiharu Ishii	488
Development of a Feedback Device of Temperature Sensation for a Myoelectric Prosthetic Hand by using Peltier Element Yuki Ueda and Chiharu Ishii Study of On-line Measuring Technology of Differential Housing	
Development of a Feedback Device of Temperature Sensation for a Myoelectric Prosthetic Hand by using Peltier Element Yuki Ueda and Chiharu Ishii Study of On-line Measuring Technology of Differential Housing Jianxin Su, Shujuan Ren, and Jianjun Wang	
Development of a Feedback Device of Temperature Sensation for a Myoelectric Prosthetic Hand by using Peltier Element Yuki Ueda and Chiharu Ishii Study of On-line Measuring Technology of Differential Housing Jianxin Su, Shujuan Ren, and Jianjun Wang Dynamics Modelling and Linear Control of Quadcopter	494
Development of a Feedback Device of Temperature Sensation for a Myoelectric Prosthetic Hand by using Peltier Element Yuki Ueda and Chiharu Ishii Study of On-line Measuring Technology of Differential Housing Jianxin Su, Shujuan Ren, and Jianjun Wang Dynamics Modelling and Linear Control of Quadcopter Pengcheng Wang, Zhihong Man, Zhenwei Cao, Jinchuan Zheng, and Yong Zhao	494
Development of a Feedback Device of Temperature Sensation for a Myoelectric Prosthetic Hand by using Peltier Element Yuki Ueda and Chiharu Ishii Study of On-line Measuring Technology of Differential Housing Jianxin Su, Shujuan Ren, and Jianjun Wang Dynamics Modelling and Linear Control of Quadcopter Pengcheng Wang, Zhihong Man, Zhenwei Cao, Jinchuan Zheng, and Yong Zhao Control of an Electric Wheelchair with a Brain-Computer Interface Headset	494 498
Development of a Feedback Device of Temperature Sensation for a Myoelectric Prosthetic Hand by using Peltier Element Yuki Ueda and Chiharu Ishii Study of On-line Measuring Technology of Differential Housing Jianxin Su, Shujuan Ren, and Jianjun Wang Dynamics Modelling and Linear Control of Quadcopter Pengcheng Wang, Zhihong Man, Zhenwei Cao, Jinchuan Zheng, and Yong Zhao Control of an Electric Wheelchair with a Brain-Computer Interface Headset Kaira Matsuzawa and Chiharu Ishii	494 498
Development of a Feedback Device of Temperature Sensation for a Myoelectric Prosthetic Hand by using Peltier Element Yuki Ueda and Chiharu Ishii Study of On-line Measuring Technology of Differential Housing Jianxin Su, Shujuan Ren, and Jianjun Wang Dynamics Modelling and Linear Control of Quadcopter Pengcheng Wang, Zhihong Man, Zhenwei Cao, Jinchuan Zheng, and Yong Zhao Control of an Electric Wheelchair with a Brain-Computer Interface Headset Kaira Matsuzawa and Chiharu Ishii Information Processing (FriP02)	494 498
Development of a Feedback Device of Temperature Sensation for a Myoelectric Prosthetic Hand by using Peltier Element Yuki Ueda and Chiharu Ishii Study of On-line Measuring Technology of Differential Housing Jianxin Su, Shujuan Ren, and Jianjun Wang Dynamics Modelling and Linear Control of Quadcopter Pengcheng Wang, Zhihong Man, Zhenwei Cao, Jinchuan Zheng, and Yong Zhao Control of an Electric Wheelchair with a Brain-Computer Interface Headset Kaira Matsuzawa and Chiharu Ishii Information Processing (FriP02) Adopting a SFL-oriented Approach for Evaluating Genre-based Academic Abstracts of EST Undergraduate Students in Japan	494 498 504
Development of a Feedback Device of Temperature Sensation for a Myoelectric Prosthetic Hand by using Peltier Element Yuki Ueda and Chiharu Ishii Study of On-line Measuring Technology of Differential Housing Jianxin Su, Shujuan Ren, and Jianjun Wang Dynamics Modelling and Linear Control of Quadcopter Pengcheng Wang, Zhihong Man, Zhenwei Cao, Jinchuan Zheng, and Yong Zhao Control of an Electric Wheelchair with a Brain-Computer Interface Headset Kaira Matsuzawa and Chiharu Ishii Information Processing (FriP02) Adopting a SFL-oriented Approach for Evaluating Genre-based Academic Abstracts of EST Undergraduate Students in Japan Uma Maheswari Rajagopalan and Jie Shi	494 498 504
Development of a Feedback Device of Temperature Sensation for a Myoelectric Prosthetic Hand by using Peltier Element Yuki Ueda and Chiharu Ishii Study of On-line Measuring Technology of Differential Housing Jianxin Su, Shujuan Ren, and Jianjun Wang Dynamics Modelling and Linear Control of Quadcopter Pengcheng Wang, Zhihong Man, Zhenwei Cao, Jinchuan Zheng, and Yong Zhao Control of an Electric Wheelchair with a Brain-Computer Interface Headset Kaira Matsuzawa and Chiharu Ishii Information Processing (FriP02) Adopting a SFL-oriented Approach for Evaluating Genre-based Academic Abstracts of EST Undergraduate Students in Japan Uma Maheswari Rajagopalan and Jie Shi Data-Driven Analysis of the Development of Linguistic Features in Research Articles on Optics	494 498 504
Development of a Feedback Device of Temperature Sensation for a Myoelectric Prosthetic Hand by using Peltier Element Yuki Ueda and Chiharu Ishii Study of On-line Measuring Technology of Differential Housing Jianxin Su, Shujuan Ren, and Jianjun Wang Dynamics Modelling and Linear Control of Quadcopter Pengcheng Wang, Zhihong Man, Zhenwei Cao, Jinchuan Zheng, and Yong Zhao Control of an Electric Wheelchair with a Brain-Computer Interface Headset Kaira Matsuzawa and Chiharu Ishii Information Processing (FriP02) Adopting a SFL-oriented Approach for Evaluating Genre-based Academic Abstracts of EST Undergraduate Students in Japan Uma Maheswari Rajagopalan and Jie Shi Data-Driven Analysis of the Development of Linguistic Features in Research Articles on Optics Sébastien Louvigné and Jie Shi	494 498 504
Development of a Feedback Device of Temperature Sensation for a Myoelectric Prosthetic Hand by using Peltier Element Yuki Ueda and Chiharu Ishii Study of On-line Measuring Technology of Differential Housing Jianxin Su, Shujuan Ren, and Jianjun Wang Dynamics Modelling and Linear Control of Quadcopter Pengcheng Wang, Zhihong Man, Zhenwei Cao, Jinchuan Zheng, and Yong Zhao Control of an Electric Wheelchair with a Brain-Computer Interface Headset Kaira Matsuzawa and Chiharu Ishii Information Processing (FriP02) Adopting a SFL-oriented Approach for Evaluating Genre-based Academic Abstracts of EST Undergraduate Students in Japan Uma Maheswari Rajagopalan and Jie Shi Data-Driven Analysis of the Development of Linguistic Features in Research Articles on Optics Sébastien Louvigné and Jie Shi Common Errors in Research Presentation Slides of Japanese Graduate Students	494 498 504 510 516
Development of a Feedback Device of Temperature Sensation for a Myoelectric Prosthetic Hand by using Peltier Element Yuki Ueda and Chiharu Ishii Study of On-line Measuring Technology of Differential Housing Jianxin Su, Shujuan Ren, and Jianjun Wang Dynamics Modelling and Linear Control of Quadcopter Pengcheng Wang, Zhihong Man, Zhenwei Cao, Jinchuan Zheng, and Yong Zhao Control of an Electric Wheelchair with a Brain-Computer Interface Headset Kaira Matsuzawa and Chiharu Ishii Information Processing (FriP02) Adopting a SFL-oriented Approach for Evaluating Genre-based Academic Abstracts of EST Undergraduate Students in Japan Uma Maheswari Rajagopalan and Jie Shi Data-Driven Analysis of the Development of Linguistic Features in Research Articles on Optics Sébastien Louvigné and Jie Shi Common Errors in Research Presentation Slides of Japanese Graduate Students Jie Shi and Yoshimasa A. Ono	494 498 504 510
Development of a Feedback Device of Temperature Sensation for a Myoelectric Prosthetic Hand by using Peltier Element Yuki Ueda and Chiharu Ishii Study of On-line Measuring Technology of Differential Housing Jianxin Su, Shujuan Ren, and Jianjun Wang Dynamics Modelling and Linear Control of Quadcopter Pengcheng Wang, Zhihong Man, Zhenwei Cao, Jinchuan Zheng, and Yong Zhao Control of an Electric Wheelchair with a Brain-Computer Interface Headset Kaira Matsuzawa and Chiharu Ishii Information Processing (FriP02) Adopting a SFL-oriented Approach for Evaluating Genre-based Academic Abstracts of EST Undergraduate Students in Japan Uma Maheswari Rajagopalan and Jie Shi Data-Driven Analysis of the Development of Linguistic Features in Research Articles on Optics Sébastien Louvigné and Jie Shi Common Errors in Research Presentation Slides of Japanese Graduate Students Jie Shi and Yoshimasa A. Ono Bridging ESAP and Disciplinary Needs in an English Curriculum for Advanced EST Undergraduate Students in China	494 498 504 510 516 521
Development of a Feedback Device of Temperature Sensation for a Myoelectric Prosthetic Hand by using Peltier Element Yuki Ueda and Chiharu Ishii Study of On-line Measuring Technology of Differential Housing Dynamics Modelling and Linear Control of Quadcopter Pengcheng Wang, Zhihong Man, Zhenwei Cao, Jinchuan Zheng, and Yong Zhao Control of an Electric Wheelchair with a Brain-Computer Interface Headset Kaira Matsuzawa and Chiharu Ishii Information Processing (FriP02) Adopting a SFL-oriented Approach for Evaluating Genre-based Academic Abstracts of EST Undergraduate Students in Japan Uma Maheswari Rajagopalan and Jie Shi Data-Driven Analysis of the Development of Linguistic Features in Research Articles on Optics Sébastien Louvigné and Jie Shi Common Errors in Research Presentation Slides of Japanese Graduate Students Jie Shi and Yoshimasa A. Ono Bridging ESAP and Disciplinary Needs in an English Curriculum for Advanced EST Undergraduate Students in China Jie Shi, Yue Zhang, Ling Fu, Jurgen Kurths, and Shuhua Xu	494 498 504 510 516 521

Comparative Assessment of Classical and Adaptive Controllers for Automatic Voltage Regulator

	Adnan Khalid, Ahmed Hussnain Shahid, Kamran Zeb, Amjad Ali, and Aun Haider	538
Performance Analysis of Permanent Magnet Synchronous	Generators for Wind Energy Conversion System	
	Ximei Li, Zongxiao Yang, Yubin Li, Wei Chen, and Liping Zhang	544
Modeling and Tracking Control of an IPMC Actuator for U	Inderwater Applications	
	Jasim Khawwaf, Jinchuan Zheng, Ali Al-Ghanimi, Zhihong Man, and Romesh Nagarajah	550