

HCTG Newsletter

Volume 30, Issue 3

April 2021



Message from the Chair

It's hard to believe a full year has passed since the coronavirus pandemic began. Despite its unparalleled challenges, the healthcare human factors community have made significant contributions, many of which are on display at this year's healthcare symposium.

In its 10th anniversary, the virtual symposium offers an impressive program and promises various networking opportunities and social events.

Our team is also working on a high-quality, diverse, and inclusive program for this year's annual meeting. 2021 will be an exciting year of growth for HCTG. We're celebrating a new HFES journal; Human Factors in Healthcare which provides another inclusive venue for publication of applied and academic work.

We're also working on several new initiatives including an early career award named after Bob Wears (see the announcement on page 10), an alternative format for presentations at the annual meeting, a student mentorship program, a healthcare HFE educational resource repository, and the HCTG webinar series!

Finally, this year we will have our election for 2021-2023 officers. Please consider nominating yourself or others to serve. Stay safe and hope to see you all at the symposium!

Farzan Sasangohar
sasangohar@tamu.edu

HCTG Strategic Planning Session at HFES 2020

Nicole Werner, University of Wisconsin-Madison

The HCTG is always seeking ways to better serve our members. We asked HCTG members to help us redefine our future during the HFES 2020 conference at our annual business meeting.

At the HFES conference in October 2020, the HCTG business meeting engaged in a participatory strategic planning session with HCTG members. During this session, members were put into breakout rooms with small groups to discuss what the HCTG can do to better serve its membership.

The six breakout groups were asked to identify and report back to the group the top three actions they think the HCTG Executive Committee should address in the upcoming year. Here is what HCTG members highlighted:

(continued on page 2)

Our HCTG members identified 6 different needs the HCTG Executive Committee will address in the upcoming year.

- **Demonstrate Value:**
Members asked that the HCTG 'feed the group' through activities that keep members connected throughout the year
- **Engage Students:**
Members recommended a HCTG-coordinated membership program, HCTG mentor / mentee lunch, and more financial support for students attending the conference
- **Support for Early-Stage Career Members:**
Members requested early career support for conference travel and early career awards for HCTG members
- **Connect With Other TGs:**
Members suggested we foster learning from other TGs through joint sessions at the annual conference, joint webinars, and conference panels
- **Engage Practitioners:**
Members highlighted the importance of increased engagement of practitioners through special conference sessions, support for conference travel, and a practitioner paper award
- **Novel Conference Program:**
Members asked for new and innovative conference programming including lightning sessions and late-breaking submissions



We thank all the members who were able to attend the business meeting this year and provide an exciting and important agenda to guide the strategic planning for HCTG this year.

Our team will be taking on many of these initiatives, and we will keep our members updated through the HCTG newsletter, LinkedIn, and Twitter.

Have a great idea for HCTG that is not on this list? We would love to hear it! Feel free to contact us through HFESHealthcareTG@gmail.com, [LinkedIn](#), <https://www.hctg.hfes.org>, or the [HCTG Content Form](#).



[Nicole Werner](#) is the Harvey D. Spangler Assistant Professor of Industrial and Systems Engineering in the College of Engineering at the University of Wisconsin-Madison. Professor Werner is also the Chair-Elect of HCTG.



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Technical Group INFO

HUMAN FACTORS AND ERGONOMICS SOCIETY
HEALTH CARE TECHNICAL GROUP

[HCTG Website](#)
[HCTG Twitter](#)
[HCTG LinkedIn](#)
[HCTG E-mail](#)

2019 - 2021 HCTG Officers


CHAIR	Farzan Sasangohar
CHAIR-ELECT	Nicole Werner
PROGRAM CHAIR	Shijing Liu
PAST PROGRAM CHAIR	Renaldo Blocker
SECRETARY /	
TREASURER	Abigail Wooldridge
WEBMASTER /	
NEWSLETTER EDITOR	Vickie Nguyen
SOCIAL MEDIA LIAISON	Siddarth (Sid) Ponnala
STUDENT PAPER	
AWARD CHAIR	David Neyens
AWARD CO-CHAIR	Yuval Bitan
AWARD CO-CHAIR	Arjun Rao



REGISTER FOR HCS HERE!

**APRIL 12 – 16, 2021
VIRTUAL SYMPOSIUM**

New for 2021, the Virtual HFES International Symposium on Human Factors and Ergonomics in Health Care will be offering FIVE educational tracks that each focus on different aspects of health care systems and how HF/E intersects with them.

HCS 2021	VS	Past Symposiums (excluding virtual HCS 2020)
5 Days		2.5 Days
3 Presentations per Session (20 minutes each)		3 Presentations per Session (30 minutes each; Some 2 per session)
16 Sessions (including keynote per track)		10 Sessions (including keynote per track)
45 Presentation Slots per Track (not counting keynote session)		25 Presentation Slots per Track (not counting keynote session)
5 Tracks		4 Tracks
80 Sessions Overall (counting keynote)		40 Sessions Overall (counting keynote)
225 Oral Presentations Sessions Overall (not counting keynote session)		100 Oral Presentations Sessions Overall (not counting keynote session)
Daily Schedule - 5 Rooms		Roughly 100 Posters in Dedicated Poster Sessions



Joseph Keebler
[Symposium Chair](#)



Anthony Andre
[Symposium Co-Chair](#)



OPENING PLENARY SESSION

Tuesday, April 13, 2021

11:00 AM - 12:00 PM ET

Believing in ZERO HARM!

And Saving the Patient Safety Revolution from
the Quicksand of the "Good Enough" Zone

John J. Nance

HCS 2021 FULL CONFERENCE PROGRAM



[VISIT THE HCS 2021 WEBSITE](#)

HCS 2021 SCHEDULE AT A GLANCE

MONDAY, APRIL 12th

(Schedule Subject to Change)

11:00 AM - 1:30 PM (EDT)	MORNING WORKSHOPS: Workshop 1, 2, and 3
2:30 PM - 5:00 PM (EDT)	AFTERNOON WORKSHOPS: Workshop 4, 5, and 6
5:30 PM - 6:30 PM (EDT)	NETWORKING SESSIONS: (1) Educational Opportunities, (2) HF Healthcare Networks
6:00 PM - 7:30 PM (EDT)	WORKSHOPS EVENING RECEPTION / PANEL: COVID-19 - What Did We Learn?

TUESDAY, APRIL 13th

(Schedule Subject to Change)

11:00 AM - 12:00 PM (EDT)	OPENING PLENARY Believing in ZERO HARM! And Saving the Patient Safety Revolution from the Quicksand of the "Good Enough" Zone - John J. Nance
12:30 PM - 4:30 PM (EDT)	CONCURRENT TRACK SESSIONS
5:00 PM - 6:00 PM (EDT)	NETWORKING SESSION: HF Healthcare Publishing Opportunities

WEDNESDAY, APRIL 14th

(Schedule Subject to Change)

11:00 AM - 4:30 PM (EDT)	CONCURRENT TRACK SESSIONS
3:30 PM - 4:30 PM (EDT)	STUDENT PRESENTATIONS
5:00 PM - 6:00 PM (EDT)	NETWORKING SESSION: Digital Health Student Design Competition

THURSDAY, APRIL 15th

(Schedule Subject to Change)

12:30 PM - 4:30 PM (EDT)	CONCURRENT TRACK SESSIONS
2:00 PM - 3:00 PM (EDT)	POSTER SESSIONS: Live Chats
5:00 PM - 6:00 PM (EDT)	NETWORKING SESSIONS: Attendee Guitar Shred

FRIDAY, APRIL 16th

(Schedule Subject to Change)

11:00 AM - 3:00 PM (EDT)	CONCURRENT TRACK SESSIONS
3:30 PM - 4:30 PM (EDT)	CLOSING TOWN HALL PANELS: Future Needs
5:00 PM - 6:00 PM (EDT)	NETWORKING SESSION: Closing Remarks and Raffle

Practitioner's Corner

Tara Cohen, Cedars-Sinai

This quarter, join us as we learn more about the exciting and innovative work conducted at Cedars-Sinai.

At Cedars-Sinai, our team works to understand the relationships among humans, tasks, technology, environments and organizational culture and processes to create a patient- and practitioner-centered healthcare system that delivers high-quality, safe care at affordable cost. Our research takes a multidisciplinary approach to an in-depth understanding of the current challenges faced in delivering patient care and pursues improvements through enhancing the integration of technology and teamwork.

We apply several human factors approaches including observation, simulation, surveys, focus groups, interviews, and retrospective data analysis to study and understand surgical work systems. Over the last few years our team has worked to improve the safety and efficiency of surgery, identify opportunities to enhance patient experience in urology, evaluate new technologies to be used in the operating room, explore opportunities to improve multi-professional teamwork, and reduce threats to patient safety.

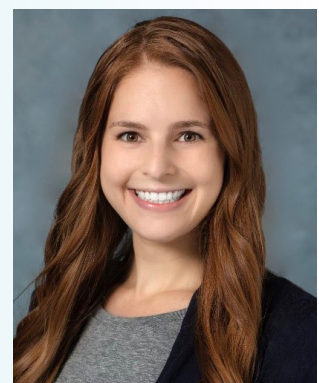
Our research also focuses on improving healthcare worker experience by investigating burnout, workload, and satisfaction associated with tasks

like conducting operating room turnover, engaging in telemedicine visits, and performing surgical procedures. Additionally, we are fortunate to partner with the patient safety department to help identify systemic breakdowns and design new workflows and interventions aimed to mitigate threats.

We collaborate closely with the Women's Guild Simulation Center for Advanced Clinical Skills, our onsite immersive environment equipped with patient simulators and medical devices by overseeing all research activities that happen at the center and providing mentorship to those interested in conducting human factors research projects. One of our most innovative simulation-related projects have involved exploring the application of escape rooms for studying teamwork and team cohesion in healthcare. We have partnered with researchers from Embry-Riddle Aeronautical University to design and study these unique simulated environments and investigate their potential to study teamwork, communication, and a variety of other necessary healthcare skills.

The delivery of high-quality patient care demands effective physician leadership. We have had the

opportunity to educate future physician leaders about human factors in our Leadership Education for the Advancement of Physicians (LEAP) program, a bi-monthly course that aims to help develop practical leadership skills which enhance the practice of medicine during training. Our multi-disciplinary team aims to demonstrate specific tools related to quality improvement, human factors, healthcare innovation and physician leadership to empower future physician leaders to foster the delivery of efficient, high-quality medical care.



[Tara Cohen](#) is the Director of Surgical Safety and Human Factors Research at Cedars-Sinai. She is also a research scientist and assistant professor in the Department of Surgery.

Article Spotlight

A user-centered participatory approach, which involves the frontline DM workers to curate just-in-time content authoring, can enable deployment of agile training to accelerate expertise development through different digital platforms.

Review > Hum Factors. 2020 Nov;62(7):1061-1068. doi: 10.1177/0018720820939428.

Epub 2020 Jul 10.

Disaster Ergonomics: Human Factors in COVID-19 Pandemic Emergency Management

Farzan Sasangohar^{1,2}, Jason Moats³, Ranjana Mehta¹, S Camille Peres¹

Affiliations + expand

PMID: 32648781 DOI: [10.1177/0018720820939428](https://doi.org/10.1177/0018720820939428)

Abstract

Objective: We aimed to identify opportunities for application of human factors knowledge base to mitigate disaster management (DM) challenges associated with the unique characteristics of the COVID-19 pandemic.

Background: The role of DM is to minimize and prevent further spread of the contagion over an extended period of time. This requires addressing large-scale logistics, coordination, and specialized training needs. However, DM-related challenges during the pandemic response and recovery are significantly different than with other kinds of disasters.

Access the article [here!](#)



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The final HCTG submission categories have not yet been decided, but we anticipate a wide range of topics including usability assessment, workload and teamwork, wearable devices, etc.

To enhance our program, we are developing a Late Breaking session for the annual meeting this year. This special session will provide opportunities for our HCTG community, especially the clinical practitioners, to submit short abstracts and present during the annual meeting. More details on the late breaking session will be provided in the coming months.

If you have any questions or comments, please reach out to [Dr. Nicole Werner](#), [Dr. Renaldo Blocker](#), or [Dr. Shijing Liu](#).

Message from the HCTG Program Chairs

HCTG community, we are thrilled to announce we completed a successful submission cycle and received 48 submissions for the HFES 65th International Annual Meeting!

There were a total of 10 discussion panels, 28 lectures, 5 posters, 3 alternative formats, and 2 demonstrations submitted covering a wide range of emerging topics in Health Care Human Factors. We also have more than 40 volunteers who have agreed to review the submitted proposals for HCTG this year.

A new submission and review system hosted by Linklings is implemented this year. We are excited to announce the review process has already started this week. Special thanks to our volunteers!



Shijing Liu
[Program Chair](#)



Renaldo Blocker
[Past Program Chair](#)

CONNECT WITH THE HCTG!

There are many ways you can connect with us for our latest updates:

Follow us on Twitter [@HFESHealthTG](#) & use the #HFHCTG

Join us on [LinkedIn](#)

Share content with us: [HCTG Content Form](#)

The HCTG has seen a significant growth on social media since the last annual meeting in October. Our two main vehicles of communication are our [LinkedIn](#) page and Twitter account ([@HFESHealthTG](#)).

We saw a growth of 9% on our LinkedIn page and a growth of 23% on our Twitter account.

We encourage our members to join us on our social media and submit to our new initiative: HCTG Weekly Spotlight. The spotlight will feature one of our members, labs, projects, or recent publications on a weekly basis. Please submit here: <https://forms.gle/XpeiipLPfPakazHA9>.



Siddarth (Sid) Ponnala
[Social Media Liaison](#)

OR Black Box® collects naturalistic data from the operating room

OR BLACK BOX®



HCTG Student Corner

Suzan Ayas, University of Toronto

This quarter, we are excited to showcase the University of Toronto Student Chapter: Human Factors Interest Group (HFIG)!

HFIG is the student chapter of the Human Factors and Ergonomics Society (HFES) at the University of Toronto. Despite the challenges of the COVID-19 pandemic, HFIG has continued in its long history of being an active representative of HFES and fostering a sense of community among human factors students, faculty, and professionals in Toronto.

Before the COVID-19 pandemic, HFIG hosted various academic and social events in person. Since the start of the pandemic, HFIG pivoted to virtual events including game nights and movie nights, as well as guest talks by industry experts and academics including HFIG's Distinguished Alumnus, Dr. Farzan Sasangohar.

HFIG has taken the lead on various healthcare-related initiatives, including a "Return to Campus" project in which we invited our members to use their human factors skills to address some of the design challenges of returning safely to campus.

We are also collaborating with the Healthcare Insurance Reciprocal of Canada (HIROC) to lead a patient safety student design competition at the International Ergonomics Association (IEA) 21st Triennial Congress.

HFIG is also actively involved in healthcare research. One of our executive team members is involved in an OR Black Box® study, which uses naturalistic data collected from operating rooms to understand and mitigate the detrimental effects of distractions. This project is run in collaboration with the International Centre for Surgical Safety, Toronto.

We strive to keep our members connected through our [website](#) and various social media platforms ([LinkedIn](#), [Facebook](#), [Instagram](#), and [Twitter](#)), and we even started a [podcast](#)!

For these various efforts, HFIG has received the HFES Gold Student Chapter Award at several HFES Annual Meetings.

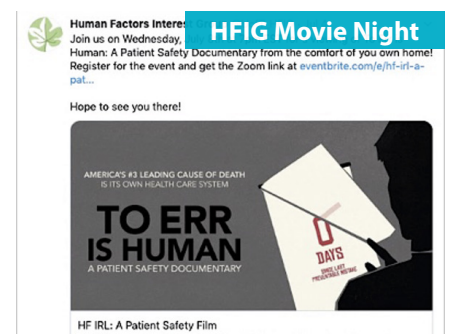
[Suzan Ayas](#) is a PhD Student at the University of Toronto and the Communications Director of the HFIG.



HFIG hosts Prof. Hancock in early March 2020



Inter-University Workshop at the U of Waterloo, November 2019





The Health Care Technical Group (HCTG) is pleased to announce a new annual award - the ROBERT L. WEARS EARLY CAREER AWARD.

Each year an HCTG committee will grant this award to one academic and one practitioner with unique achievements in their early career.

Nominations can be submitted until August 31st and the two awardees will be announced during the Human Factors annual meeting. The HCTG is looking forward to seeing your achievements!

THE GOAL

The Robert L. Wears Early Career Award aims to highlight the achievements of academics and practitioners in the first six years from graduation.

NOMINATION SUBMISSION PROCESS

1. A nomination letter detailing the (academic OR practical) contribution to Healthcare HFE
2. CV
3. One letter of recommendation

* self-nomination is also possible but will require two letters of recommendation.

ELIGIBILITY CRITERIA

- 6 years from terminal degree (Degree awarded no earlier than 2015)

EVALUATION CRITERIA

1. Evidence of excellence in scholarly (or practical) contribution to Healthcare HFE
2. Research (or practical) impact
3. Involvement with HFES national and local chapters

REVIEW PROCESS

1. Applications will be elicited in April 2021 (submission by August 31st)
2. Announcement during the Human Factors annual meeting
3. Applications are sent to HCTG Awards Committee Chairs (Drs. Yuval Bitan & Arjun Rao)
4. An ad-hoc committee with 3 independent reviewers will be formed
5. The awards committee will include at least 1 practitioner and 1 academician
6. The awards committee will not include HCTG officers

7. Each reviewer will evaluate applications independently and will meet to discuss and select awardees
8. Nominators will be notified in September
9. Awards will be presented during the annual business meeting
10. The award will be a wall plaque or framed certificate



Yuval Bitan
[Award Co-Chair](#)



Arjun Rao
[Award Co-Chair](#)



HFES 2020's Paper Award Recipients

FIRST PLACE

Evaluating the Efficacy of a Mobile, Augmented Reality Pediatric Code Cart Education Application



John Morgan, Abigail R. Wooldridge, Anthony Composto, Ashley Mitchell, Widya A. Ramadhani, Jyotika Roychowdhury, Keith Hanson, Elsa Vazquez-Melendez, Harleena Kendhari, Nadia Shaikh, Teresa Riech, Matthew Mischler, Sara Krzyzaniak, Ginger Barton, Kyle T. Formella, Zachary R. Abbott, John N. Farmer, Rebecca Ebert-Allen & Trina Croland

University of Illinois at Urbana-Champaign

SECOND PLACE

Exploring Work System Adaptations in Providing Care for Children with Medical Complexity in the Home



Hanna J. Barton, Shanmugapriya Loganathar, Nawang Singhe, Mary L. Ehlenbach, Barbara Katz, Ryan J. Coller, Nicole E. Werner

University of Wisconsin-Madison

THIRD PLACE

Correlation Between Gestures' Qualitative Properties and Usability Metrics



Daniela Chanci, Naveen Madapana, Glebys Gonzalez, Juan Wachs

Purdue University



WEDNESDAY,
APRIL 7, 2021
11 AM (EDT)

Embedding Human Factors Expertise in the Trenches of Healthcare Operations

Have you ever wondered how human factors is applied in the frontlines of healthcare? What does it take to operate shoulder-to-shoulder with doctors, nurses, and all the different healthcare professionals? How do human factors practitioners adapt to the quirks and peculiarities of hospital operations?

In this first of a series of webinars organized by HCTG, we invite four healthcare human factors practitioners to share what it is like being a human factors army of one (or two, if you're lucky). The hour-long, podcast-style presentation dives deep into the trials and tribulations of working in hospitals, and explores what support and success looks like (hint: not always $p < 0.05$). Amidst the MacGyver adventures, healthcare human factors practitioners play a vital role in translating research into practice.

Hosted by SQ Yin, the show features Dr. Laura Barg-Walkow, Ms. Rebecca Berg, Ms. Andrea Cooks, and Dr. Kristen Webster.

The webinar will be presented live on April 7 (Wednesday), 11 AM (EDT). For more information, please visit <https://learn.hfes.org/products/embedding-human-factors-expertise-in-the-trenches-of-healthcare-operations>.



[SQ Yin](#)
KK Women's & Children's
Hospital



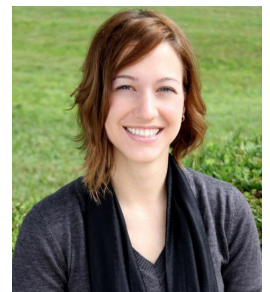
[Laura Barg-Walkow](#)
Children's Hospital
Colorado



[Rebecca Berg](#)
Yale New Haven
Health



[Andrea Cooks](#)
Cincinnati Children's
Hospital



[Kristen Webster](#)
Cincinnati Children's
Hospital

Access All HFES Webinars [HERE!](#)



HUMAN FACTORS IN HEALTHCARE

ANNOUNCING A NEW HFES JOURNAL!

Human Factors in Healthcare aims to provide a worldwide platform for the work of human factors professionals who specialize in healthcare, as well as industry professionals who rely on human factors knowledge, methods, and theories, including healthcare providers and administrators, medical device and pharmaceutical industries, and regulators.

This open-source journal is split between research and application; is inclusive of human factors, usability, and ergonomics; and addresses healthcare human factors issues across a variety of domains, such as digital health, healthcare operating environments, patient safety and health, device usability and validation, education and simulation, and healthcare worker safety.

Human Factors in Healthcare will be published by Elsevier, in conjunction with HFES, starting June 2021. Articles will be published in a rolling fashion, with periodic themed issues. More information will be available soon.



HUMAN FACTORS
and ERGONOMICS SOCIETY

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