

University of Groningen

## Guest Editorial Focused Section on the Third Edition of TMECH/AIM Emerging Topics

Chen, Xiang; Tsuji, Toshiaki; Carloni, Raffaella; Chen, Xinkai; Chen, Zheng; Choi, Jongeun; Clayton, Garrett; Clévy, Cédric; Grebenstein, Markus; Grossard, Mathieu

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# Guest Editorial

## Focused Section on the Third Edition of TMECH/AIM Emerging Topics

### I. INTRODUCTION

THE third edition of the Focused Section on TMECH/AIM Emerging Topics, following the successes of the first two editions, continues to receive intensive interests from the mechatronics community. With solid 120 submissions from research groups worldwide, it is extremely encouraging when almost all academic events are still conducted virtually in 2021, which continues to curb down the efforts for promotion and communication of the Focused Section information. The areas represented by 120 submissions are across-the-board on topics related to mechatronics, such as robotics, intelligent motion control, autonomous vehicular systems, sensors and actuators, manufacturing, etc. A total of 44 papers are accepted out of 120 submissions and are collectively published in this August Issue of TMECH, presenting exciting technologic breakthroughs in hardware structure, modeling mechanisms, innovative design methodologies for mechatronic systems, development of efficient algorithms, novel sensors and actuators, medical robotics and rehabilitation devices, soft robotics, bio-inspired robotic designs, learning methods in robotics and control, motion planning and control, as well as control of autonomous vehicles. Similar to the situation of the first two editions, the Editorial Board of TMECH/AIM Focused Section has had even harder time this year to reject many interesting and quality submissions, solely due to the stringent review time, which could not allow more revisions. As expected, all 44 accepted papers were presented in 2022 IEEE/ASME International Conference on Advanced Intelligent Mechatronics (AIM 2022), the flagship conference of TMECH held in hybrid modes in July 2022, for expedited access to conference attendees. It is fair to claim that, after all the efforts of three years in a row, this Focused Section has been well established with its role of “Headline of the Year” for mechatronics and as a much-expected high-quality annual publication event to present timely updates of the most recent progress and breakthrough in various frontiers of mechatronic research in both TMECH and AIM conference. We truly believe this third edition of the TMECH/AIM Focused Section would further attract sustained interests and attentions among the broader communities to this effective and efficient gateway for reporting the state-of-the-art technological and research achievements.

### II. HIGHLIGHT OF REVIEW PROCESS

The current dedicated Editorial Board for TMECH/AIM Focused Section is serving its second year of a two-year term and continues to work extremely hard to deliver rigorous and fair reviews of all Focused Section submissions this year. To accommodate the pressure of increasing workload due to a 40% more submissions over the Second Edition, upon approval of the Editor-in-Chief, two previous editorial board members (Profs. Guangjun Liu and Yajun Pan) were called back for help and two new members with excellent background and experience were appointed. In general, the review process has been well kept consistently, in terms of both high review quality and fair procedures. For this edition, a total of 120 submissions were received by the extended deadline on January 20, 2022, while, much regrettably, submissions beyond the deadline could not be considered for the Focused Section. Two rounds of solid review processes were then conducted by the Editorial Board with an average of three review comments collected for each paper from more than 300 anonymous peer reviewers, completed within a time frame of less than four months (January–April) yet strictly following the standard and scope of TMECH. A total of 44 papers were finally accepted for publication in this Focused Section and presented in AIM 2022. As mentioned before, the Editorial Board has experienced even harder time to reject quite a few quality submissions due to the incompleteness of revisions within the allowed review time frame, which has to be strictly followed in order to deliver in-time publication on the August Issue of TMECH. We sincerely hope these papers would proceed with needed revisions to the regular submission track of TMECH.

It is extremely gratified and encouraged to see the quality of submissions and enormous volunteering support for this Third Edition of the Focused Section from the extended mechatronic community.

### ACKNOWLEDGMENT

The Lead Guest Editors wish to take this opportunity to extend the sincere gratitude to all authors of 120 submissions for their contributions and support, and to all Guest Editors serving in the Editorial Board as seen from the attached List, as well as all anonymous peer reviewers for their invaluable time and great efforts to ensure the quality and on-time completion of the review process. They wish to thank Profs. Xuebo Zhang, Denny Oetomo, and Jianguo Zhao from current Editorial Board

of TMECH, who have generously provided much needed help during the review process. They would also like to thank Prof. I-Ming Chen, the Editor-in-Chief of TMECH, for his leadership, vision, and sustained strong support delivered throughout the process of this edition. Our last but, definitely, not least gratitude goes to Ms Kara McArthur, the Managing Editor of TMECH, for her very efficient and effective help and support to resolve many administrative issues during the entire process. Finally, they thank the Organizing Committee of AIM 2022 for the collaboration to make this edition a final success.

Looking forward, this Focused Section would continue its journey to serve the mechatronics community through facilitating effective and timely dissemination of novel research results and technology breakthroughs. As a sustained elite series of the "Headline Publication," it would also greatly benefit both TMECH and AIM conference in future.

XIANG CHEN, *Lead Guest Editor*  
Department of Electrical and Computer Engineering  
University of Windsor  
Windsor, ON N9B 3P4 Canada  
xchen@uwindsor.ca

TOSHIAKI TSUJI, *Lead Guest Editor*  
Graduate School of Science and Engineering  
Saitama University  
Saitama 338-8570, Japan  
tsuji@ees.saitama-u.ac.jp

RAFFAELLA CARLONI, *Guest Editor*  
Bernoulli Institute for Mathematics, Computer  
Science and  
Artificial Intelligence  
University of Groningen  
9747 AG Groningen, The Netherlands  
r.carloni@rug.nl

XINKAI CHEN, *Guest Editor*  
Department of Electronic Information Systems  
Shibaura Institute of Technology  
Saitama 337-8570, Japan  
chen@sic.shibaura-it.ac.jp

ZHENG CHEN, *Guest Editor*  
Ocean College  
Zhejiang University  
Zhoushan, China  
zheng\_chen@zju.edu.cn

JONGEUN CHOI, *Guest Editor*  
School of Mechanical Engineering  
Yonsei University  
Seoul 03722, South Korea  
jongeunchoi@yonsei.ac.kr

GARRETT CLAYTON, *Guest Editor*  
Department of Mechanical Engineering  
Villanova University  
Villanova, PA 19085 USA  
garrett.clayton@villanova.edu

CÉDRIC CLÉVY, *Guest Editor*  
AS2M Department  
FEMTO-ST Institute  
25000 Besançon, France  
cclevy@femto-st.fr

MARKUS GREBENSTEIN, *Guest Editor*  
Institute of Robotics and Mechatronics DLR  
German Aerospace Center  
Germany  
markus.grebenstein@dlr.de

MATHIEU GROSSARD, *Guest Editor*  
CEA LIST- Nano-Innov  
Interactive Robotics Laboratory  
Palaiseau, France  
mathieu.grossard@cea.fr

KAZUAKI ITO, *Guest Editor*  
Department of Mechanical Engineering  
Gifu University  
Gifu City, Japan  
kazu\_it@gifu-u.ac.jp

SOO JEON, *Guest Editor*  
Department of Mechanical and Mechatronics  
Engineering  
University of Waterloo  
Waterloo, ON N2L 3G1 Canada  
soojeon@uwaterloo.ca

CHAO-CHIEH LAN, *Guest Editor*  
Department of Mechanical Engineering  
National Cheng Kung University  
Tainan, Taiwan  
cclan@mail.ncku.edu.tw

GUANGJUN LIU, *Guest Editor*  
Department of Aerospace Engineering  
Ryerson University  
Toronto, ON M5B 2K3 Canada  
gjliu@ryerson.ca

HUAPING LIU, *Guest Editor*  
Department of Computer Science and Technology  
Tsinghua University  
Beijing, China  
hpliu@mail.tsinghua.edu.cn

HUGH H. LIU, *Guest Editor*  
Institute of Aerospace Studies  
University of Toronto  
Toronto, ON Canada  
liu@utias.utoronto.ca

CHRIS MANZIE, *Guest Editor*  
Department of Electrical and Electronic Engineering  
University of Melbourne  
Melbourne, VIC Australia  
manziec@unimelb.edu.au

KENN OLDHAM, *Guest Editor*  
Department of Mechanical Engineering  
University of Michigan  
Ann Arbor, MI 48109 USA  
oldham@umich.edu

YA-JUN PAN, *Guest Editor*  
Department of Mechanical Engineering  
Dalhousie University  
Halifax, NS B3H 4R2 Canada  
yajun.pan@dal.ca

BARYS SHYROKAU, *Guest Editor*  
Department of Cognitive Robotics  
Delft University of Technology  
2628 CD Delft, The Netherlands  
b.shyrokau@tudelft.nl

DAWEI SHI, *Guest Editor*  
School of Automation  
Beijing Institute of Technology  
Beijing, China  
daweishi@bit.edu.cn

TOMOYUKI SHIMONO, *Guest Editor*  
Faculty of Engineering  
Yokohama National University  
Yokohama 240-8501, Japan  
shimono-tomoyuki-hc@ynu.ac.jp

MAHDI TAVAKOLI, *Guest Editor*  
Department of Electrical and Computer Engineering  
University of Alberta  
Edmonton, AB T6G 1H9 Canada  
mahdi.tavakoli@ualberta.ca

YAN WAN, *Guest Editor*  
Department of Electrical Engineering  
University of Texas at Arlington  
Arlington, TX USA  
yan.wan@uta.edu

DIRK WOLLHERR, *Guest Editor*  
Institute of Automatic Control Engineering  
Technical University of Munich  
Munich, Germany  
dw@tum.de

JIANYONG YAO, *Guest Editor*  
School of Mechanical Engineering  
Nanjing University of Science and Technology  
Nanjing, China  
yaojianyong@njust.edu.cn

JINGANG YI, *Guest Editor*  
Department of Mechanical and Aerospace  
Engineering  
Rutgers, The State University of New Jersey  
Piscataway, NJ 08854-8058 USA  
jgyi@rutgers.edu

HAOYONG YU, *Guest Editor*  
Department of Biomedical Engineering  
National University of Singapore  
Singapore  
biehy@nus.edu.sg

GUOMING ZHU, *Guest Editor*  
Department of Mechanical Engineering  
Michigan State University  
East Lansing, MI USA  
zhug@egr.msu.edu