198th Division Meeting

Dynamics Systems and Control Division, ASME International

2020 Dynamic Systems and Control Conference

Monday, October 5, 2020 at 7:30 pm - 10:00 pm (ET)

Virtual meeting (Zoom)

Meeting Minutes

7:30 pm 1 Chair's Welcoming Remarks Santosh Devasia

1.1 Self-Introductions

Santosh started the meeting at 7:33 pm and welcomed everyone. He had the ExComm members introduce themselves.

1.2 Recognize Office Bearers Santosh Devasia

7:45 pm 2 Approval of Minutes Kam Leang

Kam motioned to approve the minutes. Division member seconded. The vote was 79 YES out of 84, with 5 ABSTAIN.

7:50 pm 3 National Science Foundation Announcements Irina Dolinskaya

Irina presented her slides summarizing NSF updates. She emphasizes the difference in the FRR program compared to NRI. Please see robotics@nsf.gov.

Questions: None.

8:00 pm 4 Select Division Updates/Activities (Rapid 3-min/each updates, for more info, see attached detailed reports)

4.1 Treasurer's Report Rajesh Rajamani

Raj gave his report, which is attached. He noted a balance of \$318K and has not changed much since last year. Raj summarized the spending plan for fiscal year 2021, with a total projected at \$36,250.

Azim Eskandarian: why is division poorer every year? Raj suggests that DSC Magazine has been a possible cause, and one way to prevent decrease in balance is to generate more than \$35K which is what the typical balance for the Division. ACC provides \$10K + AIM \$10K, so DSCC causes a loss.

Micky Caruntu – how much does ASME take? Santosh clarified it's a 15% tax and we do not have control of the budget.

Robert Landers emphasized that in 2014 we had a lot of money, but Membership wanted the Magazine, however all actions did make it financially viable. Now we've switched to the Letters and it does not cost us anything.

Hosam Fathy pointed out that it's also declining ACC revenue that complicates the problem with declining budgets.

4.2 Newsletter Tuhin Das

Tuhin gave his report. His report is also attached for reference. The next newsletter will come at the end of December, where emails will be sent shortly to request submissions. Tuhin emphasized that ASME Letters in DSC is out and he encouraged submissions. Tuhin also recognized some of the award recipients – please see attached report by Tuhin.

4.3 Technical Committee Report Jingang Yi

Jingang gave his TC report. Jingang is responsible for coordinating with TC chairs, he described his recent engagement with the TC. His report is attached and he mainly pointed out that TCs are overall very active. Jingang showed a list of TC special/tutorial sessions across various conferences. He also summarized other activities and his plan to engage with TC with new activities.

Micky Caruntu -- Has the TC meeting been posted? Jingang noted that Jiong Tang sent out detail via email through DSCD email list.

4.4 ASME DSC Letters Peter Meckl

Peter gave a summary of the ASME Letters in DSC – see attached report and summary. He encouraged submission to the concurrent program between Letters and DSCC. He emphasized the requirements to be indexed in ISI, so the target is 60 articles per year. Peter also noted that concurrent DSCC/ALDSC papers go through one cycle because DSCC already provides the first pass. Peter encourages nominations of AEs, such as biomedical systems, environmental engineering, health care, etc. Peter is also interested in review papers and special topics issues. Please contact Peter with other questions.

4.5 Transactions on Mechatronics Xiaobo Tan

Xiaobo gave a brief summary of TMECH, where he focused on the impact factor which went from 4.9 to 5.6 since last year. TMECH has adopted a three-tier editorial structure to help streamline the review process. Xiaobo also encourages submissions for the 2021 AIM conference. Xiaobo also introduced the Junior Review Program to encourage participation and recognized Best Paper Award. Please see Xiaobo's report.

4.6 Journal of Autonomous Vehicles and Systems Vladimir Vantsevich

Vlad introduced the new ASME J. of Autonomous Vehicles and Systems. His slides are attached. Vlad described the aim and scope of the journal, namely focusing on autonomous ground, air, space, and water vehicles. Journal focuses on basic research, applied work, and engineering design. Please refer to attached slides for details. Vlad encourages nominations for AEs and Advisory Board members. Please contact Vlad with any questions.

4.7 2020 DSCC Jiong Tang

Jiong summarized DSCC 2020. He noted that registration total of 228, includes 137 ASME members, non-members is 13, student members is 33, and student non-member is 22.

4.8 2021 ACC Xinfin Lin

Xinfin summarized ACC2021, and noted that Satadru Dey will be the POC for arranging meetings at ACC 2021. His summary is attached for reference.

4.9 2021 AIM Kok-Meng Lee/Jingang Yi (presenter)

Jingang gave a summary of AIM 2021 on behalf of Kok-Meng Lee. He showed the CFP, which is attached for reference. He noted the large Op-Com and they still plan for in-person meetings with remote options. Next spring they will make a final decision about the type of conference (online vs. live). Jingang expanded on the invitation to show the venue and area to attract visitors.

8:30 pm 5 The Division Going Forward

5.1 Updates from discussions during ACC 2020 Santosh Devasia

Santosh started the discussion by giving a quick summary and notes that this year has been quite challenging. Santosh introduced Qian Wang to give her report.

- 5.2 Communications and Publicity Xiaobo Tan
- 5.3 Future of DSCC Jordan Berg/Robert Landers/Qian Wang/Junmin Wang
- Webtool challenges

Qian summarized the major issues with the webtool experienced by CEB. She pointed out ASME was in a rush with the release of webtool, and functions did not work out, which caused a number of "disasters". Qian noted that ASME discussed issues with Qian's team and Jiong Tang. She noted that the development of the webtool did not factor in the paper review process, but only developed for ABSTRACT submission. Please find here a detailed summary where she points out major issues with the webtool that was used for DSCC 2020.

Qian noted also that interfacing with ASME was difficult and resulted in a number of problems, such as 50 papers not showing up and causing some issues with the organization and review process. Qian summarized other issues where papers were missing or withdrawn for unknown reasons. Authors even contacted CEB about their papers being missing/lost.

Finally, Qian noted that just several weeks ago, the reviewer scores were deleted below some threshold without consulting with CEB, but did affect ASME L-DSC concurrent submissions.

In summary, Qian re-iterated the issues with the new webtool system. She stated that from the AE level, the tool was frustrating to use and they have no control of the emails sent to reviewers, etc. Qian also summarized issues for reviewers, where only one notification is sent

for multiple requests for review – see report for details. Qian's team finally performed the review process offline. In closing, Qian stated she will be stepping down and she thanked the ExComm and CEB team and also authors for their patience.

Santosh thanked Qian for her services, but he also noted that the division is losing money due to lack of feedback from ASME. He noted that ExComm wanted to use PaperPlaza, but in the end ASME stated that PP did not meet security requirements, yet it was disappointing that volunteers are frustrated with the system and overall support for DSCC. Response from PP is attached for reference.

Santosh noted that the issues are untenable; he discussed Issue 1 (see attached summary) and Issue 2 to get feedback for alternative options.

Santosh asked for input.

Division members stated that this is deja-vu, where in the past they experienced the same issue no matter how much they've complained.

Rifat – he recalls a few years ago about a new tool that would be rolled in, but emphasized that Qian's experiences are the same as his when he was a CEB chair before. Many issues, but if losing data is concerning. Back then, Rifat stated that he had to do everything manually. Reviewers/AE gets frustrated. Rifat thinks that it's best to skip and find an alternative because it's needed to move forward.

Venkat Krovi – Emphasized that authors are frustrated and the vitality of the conference depends on the authors. AIM/IEEE can use Papercept/PaperPlaza successfully. Venkat suggested using another venue to consider alternatives.

Azim Eskandarian – He does not feel like ASME can fix this problem within a few years and we should put our foot down and go with a platform that's professionally maintained. He will not submit to this platform again. He notes that we've had this discussion for many years. Does not feel that skipping to improve this tool is not viable. Santosh pointed out that DSCC is unique and may not fit the ASME submission system.

George Chiu – He noted that we go through this process every 5 years. He noted that there was discussion of running DSCC outside of ASME. He suggested submitting a proposal to AACC to run an international symposium to capture the community worldwide, leveraging AACC to support. In terms of indexing, being indexed through IFAC could be an option. Peter Meckl stated that getting the reviewers' scores was frustrating. He noted smooth sailing with PP. Peter noted the ties that can be broken with ASME Letters DSC. Does not want to see the link broken between JDSMC and LDSC.

Azim emphasized that breaking away from ASME does not mean we have to break away from publications.

Andrew Alleyne says that Pradeep stated it was not vulnerable. Conversations with ASME seem like they do not want to use the tool. Eduardo Misawa – PP has been used by IEEE and others for major conferences.

Philip DiVietro – he hoped that the latest version of PP would pass security, but stated that he could hack in within 3 minutes. Andrew Alleyne would like to get a list and share with IEEE, but the list has been generated. Santosh shared the questions and answers (see attached response from PP).

Philip DiVietro noted that "PIN" means personal identification number and this is a major concern. Philip will support using PaperCept but it needs to pass the ASME test/scrutiny. He suggested talking to Tim Graves whether PP is viable. Santosh pointed out volunteers are not happy.

Hosam noted that ORCID can be used to find lots of author info. He asked what the minimal requirements are to walk out of this process happy? Robert Landers stated the minimum requirement is PaperCept, we used it back in 2008. Then ASME came in and was forced to use the webtool and Qian's complaints are common from year to year. The minimum is PP and ASME has made it clear they do not want to use it. Hosam questioned why it's such a hard problem to make this change to fix this problem. Roberto says that IEEE/IFAC accepts PP, so maybe there is no real security issue. Raj Rajamani stated that a response by Pradeep was there, but ASME has not responded after (see attached PP response). George Chiu states that we need to set a deadline and set expectations. Coming to Philips point, resolve PIN issue and move forward. Venkat – "litmus test" for security issues need clarification. Philip pointed out that if PP passed, then we could move forward, but it did not. Micky Curuntu noted that ASME may want to work with one software platform. Miroslav Krstic – questions why its security with IFAC/IEEE has not been a concern, where an outside software is related to cost. Supported George Chiu's suggestion to think outside of the box, to support the letter but any setback may be temporary. Miroslav questions whether it's related to cost. Galip – recalls in 2008 they had the same issue and argued with Tim about PP. He stated we had control of the budget to run conferences, in a high quality manner, and made money. ASME should help but if not, then we should move the conference. Jumin pointed out IEEE/ASME AIM uses PP, but there's no concern. Philip DiVietro states that IEEE controls AIM and ASME just participates and thus doesn't know IEEE's risk tolerance. Huei Peng recalled that Dawn Tilbury got PP, and Philip DiVietro noted that there was PP. Tomi – rethink about PP option now. If ASME comes up with a tool, we have a disaster and we need to go with PaperCept but want to see unity with ASME. Hosam – see straw vote about minimal viable change with ASME. Santosh stated that we are doing this as volunteers, we are not happy and we have the right. Straw poll via chat shows the majority states that PaperPlaza is a minimal tool to run a high-quality conference. Robert summarizes the minimum requirement is PaperPlaza and members want to associate with ASME; how can you work around the impasse with ASME? Santosh suggested chatting with Tim and Philip to figure out if there's a way to make this happen.

Santosh thanks everyone for discussing the issues and their input. Santosh closed the meeting at 10:16 pm PST.



INTER-OFFICE MEMO

Date: September 2, 2020

To: Tim Graves

From: Jason Sabshon

Subject: Papercept Security Concerns

Good Afternoon Tim,

I have conducted an evaluation of the Papercept paper submission tool, and I noticed several security concerns I want to make you aware of. I ran a basic compliance scan of the Papercept website and here are my findings:

- 1. The website is designed in Perl, which is a 20+ year old technology. This is certainly not current web technology and not capable of handling the latest security restrictions current websites adhere to.
- 2. The website does not meet GDPR compliance standards for security. There is a low-level SSL/TLS traffic encryption which makes it easier for an intruder to potentially access personal identifiable information from the website.
- 3. The site does not have a web application firewall behind it allowing for the possibility of web attacks such as brute force and highjacks. This should potentially allow data to be exposed. Most websites have some level of protection especially when containing personal information. While Papercept does use Cloudflare for protection, it does not seem that they use the Web Application Firewall component.
- 4. HTTPS headers are misconfigured allowing for the website to be potentially compromised due to weak security. These headers should be hardened to ensure that no one can break the low level of encryption it is currently configured as.
- 5. Personal Identifiable information is readily available by entering in a common name and having others with the same searchable name shown. This is against GDPR compliance and I would think individuals who have their data exposed would have serious reasons for concern. Please see the screenshot below:

PIN	Surname	Given name	Department	Affiliation	E-mail address	
Propose	d new regi	stration		- Marie 1904 - 1904 78		
110450	smith	Jason		astm	smith@gmail.com	
Existin	g similar	entries	M	N	0 ¹ :	
21459	Smith	A.E.		University of Pittsburgh		
83250	Smith	Aaron		University of Ottawa		
54614	Smith	Alex	School of Computing and Mathematics	Plymouth University		
27726	Smith	Anderson	Mechanical Engineering	Georgia Institute of Technology		
97029	Smith	Anthony		Purdue		
45170	Smith	Brendan	Mechanical Engineering	University of California, Merced		
70355	Smith	Christian	Centre for Autonomous Systems	ктн		
28047	Smith	Christopher	Technology Innovation	Decisive Analytics Corporation		
35527	Smith	Christopher	Computer Science	Gonzaga University		
95445	Smith	D.B.		Australian National University		
87710	Smith	Dafna	DMT	self		
70220	Smith	David		GE Global Research		
70432	Smith	Edward	Research and Development	Deringer Ney		
63763	Smith	Gordon	Power and Water	General Electric Co		
16548	Smith	Hal L	Mathematics And Statistics	Arizona State University		
63408	Smith	James		University of the West of England		
65160	Smith	Jarrett		Beval Global Solutions		
			1			

Please review the contents I have provided and let me know your thoughts. More than happy to jump on a call to discuss further.

Best Regards,



Jason Sabshon

Managing Director, Enterprise Infrastructure ASME 2 Park Avenue, 7th Floor New York, NY 10016-5990

- (1) I do not believe using using a specific language makes any difference, the more important issue is whether or not not the data itself is protected. All our data is accessible only based on granted user access, protected in turn by PIN and password, which are in turn hashed using sha256. We use a hashed token (hidden to users) in navigating from page to page, so it would be quite difficult for users to spoof the platform without knowing the token, created for each session and hashed together with another string (also hidden behind protected pages).
- (2) If you are referring to people being able to locate other people's names and PIN numbers, then it is part of the agreement that users sign before they are able to use the site for ANY interaction. As a matter of fact, we even provide a function which allows a user to locate other user's PIN, Name and Affiliation. Without others being able to locate this information, it is not practical to have a peer review and manuscript submission system. We do not provide access to information that is considered personal such as email, phone, etc. We are in GDPR compliance and have been scrutinized by at least two other nonprofit educational societies without any cause for concern. Naturally people that subsequently decide that they do not want their minimal information exposed can request that their information be blocked for all uses, including their own. A fundamental requirement for them to use our platform is that they are searchable (PIN, Name and Affiliation) and they sign off on that before they use the platform.
- (3) Cloudflare is the first level of firewall, this followed by our hosting service provider's own firewall. For what information we collect and retain, we do not consider further firewall protection necessary.
- (4) Please see (2)
- (5) We are in GDPR compliance, people agree to their PIN, Name and Affiliation available to be used by others. At any time they can (on their own, or by request through us) disable their account so that the information is no longer available to others.

Subject: FW: Paperplaza

Date: Thursday, May 27, 2021 at 9:07:56 AM Mountain Daylight Time

From: Timothy Graves
To: Barbara Zlatnik

Barbara,

This was Jason's response to Pradeep's response.

Tim

Tim Graves
Managing Director
Technical & Engineering Communities
ASME

From: Jason Sabshon

Sent: Monday, September 28, 2020 10:49 AM **To:** Timothy Graves; Keith Bloesch; Michael Tesler

Cc: Philip DiVietro **Subject:** RE: Paperplaza

Good Morning Tim,

I disagree with Paperplaza's response. I don't see how they are GDPR compliant when anyone can access the list of users in the system. I also don't agree that their firewall security is enough since they don't have a Web

Application firewall from Cloudflare which is best practice. The 3rd party scans show enough reason for concern. I am happy to discuss further with them if needed.

Best Regards,

Jason

asmeLogo_Link	Jason Sabshon Managing Director, Enterprise Infrastructure ASME 2 Park Avenue, 7th Floor New York, NY 10016-5990

From: Timothy Graves _____

Sent: Tuesday, September 15, 2020 3:04 PM **To:** Keith Bloesch; Jason Sabshon; Michael Tesler

Cc: Philip DiVietro
Subject: FW: Paperplaza
Gents,
Philip and I met with Dynamic Systems and their cynicism over our evaluation of their chosen software. That said, they were also able to get the folks at PaperCept to respond to the letter from Jason.
If you have a chance, would you please review their comments on the attached and let us know your thoughts?
Many thanks!
Tim
Tim Graves Managing Director Technical & Engineering Communities ASME
From: Santosh Devasia Sent: Tuesday, September 15, 2020 1:48 PM To: Timothy Graves; Jordan Berg; Landers, Robert G.; Jingang Yi; Xiaobo; Barbara Zlatnik; Andrew Koleba; Kam K. Leang; Rajesh Rajamani Subject: Paperplaza WARNING: This Message Came From Outside of ASME. Do not click on links or attachments unless you know the content to be safe. Hi Tim
Thanks for meeting with the DSCD EC today.
As you suggested, we have reached out to Pradeep, and he has added remarks about the security issues (on page 2).
Could you kindly review with the IT group and see if the responses are acceptable? We could try and meet with IT, Paperplaza, and a couple of EC members if that could help to move the process forward.
Thanks again, and look forward to hearing from you.
Best Regards
Santosh

Santosh Devasia

Professor, Mechanical Engineering Department Director, Boeing Advanced Research Center (BARC) U. of Washington, Seattle, WA 98195-2600

Web: http://faculty.washington.edu/devasia/

BARC Web: https://depts .washington.edu/barc/

Special Service to DSCD

Robert Landers: Executive Committee Chair (2019-2020)

Hosam Fathy: Treasurer (2018-2020)

Jingang Yi: Secretary (2016-2020)

Kok-Meng Lee: Advisory Committee (2016-2020)

Kok-Meng Lee: Nominating Committee (2016-2020)

Peter Meckl: DSCC Steering Committee Chair (2019)

George Zhu: DSCC Steering Committee Member (2019)

Xiaobo Tan: DSCC Steering Committee Member (2019)

Jeff Shelton: DSCD Webmaster (2017-2019)

Thank you for your service!

Journal of Dyn. Systems, Measure. and Control Associate Editors Completing their Terms in 2020

Junmin Wang

University of Texas at Austin

Heikki Handroos

Lappeenranta University of Technology, Finland

Umesh Vaidya

Clemson University

Thank you for your service!

IEEE/ASME Transactions on Mechatronics Technical Editors Completing their Terms in 2020

Yildirim Hurmuzlu (2015-2020)

Southern Methodists University

Jeff Scruggs (2017-2020)

University of Michigan

Jiong Tang (2015-2020)

University of Connecticut

Junmin Wang (2017-2020)

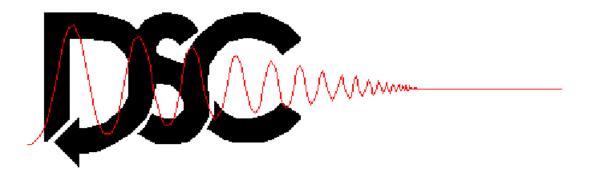
University of Texas at Austin

Thank you for your service!

Congratulations!

New DSCD ASME Fellows (October 2019 – July 2020)

John Crassidis, University at Buffalo
Mohammed Daqaq, Clemson University
Kiran D'Souza, The Ohio State University
Kam K. Leang, University of Utah
Pei-Chun Lin, National Taiwan University
Robert M'Closkey, Univ. of California LA
Peter Meckl, Purdue University
Ardalan Vahidi, Clemson University



197th Division Meeting **Dynamics Systems and Control Division, ASME International**2020 American Control Conference

Date and Time: Wednesday, July 1, 2020 at 7:30 pm (mountain time)

Zoom Link: https://us02web.zoom.us/j/87386647903

Meeting ID: 873 8664 7903 Password: ACC2020

One tap mobile

+16699006833,,87386647903#,,1#,000747# US (San Jose) +12532158782,,87386647903#,,1#,000747# US (Tacoma)

Dial by your location

+1 669 900 6833 US (San Jose)

+1 253 215 8782 US (Tacoma)

+1 346 248 7799 US (Houston)

+1 929 436 2866 US (New York)

+1 301 715 8592 US (Germantown)

+1 312 626 6799 US (Chicago)

Meeting ID: 873 8664 7903

Password: 000747

Find your local number: https://us02web.zoom.us/u/kdkdbgghxB

AGENDA

7:30 PM Chair's Welcoming Remarks

Robert Landers

Robert called for the order around 7:35 pm. The meeting started. Self-introduction is skipped and a Google form was used to sign up for the meeting. Robert also introduced the Executive Committee changes. Anna retired from the ExComm, Hosam stepped down from Treasurer position, Jingang stepped down as secretary and becomes a new Executive Committee member, Kam becomes the new secretary and Rajesh becomes the new Treasurer right after this Division meeting.

7:35 PM Self-Introductions

Robert Landers

7:40 PM National Science Foundation Update

Irina Dolinskaya

Irina presented the NSF update and details are in the attached report.

7:55 PM Approval of Minutes

Jingang Yi

Jingang proposed a motion to approve the minutes and all attendees approved unanimously.

8:00 PM The Division Going Forward

Jiong Tang, Santosh Devasia, Jingang Yi

Robert, Kam and Santosh presented and led the discussion on communication and conference for the DSCD in the era of pandemic. The main presentation is in attachment. Various attendees actively participated the discussion.

Daniel Abramovitch mentioned that webnars and other online social media platforms have been used iin the past for promoting the Division and control engineering research. It is important for us to emphasize the general public education and outreach for our research and activities. We shall do a better job to educate and disseminate our research outcomes.

Andrew Alleyne asked about the DSCC attendance in the past and Robert showed the historical data for DSCC between 2014-2020. It is clear that the submission and attendance has been reduced significantly over the past 6 years after ASME took over the conference in 2014. More detailed discussion about DSCC will follow among the DSCD ExComm.

For the proposed possible abstract-only submission such as INFORMS or APS societies, Irina mentioned about that the quality among presentation varies a lot and the main purpose of these meetings is networking and meeting people. Yue Wang also mentioned that IEEE RAS might consider the similar approach to take presentation only papers at ICRA and IROS. Anna also mentioned about ECS meetings also include abstract presentation as their majority meeting publications.

Junmin and Hosam mentioned about the actions for DSCC 2021 to promote the conference, including increasing international participation. They will send a proposal to the ExComm about this.

George Chiu mentioned that AIM 2019 had invited TMECH published paper authors to present. The result seems positive. The challenge is the time-in-review for the journal. If time-in-review is too long, it might impact the timeliness of the content. We might have journal related content in more traditional sessions and abstract only presentations in the RI type sessions.

Eduardo Misawa mentioned that if we go to "abstract-only" mode, we may pay attention to quality - we had issue with uneven quality when we were part of IMECE, and my experience with abstract-only conference like in SIAM is that there is a big variation of quality of what is presented. I am echoing Irina's point about INFORMS.

Daniel Abramovitch said that he has been involved in the HS STEM workshops for a few years now. We can talk to bright middle and high school students about control and they *can* get it. He can provide further comment if you want.

Jingang Yi mentioned some data from AIM 2020 about virtual conference and it seems people still showed great interests for the virtual meeting events with strong registration etc.

Scott Moura agreed with Andrew's viewpoint. He's talking about communicating to a broad audience. A nice example for reaching grad students/practitioners is Brian Douglas (https://www.youtube.com/channel/UCq0imsn84ShAe9PBOFnoIrg). He uses the Khan Academy style of teaching.

Finally, Santosh summarized the comments and the follow-up discussion and actions in the next few months.

9:30 PM Closure Robert Landers

Robert finally made closure remarks and also passed the Division Chair position to Santosh officially. The meeting adjourned around 9:15 pm in local time.

WRITTEN REPORTS

ASME Updates Barbara Zlatnick

See the attached report.

Division Activities

Student and Young Professional Committee Nicole Abaid

No report has been received.

DSCD Newsletter Tuhin Das

See the attached report.

DSCD Website Tuhin Das

See the attached report.

Secretary's Report Jingang Yi

See the attached report.

Treasurer's Report Hosam Fathy

See the attached report.

Honors Committee Roberto Horowitz

See the attached report.

Nominating Committee Anna Stefanopoulou

No outstanding items to report.

Technical Committees Xiaobo Tan

See the attached report.

Conference Activities

2020 ACC Xinfan Lin

See the attached report.

2020 AIM Jingang Yi

See the attached report.

2021 AIM Kok-Meng Lee

See the attached report.

2020 DSCC Jiong Tang

See the attached report.

2021 DSCC Junmin Wang

See the attached report.

2022 DSCC Qingze Zou

See the attached report.

2020 ISFA Jiong Tang

See the attached report.

DSCC Steering Committee

Santosh Devasia

No DSCC Steering Committee meeting was organized and will report later.

Journal Activities

JDSMC Ranjan Mukerjee

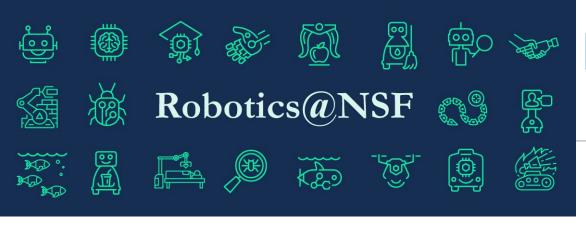
See the attached report.

DSC-Letters Peter Meckl

See the attached report.

TMECH I-Ming Chen

See the attached report.



New program announced February 2020

Jointly managed by ENG and CISE Directorates

Accepts CAREER proposals starting July 2020

Accepts unsolicited proposals any time starting August 1, 2020

NSF funding opportunities for robotics related research: nsf.gov/robotics

Foundational Research in Robotics (FRR - Robotics)

Robotics is a deeply interdisciplinary field, and proposals are encouraged that explore the **full** range of fundamental engineering and computer science research challenges arising in robotics.

All proposals must convincingly explain how a successful outcome will **enable transformative new robot functionality** or **substantially enhance existing robot functionality**.

The proposal should clearly articulate how the intellectual contribution of the proposed work **addresses fundamental gaps in robotics**.

Send questions and one-page project summaries to robotics@nsf.gov

NATIONAL SCIENCE FOUNDATION 1





Is there a **robot**?

• The focus of the project should be a robot or a class of robots as defined in the program description: "intelligence embodied in an engineered construct, with the ability to process information, sense, and move within or substantially alter its working environment."

Will a robot gain a **new** or **significantly improved** capability?

 Over the course of project a robot or class of robots should gain new and useful abilities or significantly improve on existing abilities.

Is robotics **essential** to the *intellectual merit* of the proposal?

Robotics should be the intellectual merit (not just broader impact) of the proposed work.
 Robotics should be essential to the project, and not just a convenient platform to demonstrate the research results. Choosing an application other than robotics for the project should significantly reduce its impact.





The Robotics program does not have any explicit budget or duration limits, however the proposal must convincingly articulate that the requested budget is commensurate with the scope and potential contribution of the project.

Typical projects are on average, approximately \$150K per year.

Unsolicited projects are typically 3-4 years in duration. We do not explicitly exclude proposals with higher budgets and/or up to 5-year duration.

CAREER proposals are always 5-year duration.

For budget questions related to other types of proposals (e.g., EAGER, RAPID, conference) PIs should contact a Program Director (robotics@nsf.gov) in advance of a submission.

Dynamics, Controls and System Diagnostics (DCSD) Program

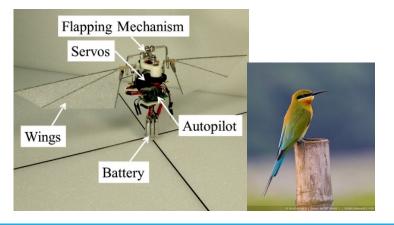


- O **PROGRAM DIRECTORS:** Jordan Berg, Irina Dolinskaya, Robert Landers
- Focus: The program supports fundamental research on the analysis,
 measurement, monitoring and control of dynamic systems:
 - Innovation in Modeling: Create a mathematical framework for analysis of a new class of dynamic physical systems
 - Innovation in Analysis: Discover new structure in the model of a class of dynamic systems
 - Innovation in System Diagnostics: Create new ways to extract information about a dynamic system from available measurements
 - Innovation in Control: Create new ways to improve the dynamic behavior of a system
- Investigators are encouraged to discuss their ideas with the PDs: jberg@nsf.gov, idolinsk@nsf.gov or rlanders@nsf.gov.



Modeling, Analysis and Control Design for Spatially Distributed Systems with Application to Wind Farms (D. Gayme)

3D Motion and Swarm Control of Magnetically Propelled Microrobots for in vivo Particulate Drug Delivery (M. Kim)







Pilot study: Increasing Reviewer Risk Tolerance Through Awareness (IRRTA) – CMMI-1939115

 Combat cognitive bias by actively reflecting, counteracting survival mode and welcoming checks and balances

Outcomes for CMMI:

- Panel Fellow cohort that is trained on cognitive biases and techniques to overcome those as it relates to high risk, high reward proposals
- Panel Fellows will anchor review panels and train future Fellows
 - Pls write even more high risk, high reward proposals

Information from NSF on coronavirus

When will NSF reopen? – NSF never closed!

Proposals motivated by COVID-19 submitted to the DCSD program should focus on basic research in modeling, analysis, diagnostics and control.

Talk with your managing Program Director if your current NSF-funded project is impacted by COVID-19.

For more information:

https://www.nsf.gov/news/special reports/coronavirus/

CMMI Job Opportunites

Program Director Positions:

Dynamics, Control and System Diagnostics

Mind, Machine and Motor Nexus

Mechanics of Materials and Structures

Engineering for Civil Infrastructure Cluster

Humans, Disasters and the Built Environment

Engineering/Science Analyst:

Civil, Mechanical and Manufacturing Innovation

DSCD Financial Update

Rajesh Rajamani

DSCD Treasurer

October 5, 2020

DSCD Segregated Account Overview

- Balance on Sep 25, 2020: \$318,56582
- Recent fiscal year balances

Year	Balance (at end of fiscal year)
2020	\$319,110.72*
2019	\$317,902.53
2018	\$400,067.50
2017	\$454,561.05
2016	\$556,321.01
2015	\$751,669.27
2014	\$851,951.26

- Cautionary Note
 - \triangleright A seeming *rise* in balance over the last fiscal year (of \$1,238.29).
 - Aided by a one-time revenue of \$23,000, due to reimbursement related to student travel money held in an account at the College of New Jersey (Manish) since 2011.

Fiscal Year 2020 Summary

Revenues	Amount	Expenses	Amount
DSCC Registrations (not sure why this portion of registration comes here instead of in the DSCC conference budget)	\$5,826.40	Freight and dues to AACC	\$870.65
AIM Conference Revenue	\$13,556.56	ASME Staff Travel/ Sustenance	\$3590.29
One-time reimbursement of student travel funds owed to DSCD by the College of New Jersey.	\$23,000	Volunteers Travel/ Sustenance	\$10,374.93
		Certificates	\$991.00
		Awards/ Honors Expenses (including student travel grants)	\$25,317.80
Total	\$42,383.96		\$41,144.67

Net revenue in FY 2020: \$42,383.96 - \$41,144.67 = \$1,238.29

Spending Plan for Fiscal Year 2021

Categories	Definition	FY 20 Total	FY 21 Without TCs	FY 21 TCs	FY 21 Total
ASME Event Support	Registration, travel, conference sponsorship, lodging, food, etc.	\$5,000	\$5,000		\$5,000
Face-to-Face Meetings	Leadership mtgs, planning mtgs, business mtgs, etc.)	\$6,000	\$3,000	\$3,950	\$6,950
Honors and Awards	Scholarships, travel reimbursement, etc.	\$8,000	\$4,000	\$6,800	\$10,800
New Initiatives and special projects	New products, new conferences, etc.				
Newsletter and					
Communications Activities	Journals, magazines pubs, etc.	\$250	\$250		\$250
Promotional funds	For event marketing	\$250	\$250		\$250
Programs and Philanthropy	ASME Foundation, charities, STEM, competitions, etc.				
Student and Early Career Activities	Collegiate council, ASME chapter support, etc.	\$12,000	\$12,000		\$12,000
Volunteer and member					
support	Non-ASME conference support	\$2,000	\$1,000		\$1,000
Total		33,500	\$25,500	\$10,750	\$36,250

Major categories of spending: Student travel support (\$12,000), TC budgets (\$10,750), cost of meetings at conferences, and conference-related event support (\$5,000).







DSCD Newsletter Summer 2020

August 31, 2020

IN THIS ISSUE

DYNAMIC SYSTEMS AND CONTROL DIVISION NEWSLETTER

Editor's Note

Dear colleagues,

This issue of the DSCD newsletter comes at a uniquely challenging and a historic moment, due to the ongoing worldwide COVID19 health crisis. We hope that all members of the DSCD community are safe and healthy.

In this issue, Peter Meckl, the editor of the new journal: *ASME Letters in Dynamic Systems and Control*, announces the online availability of the first two issues of this journal, and invites submissions on new and emerging developments in dynamic systems and control.

Honors and awards are reported next. Galip Ulsoy received the 2020 Richard E. Bellman Control Heritage Award from AACC. The University of Cambridge, UK, conferred their higher doctorate, Doctor of Science (ScD) on Clarence W. de Silva. Diane Peters of Kettering University was the recipient of WE Local Legacy Award from SWE and J. Cordell Breed Award for Women Leaders from SAE Intl.

Release of two books are reported in this issue. The first is *Delay-Adaptive Linear Control* by Yang Zhu and Miroslav Krstic. The second book is *Multi-Rotor Platform-based UAV Systems*, edited by Franck Cazaurang, Kelly Cohen, and Manish Kumar.

Next, open positions are announced. This is followed by a message from ASME DSCC 2020, which provides details of the upcoming virtual DSCC, to be held in October, 2020.

This issue also announces call for papers for four upcoming focused sections, one in the ASME Journal of Mechanisms and Robotics, one in IEEE/ASME Transactions in Mechatronics and two in the Springer International Journal of Intelligent Robotics and Applications.

We hope all DSCD members had an enjoyable summer. Thank you for your continued support of the DSCD Newsletter and look forward to your future submissions.

Best Regards,

Editor: Tuhin Das, University of Central Florida **Associate Editor:** Huazhen Fang, University of Kansas

First Issues of ASME Letters in Dynamic Systems and Control Available Online

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Honors and Awards

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New Books

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Open Positions

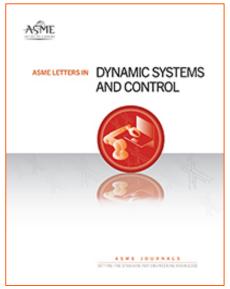
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DSCC 2020 Virtual Conference

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CFPs for Upcoming Focused Sections in Journals

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First issues of the new ASME Letters in Dynamic Systems and Control now available online

Peter Meckl, Editor, ASME Letters in Dynamic Systems and Control

The first two issues of the new ASME Letters in Dynamic Systems and Control are now available online. This new ASME Letters journal provides an opportunity for rapid publication of shorter papers describing novel, high-quality, cuttingedge original findings. This publication is intended to disseminate the state of the art in dynamic systems and control research, both theoretical and applied. Topics in the first issue include tire blowout modeling, control of selective laser sintering, NOx emissions modeling for a diesel engine, design of a passive instrumented hand, and optimization of batteries in grid storage. The second issue includes articles on endpoint stabilization of manipulators, wearable sensors for dynamic state estimation, perching of a quadrotor aerial robot, analysis of a tunable piezoelectric energy harvester, and modeling and control of slip running.

The tables of contents for the first two issues are available here:

https://asmedigitalcollection.asme.org/lettersdynsys/issue/1/1

https://asmedigitalcollection.asme.org/lettersdynsys/issue/1/2

In addition, all the papers from the first issue are accessible without a subscription for the next two months.

If you have cutting-edge or emerging research in dynamic systems and control that you'd like to let others know about, please consider publishing in the new **ASME LDSC**. If you are uncertain, feel free to contact me (meckl@purdue.edu) and I will try to address your questions.

I look forward to receiving your manuscripts for the new *ASME Letters in Dynamic Systems and Control*. And I hope that this new publication will become the journal of choice for publishing new and emerging developments in dynamic systems and control.

Submission Link:

https://journaltool.asme.org/home/JournalDescriptions.cfm?JournalID=35&Journal=ALDSC

Honors and Awards

Galip Ulsoy, Recipient of 2020 Richard E. Bellman Control Heritage Award



The American Automatic Control Council has selected Prof. Galip Ulsoy, University of Michigan, Ann Arbor, as the recipient of the 2020 Richard E. Bellman Control Heritage Award. "The Bellman Award is given for distinguished career contributions to the theory or application of automatic control. It is the highest recognition of professional achievement for US control systems engineers and scientists." The award citation reads: For seminal research contributions with industrial impact in the dynamics and control of mechanical systems especially manufacturing systems and automotive systems.

The 2020 AACC awards ceremony will be held at the 2021 ACC in New Orleans (May 26-28, 2021).

A. Galip Ulsoy is the C.D. Mote, Jr. Distinquished University Professor Emeritus of Mechanical Engineering (ME) and the William Clay Ford Professor Emeritus of Manufacturing at University of Michigan (UM), Ann Arbor, where he served as the ME Department Chair, Deputy Director of the National Science Foundation (NSF) Engineering Research Center for Reconfigurable Manufacturing Systems, and the Director of the USA Army Ground Robotics Reliability Center. He also served as Director of Civil and Mechanical Systems at NSF and the President of the American Automatic Control Council (AACC). He received the Ph.D. from University of California at Berkeley (1979), the M.S. degree from Cornell University (1975), and the B.S. degree from Swarthmore College (1973). His research interests are in the dynamics and control of mechanical systems, and he has published 4 books, holds 3 patents, and has published over 300 journal and conference papers. His work is highly-cited and has had major impact in industry. He has received numerous awards, including the AACC 1993 O. Hugo Schuck Best Paper Award, the 2003 and 2016 Rudolf Kalman Best Paper Awards from the J. Dynamic Systems, Measurement and Control, the 2008 Albert M. Sargent Progress Award from the Society of Manufacturing Engineers (SME), the 2008 Rufus T. Oldenburger Medal, the 2013 Charles Russ Richards Award from the American Society of Mechanical Engineers (ASME) and the 2014 Hideo Hanafusa Outstanding Investigator Award in Flexible Automation. He is a member of the USA National Academy of Engineering, received the 2012 Presidential Special Award from the Scientific and Technological Research Council of Turkey, and is a Fellow of ASME, SME, IEEE and the International Federation of Automatic Control (IFAC).

See http://a2c2.org/awards/richard-e-bellman-control-heritage-award

DSCD NEWSLETTER SUMMER 2020

De Silva Awarded the Higher Doctorate from The University of Cambridge

Contributed by: H. Lang, PhD, PEng, Assistant Professor, Ontario Technical University, Canada



The University of Cambridge, UK, confers their higher doctorate, Doctor of Science (ScD) on Prof. Clarence W. de Silva. This is an "earned degree." Cambridge awards a very few higher

doctorates, after a thorough assessment by their degree committee and review by scholars from other leading universities (which process takes several years), based on demonstrated academic distinction and published work, and becoming an authority in a field of knowledge over the course of the career.

De Silva is a Professor of Mechanical Engineering at The University of British Columbia (UBC), Vancouver, Canada. He has held the NSERC-BC Packers Chair of Industrial Automation since 1988 and subsequently the Senior Canada Research Chair in Mechatronics and Industrial Automation. As well, he has been a Professorial Fellow at the University of Melbourne, Peter Wall Scholar at UBC, and Mobil Endowed Chair Professor in the Department of Electrical and Computer Engineering at the National University of Singapore. He is a professional engineer (P.Eng.), and a Fellow of: ASME, IEEE, Canadian Academy of Engineering, and Royal Society of Canada, and a Distinguished Visiting Fellow of the Royal Academy of Engineering, UK. Furthermore he has been a Lilly Fellow at Carnegie-Mellon University, NASA-ASEE Fellow, Senior Fulbright Fellow to Cambridge University, Fellow of the Advanced Systems Institute of BC, Killam Fellow, and an Erskine Fellow at the University of Canterbury, New Zealand.

De Silva has received a Ph.D. degree from Massachusetts Institute of Technology, a Ph.D. degree from the University

of Cambridge, UK, and a D.Eng. (Honorary) from the University of Waterloo, Canada. His awards include Paynter Outstanding Investigator Award and Takahashi Education Award from ASME Dynamic Systems & Control Division (DSCD), Killam Research Prize from UBC, Outstanding Engineering Award from IEEE Canada, Lifetime Achievement Award from the World Automation Congress, IEEE Third Millennium Medal, Meritorious Achievement Award from the Association of Professional Engineers of BC, and Outstanding Contribution Award from the IEEE Systems, Man, and Cybernetics Society. He has served on the Editorial Boards of 14 journals including ASME Journal of Dynamic Systems, Measurement & Control and IEEE Trans. Control System Technology; Editor-in-Chief, International Journal of Mechatronic Systems and Control; Editor-in-Chief, International Journal of Control and Intelligent Systems; Editor-International Journal in-Chief, Knowledge-Based Intelligent Engineering Systems; Senior Technical Editor, Measurements and Control; and Regional Editor, North America, Engineering Applications of Artificial Intelligence—IFAC International Journal of Intelligent Real-Time Automation; and served on the Management Committee of IEEE-ASME Transactions in Mechatronics.

De Silva's professional contributions to ASME include: Member, Vice Chair, Chair, Advisory Council of DSCD; Executive Committee Member, Vice Chair, Chair, Past Chair, and Secretary of DSCD; Chair and Technical Activities Chair of ASME B.C. Section; Editor and Assoc. Editor of DSCD Newsletter; Chair and Member of the Panel on Expert Systems and Artificial Intelligence of DSCD; Chair and Member of the Panel on Instrumentation and Components of DSCD; and Faculty Advisor, ASME Student Section at Carnegie-Mellon University.

De Silva has given 43 keynote addresses and has authored 25 technical books, 19 edited books, 51 book chapters, 283 journal articles, and 285 conference papers. His recent books published by Taylor & Francis/CRC Press are: Modeling of Dynamic Systems—with Engineering Applications; Sensor Systems; Sensors and Actuators—Engineering System Instrumentation, 2nd edition; Mechanics of Materials; Mechatronics—A Foundation Course; Modeling and Control of Engineering Systems; VIBRATION—Fundamentals and Practice, 2nd Ed.; and Mechatronics—An Integrated Approach; by Springer: Force and Position Control of Mechatronic Systems—Design and Applications in Medical Devices (with T.H. Lee, W. Liang, W., and K.K. Tan) and by Addison Wesley: Soft Computing and Intelligent Systems Design—Theory, Tools, and Applications (with F. Karray).

Diane L. Peters, Recipient of WE Local Legacy Award from SWE and J. Cordell Breed Award for Women Leaders from SAE Intl.



Diane L. Peters, Ph.D., P.E., F.SWE, Associate Professor at Kettering University, was awarded the WE Local Legacy Award by the Society of Women Engi-

neers. The award recognizes SWE members who have made significant contributions to SWE and the engineering profession, over at least fifteen years. The award was to have been presented at the WE Local Buffalo conference in Buffalo, New York, in March, but was instead presented virtually.

Dr. Peters also received the J. Cordell Breed Award for Women Leaders from SAE International. This award recognizes women in the mobility industry who have exhibited outstanding performance, significant contributions, and leadership in multiple areas. This award was to have been presented at the SAE World Congress (WCX) in Detroit, Michigan, in April, but was instead presented virtually.

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New Books

Princeton Series in APPLIED MATHEMATICS

Delay-Adaptive Linear Control



Yang Zhu and Miroslav Krstic

Delay-Adaptive Linear Control Yang Zhu and Miroslav Krstic Princeton University Press, 2020 352 pages

Actuator and sensor delays are among the most common dynamic phenomena in engineering practice, and when disregarded, they render controlled systems unstable. Over the past sixty years, predictor feedback has been a key tool for compensating such delays, but conventional predictor feedback algorithms assume that the delays and other parameters of a given system are known. When incorrect parameter values are used in the predictor, the resulting controller may be as destabilizing as without the delay compensation.

Delay-Adaptive Linear Control develops adaptive predictor feedback algorithms equipped with online estimators of unknown delays and other parameters. Such estimators are designed as nonlinear differential equations, which dynamically adjust the parameters of the predictor. The design and analysis of the adaptive predictors involves a Lyapunov

stability study of systems whose dimension is infinite, because of the delays, and nonlinear, because of the parameter estimators. This comprehensive book solves adaptive delay compensation problems for systems with single and multiple inputs/outputs, unknown and distinct delays in different input channels, unknown delay kernels, unknown plant parameters, unmeasurable finite-dimensional plant states, and unmeasurable infinite-dimensional actuator states.

Presenting breakthroughs in adaptive control and control of delay systems, *Delay-Adaptive Linear Control* offers powerful new tools for the control engineer and the mathematician.

See https://press.prince-ton.edu/books/hard-cover/9780691202549/delay-adaptive-linear-control



Multi-Rotor Platform-based UAV Systems Edited by: Franck Cazaurang, Kelly Cohen, and Manish Kumar Published by: ISTE Press - Elsevier

The purpose of this book is to provide insights into important areas of Unmanned

Aerial Vehicle (UAV) development and application emphasizing the use of multirotor platforms. This book is an outcome of the research at the University of Cincinnati, Ohio, in the US and the University of Bordeaux in France. This edited collection of chapters, from various contributors, covers topics such as classification, UAV integration in the national airspace, architecture, mission and path planning, task optimization, separation assurance and fault tolerance, navigation and flight control, data/image processing, and design, fabrication, and testing of multi-rotor systems. The book is primarily meant for senior level undergraduates, entry-level graduates as well as engineers working in government agencies, industry, and academia involved in UAV R&D and interested in applying UAVs to their operations. The book is meant to provide a quick and efficient means to conceptualize, design, synthesize, and analyze using modeling and simulation tools.

See https://www.else-vier.com/books/multi-rotor-platform-based-uav-systems/cazaurang/978-1-78548-251-9

Open Positions

Open Positions in Autonomous Vehicle Mobility at the University of Alabama, Birmingham

In support of a pending award from the U.S. Army Ground Vehicle Systems Center, the University of Alabama at Birmingham's School of Engineering has open positions for *PhD Students, Post-doctoral Fellows, and Research Professors*

https://www.uab.edu/engineering/me/research/vehicle-and-roboticsengineering-lab/vrel-news

The successful candidates will have an exceptional opportunity to build their professional career in close collaboration with UAB faculty members, researchers and engineers of different professions,

DSCD NEWSLETTER SUMMER 2020

and private industries – working together and complementing each other on designing and establishing a unique research and engineering laboratory facility on autonomous ground vehicle mobility in terrain conditions. For further questions, contact Prof. Vladimir Vantsevich, Pl at vantsevi@uab.edu

Ph.D. Positions in Intelligent Control at the University of Kentucky

Ph.D. openings are available in the Department of Mechanical Engineering at the University of Kentucky, Lexington, KY, in Dr. Xu Jin's group on the topics of intelligent control. We look for excellent students with the following one or more background areas:

- 1. Adaptive control
- 2. Iterative learning control
- 3. Nonlinear systems and control
- 4. Vision-based control
- 5. Ground vehicles (include unicycle-type robots)
- 6. Quadrotors
- 7. Robot manipulation systems
- 8. Multi-agent/interconnected/networked/cyber-physical systems

More research details can be found on Dr. Xu Jin's website:

https://www.engr.uky.edu/directory/jin-

and the external links included. The positions include stipend, health care, and tuition support. The offers are valid for two years, and renewable for additional years based on performance of the students. Qualifications: The applicants MUST ALREADY HAVE, or will soon have the GRE and TOEFL test scores (if applicable) meeting the departmental minimum requirement.

How to apply: Applications should be emailed to Dr. Xu Jin at xu.jin@uky.edu as soon as possible. Please include a full CV (including GRE and TOEFL scores if applicable), PDFs of relevant publications, and names of at least three references. Upon initial email discussions, those who are encouraged to apply

should then apply to the department as soon as possible, and indicate my name (Dr. Xu Jin) in the application package. Visiting Ph.D. students and scholars are also very welcomed for self-funded research visit for 6-24 months.

* Short note about the department and the city: Mechanical Engineering is the largest department in the College of Engineering with 35 tenured and tenuretrack faculty members, over 1,000 undergraduate students, and over 120 graduate students. The department also has state-of-the-art computational facilities, research labs, and classrooms, including UAV, ground robot, and air table satellite testing facilities. The city of Lexington is ranked #3 Best City to Raise a Family, #4 City with Best Tech Career Potential, #8 City with the Lowest Living Cost, # 21 Best Places to Live in America, and # 31 Most Educated Cities in America. Located in the heart of the Bluegrass Region, Lexington is known as the "Horse Capital of the World".

DSCC 2020, Virtual Conference: October 5 – 7

Message from the conference website:

As the Coronavirus (COVID-19) continues to be a global issue, our primary concern is the health and safety of those who attend our conferences and meetings. We have decided to cancel the in-person DSCC 2020 Conference.

The conference will be held virtually on October 5th – October 7th 2020. ASME regrets having to make this change, but the safety of our participants is our utmost priority.

In addition to an informative Virtual Conference program, we will offer the opportunity for each paper presentation to be uploaded to our virtual site, for viewing either during the virtual program or ondemand. In order to ensure that we have the widest dissemination possible of the conference proceedings, at least one author per paper must register to attend

the Virtual Conference. This is similar to ASME's "Presenter Attendance Policy" with our in-person conferences, so papers without an author attending the virtual conference will be pulled from the official proceedings. As with our physical conferences, registrants of the virtual conference will receive full access to the conference proceedings. Virtual Conference registration fees will be sharply discounted from the regular conference fees.

We encourage you to check this website regularly for further news. Thank you for your understanding. We hope you will join us at the Virtual Conference.

See https://event.asme.org/DSCC

CFPs for Upcoming Focused Sections in Journals

ASME Journal of Mechanisms and Robotics - Focused Section on Mobile Robots and Unmanned Ground Vehicles (page 6)

IEEE/ASME Transaction on Mechatronics - Focused Section on TMECH/ AIM Emerging Topics (page 7)

International Journal of Intelligent Robotics and Applications, Springer

- Focused Section on New Trends of Autonomous Robot Navigation (page 8)
- Focused Section on Flexible Mechatronics for Robotics (page 9)

The Dynamic Systems and Control Division Newsletter is published twice annually (summer & winter) to the division's email list. Please submit your items for publication by e-mail to the editorial office:

Editor: Tuhin Das, University of Central Florida Tel: 407-823-5792, E-mail: Tuhin.Das@ucf.edu

Associate Editor: Huazhen Fang, University of Kansas Tel: (785) 864-8126, E-mail: fang@ku.edu



Announcement

Call for Papers: Focused Section on Mobile Robots and Unmanned Ground Vehicles

This focused section is intended to provide a platform for sharing and presenting new research and solutions for mobile robots (MRs) and unmanned ground vehicles (UGVs) in field and service applications. In the last few years, the adoption of field robotics has rapidly increased with many notable examples that have been developed and validated for operations on the ground (of Earth or planets), under the ground, underwater, in the air, or in space. Applications range from agriculture, mining, surveillance, and environmental monitoring to search and rescue and disaster relief, planetary exploration, and nuclear power plant operations.

Service robots can assist and replace human operators in many dangerous or repetitive tasks or be used for entertainment, health-care, and household tasks. They can also be useful as mitigation measures during pandemic-related crises (COVID-19). In this respect, service robots can serve not only as healthcare agents for assistive tasks in hospitals and care homes, but they can also be used to maintain social distancing.

In order to effectively operate in their working environment, many challenges need to be tackled and addressed. For example, when operations on uncharted highly irregular terrain are required, an appropriate choice and functional design of the *locomotion system* is critical, and many options have been investigated including passive/active articulated suspension systems for wheeled robots, articulated tracked vehicles, and hybrid solutions. Notable examples are as well as biologically inspired locomotion systems.

Robots are also required to interact with the surrounding environment via *mobile manipulators* that bring dedicated tools or sensors for proximity measurements. Safe collaborative behaviors are often implemented with human operators or other robotic co-workers.

A service/field robot operates with a high degree of autonomy based on an inbuilt control system in which the operator can manually override when required. *Navigation strategies* are also important especially when long-distance and long-duration missions are involved. In this respect, the adoption of sustainable solutions and renewable energies can increase autonomy. Environment-aware planners can help to develop safe and energy-efficient paths toward the intended goal.

For a systematic and comparative analysis of field and service robots, it is important to provide quantitative measures of their performance in the field in terms of traction, climbing and traversability, safety and stability, power consumption, autonomy, and reliance on human supervision. This aspect also calls for the investigation of *physics-based multi-body models* that capture with high-fidelity the *dynamic response* of robots considering the interaction with the operating environment and that can be useful during the design and development stages before field validation of the system.

The effort is inspired by the fifth anniversary celebration for the section on Mobile Robots and Unmanned Ground Vehicles at the *International Mechanical Engineering Congress & Exposition (IMECE 2020)*. However, we note that extended manuscripts of

conference papers published elsewhere (including other ASME conferences) that fit the scope of this focused section are also welcome. Focused section paper submissions are welcome on topics related to the aspects of theory, design, and application, including but not limited to

- agricultural robots
- · biologically inspired systems and solutions
- hybrid and novel locomotion systems
- planetary exploration
- medical and healthcare robots, with emphasis on the current COVID-19 pandemic
- · service robots and unconventional applications
- mobile manipulation
- human-mobile robot collaboration
- long-distance, long-duration missions

Timeline: The deadline for submissions is January 15, 2021. The review process will be held on January–May 2021. Final manuscripts are due June 1, 2021, for publication online (starting in June) and print publication in the October 2021 issue. Papers that do not complete the review process within this timeframe or that are outside the scope of the focused section may be considered for publication in a regular issue of the journal.

Giuseppe Quaglia

Department of Mechanical and Aerospace Engineering, Politecnico di Torino, Torino, Italy e-mail: giuseppe.quaglia@polito.it

Renato Vidoni

Faculty of Science and Technology, Free University of Bozen-Bolzano, Bolzano, Italy e-mail: renato.vidoni@unibz.it

Giulio Reina

Department of Mechanics, Mathematics and Management, Politecnico di Bari, Bari, Italy e-mail: giulio.reina@poliba.it

Tuhin Das

Department of Mechanical and Aerospace Engineering, University of Central Florida, Orlando, FL e-mail: tuhin.das@ucf.edu





Call for Papers

The Second Edition of Focused Section on TMECH/AIM Emerging Topics

Submissions are called for the Second Edition of Focused Section (FS) on TMECH/AIM Emerging Topics (renamed from previous TMECH/AIM Concurrent Submission). This Focused Section is intended to expedite publication of novel and significant research results, technology and/or conceptual breakthrough of emerging topics within the scopes of TMECH (www.ieee-asme-mechatronics.org). It also provides the rapid access to the state-of-the-art of TMECH publications within the mechatronics community.

The submitted paper must not exceed 8 TMECH published manuscript pages, excluding photos and bios of authors, and will be subject to a normal peer review process in the standard of TMECH. All accepted papers from submissions to the Focused Section will be published in August Issue of TMECH in 2021 and will be presented in the 2021 IEEE/ASME International Conference on AIM (AIM 2021, <u>aim2021.org</u>). The rejected papers from submissions will be transferred to the Program Committee of AIM 2021 to be further reviewed and considered as contributed conference papers.

The review process for submissions to the Focused Section will be conducted with one round of Major/Minor Revision allowed, and the final decision falls into one of the following two categories:

- Accept for publication in Focused Section. In this case, the paper will be accepted by AIM 2021 concurrently for
 presentation only with full information of the paper to be included in the preprinted proceeding of AIM 2021. The
 final publication in TMECH, however, will be subject to the completion of presentation in AIM 2021 with paid full
 registration fee.
- 2. Reject for publication in Focused Section (in the first and second round). In this case, the paper, as well as all review comments, will be forwarded to the Program Committee of AIM 2021 for further consideration. A final Accept/Reject decision will then be made by the Committee as a contributed conference paper for AIM 2021.

Manuscript preparation

Papers must contain original contributions and be prepared in accordance with the journal standards. Instructions for authors are available online on the TMECH website.

Manuscript submission

Manuscripts should be submitted to TMECH online at: mc.manuscriptcentral.com/tmech-ieee, selecting the track 'TMECH/AIM Emerging Topics'. The cover letter should include the following statement: This paper is submitted to the Second Edition of Focused Section on TMECH/AIM Emerging Topics. The full information of the paper should be submitted concurrently to AIM 2021 online at: <a href="maintenance-restrictions-restriction-restriction-restriction-restriction-restriction-restriction-re

Submission/Review/Decision Timeline:

Opening Date of TMECH/AIM FS Submission Site (first submission): November 1, 2020 Closing Date of TMECH/AIM FS Submission Site (first submission): December 5, 2020 Full Information of TMECH/AIM FS Paper Submitted to AIM Site: December 5, 2020 First Decision for TMECH/AIM FS Submission: March 1, 2021 Revised TMECH/AIM FS Submission Due by: March 26, 2021 Final Decision for TMECH/AIM FS Submission: May 1, 2021 May 15, 2021 Final Version of TMECH/AIM FS Submission Due by: Publication of Focused Section in TMECH: August 2021

Contacts: For any questions related to this Call for Paper, please contact:

Xiang Chen, xchen@uwindsor.ca, Senior Editor of TMECH,

Bram Vanderborght, Bram. Vanderborght@vub.be, Program co-Chair of AIM 2021.



Springer International Journal of



Intelligent Robotics and Applications

Call for Papers

Focused Section on New Trends of Autonomous Robot Navigation

Guest Editors

XUEBO ZHANG, Nankai University, <u>zhangxuebo@nankai.edu.cn</u>
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MACIEJ MARCIN MICHALEK, Poznan University of Technology, maciej.michalek@put.poznan.pl



Autonomous robot navigation plays a more and more important role in a variety of emerging practical areas such as automated warehouse, autonomous exploration of hazard environments, autonomous driving and so on. Meanwhile, recent advances in artificial intelligence lead to remarkable progress in perception, planning and control technologies, making them possible to work in highly dynamic and unstructured complex environments from domestic or public places to outdoor extreme or hazard environments. In this context, there is an urgent demand to incorporate these advanced methods into robot navigation, which helps increase the systems' autonomy and intelligence level to achieve better performance and fulfill various new tasks. This Focused Section is dedicated to new advances in both theoretical approaches and practical implementation of perception, planning and control for autonomous mechatronic and robotic systems. Potential topics include but are not limited to:

- Intelligent sensing and perception for autonomous mechatronic and robotics systems
- Multi-sensor fusion for localization and mapping
- Distributed sensing and perception for multi-robot systems
- Task-oriented perception-driven field sensor network
- Advanced motion planning techniques for autonomous robots
- Visual servo control of robotic systems
- Al-based methods for autonomous robot navigation
- Novel and emerging applications of autonomous robotic systems
- Visual-based target retrieval for robotic re-localization and navigation

Manuscript preparation

Papers must contain original contributions and be prepared in accordance with the journal standards. Instructions for authors are available online at: http://www.springer.com/41315.

Manuscript submission

Manuscripts should be submitted online at: https://www.editorialmanager.com/jira/default.aspx. The cover letter should report the following statement: "This paper is submitted for possible publication in the focused section on New Trends of Autonomous Robot Navigation". All manuscripts will be subjected to the peer review process. If you have any questions relating to this focused section, please email the Guest Editor Dr. Xuebo Zhang (zhangxuebo@nankai.edu.cn).

Important dates

Paper submission: October 31, 2020

Completion of first review: December 15, 2020
Submission of revised papers: January 30, 2021

Completion of final review: March 15, 2021

Submission of final manuscripts and copyright forms: April 15, 2021

Publication: June 2021



Springer International Journal of



Intelligent Robotics and Applications

Call for Papers

Focused Section on

Flexible Mechatronics for Robotics

Guest Editors

Jiajie Guo, Huazhong University of Science and Technology, China, jiajie.guo@hust.edu.cn
Zheng Chen, University of Houston, U.S.A., zchen43@central.uh.edu
Qining Wang, Peking University, China, qiningwang@pku.edu.cn
Li Wen, Beihang University, China, liwen@buaa.edu.cn
Jun Zhang, University of Nevada, Reno, U.S.A., jun@unr.edu
Jianguo Zhao, Colorado State University, U.S.A., zhao@engr.colostate.edu



Flexible mechatronics have been critical to smart robots in unstructured environments with the effectiveness to address the needs for adaptability and robustness in harsh or extreme conditions. On the other hand, flexible mechatronics provide useful modeling and sensing tools to understand underlying principles of complex dynamic systems. This Focused Section of the International Journal of Intelligent Robotics and Applications (IJIRA) is dedicated to the new advances in modeling, design, fabrication and control of flexible mechatronics and related technologies with robotic applications. Potential topics include but are not limited to:

- Novel modeling methods for distributed-parameter systems
- Design analysis and fabrication methods for soft robots
- Smart actuation, sensing and control methods
- Bio-inspired and human-centered robotics
- Rehabilitation robotics and wearable assistive devices
- Advanced manufacturing with robotics
- human-machine interfaces for prostheses and exoskeletons
- Novel materials and smart mechatronics

Manuscript Preparation

Papers must contain original contributions and be prepared in accordance with the journal standards. Instructions for authors are available online at: http://www.springer.com/41315.

Manuscript Submission

Manuscripts should be submitted online at: https://www.editorialmanager.com/jira/default.aspx. The cover letter should report the following statement: "This paper is submitted for possible publication in the focused section on Flexible Mechatronics for Robotics." All manuscripts will be subjected to the peer review process. If you have any questions relating to this focused section, please email one of the Guest Editors.

Important Dates

Paper submission: January 15, 2021

Completion of first review: March 15, 2021
 Submission of revised papers: May 1, 2021

• Completion of final review: June 1, 2021

Submission of final manuscripts and copyright forms: July 1, 2021

Publication: September, 2021

ASME Dynamic Systems and Control Division Technical Committees

Update @DSCC 2020

Jingang Yi

Technical Committee Chairs and Membership

Automotive and Transportation Systems: Marcello Canova, 181 members

Biosystems and Health Care: Dumitru Caruntu, 57 members

Energy Systems: Scott Moura, 141 members

Mechatronics: Garrett Clayton, 173 members

Robotics: Jongeun Choi, 30 members

Vibrations: Minghui Zhang, 48 members

Technical Committee Activities Invited Sessions

Automotive and Transportation Systems: 4 (DSCC 2019), 6 (ACC 2020), 3 (DSCC 2020)

Biosystems and Health Care: 2 (DSCC 2019), 1 (DSCC 2020)

Energy Systems: 2 (DSCC 2019), 11 (ACC 2020)

Mechatronics: 1 (CCTA 2019), 1 (DSCC 2019), 2 (ACC 2020)

Robotics: 2 (DSCC 2019), 1 (DSCC 2020)

Vibrations: 1 (IDETC 2019), 2 (DSCC 2019), 2 (ACC 2020), 1 (DSCC 2020)

Budget Request for FY 20-21

Automotive and Transportation: \$1,500 base budget (\$1,000 for two Best Paper Awards honoraria; \$500 for meeting expenses); plus \$250 for Best Paper Award finalists and \$750 for Special Industry Session & Networking Event at DSCC 2020.

Biosystems and Health Care: \$1,500 base budget (\$1,300 for 4 Best Paper Awards; \$200 for meeting expenses

Energy Systems: \$1,500 base budget (\$1,000 for two Best Paper Awards honoraria; \$500 for meeting expenses); plus \$250 for Best Paper Award finalists and \$500 for Student Career Advising Session at DSCC or ACC.

Mechatronics: \$1,500 base budget (\$1,000 for two Best Paper Awards honoraria; \$500 for meeting expenses)

Robotics: \$1,500 base budget (\$1,000 for two Best Paper Awards honoraria; \$500 for meeting expenses)

Vibrations: \$1,500 base budget (\$1,000 for two Best Paper Awards honoraria; \$500 for meeting expenses)

TC Chairs Meeting after ACC 2020

The TC Chairs Meeting on September 8, 2020 to discuss the update and other new activities

- ASME Insider webinar series
 - Both Automotive and Energy TCs will nominate a few members for ASME Insider webinar speakers
 - It would be good to have Division level forums and each TC can nominate a few speakers (maybe monthly webinar series)
- Special issues in DSCD-sponsored journals (JDSMC, TMech, JAVS, DSC-Letters)
 - A few TCs mentioned about under-planning special issue proposals (e.g., bio-healthcare, automotive, energy TCs)

TC Chair Meeting after ACC 2020 (cont'd)

- DSCD-sponsored journals and CEB Associate Editor and ASME Fellow nominations
 - Discussion mainly focuses on ASME fellow nomination. Will follow up with nomination procedure or experience from TC Mechatronics
- IFAC TC member nominations
 - Nomination will be sent to Santosh
- TC website updates
 - o Marcello showed the example how to modify the TC website as TC administrator role
 - o Will send webmaster (Tuhin) contact information to all TC Chairs
- Other new initiatives ...
 - Meet the TC Chairs regularly (quarterly, i.e., next one later in 2020)
 - Potential Podcast for DSCD (Xiaobo forwarded an example from IEEE SoftRobot)

Technical Committee: Web, email alias, linkedin group

Automotive and Transportation: https://community.asme.org/dynamic_systems_control/w/wiki/16127.automotive-

transportation-systems-ats.aspx

https://www.linkedin.com/groups/4380983

Biosystems and Health Care: https://sites.google.com/site/asmebshc/

asmebshc@googlegroups.com

Energy Systems: https://community.asme.org/dynamic systems control/w/wiki/16128.energy-systems.aspx

https://www.linkedin.com/groups/4687097

Mechatronics: https://community.asme.org/dynamic systems control/w/wiki/16130.mechatronics.aspx

Robotics: https://community.asme.org/dynamic systems control/w/wiki/16131.robotics.aspx

Vibrations: https://sites.google.com/site/vibrationdscd/home

ASME LETTERS IN DYNAMIC SYSTEMS AND CONTROL



Peter Meckl

Technical Editor, Letters-DSC

What is L-DSC?

- 1. Will be indexed in ISI, Scopus, etc.
- 2. Focuses on rapid dissemination of short papers (3-6 pages)
- 3. Potential articles include:
 - Cutting-edge original findings.
 - Short review-type articles of broad interest (including industry and students),
 - Articles on educational efforts.
 - Brief Announcements on upcoming and past events such as conferences
- 4. Publishes best papers from DSCC conference

Some Questions Answered

- What is the minimal number of articles needed for ISI or web of science indexing? 60 per year, 4 issues
- When will the first official issue start? 2021.
 Accepted papers went online starting in Mar. 2020, with first official issue in 2021.
- 3. Can DSCC papers be submitted to L-DSC? Yes. Papers submitted to the DSCC can also be considered for the Letters. Once all DSCC papers have been reviewed by the CEB, selected papers will be reviewed by the L-DSC Editorial Board for possible inclusion in L-DSC.

Some Statistics

Issue	Number of Full Papers	Number of Pages (app.)
Jan 2021	17	102
Apr 2021	10	69
July 2021	1	7
2021 Totals*	28	178

^{*}Stats as of 9/30/2020

Review Statistics

Year Submitted	Total Number of Papers Submitted	Total Number Papers Rejected	Rejected Paper %	Total Number of Papers Withdrawn	Total Number of Papers Accepted	Accepted Paper %
2019 (DSCC)	31	8	26%	0	23	74%
2019 (other)	10	4	40%	1	4	40%
2019 (Total)	41	12	29%	1	27	66%
2020*	71**	24	35%	7	8	12%

^{*}Stats as of 9/30/2020

Statistics for Time in Process

Year	No. of Papers	Assigned to AE (days)	Time in Review (days)	AE Decision(days)	TE Decision (days)	TE Approval (days)	Submission to TE Decision (months)	Submission to Publication (months)
2019	41	18	43	19	24	8	3.481	5.060
2020*	71	20	63	13	12	3	2.912	4.667

^{*}Stats as of 9/30/2020

Editorial Board

Jordan Berg

Garrett Clayton

Levi DeVries

Kam Leang

Alex Leonessa

Reza Tafreshi

Qian Wang

Warren White

George Zhu

NSF

Villanova

USNA

Univ of Utah

Virginia Tech

Texas A&M, Qatar

Penn State

Kansas State

Michigan State

10 AE Nominations pending

Advisory Board

- Will consist of former Editors-in-chief of other journals and other senior members. (Kok-Meng Lee is sole member for now, but will expand.)
- 2. Will help to solicit submissions of papers to the Letters-DSC.
- 3. Can suggest special issues devoted to focused topics, including new cutting-edge research.

Requests

- Consider submitting your paper to the L-DSC: https://journaltool.asme.org/home/JournalDescript ions.cfm?JournalID=35&Journal=ALDSC
- Anyone interested in serving on the L-DSC
 Editorial Board should contact me. (Please be
 aware that tenured rank or equivalent is required.)
 Topics of interest: Biomedical systems, Biosystems, Environmental engineering, Health care
 engineering, Machine learning, Noise control,
 Smart structures, Vibration control
- 3. Any ideas for Special Topics, please contact me. Peter Meckl: meckl@purdue.edu



IEEE/ASME TRANSACTIONS ON



Editor-in-Chief Report – July 2020

I-Ming Chen

MICHEN@ieee.org

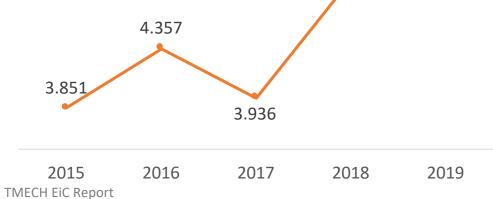
Executive Summary:

2019 original submissions: 1054 (up from 1041 in 2018)*

2020 estimated original submissions excluding AIM CS: 1,330 (667 non-AIM CSs on 30 June)**

Original submissions to TMECH/AIM in 2020: 145

2019 Impact Factor: 5.673 up from 4.943 (2018)



4.943

^{*}The use of original submissions is a change from the last EiC report which used total submissions for the executive summary.

^{**}Based on being 183 days through a 365 day year.

Work Plan for 2020

Tasks done in 2020 Q1

- Setting up Editorial Board Recruitment/Renewal SOP
- Review and streamline of current paper submission review workflow
- Setting up Focused Section Proposal and review SOP
- Establishing TMECH-AIM Concurrent Submission Section
- Setting up TMECH Junior Reviewer Program
- Review of Best Transaction Paper nomination and evaluation SOP
- Update of TMECH website
- Update of TMECH Editorial Guidelines

Tasks to be done in 2020

- Recruitment of TJRP members
- Improvement of paper review quality in general (long term effort!)
 - TIRP
 - Reviewer training resources
 - TE & SE report requirements

Journal of Autonomous Vehicles and Systems

Sponsoring Divisions

ASME Dynamic Systems and Control Division

ASME Design Engineering Division

ASME Dynamic Systems and Control Division Meeting October 5, 2020



Aim and Scope

The *aim* of the new ASME Journal is to provide a unique international platform for

- Technical communication,
- Discussion, exchange of opinions,
- Dissemination of technical knowledge and technological solutions

in transformative areas of research and engineering design of autonomous vehicles and systems that operate in different media and inter-medium environments of

- Ground,
- Air and Space















Target Audience

Researchers, university academic educators and students, engineers from industry and research agencies

- Researchers from various fields of the Journal scope
- University faculty and students of all academic levels
- R&D Engineers
- Product Design Engineers
- Systems Engineers
- Electrical and Electronic Engineers
- Maintenance Engineers
- Engineering Project Managers
- Applied Mathematicians
- Government Agencies working on policies and regulations of autonomous vehicles

Associate Editors by Area

	Ground	Air & Space	Water
1	Canova, Marcello	Azimov, Dilmurat	Jiang, Zhong-Ping (also Ground/Air/Space)
2	Carbone, Giuseppe	Chen, Wen-Hua (also Ground)	
3	Ceccarelli, Marco	Cowlagi, Raghvendra (also Ground)	
4	Gorsich, David J.	Demkiv, Lyubomyr (also Ground)	
5	Gray, Jeremy P.	Hermann, Jeffrey	
6	Jayakumar, Paramsothy	Kumar, Manish	
7	Larochelle, Pierre	Van der Auweraer, Herman (also Ground)	
8	Lu, Jianbo	Wang, Yue (also Ground)	
9	Pandey, Gaurav		
10	Richter, Lutz (also space)		
11	Wang, Junmin		



Associate Editors by Region/Country

	US	US	Europe
1	Azimov, Dilmurat	Lu, Jianbo	Carbone, Giuseppe (Italy)
2	Canova, Marcello	Pandey, Gaurav	Ceccarelli, Marco (Italy)
3	Cowlagi, Raghvendra V	Wang, Junmin	Chen, Wen-Hua (UK)
4	Gorsich, David J.	Wang, Yue	Demkiv, Lyubomyr (Ukraine)
5	Gray, Jeremy P.		Richter, Lutz (Germany)
6	Hermann, Jeffrey		Van der Auweraer, Herman (Belgium)
7	Jayakumar, Paramsothy		
8	Jiang, Zhong-Ping		
9	Kumar, Manish		
10	Larochelle, Pierre		



Associate Editors by Field

	Academia	Government/Military	Industry
1	Azimov, Dilmurat	Gorsich, David J.	Demkiv, Lyubomyr
2	Canova, Marcello	Jayakumar, Paramsothy	Gray, Jeremy P.
3	Carbone, Giuseppe		Lu, Jianbo
4	Ceccarelli, Marco		Pandey, Gaurav
5	Chen, Wen-Hua		Richter, Lutz
6	Cowlagi, Raghvendra V		Van der Auweraer, Herman
7	Hermann, Jeffrey		
8	Jiang, Zhong-Ping		
9	Kumar, Manish		
10	Larochelle, Pierre		
11	Wang, Junmin		
12	Wang, Yue		

Journal Metrics

- Papers Submitted: 77
- Papers Under Review and with AEs: 48
- Papers Accepted: 6
- Papers Rejected: 17
- Papers Withdrawn: 6
- Countries Represented: 12
 - Belgium, Brazil, China, Egypt, Germany, India, Israel, Italy, Japan, Morocco, Tunisia, United States



Advisory Committee

Responsibilities of Advisory Committee

- Advise Editor on new strategic directions of ASME JAVS
- Be the ASME JAVS representatives and ambassadors
- Promote ASME JAVS at various conferences and other technical events
- Invite new authors
- Assist with reviewing manuscripts submitted to ASME JAVS
- Recruit new reviewers
- Recommend new members for the Advisory Committee and new Associate Editors
- Advise Editor and Associate Editors on disputable submissions
- Offer Special Issues and yourself as Guest Editor
- Write Invited Papers for ASME JAVS



Call for Associate Editors & Advisory Board Members

The Journal of Autonomous Vehicles and Systems is searching for highly qualified candidates to serve as associate editors or as advisory board members for the journal.

Candidates with expertise in ground, air & space and , in particular, water vehicles will be recruited. Successful applicants should have a history of publishing and reviewing papers for peer-reviewed journals, particularly ASME journals.

Interested candidates should send a letter of interest and a cv to Editor Vladimir Vantsevich, vantsevi@uab.edu.



THANK YOU

Vladimir Vantsevich vantsevi@uab.edu



Report on DSCC2020

Submitted by: Jiong Tang & Qingze Zou

Number of papers submitted: 201 Number of papers accepted: 186

Number of presentation-only abstracts submitted (based on paper published in JDSMC last year): 6

Number of presentations to be given (i.e., number of presentations uploaded): 181

Number of registrations received as of Sept 28: (total 197)

Author/Member: 125
Non-member: 11
Student member: 31
Student non-member: 22

Conference program: 2 Workshops; 2 Plenary Talks; Nyquist Lecture, Oldenburger Lecture and award ceremony; Industrial Workshop Panel; NSF Program Directors presentations and Workshop; Student Career Advising/Network session; Best student paper competition; 39 technical sessions.

Preparations for ACC2021

Compiled by Xinfan Lin (DSCD Rep. for the 2020 DSCC)

The next DSCD Representative for ACC will be Satadru Dey (skd5685@psu.eu).

The DSCD representative will coordinate with the ACC organizers in spring (March/April) to arrange for rooms and refreshments and/or online meeting links for the following events:

- DSCD Executive Committee Meeting
- DSCD Division General Meeting
- Automotive & Transportation TC Meeting
- Energy Systems TC Meeting
- Mechatronics TC Meeting
- Vibrations TC Meeting
- Bio-Systems and Health Care TC Meeting
- Robotics TC Meeting

The representative will also gather information from the ACC organizers on the acceptance rate of ASME papers, and invited, tutorial, and special sessions.

AIM2021

Hosted by Professor Heike Vallery (TU Delft, Netherlands) as General Chair, the 2021 IEEE International Conference on Advanced Intelligent Mechatronics (AIM 2021) will be held on July 12 - 16, 2021 Aula Conference Centre TU Delft, Delft, The Netherlands. Detailed information can be found in the AIM2021 website: http://aim2021.org/

Important Dates:

Submission for TMECH/AIM Emerging Topics: November 1 – December 5, 2020

AIM2021 Submission Deadlines:

Special & Invited Session Proposals:
Tutorials & Workshop Proposals
Contributed & Invited Papers

Notification of AIM2021 Paper Acceptance
Submission of AIM2021 final papers

January 15, 2021
February 1, 2021
May 1, 2021
May 15, 2021

Attachments: AIM2021 Presentation and AIM2021 Call-for-paper

Update/Discussion: The Division Going Forward

- Webtool report
- Main issue
- DSCC 2021





Advisory Committee Hideki Hashimoto, Chuo Univ., Japan Kok-Meng Lee Georgia Inst. of Tech

Kok-Meng Lee, Georgia Inst. of Tech., USA Shigeki Sugano, Waseda Univ., Japan I-Ming Chen, Nanyang Tech Univ., Singapore

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Jordan Berg, National Science Foundation, USA
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Hiroshi Fujimoto, Univ. of Tokyo, Japan
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Kok-Meng Lee, Georgia Inst. of Tech., USA
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General Chair Heike Vallery, TU Delft, NL

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Shigeki Sugano, Waseda Univ., Japan IES Liaison Officer

Hideki Hashimoto, Chuo Univ., Japan

DSCD Liaison Officer

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Se Young (Pablo) Yoon, Univ. of New

Hampshire, USA

Workshops Chair

Jiajie Guo, HuaZhong Univ. of Science and

Technology, China

Workshops Co-Chair

Carlos Celemin Paez, TU Delft, NL

Publicity Chair

Xu Chen, Univ. of Washington, USA

Publicity Co-Chair

Tom Oomen, Eindhoven Univ. of Tech., NL

Local Arrangement Chair

Call for papers for the 2021 IEEE/ASME International Conference on Advanced Intelligent Mechatronics (AIM 2021)

The 2021 IEEE/ASME International Conference on Advanced Intelligent Mechatronics (AIM 2021) will be held on July 12-16, 2021 in Delft, with an additional virtual option. The motto will be "sustainable mechatronics".

As a flagship conference focusing on mechatronics and intelligent systems, the AIM 2021 will bring together an international community of experts to discuss the state of the art, new research results, perspectives of future developments, and innovative applications relevant to mechatronics, robotics, automation, industrial electronics, and related areas, not limited to the conference motto. The sponsors and organizers of AIM 2021 invite submissions of high-quality mechatronics research papers describing original work, including but not limited to the following **topics**: Actuators, Automotive Systems, Bioengineering, Control, Data Storage Systems, Energy Harvesting, Energy-Saving Technology, Electronic Packaging, Fault Diagnosis, Human-Machine Interfaces, Industry Applications, Information Technology, Intelligent Systems, Machine Vision, Manufacturing, Micro-Electro-Mechanical Systems, Micro/Nano Technology, Modeling and Design, System Identification and Adaptive Control, Motion Control, Vibration and Noise Control, Opto-Electronic Systems, Optomechatronics, Prototyping, Real-Time and Hardware-in-the-Loop Simulation, Robotics, Sensors, Smart Materials and Structures, Sustainability in Mechatronics, System Integration, Transportation Systems, and frontier fields.









Detailed information about paper submission will be published on http://aim2021.org. All topics are welcome within the scopes of TMech: www.ieee-asme-mechatronics.org and AIM 2021. Authors are invited to submit one of the following:

TMECH/AIM Focused Section Papers: Submissions to the Second Edition of the Focused Section on TMECH/AIM Emerging Topics (renamed from previously TMECH/AIM Concurrent Submission) are done through the TMECH site https://mc.manuscriptcentral.com/tmech-ieee. Accepted TMECH/AIM Focused Section papers will be presented at AIM 2021 and published in the Second Edition of TMECH/AIM Focused Section in the August Issue of TMECH in 2021. The publication in the dedicated Issue of TMECH, however, will be subject to the presentation of the paper at AIM 2021 with paid registration fee. Papers rejected for publication in TMECH will still be considered by the Program Committee of AIM 2021, which makes a final acceptance/rejection decision for AIM 2021. For more details about submission/review procedures and timelines, please refer to the Call for Papers for TMECH/AIM Focused Section: http://www.ieee-asme-mechatronics.info/focus-sections/

AIM Contributed and Invited Papers: All papers go through a rigorous review process. Accepted papers will be presented by their authors at the conference. All accepted peer-reviewed manuscripts will be published in the conference proceedings, and will be submitted for inclusion in IEEEXplore, subject to formatting and copyright requirements.

Tutorials & Workshops: Proposals are invited for half-day or full-day tutorials and workshops. Workshops explore the frontiers of recent or emerging topics in mechatronics, while tutorials provide a foundation for future self-study in important areas of mechatronics. Tutorial and workshop proposals must include: (1) a statement of objectives, (2) a description of the intended audience, (3) a list of speakers with an outline of their planned presentations. Unless specifically requested, individual tutorial and workshop presentations are not peer-reviewed and do not appear in the proceedings.

Invited & Special Sessions: Proposals are invited for invited and special sessions. Invited sessions consist of 4 to 6 thematically related invited papers. Invited session proposals consist of a brief statement of purpose and extended abstracts of the included invited papers. Invited papers are submitted and reviewed following the same process as contributed papers, and are included in the proceedings.

All contributed and invited papers, tutorial and workshop proposals, and invited and special session proposals for AIM2021 must be uploaded through http://ras.papercept.net according to the deadlines below.

Contact: aim2021@aim2021.org Conference Website: https://aim2021.org



Report on ASME Conference Web Tool

Qian Wang

September 28, 2020

The new conference web tool: Organizers' worst nightmare comes true

- > The new conference web tool
 - >Appears that it has not gone through Software Testing and Quality Assurance
 - ➤ Misses/fails/misleads on > 80% functionalities supported by a standard conference web tool on the market
 - ➤ Has caused major disasters during the review process of DSCC 2020
- > Developers appear to be ignorant on how a conference is run
- The new conference web tool was used by a few conferences before DSCC 2020, why ASME Web tool team did not warn the DSCC organizing committee the faults/failures of the web tool in advance to mitigate possible damages?
- ASME Web tool team was sluggish (or not responsive) to help, often in denial of issues/errors associated with the web tool system.

Example disasters

- >~50 papers did not show up in the web tool system during the normal review period due to
 - Web tool does not have a function to generate the paper submission status
 - > Only ASME staff can generate the status report from backend URL link. ASME staff failed to provide such report promptly (provided the report to conference organizers the afternoon before paper decision meeting)
 - > Web tool failed to pull certain papers from the submission database
 - Misleading functionalities in assigning papers to sessions
 - > Other mysterious faults hard to nail the source
- ➤ Mislabeled certain submissions as "author withdrawn" causing the papers not shown in the web tool
 - ➤ No way to detect/confirm how many such mislabeled papers are out there
- ➤ Many faults in sending paper decision letters
 - ➤ The function did not work initially it took many iterations/testing within the conference organizing committee, and many emails between committee and ASME to get it work.
 - > A set of authors did not receive decision letters
 - ➤ No way to confirm that all decision letters have been sent correctly
 - ➤ Review comments only accessible through a link in the decision letter no review comments can be accessed through web tool
- ➤ Many review scores got lost/messed up about 1-2 months after the final manuscripts were submitted, which caused a total confusion to the Editor of Letters on DSC when pulling out review scores from the web tool system

Major functionalities are missing or faulty at the architecture level

- > Fundamental flaws of web tool architecture
 - > Papers do not need to be assigned to sessions during review
 - ➤ Numerous errors occurred during assigning papers to session
- ➤ No super-user rights for conference organizers
 - ➤ Cannot move papers across sessions
 - ➤ Cannot see/add session co-organizers
 - Cannot have a holistic view of the paper submission: no list of entire submissions, cannot confirm whether decision letters have been sent correctly

Major functions are missing or faulty at the session organizers' (AEs) level

- Cannot see workload of reviewers, some reviewers received 20+ papers to review; many papers received 6+ reviews: a huge waste of community resources
- ➤ No clue and no control on contents of any email sent out from the web tool session organizers are not copied for any emails
- ➤ No review deadline specified in the invitation email, no paper title, paper abstract included in the invitation email
- ➤ No confirmation of acceptance/decline to review
- ➤ Reviewer opt-in is difficult to work with a long time delay between reviewer opt-in and showing up in the reviewer database
- > and many others ...

Major functions are missing or faulty at the reviewers' level

- > Hard to navigate the interface to locate the pdf of the paper
- ➤IThetication score is misleading counting the overlap of references
- ➤Only see IThetication score, cannot view the IT report from the web tool
- Not prepared for a large number of papers waiting to be reviewedreviewers only informed by the first invitation, will not receive any notification for reviewing the 2nd or subsequent papers
- > Hard to see all papers waiting to be reviewed on reviewer dashboard
- ➤ And many others ...

Issue 1:

The current ASME conference webtool had major challenges (e.g., some 50 submitted papers were lost, reviews and scores were lost, email messages could not be sent in a reliable manner) that makes it untenable for managing a quality conference. Also, all ASME conferences in 2021 will be virtual. Therefore, the DSCD Executive Committee is recommending that the DSCC be postponed (i.e., postponement of the planned DSCC 2021 to 2022) (hope by then the conference webtool issues will be resolved, and also in-person conferences will be feasible). The DSCC 2021 Organizing Committee supports this postponement to 2022 while acknowledging the important and irreplaceable value that DSCC brings to the community. We are seeking your input on this recommendation.

Issue 2

• Since it appears that we will not have a DSCC in 2021, we are seeking your input on alternative activities that would help bring the community together in 2021 to discuss emerging topics.

Attached Written Detailed Reports

ASME DSC Letters Peter Meckl

ASME Liaison to DSCC Barbara Zlatnick

Student Travel Awards Nicole Abaid

Secretary's Report Kam Leang

Treasurer's Report Rajamani

Technical Committee Report Jingang Yi

American Automatic Control Council (AACC) Report Santosh Devasia

Newsletter Tuhin Das

DSCD Website Tuhin Das

Journal of Dynamics Systems, Measurement, and Control Ranjan Mukherjee

Transactions on Mechatronics Xiaobo Tan

Conference Webtool Qian Wang

2020 DSCC Jiong Tang

2021 DSCC Junmin Wang

2022 DSCC Qingze Zou

2021 ACC Xinfin Lin

2021 AIM Kok-Meng Lee

Honors Committee Roberto Horowitz

Nominating Committee Robert Landers

Kam K. Leang (kam.k.leang@utah.edu, dscd.exec@gmail.com)

DSCD Secretary



ASME LETTERS IN DYNAMIC SYSTEMS AND CONTROL



- 1. Background
- 2. Sept 2020 Status Report
- 3. Topics of Discussion

Technical Editor: Peter Meckl

Secretary: TBD

ASME JOURNALS

SETTING THE STANDARD FOR ENGINEERING KNOWLEDGE



ASME Update

Barbara Zlatnik
Senior Manager,
Segment Operations
Design, Materials, & Manufacturing Segment
zlatnikb@asme.org



Sr. Segment Manager Role

- Serve as primary staff support for several divisions, including DSCD
- Ensure volunteer leadership have the tools and resources they need
- Support these groups administratively so volunteers focus on what they do best.
- Assist groups on a strategic level
 - > Long-term planning
 - Succession planning
 - ➤ Budgeting
 - Conferences Overall administration and future planning
- Consultant and cheerleader for divisions



Technology & Engineering Communities Sector

The Technology and **Engineering Communities** (TEC) Sector is responsible for activities of the Society relating to engaging individuals and groups in advancing engineering skill, art, science, knowledge and practice, and in planning, developing and delivering new technical content in the form of new products, services, networking opportunities, conferences, events and delivery mechanisms across ASME's market segments.

Senior Vice President: **George Papadopoulos**





Communications

 Because of new regulations, it's very important that ASME members update their communication preferences and that ASME volunteers also update their preferences in the Volunteer Leaders Directory

https://preferences.asme.org

https://preferences.asme.org/vld



TEC Re-organization

- Segments are being sunset
- Divisions will be grouped a little differently but will see little difference in their operations
- Divisions will now have a direct-line reporting structure to TEC, providing a vehicle for communication of concerns, issues, ideas to the highest levels of the Society
- More info coming before the end of the year

ASME Anywhere

100% Virtual Events through December 2021

- Uncertainty about in-person meetings due to the pandemic
- Known travel restrictions by organizations due to health and budget concerns
- Segregated funds can only be used to support virtual event participation

For more information visit asme.org/anywhere







ASME Vision

To be the essential resource for mechanical engineers and other technical professionals throughout the world for solutions that benefit humankind.

ASME Mission

To serve diverse global communities by advancing, disseminating and applying engineering knowledge for improving the quality of life; and communicating the excitement of engineering.



Questions?

Email: zlatnikb@asme.org

Thank you!



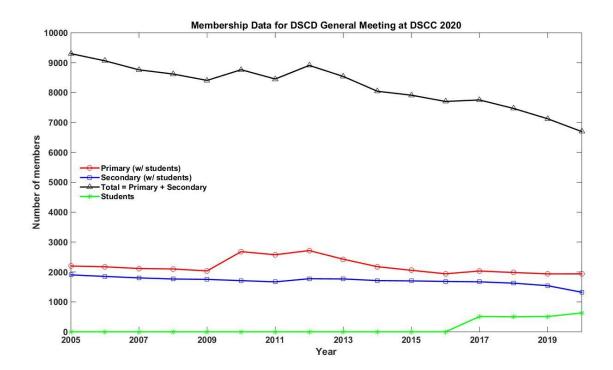
Student travel awards

- Total requested budget for DSCC 2020: \$12,850
- 49 travel grant applications from students (called "student participation award" due to remote format)
 - Will reimburse conference registration (\$225)
 - Must be presenting author
 - Must attend DSCD division meeting
- Best student paper competition
 - \$500 honorarium for 5 finalists
- Thanks to DSCC 2020 Students and Young Members Chairs Beibei Ren and Xu Chen!

ASME DSCD Secretary's Report

Kam K. Leang October 5, 2020

The **membership statistics** of the Division, with some historical data is shown below. As of September 15, 2020, the division has 1,938 primary members, 1,322 secondary members (dropped from 1542 since 2019), and a total of 6695 (dropped from 7124 members since 2019). There are 632 student members (increase from 510 in 2019).



Open Positions and Appointments:

1. Alternate DSCD Conference Program Representative

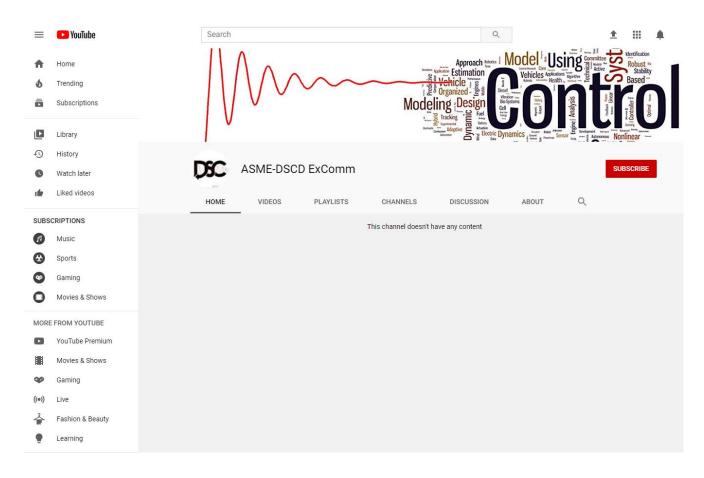
Alternate takes the place of out-going representative

Alternate term: December 1 to November 30, 2020

Representative Term: December 1 to November 30, 2021

DSCD YouTube Channel has been created to archive Division-related content

https://www.youtube.com/channel/UCKZDGbU2OsXtBvX4d7iwYTA



DSCD Treasurer's Report – DSCC 2020

Rajesh Rajamani, ASME DSCD Treasurer

1. DSCD Segregated Account Overview

Balance on Sep 25, 2020: \$318,565.82

Recent Fiscal Year Account Balances:

Year	Balance (at end of fiscal year)
2020	\$319,110.72*
2019	\$317,902.53
2018	\$400,067.50
2017	\$454,561.05
2016	\$556,321.01
2015	\$751,669.27
2014	\$851,951.26

Cautionary Note*: We seem to have had a *rise* in balance over the last fiscal year (of \$1,238.29). However, we had a one-time revenue of \$23,000, due to reimbursement related to money held in an account at the College of New Jersey since 2011 when Manish was in charge of student travel reimbursements. DSCD had forgotten to invoice TCNJ and did so only last year after Manish brought this to our attention.

2. Summary for FY 2020

FY 2020 runs from July 1, 2019 through June 30, 2020.

Revenues	Amount	Expenses	Amount
DSCC Registrations (not sure why this portion of registration comes here instead of the DSCC conference)	\$5,826.40	Freight and dues to AACC	\$870.65
AIM Conference Revenue	\$13,556.56	ASME Staff Travel/ Sustenance	\$3590.29
One-time reimbursement of student travel funds owed to DSCD by the College of New Jersey.	\$23,000	Volunteers Travel/ Sustenance	\$10,374.93
-		Certificates	\$991.00
		Awards/ Honors Expenses (including student travel grants)	\$25,317.80
Total	\$42,383.96		\$41,144.67

Net revenue in FY 2020: \$42,383.96 - \$41,144.67 = **\$1,238.29**

3. Spending Plan for FY 2021

Approved Spending Plan

Categories	Definition	FY 20 Total	FY 21 Without TCs	FY 21 TCs	FY 21 Total
ASME Event Support	Registration, travel, conference sponsorship, lodging, food, etc.	\$5,000	\$5,000		\$5,000
Face-to-Face Meetings	Leadership mtgs, planning mtgs, business mtgs, etc.)	\$6,000	\$3,000	\$3,950	\$6,950
Honors and Awards	Scholarships, travel reimbursement, etc.	\$8,000	\$4,000	\$6,800	\$10,800
New Initiatives and special projects	New products, new conferences, etc.				
Newsletter and Communications Activities	Journals, magazines pubs, etc.	\$250	\$250		\$250
Promotional funds	For event marketing	\$250	\$250		\$250
Programs and Philanthropy	ASME Foundation, charities, STEM, competitions, etc.				
Student and Early Career Activities	Collegiate council, ASME chapter support, etc.	\$12,000	\$12,000		\$12,000
Volunteer and member support	Non-ASME conference support	\$2,000	\$1,000		\$1,000
Total		33,500	\$25,500	\$10,750	\$36,250

Approved Technical Committee Budgets

Technical Committee	Travel & Meetings	Honors & Awards	Total
Automotive & Transportation Systems	\$1,250	\$1,250	\$2,500
Energy Systems	\$1,000	\$1,250	\$2,250
Vibrations	\$500	\$1,000	\$1,500
Mechatronics	\$500	\$1,000	\$1,500
Robotics	\$500	\$1,000	\$1,500
Bio-Systems and Health Care	\$200	\$1,300	\$1,500
Total	\$3,950	\$6,800	\$10,750

Expenditures so far in FY 21:

\$500 (Best paper award honorarium by the Energy Systems TC)

\$105 (3 student memberships as awards by the Energy Systems TC)

American Automatic Control Council (AACC) Report

Santosh Devasia

2020 ACC (first online conf.)

- Included typical activities
 - plenary talks,
 - special sessions,
 - tutorials,
 - meetings, and
 - exhibits.
- The conference had 1200+ registrations and the workshops attracted approximately 150 additional registrations

ACC 2020 (Numbers)

# Registrations					
	2017	2018	2019	2020	
AIAA	22	23	19	19	
AIChE	22	20	18	22	
APS	2	2	2	2	
ASCE	2	2	1	1	
ASME	67	61	53	53	
IEEE	551	567	566	434	
ISA	0	1	0		
SCS	1	0	3		
SIAM	11	9	3	9	
Subtotal: Member Reg	9	678	685	665	540

2020: nonmembers (159); Students paid (214); Students gratis (152); Exhibitors (11); VIP (37). Total 1213

# Papers					
	2017	2018	2019	2020	
AIAA	34	50	37	33	
AIChE	35	39	33	39	
ASCE	0	5	2	4	
ASME	104	101	94	80	
APS	1	7	3	0	
IEEE	541	580	529	450	
ISA	43	57	35	22	
SCS	4	4	3	3	
SIAM	10	15	15	23	
Total Society Papers		772	858	751	654

2020: Invited (177); Total 831

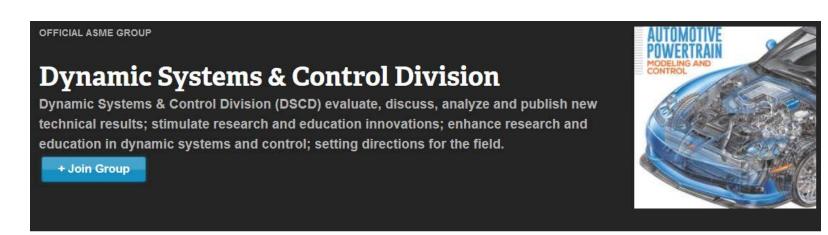
Future ACCs

Year	Location	Dates	General Char
2021	New Orleans, LA	26-28 May	George Chiu
2022	Atlanta, GA	8-12 June	Bonnie Ferri
2023	San Diego, CA	10-12 July	Xiaobo Tan
2024	Denver, CO	8-10 July (Tu-Th)	Caroline Beck

DSCD Website Update

Webmaster: Tuhin Das (Univ. Central Fl.), Asst. Webmaster: Diane Peters (Kettering Univ.)

- Website was updated around early Aug. 2020
- Honors and Awards updated
- Technical Committees updated
- New journal added to publications
 (ASME Letters in Dynamic Systems and Control)
- Governance information was updated
- Events page updated
- New division newsletter added



< Group

About

Events

Division Newsletters

Past Events

Honors & Awards

Technical Committees

Governance

Publications

Events

The Dynamic Systems and Control Division sponsors the ASME **Dynamic Systems** and Control Conference (DSCC) each year in the fall. Some years the DSCC is held jointly with another sponsoring society.

ASME, through the Dynamic Systems and Control Division, is a member society of the American Automatic Control Council (AACC), the US National Member Society of the International Federation of Automatic Control (IFAC), and the sponsor of the annual American Control Conference. To view other conferences or workshops that may be of interest, please visit the ASME Calendar of Events.

Upcoming Primary Conferences

ACC 2020: American Control Conference, Sheraton Denver Downtown Hotel, Denver, CO, July 1-3, 2020

DSCC 2020: Dynamic Systems and Control Conference, Pittsburgh Marriott City

Industry: Dynamic Systems & Control

DSCD Website Update

Webmaster: Tuhin Das (Univ. Central Fl.), Asst. Webmaster: Diane Peters (Kettering Univ.)

< Group

Events

Mechatronics

Past Events

Honors & Awards

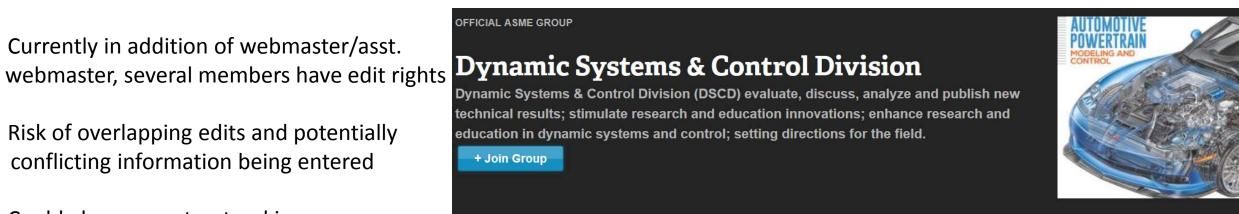
Technical Committee

Governance

Publications

Division Newsletters

- Currently in addition of webmaster/asst.
- Risk of overlapping edits and potentially conflicting information being entered
- Could also cause structural issues -Mechatronics sub-page at main menu-
- Additional journal added to publications
- Please be mindful when making changes that webmasters are maintaining the site
- Requesting edits be done through the webmaster/asst. webmaster, or inform them before making modifications



Events

The Dynamic Systems and Control Division sponsors the ASME Dynamic Systems and Control Conference (DSCC) each year in the fall. Some years the DSCC is held jointly with another sponsoring society.

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Upcoming Primary Conferences

ACC 2020: American Control Conference, Sheraton Denver Downtown Hotel, Denver, CO, July 1-3, 2020

DSCC 2020: Dynamic Systems and Control Conference, Pittsburgh Marriott City Center, Pittsburgh, Pennsylvania, October 4 – 7, 2020

Industry: Dynamic Systems & Control

ASME Journal of Dynamic Systems, Measurement and Control

Technical Editor: Ranjan Mukherjee Secretary: Marlan Buddingh

This report contains the following:

1. Statistics

Statistical data is provided for number of papers and total number of pages published on an annual basis, percentage of papers accepted, time in review process, and current number of Associate Editors.

2. Comments

Some recent trends related to number of submissions and publications, author statistics, review process, and time in review are noted.

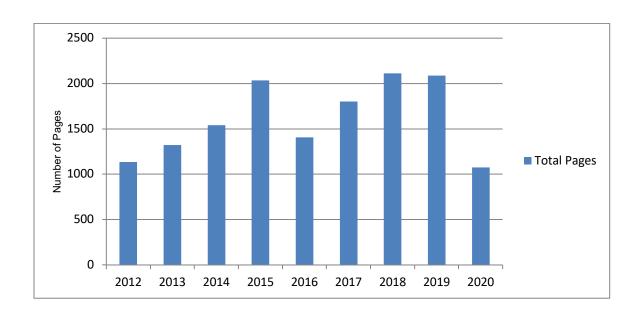
1. Statistics

1.1 Papers Published: 2012-2020

Issue	Number of Full Papers	Number of Technical Briefs	Number of Pages	Number of Papers			
2012 Totals	101	19	1136	120			
2013 Totals	115	32	1321	147			
2014 Totals	133	31	1542	164			
Since 2015, the journal changed from bi-monthly to a monthly publication.							
2015 Totals	168	37	2035	210			
2016 Totals	125	21	1407	146			
2017 Totals	157	34	1807	191			
2018 Totals	187	23	2112	210			
Jan 19	16	1	174	17			
Feb 19	16	0	171	16			
Mar 19	16	3	183	19			
Apr 19	15	4	176	19			
May 19	15	0	171	15			
Jun 19	14	5	176	19			
Jul 19	18	0	183	18			
Aug 19	15	3	164	18			
Sep 19	17	2	172	19			
Oct 19	13	3	181	16			
Nov 19	15	1	181	16			
Dec 19	12	3	156	15			
2019 Totals	182	25	2088	207			
Jan 20	9	0	63	9			
Feb 20	7	2	96	9			
Mar 20	9	0	94	9			
Apr 20	10	0	94	10			
May 20	6	2	94	8			
Jun 20	8	2	63	10			
Jul 20	8	0	100	8			
Aug 20	8	0	95	8			
Sep 20	7	4	94	11			
Oct 20	8	0	90	8			
Nov 20	5	5	97	10			
Dec 20	7	1	96	8			
2020 Totals	92	16	1076	108			

Since January 2020, the number of papers published per issue has reduced significantly.

1.2 Yearly Page Totals: 2012-2019



1.3 Review Statistics: 2005-2020

Year Submitted	Total Number of Papers Submitted	Total Number Papers Rejected	Rejection Paper %	Total Number of Papers Withdrawn/Remove	Total Number of Papers Accepted	Accepted Paper %
2005	373	186	50%	87	100	27%
2006	393	221	56%	83	89	23%
2007	336	191	57%	68	77	23%
2008	389	188	48%	83	118	30%
2009	374	187	50%	90	97	26%
2010	384	166	43%	89	129	34%
2011	413	210	51%	83	120	29%
2012	438	193	44%	110	135	31%
2013	537	272	51%	111	152	28%
2014	554	276	50%	124	154	28%
2015	662	311	47%	164	187	28%
2016	619	331	53%	99	188	30%
2017	637	338	53%	87	212	33%
2018	554	325	59%	40	170	31%
2019	550	349	63%	80	94*	17%*
2020	378	171	45%	64	26	7%

^{*} For 2019, 27 (5%) papers are currently under review.

1.4 Statistics for Time in Process: 2005-2019

Year	No. of Papers	Assigned to AE (days)	Time in Review (days)	AE Decision (days)	TE Decision (days)	TE Approval (days)	Submission to TE Decision (months)	Submission to Publication (months)
2005	373	25	244	47	12	33	8.749	24.276
2006	393	22	263	23	11	36	7.052	23.175
2007	336	44	216	54	14	28	8.675	24.123
2008	389	67	229	47	18	32	9.669	21.933
2009	374	26	227	38	19	21	10.993	22.509
2010	384	37	232	47	12	11	11.257	21.335
2011	413	11	206	34	17	15	9.091	20.429
2012	438	22	210	34	17	8	9.699	18.827
2013	537	30	197	27	15	4	8.313	17.320
2014	554	16	147	22	11	3	6.033	15.137
2015	662	14	166	22	9	4	6.371	14.395
2016	619	27	142	24	8	1	5.996	15.104
2017	637	61	141	28	8	3	6.33	14.804
2018	554	72	146	22	6	7	7.367	13.977
2019	550	27	136	18	3	3	8.279	10.8

1.5 Number of Associate Editors

Number of AEs: = 49

Goal is to keep workload of AEs to 12 papers/year or less, on average.

2. Comments

2.1 Reduction in Acceptance Rate

A more rigorous review of papers is being conducted since August 2019. This has resulted in fewer papers being accepted.

In 2018, 31% of the total number of papers submitted were accepted for publication, down from 33% in 2017. For 2019, this number is anticipated to be in the range of 20%. As of June 2020, 17% of the papers submitted in 2019 have been published or accepted; and 5% of the papers are still in review.

2.2 Reduction in the Number of Publications/Pages

In 2019, the average number of papers published per issue was 17. In 2020, the average number of papers published per issue has dropped to 9. The total number of pages published has dropped from 2109 in 2019 to 1076 in 2020.

2.3 Author Statistics for 2019

In 2019, the total number of papers submitted were 550.

Of these 550, the number of papers for which at least one author was an ASME member was 89 (16%).

The number of papers submitted by members of the Dynamics Systems and Control Division (DSCD) is relatively small.

2.4 Trends

The number of papers submitted to JDSMC in the first nine months of 2020 is 378. It is anticipated that the total number of submissions in 2020 will be roughly 10% lower than that of 2019.

The time for "Submission-to-Publication" has reduced. For 2017 papers, the time was 14.8 months; it reduced to 13.9 months for 2018 papers and currently stands at 10.8 months for 2019 papers.

1. Background

The *ASME LDSC* is published quarterly, in January, April, July, and October. The first three issues (with official publication dates of Jan., Apr., and July 2021) have already been posted online in the ASME Digital Collection.

Besides direct paper submissions, the *ASME LDSC* also provides a mechanism for publishing the best conference papers from the ASME Dynamic Systems and Control Conference. Authors of DSCC conference papers have the opportunity to have their conference paper considered for publication in the *ASME LDSC*. A subset of DSCC papers whose CEB review scores exceed a threshold will be selected for consideration and undergo a second review by the *ASME LDSC* Editorial Board. Those papers considered acceptable for the *ASME LDSC* will be published in the journal. While they will still be presented at the DSCC, they will not go into the DSCC proceedings.

A total of 22 DSCC2020 papers have been submitted for possible publication in *ASME LDSC*, with several more still expected.

2. September 2020 Status Report

2.1 Papers Published: 2021 (earliest formal publication date)

Issue	Number of Full	Number of
	Papers	Pages (app.)
Jan 2021	17	102
Apr 2021	10	69
July 2021*	1	7
2021 Totals*	28	178

^{*}Stats as of 9/30/2020

2.2 Review Statistics: 2019-2020

Year Submitted	Total Number of Papers Submitted	Total Number Papers Rejected	Rejected Paper %	Total Number of Papers Withdrawn/Removed	Total Number of Papers Accepted	Accepted Paper %
2019	31	8	26%	0	23	74%
(DSCC)						
2019	10	4	40%	1	4	40%
(other)						
2019	41	12	29%	1	27	66%
(Total)						
2020*	71**	24	35%	7	8	12%

2.3 Statistics for Time in Process: 2019-2020

Year	No. of Papers	Assigned to AE (days)	Time in Review (days)	AE Decision (days)	TE Decision (days)	TE Approval (days)	Submission to TE Decision (months)	Submission to Publication (months)
2019	41	18	43	19	24	8	3.481	5.060
2020*	71	20	63	13	12	3	2.912	4.667

^{*}Stats as of 9/30/2020

2.4 Editorial Board:

Advisory Board:

Current number of Associate Editors = 9

Jordan Berg NSF Kok-Meng Lee Georgia Tech

Alex Leonessa Virginia Tech George Zhu Michigan State Reza Tafreshi Texas A&M, Qatar

Levi DeVries USNA
Warren White Kansas State **AE Nominations pending = 10**

Garrett Clayton Villanova
Kam Leang Univ of Utah
Qian Wang Penn State

3. Topics of Discussion

3.1 Submissions

Please consider submitting your paper to the *ASME LDSC*. Here is the submission link:

https://journaltool.asme.org/home/JournalDescriptions.cfm?JournalID=35&Journal=ALDSC

3.2 Additional Associate Editors

We have been seeing a steady influx of paper submissions, and so we are currently looking for people interested in serving as Associate Editors to help with paper reviews for the Letters. We need AEs especially in the following areas:

Biomedical systems
Bio-systems
Environmental engineering
Health care engineering
Machine learning
Noise control
Smart structures
Vibration control

Prospective Associate Editors are expected to be tenured, if in academia, or to have equivalent experience, if in industry or government.

If interested, please send an email to me: meckl@purdue.edu

3.3 Special Issues

We are soliciting input from DSCD members for research themes/topics for Special Issues for *ALDSC*. If interested, please provide the following information:

- 1. Special Issue Title
- 2. Description: An overview of the subject area and focus of special issue.
- 3. Topic Areas: 6-12 topic areas that help define the research area.
- 4. List of Potential Guest Editors and Contributors

OVERVIEW OF TMECH STATUS

2020 Management Committee

	2018	2019	2020
Chair	Roberto Oboe (IES)	Aaron Dollar (RAS)	Xiaobo Tan (DSCD)
Treasurer	Kyujin Cho (IES)	Xiaobo Tan (DSCD)	Hiroshi Fujimoto (IES)
Secretary	Kok-Meng Lee (DSCD)	Hiroshi Fujimoto (IES)	Kyujin Cho (RAS)
Members	Hiroshi Fujimoto(IES)	Kyujin Cho (RAS)	Aaron Dollar (RAS)
	Aaron Dollar (RAS)	Jun Ueda (DSCD)	Jun Ueda (DSCD)
	Xiaobo Tan (DSCD)	Roberto Oboe (IES)	Michael Ruderman (IES)

Officers of the Management Committee rotate among the sponsoring societies.

2020 Editorial Staff

- Editor-in-Chief: I-Ming Chen, Nanyang Tech. University
- Editorial Office: Kara McArthur, JWM Consulting
- Senior Editors: 12 (6 added since 2019)
- Technical Editors: 79 (total change of +18 since the 2019 report)

Submission Status



• 2020 total submissions represents an estimate of 2107 submissions by the end of the year, a projected 29% increase from 2019, largely due to total (original and revised) submissions in the TMECH/AIM CS track.

At-a-Glance Update

	As of June 3	0, 2020	Prior 12	Monthly Avg. Prior 12
Submission Statistics	YTD	MTD	Months	Months
Regular paper	587	4	1031	85.9
Focused Section Short Paper	1	0	3	0.2
Short paper	12	0	22	1.8
Letter	4	0	7	0.6
AIM Concurrent Paper	145	0	162	13.5
Focused Section	59	2	108	9.0

Journal Statistics	MTD	Prior 12 Months
Avg. days from submission to first decision	0.0	68.8
Avg. Reviewer turnaround time (days) - Original	0.0	26.8
Avg. Reviewer turnaround time (days) - Resubmission	0.0	26.6
Avg. Reviewer turnaround time (days) - Revision	0.0	22.7
Avg. Time to Assign Reviewer (days) - Original	0.0	12.5
Avg. Time to Assign Reviewer (days) - Resubmission	0.0	6.1
Avg. Time to Assign Reviewer (days) - Revision	0.0	5.8
Avg. days from submission to final decision	0.0	79.7

Other Statistics

Accept Ratio (prior 12 months) 327 : 1148 (28.5%)
Total Pending Manuscripts 338

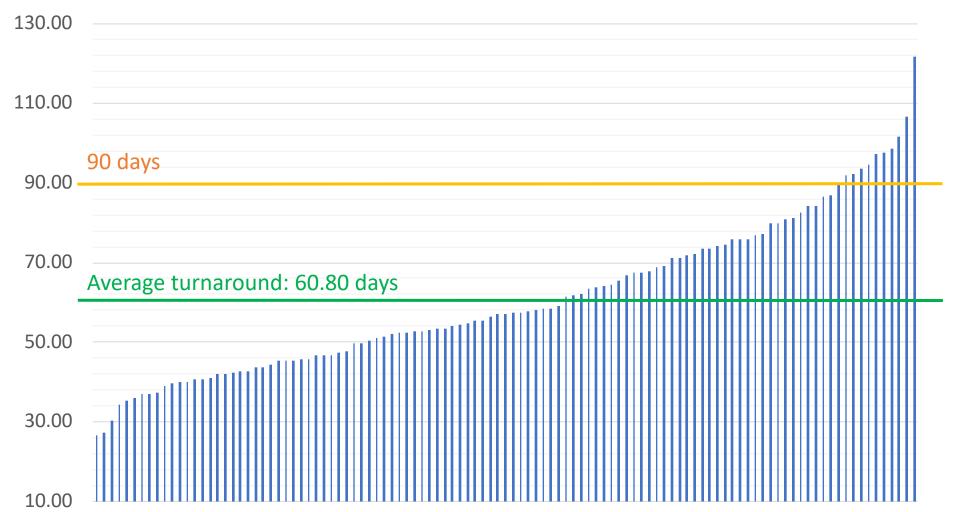
Summary of Changes in At-a-Glance From Last EiC Report

- Regular paper submissions are up from 891 to 1031
- The AIM Concurrent Paper submission category has been added
- Avg. days from submission to first decision are down from 119.0 to 68.8
- Avg. days from submission to final decision down are from 117.3 to 79.7*
- Accept ratio is holding steady from 28.6% to 28.5%

^{*}Days to first decision and days to final decision are close as final decision includes immediate rejects.

Technical Editor Turnaround in the Last 12 Months (Days to Recommendation)

(including guest editors)



10 Editors had an average turnaround of longer than 90 days

Publication Status

2020 (Vol 25) – page budget 3000 pages (1706 pages used)

- **February issue** 490 pages, 45 articles
 - Regular papers 45 articles
- April issue 668 pages, 62 articles
 - Focused Section Nano/Micro- Motion System: Design, Sensing and Control
 - Regular papers 41 articles
- June issue 544 pages, 50 articles

Planned

- August issue 450 pages
 - TMECH-AIM CS Focused Section
- October issue 446 pages
 - Focused Section AI-based monitoring in Smart Manufacturing
- December issue 400 pages

Publication Status

Page budget for TMECH over the years

Year	'07	'08	'09	'10	'11	'12	'13	'14	'15	'16	'17	'18	'19	'20
Pages	752	750	794	1028	1224	1232	1832	2000	3292	3000	3000	3000	3000	3000
Issues	6	6	6	6	6	6	6	6	6	6	6	6	6	6

In 2021, we will increase the page budget 10% to 3300

Backlog (As of July 3, 2020)

- 146 papers in production
- 141 papers in Xplorer Early Access

Impact Factor and Rankings

Clarivate has released 2019 data on 30 June 2020

	2015	2016	2017	2018	2019
Impact Factor	3.851	4.357	3.936	4.943	5.673
Rank in Engineering, Manufacturing	1/42	1/44	4/46	6/49	5/50
Rank in Automation and Control Systems	3/59	6/60	10/61	11/62	7/63
Rank in Engineering, Mechanical	5/132	3/130	9/128	7/129	7/130
Rank in Engineering, Electrical & Electronics	12/257	25/262	38/260	36/266	28/266

Journal Rankings in Categories

MANUFACTURING ENGINEERING

	Full Journal Title	Total Cites	Journal Impact Factor •	Eigenfactor Score
1	INTERNATIONAL JOURNAL OF MACHINE TOOLS & MANUFACTURE	15,422	8.019	0.00907
2	Virtual and Physical Prototyping	1,294	7.310	0.00210
3	Additive Manufacturing	5,146	7.002	0.01138
4	COMPOSITES PART A- APPLIED SCIENCE AND MANUFACTURING	27,184	6.444	0.02367
5	IEEE-ASME TRANSACTIONS ON MECHATRONICS	11,646	5.673	0.02052
6	INTERNATIONAL JOURNAL OF PRODUCTION ECONOMICS	23,668	5.134	0.02073
7	JOURNAL OF MANUFACTURING SYSTEMS	3,594	5.105	0.00454

MECHANICAL ENGINEERING

	Full Journal Title	Total Cites	Journal Impact Factor •	Eigenfactor Score
1	PROGRESS IN ENERGY AND COMBUSTION SCIENCE	12,727	28.938	0.01050
2	Advances in Applied Mechanics	1,504	8.333	0.00027
3	INTERNATIONAL JOURNAL OF MACHINE TOOLS & MANUFACTURE	15,422	8.019	0.00907
4	INTERNATIONAL JOURNAL OF PLASTICITY	13,193	6.490	0.01345
5	MECHANICAL SYSTEMS AND SIGNAL PROCESSING	25,317	6.471	0.02902
6	Engineering Applications of Computational Fluid Mechanics	1,327	5.800	0.00161
7	IEEE-ASME TRANSACTIONS ON MECHATRONICS	11,646	5.673	0.02052

AUTOMATION & CONTROL SYSTEMS

	Full Journal Title	Total Cites	Journal Impact Factor •	Eigenfactor Score
1	IEEE Transactions on Cybernetics	17,681	11.079	0.05200
2	IEEE Transactions on Systems Man Cybernetics- Systems	12,083	9.309	0.02198
3	IEEE Transactions on Industrial Informatics	18,363	9.112	0.03517
4	IEEE TRANSACTIONS ON INDUSTRIAL ELECTRONICS	64,150	7.515	0.10560
5	IEEE CONTROL SYSTEMS MAGAZINE	3,980	7.471	0.00452
6	Nonlinear Analysis-Hybrid Systems	2,147	5.881	0.00507
7	IEEE-ASME TRANSACTIONS ON MECHATRONICS	11,646	5.673	0.02052

ELECTRICAL ENGINEERING

		Full Journal Title	Total Cites	Impact Factor •	Eigenfactor Score
	23	INTELLIGENT TRANSPORTATION SYSTEMS	15,798	6.319	0.02750
	24	IEEE TRANSACTIONS ON SOFTWARE ENGINEERING	6,627	6.112	0.00538
	25	IEEE TRANSACTIONS ON POWER SYSTEMS	41,609	6.074	0.05020
	26	IEEE Transactions on Information Forensics and Security	10,916	6.013	0.01941
	27	IEEE TRANSACTIONS ON GEOSCIENCE AND REMOTE SENSING	46,565	5.855	0.04926
	28	IEEE-ASME TRANSACTIONS ON MECHATRONICS	11,646	5.673	0.02052
ер	29	IEEE TRANSACTIONS ON COMMUNICATIONS	21,516	5.646	0.03754

Contributions Analysis

Co	ontributions by country/re	gion
1	CHINA MAINLAND	355
2	USA	168
3	South Korea	88
4	Canada	83
5	Japan	46
6	England	45
7	Singapore	37
8	GERMANY (FED REP GER)	36
9	Australia	35
-	Italy	35

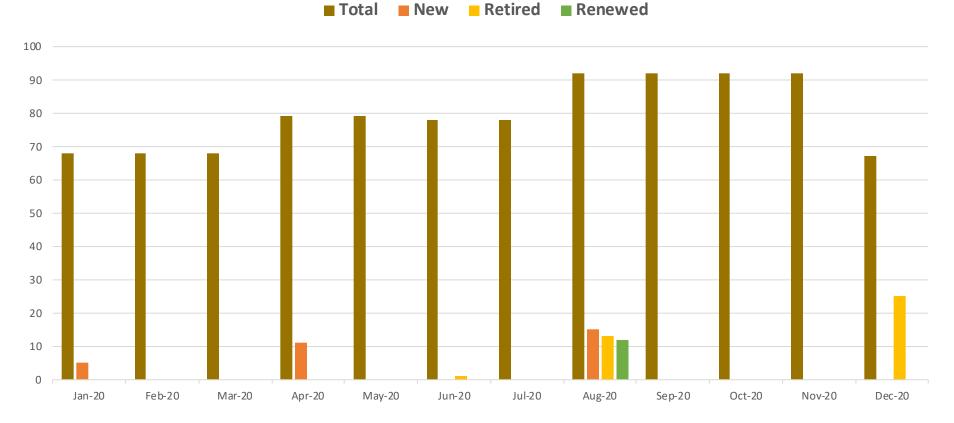
	Contributions by Organization	
1	HARBIN INSTITUTE OF TECHNOLOGY	37
2	BEIHANG UNIVERSITY	31
3	SHANGHAI JIAO TONG UNIVERSITY	29
4	CHINESE ACADEMY OF SCIENCES	28
5	ZHEJIANG UNIVERSITY	24
6	NATIONAL UNIVERSITY OF SINGAPORE	21
7	TSINGHUA UNIVERSITY	20
8	BEIJING INSTITUTE OF TECHNOLOGY	17
9	CHINESE UNIVERSITY OF HONG KONG	15
-	HUAZHONG UNIV OF SCIENCE & TECH	15
-	NANYANG TECHNOLOGICAL UNIVERSITY	15
-	SUNGKYUNKWAN UNIVERSITY (SKKU)	15
-	UNIVERSITY SYSTEM OF GEORGIA	15

Management of Technical Editors

- Current status: recruitment, retirement, renewal
- Performance evaluation
 - Under observation
 - Term extension
- Recruitment of new TE
 - TMECH areas
 - Secondary keywords
- Statistics 1 July 2020
 - Total: 79
 - Retired before 31 August 2020: 2
 - Subject to extension on 31 August 31: 12
 - Subject to confirmation: 10
 - Retired on 31 December 2020: 25

Statistics of Technical Editors

TMECH Technical Editor Statistics



TE Under Observation (1/1/19 Appointed)

Jan 1 ~ Dec 31, 2019

Last Name	First Name	to recomd for	Manuscripts	Avg Turnaround to Decision for Orig. Submissions (Time to First Decision)	for Revisions	Time to Final Decisions	No. of Manus. Given a Final Decision	Percent of Manuscripts Accepted*
Huang	Panfeng	57.04	96.62	115.44	59.00	86.00	9	44.4%
Indri	Marina	58.38	91.57	110.07	62.78	75.00	10	50.0%
Ito	Kazuaki	91.70	119.28	153.40	76.62	92.00	8	50.0%
Katsura	Seiichiro	59.90	82.05	86.06	48.00	78.00	15	20.0%
Liu	Zheng	79.67	121.59	134.08	81.00	124.00	8	37.5%
Mishra	Sandipan	101.19	144.29	172.82	39.67	113.00	8	37.5%
Shimono	Tomoyuki	49.36	82.79	101.71	52.23	59.00	11	45.5%
Wan	Jiafu	63.10	124.86	175.75	57.00	83.00	3	66.7%
Xie	Hui	67.11	98.27	106.50	76.33	75.00	4	75.0%
Zhu	Kunpeng	50.20	85.75	91.29	47.00	77.00	11	18.2%

Jan 1 ~ Mar 31, 2020

Huang	Panfeng	66.30	70.40	80.00	32.00	115.00	1	100.0%
Indri	Marina	37.72	42.00	62.00	17.00	29.00	4	100.0%
Ito	Kazuaki	64.50	65.67	86.00	55.50	65.67	4	50.0%
Katsura	Seiichiro	51.54	57.67	59.60	48.00	56.11	8	0.0%
Liu	Zheng	48.90	56.80	65.30	44.00	51.00	3	33.3%
Mishra	Sandipan	42.90	44.80	52.50	39.67	42.00	5	20.0%
Shimono	Tomoyuki	43.12	47.29	52.70	42.44	39.50	3	66.7%
Wan	Jiafu	37.00	24.50	n/a	24.50	24.50	1	100.0%
Xie	Hui	65.33	71.33	71.33	n/a	52.00	1	100.0%
Zhu	Kunpeng	56.33	58.33	68.50	38.00	58.33	5	40.0%

TE for Term Extension (8/31 end)

Jan 1 ~ Dec 31, 2019 Avg Turnaround to Avg

Time to

No of

Percent of

17

Last Name

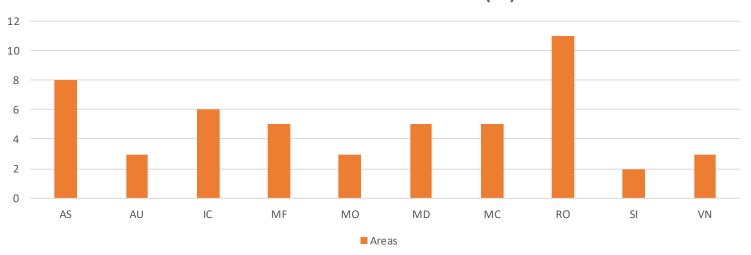
First Name

Avg Turnaround

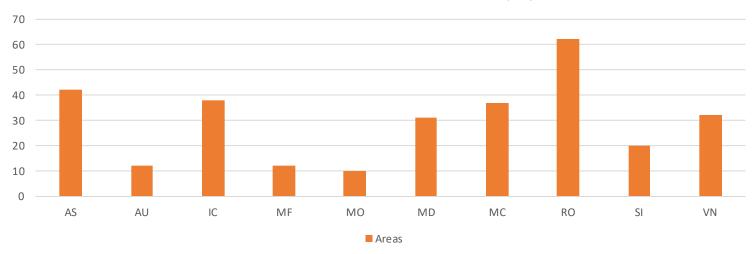
		to recomd for	to Decision for	Decision for Orig	Turnaround	Final	Manuscripts Manuscripts	
		Manuscripts Assigned (Days)	All Manuscripts Assigned	Submission (Time to First Decision)	for Revisions	Decisions	Given a Fina Decision	Accepted*
Zhang	Tao	50.94	74.34	100.23	56.63	64.00	12	58.3%
Yoon	Jungwon	58.33	92.62	99.25	82.00	80.00	12	41.7%
Yongkuan	Yuen	62.00	83.21	102.00	65.53	68.00	17	82.4%
Wang	Qining	91.33	120.37	145.56	97.70	82.00	9	55.6%
Tavakoli	Mahdi	68.34	92.19	109.11	68.77	72.00	20	50.0%
Tang	Jiong	124.14	173.25	221.60	92.67	167.00	9	55.6%
Singh	Tarunraj	80.41	117.20	130.00	34.00	129.00	12	16.7%
Seo	TaeWon	49.77	84.54	105.00	43.62	64.00	22	31.8%
Scruggs	Jeff	98.05	112.00	139.86	79.50	84.00	8	62.5%
Lan	Chao-Chieh	46.20	80.80	94.33	65.33	56.00	28	32.1%
Hu	Guoqiang	106.13	130.32	177.60	59.40	87.00	14	71.4%
Clevy	Cédric	55.47	77.60	91.85	58.35	58.00	17	35.3%
Cao	Dongpu	94.00	131.43	146.09	115.30	118.00	11	63.6%
			Jan 1 ~	Mar 31, 2020				
Zhang	Tao	43.69	46.83	67.00	42.80	15.00	3	66.7%
Yoon	Jungwon	47.69	52.67	52.67	n/a	46.00	2	0.0%
Yongkuan	Yuen	91.50	93.00	n/a	93.00	93.00	11	90.9%
Wang	Qining	44.25	60.33	51.00	65.00	60.33	4	50.0%
Tavakoli	Mahdi	46.25	47.31	52.50	39.00	44.00	11	45.5%
Tang	Jiong	n/a	n/a	n/a	n/a	n/a	3	33.3%
Singh	Tarunraj	57.36	66.00	71.00	46.00	62.00	5	20.0%
Seo	TaeWon	40.45	43.40	60.60	26.20	38.00	7	42.9%
Scruggs	Jeff	110.00	114.00	114.00		N/A	2	50.0%
Lan	Chao-Chieh	41.80	45.69	47.89	40.75	42.00	9	22.2%
Hu	Guoqiang	40.50	43.14	83.00	27.20	46.67	4	50.0%
Clevy	Cédric	43.71	48.29	56.00	29.00	42.00	8	37.5%
Cao 2020	Dongpu	52.25	43.25	64.50	22.00	22.00	4	50.0%

TMECH Area Distribution: SE & TE

Area Distribution: Senior Editor (12)

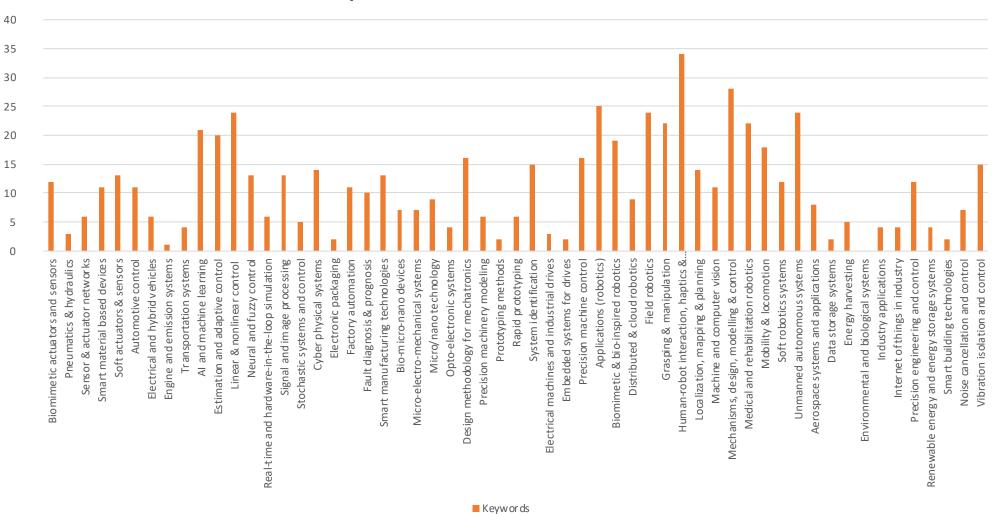


Area Distribution: Technical Editors (79)



Keyword Distribution: TE

Keyword Distribution: Technical Editors



Senior Editor Handling Data

Last Name	First Name	No of Papers Handled Last 12 M as SE/TE	•	
SEs in 20	019 and 2020			
Basin	Michael	207/40	247	
Chen*	Xiang	378/19	397	
O'Malley**	Marcia	127/0	127	
Qiao	Hong	177/8	185	
Tan	Xiaobo	186/16	202	
Zhang	Wenjun	204/9	213	
SEs i	n 2020 only			
Alici	Gursel	58/17	75	
Gao	Huijun	43/2	45	
Gao	Robert	24/15	39	
Kyriakopoulos	Konstantinos J.	68/0	68	
Li	Yunhua	41/9	50	
Zou***	Qingze	122/27	149	

^{*} TMECH/AIM CS Lead guest editor

^{**} IROS 2020 Program chair

^{***} FS NMMS Lead guest editor

TMECH-AIM CONCURRENT SUBMISSION

FOCUSED SECTION on TMECH/AIM EMERGING TOPICS

2020 TMECH/AIM Concurrent Submissions

Total submissions in CS: 171

Accepted Papers: 41

Rejected Papers: 120

Transfer to RP: 9

Volunteer Withdraw: 1

- As of May 5, AIM CS comprised 12.2% of 2020 TMECH Total Submissions
- Published title in TMECH:
 - Focused Section on xx Edition of "TMECH/AIM Emerging Topics"

TMECH/AIM CS Editorial Board

- TMECH-AIM2020
 - Lead guest editors: Xiang Chen, Xiaobo Tan
 - Guest editors: 23 (5 non-TE, 18 current TE)
- Proposed Editorial Board Structure of FS on TMECH/AIM Emerging Topics
 - Lead guest editors: 2 (eq. to regular TMECH SE)
 - One from TMECH Senior editor with 2-year term
 - One from AIM conference program chair with 1-year term
 - Guest editors: 20 ~ 25 (eq to regular TMECH TE)
 - All with 3-year term for continuity
 - Jan to May period
 - Up to 50% without current TMECH TE appointment
 - Immediate retiring TMECH TE
 - Current TMECH TE (no more than 33% of TMECH TE pool)

MANAGEMENT OF REVIEWERS

TMECH Junior Reviewer Program

The TMECH Junior Reviewers Program (TJRP) is intended to introduce young researchers in the mechatronics research community to the best practices in peer-reviewing of scientific publications under the guidance of Editorial Board members. This is also an effort to encourage junior researchers having early involvement in professional activities of the mechatronics community for their future career planning. (Details referred to TMECH Editorial Guidelines)

TJRP Program Manager

- Prof. Erdal Kayacan (IES, RAS) [Email: erdal.kayacan@gmail.com]
- Dept of Engineering, Aarhus University, Denmark

TJRP Co-Program Manager

- Prof. Shaohui Foong (RAS, ASME) [Email: foongshaohui@sutd.edu.sg]
- Engineering Product Development Pillar, Singapore University of Technology & Design, Singapore
- Prof. Ming Xin (ASME) [Email: xin@missouri.edu]
- Dept of Mechanical & Aerospace Engineering, University of Missouri, USA

July 2020 2

TJRP Workflow

How TJRP system works from TE point of view







TE chooses one reviewer from TJRP list

 Green flag will appear near the programme members



TE gives grade to TJRP reviewer in S1M system

 This is necessary, but not sufficient



TE gives feedback to Mentor about the review (if asked)



How TJRP system works from TJRP member point of view

TJRP member receives the review request from TE, Mentor, or other TMECH Editorial Board members in S1M



TJRP member fills online review record form in Google for tracking

Name/Surname; Paper ID; Paper title;
 Date received; Date review completed;
 Mentor name; TE name

How TJRP system works from Mentor point of view

Mentor keeps an eye on the form to be filled by TJRP member



Mentor interacts with *TE* about review quality



Mentor interacts
with TJRP
member to train
him/her further

TJRP Programme mentor list:

- Erdal Kayacan
- Foong Shaohui
- Xin, Ming

Reviewer Selection & Training

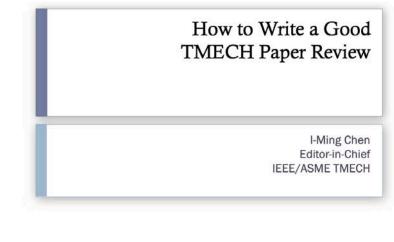
Reviewer recruitment: Details in Editorial Guidelines

- Geographic/institutional diversity
- Do not use 2 or more reviewers from the same institution
- Do not invite reviewers from the authors' institutions
- Minimize non-PhD (graduate student) reviewers
- For revision (Minor), you may invite previous reviewers opposing the acceptance **only** for faster turn around time.
- ** For revision (Major), please invite all previous reviewers. If paper quality not enough, you may reject this <u>Major Revision Paper</u>.

 For resubmission (Reject & Resubmit), please invite a combination of previous and new reviewers

Training

- PPT slides on "How to Write a Good TMECH Paper Review"
- To be updated with TJRP Mentors & TMECH EB input



Ver. 2020-0401

Manuscript/Proposal Submissions

Review/Survey/Tutorial Papers

- Cover emerging research topics in Mechatronics or have a tutorial or review nature of sufficiently large interest to Transactions audience
- Submit a proposal, to Editor-in-Chief prior to manuscript
 - Address: potential audience, TMECH relevance, analysis of any existing survey papers on the general topic
 - Summary of the authors' qualifications
 - Proposed bibliography
- Proposal subject to approval by EiC, in conjunction with Senior Editors
- Survey papers may be a max of 16 pages long in Transactions format For the final version of a survey paper, a mandatory page charge (US\$200/page) applies to each page beyond 8, up to a maximum of 16 pages (Subject to MC approval)

Focused Section Proposal

- Submit to EiC details in Editorial guidelines
- FS proposal template available to download in TMECH website

Timeline of Focus Section Papers

- Publicity of FS Call for Paper: 4~5 months before Submission Deadline (SD)
- First review decision: SD + 90
- Revision due after first decision: SD + 90 + 45 [This is set and shown in the S1M system as revision deadline is 45 days from decision is made]
- <u>Final decision</u>: SD + 90 + 45 + 60 [Assuming the guest editors can complete review in 60 days.]
- <u>Final manuscript due:</u> SD + 90 + 45 + 60 + 45 [This 45-day is set in the S1M system as submission deadline.]
- IEEE publication production: SD + 90 + 45 + 60 + 45 + (>30) [Min 30 days after submission the manuscript can be in printed issue.]
- <u>Summary:</u> A reasonable publication date is about 9 months (270 days) after submission deadline. 10-month period (300 days) is possible as a buffer.

	Proposed FS Timeline						
Sub deadline	1 May	1 July	1 Sep	1 Nov	1 Jan	1 Mar	
First decision	1 Aug	1 Oct	1 Dec	1 Feb	1 April	1 June	
Revision due	15 Sep	15 Nov	15 Jan	15 Mar	15 May	15 July	
Final decision	15 Nov	15 Jan	15 Mar	15 May	15 July	15 Sep	
Final manuscript	31 Dec	28 Feb	30 April	30 June	31 Aug	31 Oct	
Publishing issue	February	April	June	August	October	December	

July 2020 29

Focused Sections

In review

- Al-Based Monitoring in Smart Manufacturing
 - Lead guest editor: Han Ding (HUST, China)
 - Publication: Oct 2020 issue

Call for Paper

- Mechatronics in Unammmed Systems
 - Lead guest editor: Wei He (USTB, China)
 - Submission: 1 July 2020
 - Publication: April 2021 issue
- Mechatronics in Road Mobility Systems
 - Lead guest editor: Valentin Ivanov (TUM, Germany)
 - Submission: 1 Sep 2020
 - Publication: June 2021 issue

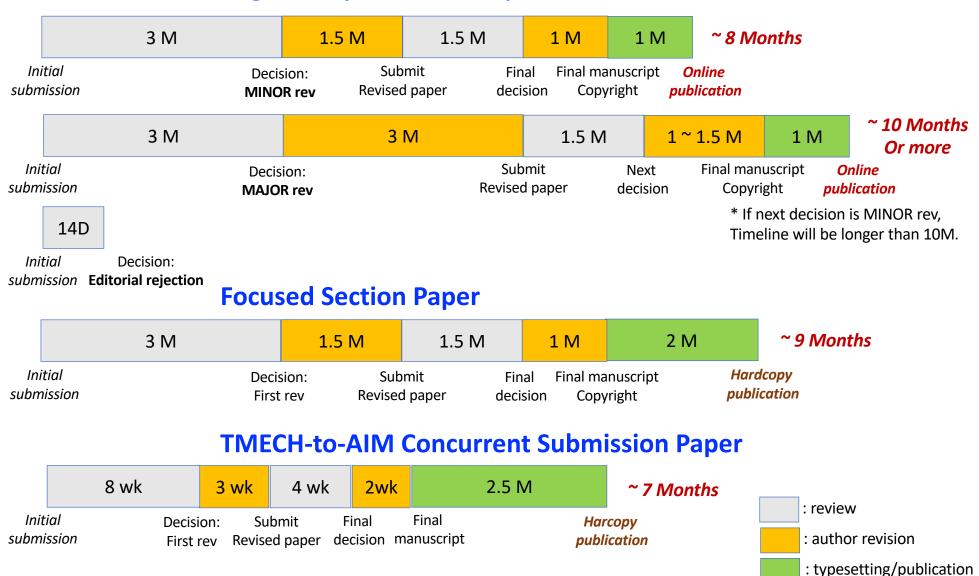
Proposals

- Mechatronics for Construction automation and robotics
 - Lead guest editor: Chien Chern Cheah (NTU, Singapore)/Thomas Bock (TUM, Germany)
 - Submission: 1 Jan 2021
 - Publication: Oct 2021 issue
- Adaptive Learning and Control for Advanced Robotic Systems
 - Lead guest editor: Bin Liang (Tsinghua, U, China)
 - Submission: 1 May 2021
 - Publication: Feb 2022 issue

Typical Submission-to-Publication Timeline

Regular Paper / Short Paper

I-Ming Chen © 2020





MECHATRONICS

Best Paper Award

is presented to

Donghyun Kim, Junhyeok Ahn, Orion Campbell, Nicholas Paine, and Luis Sentis

for the paper entitled

Investigations of a Robotic Test Bed With Viscoelastic Liquid Cooled Actuators

IEEE/ASME Transactions on Mechatronics, vol. 23, no. 6, pp. 2704-2714, December 2018

For the innovative approach to the design and development of an actuator with sustained high torque output

Xiaobo Tan

Chair of Management Committee

June 8, 2020

I-Ming Chen Editor-in-Chief



MECHATRONICS Best Paper Award

is presented to

Hiroshi Matsuki, Kenta Nagano, and Yasutaka Fujimoto for the paper entitled

Bilateral Drive Gear—A Highly Backdrivable Reduction Gearbox for Robotic Actuators

IEEE/ASME Transactions on Mechatronics, vol. 24, no. 6, pp. 2661-2673, December 2019

For the innovative method for maximizing two-way drive efficiencies of back-drivable gearboxes

Xiaobo Tan

Chair of Management Committee

June 8, 2020

I-Ming Chen Editor-in-Chief

Any Other Business?

- Naming convention of TMECH Best paper
 - In TMECH website: 20xx Year winner meaning 20xx-1 year paper
 - On the record should be 20xx-1 Best Transactions Paper Award

Q&A

THANK YOU!

2021 ASME Dynamic Systems and Control Conference DSCC 2021

October 17 – 20 (Sunday – Wednesday) 2021 Sheraton Austin Hotel at The Capital Austin, Texas















DSCC 2021 Organizing Committee



General Chair
Junmin Wang
Univ. of Texas at Austin



Program Chair Hosam Fathy Univ. of Maryland



Invited & Special Sessions Chair Bryan Rasmussen Texas A&M Univ.



Workshops & Tutorials
Chair
Neera Jain
Purdue Univ.



International Program
Co-Chair
Loucas S. Louca
Univ. of Cyprus



International Program
Co-Chair
Jong-Eun Choi
Yonsei Univ.



International Program
Co-Chair
Mahdi Shahbakhti
Univ. of Alberta



Local Arrangement Chair Dragan Djurdjanovic Univ. of Texas at Austin



Publications Chair Beibei Ren Texas Tech Univ.



Publicity Chair Minghui Zheng Univ. of Buffalo



Exhibits & Industry
Liaison Chair
Soumik Sarkar
Iowa State Univ.



Students & Young Members Chair David Hoelzle Ohio State Univ.

DSCC 2021 Organizing Committee Meeting at ACC 2020

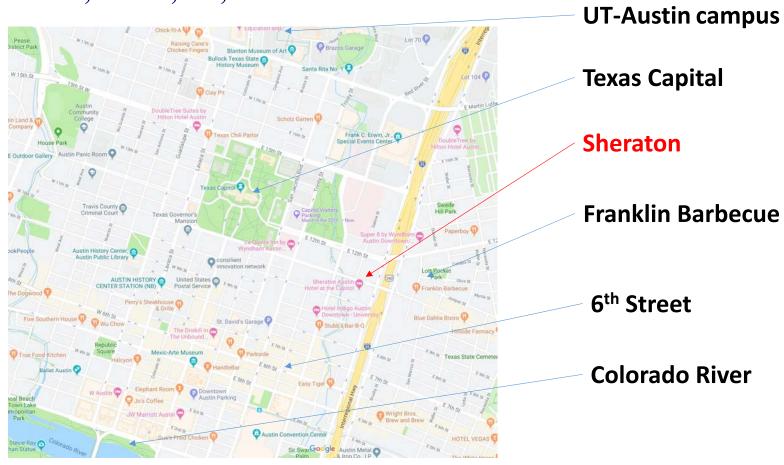
- The DSCC 2021 Organizing Committee held its first meeting at ACC 2020 and discussed the initial planning for DSCC 2021 initiatives and programs
- At ACC 2020, the DSCC 2021 OgComm planned to meet monthly starting from November 2020.
- ASME decided in September 2020 that all ASME conferences in 2021 will be virtual

DSCC 2021 Venue

• Sheraton Austin Hotel at The Capital, Austin Texas

• 701 East 11th Street, Austin, TX, 78701

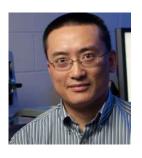
• \$205/night



DSCC 2022 Planning: Report to ASME-DSCD ExComm Meeting Oct. 2020

Qingze Zou, Xu Chen

DSCC 2022 Organization Committee



Qingze Zou: General Chair



Xu Chen: Program Chair



Manish Kumar: Publication Chair



David Hoelzle: Publicity Chair



Selina Pan: Exhibits & Industry Liaison Chair



Yaoyu Li: Invited/Special Session Chair



Ellen Y Chen Mazumdar: Student & Young Member Co-Chair



Oumar Barry: Student & Young Member Co-Chair



Zongxuan Sun: Workshop/Tutori al Chair



Tom Oomen: International Co-Chair



Yuen-Guan Yong: International Co-Chair



Local Arrangement Chair (TBD)

DSCC 2022 Planning

- Initially discussed with AME about the conference venues before the Covid-19 pandemic;
- ASME currently suspended all RFPs.
- Will resume the discussion once it is re-opened;

To: Kam K. Leang, DSCD Secretary

(kam.k.leang@utah.edu, dscd.exec@gmail.com)

From: Roberto Horowitz, horowitz@berkeley.edu

Chair, ASME DSCD Honor and Awards Committee

Re: DSCD Honors and Awards Committee Report

The DSCD Honors and Awards Committee is integrated by:

Roberto Horowitz, Chair Kim Stelson, Vice-chair George Chiu Neville Hogan Eric Tseng Tsu-Chin Tsao Rama Yedavalli

- 1) The committee solicited nominees, and selected the recipients for the following awards:
 - ASME Rufus Oldenburger Medal
 - Henry M. Paynter Outstanding Investigator Award
 - Charles Stark Draper Innovative Practice Award
 - Michael J. Rabins Leadership Award
- 2) The committee requested a list of nominees for the Kalman Best Paper Award from Ranjan Mukherjee, Editor of the ASME Journal of Dynamic Systems, Measurement and Control, and selected a recipient.

- 3) The committee worked with
 - Fran McKivor, Administrator, Honors & Fellows
 - Andy Koleba, Manager, Conference & Events
 - Barbara Zlatnik, Sr. Manager, DM&M Segment Operations
 - Kam Leang, DSCD Secretary

in preparing the Award Certificates, Checks, etc. and in setting up the Virtual Awards Ceremony.

Below is the list of this year's awards recipients:

1) ASME Rufus Oldenburger Medal:

Mark W. Spong
University of Texas at Dallas
Department of Systems Engineering
800 W. Campbell Road
Richardson, TX 75080
mspong@utdallas.edu

2) Division Awardees

2.1 Henry M. Paynter Outstanding Investigator Award

Jeffrey L. Stein University of Michigan Department of Mechanical Engineering 2480 GGB (George G. Brown Laboratory) 2350 Hayward Ann Arbor, MI 48109-2125 stein@umich.edu

2.2 Charles Stark Draper Innovative Practice Award

Reza Moheimani
Department of Systems Engineering
The University of Texas at Dallas
Richardson, TX 75080
Reza.Moheimani@utdallas.edu

2.3 Michael J. Rabins Leadership Award

Jordan Berg
National Science Foundation
Program Director, CMMI Division
708B Mount Vernon Ave
Alexandria, VA 22301-1700
jberg@nsf.gov
jordan.Berg@ttu.edu

3 Rudolf Kalman Best Paper Award

The Winners of the 2020 Rudolf Kalman Best Paper Award are:

Patrick M. Sammons

Mechanical and Aerospace Engineering Department, Missouri University of Science and Technology, Rolla, MO 65409

e-mail: pmsd44@mst.edu

Douglas A. Bristow

Mechanical and Aerospace Engineering Department, Missouri University of Science and Technology, Rolla, MO 65409

e-mail: dbristow@mst.edu

Robert G. Landers

Mechanical and Aerospace Engineering Department, Missouri University of Science and Technology, Rolla. MO 65409

e-mail: <u>landersr@mst.edu</u>

for their paper:

Sammons, P. M., Bristow, D. A., and Landers, R. G. "Two-Dimensional Modeling and System Identification of the Laser Metal Deposition Process." ASME. J. Dyn. Sys., Meas., Control. February 2019; 141(2): 021012. https://doi.org/10.1115/1.4041444

All awardees have been informed that the awards ceremony will take place live and online.

- Due to COVID-19 restrictions, the plaques and hardcopies for the division level awards will not be sent to the recipients until the ASME staff returns to the office, likely early 2021.
- ASME will send e-certificates to those winners that were to receive a certificates.
- ASME will provide the honoraria via direct deposit or wire transfer.

Nominating Committee Report

Robert G. Landers, October 5, 2020

In September, 2020 the Executive Committee confirmed the following position:

Jun Ueda – TMECH Management Committee member

The following position will need to be filled soon:

Junior Executive Committee member (self-nominations are accepted). Send me an email with the subject "ExComm Member Nomination" with the following information:

- nominee's name, email address, and phone number
- short (< 4 pages) biosketch emphasizing the candidate's contributions to the Division
- short (< 1 page) statement of interest in serving the division

Sincerely,

Robert G. Landers landersr@mst.edu