

# Aging Technical Group Newsletter

Spring 2017



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## Message from the Chair

Dear ATG members,

Greetings and welcome to 2017! I hope you all had a restful and rejuvenating holiday break filled with visits to loved ones or the solitude of an adventure.

As we begin the new year, I'd like to start by thanking all of those who served the ATG last year. Thank you to the dozens of you who served as officers, proceedings reviewers, scholarship reviewers, and Arnold Small award reviewers in 2016. We are all very grateful for your service to the ATG community.

As you refine your professional service goals for 2017, I encourage you to consider how serving the ATG fits in with your plans. We would love to you begin or continue serving with us!

I would also like to thank those of you who attended the ATG lunch during the 2016 annual meeting. It was wonderful seeing all of you! We had a lovely meal together and the conversation helped me understand your goals for the ATG for the upcoming year.

With great pleasure, I would also like to congratulate the winners of the Arnold Small award, who were announced during the ATG lunch. Congratulations to Hagai Tapiro, Avinoam Borowsky, Tal Oron-Gilad and Yisrael Parmet for their work, "Where Do Older Pedestrians Glance Before Deciding to Cross a Simulated Two-Lane Road? A Pedestrian Simulator Paradigm"! Thanks again to Sharon Joines and the reviewers for the very hard work of choosing this work for the award.

Finally, a few reminders and deadlines:

- **March 6, 2017:** Proceedings proposal submissions are due
- **May 1, 2017:** Arnold Small award deadline
  - To be considered for the Arnold Small award, students and advisors should send notification to the Program Chair (Ranjana Mehta- rmehta@sph.tamhsc.edu) upon receipt of notification that student-led work has been accepted for presentation at the annual meeting.
- **Early August 2017:** Nominations for ATG officers
- **Late August 2017:** Officer elections
- **September 5, 2017:** Aging TG Student Research Scholarship deadline
- **October 9-13, 2017:** The 2017 HFES Annual Meeting will be held at the JW Marriott in Austin, Texas.

Again, welcome to 2017. My sincerest best wishes for a meaningful, productive and fun year.

Best,

Kelly



Kelly Caine

## Recap of Business Meeting at HFES Conference 2016

We had a great time at our business meeting in Washington, D.C. this year! We met briefly to announce the new officers, get to know each other over lunch, and discuss some ideas for our next meeting in Austin, Texas. Thank you to everyone that attended the meeting! We hope to see you next year!

Special thanks to Kathi Olson for taking a few pictures of the meeting.



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## ATG Officer Elections

### Current Officers:

Chair (Austin, TX): Kelly Caine  
Chair Elect (Philadelphia, PA): Marita O'Brien  
Program Chair (Austin, TX): Ranjana Mehta  
Program Chair Elect (Philadelphia, PA): Anne Adams  
Secretary/Treasurer (Austin, TX): Nicole Werner  
Newsletter Editor (Austin, TX): William Leidheiser  
Web Master/Blogger (Austin, TX): Michael Geden

We will have elections again next year. Please consider running for an office in the future. We will start accepting nominations in **early August 2017**.

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## International Journal of Human Factors Announces Best Paper Awards

The International Journal of Human Factors and Ergonomics is initiating a Best Papers award. The first two winners have been announced: Scialfa et al. (2012), *Hazard Perception in Older Drivers*, is awarded the 2012-2013 Best IJHFE Paper award and Baldwin, May & Parasuraman (2014), *Auditory Forward Collision Warnings Reduce Crashes Associated with Task-Induced Fatigue in Young and Older Drivers*, is awarded the 2014-2015 Best IJHFE Paper award. Both papers and the three runners-up are now freely available as part of the journal's sample issue, <http://inderscience.com/info/ingeneral/sample.php?jcode=ijhfe>

## Researchers Receive Best Paper Award at Conference

Walter Boot and his colleagues' paper *The Gamification of Cognitive Training: Older Adults' Perceptions of and Attitudes toward Digital Game-Based Interventions* was selected to receive the Best Paper Award of the 2nd International Conference on Human Aspects of IT for the Aged Population. You can read more about the paper at [http://link.springer.com/chapter/10.1007/978-3-319-39943-0\\_28](http://link.springer.com/chapter/10.1007/978-3-319-39943-0_28)

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## Wendy Rogers Awarded GSA Fellow Status

Wendy Rogers has been awarded fellow status with the Gerontological Society of America (GSA), the world's oldest and largest interdisciplinary organization devoted to research, education, and practice in the field of aging. GSA fellowship is an acknowledgment of outstanding and continuing work in the field of gerontology.

Also, Wendy Rogers' research was recently included in a new report from the President's council of Advisors on Science and Technology (PCAST) titled "Independence, Technology, and Connection in Older Age."

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## ATG Student Scholarship

Did you know that the ATG has a scholarship to help students pay for research-related expenses?

The ATG's goal is to provide scholarships (up to \$500) to students to conduct their research (1-2 scholarships per year based on resources; open to MS or PhD level).

The requirements for consideration of the scholarship are:

- Students must be members of the ATG.
- Students must agree to submit their research to the HFES conference within two years of receiving the award.
- Students must submit a 1-2 page description of their project and request for funds.

Submission

- Present a timeline for their research leading up to graduation.
- Provide a letter of support from faculty stating:
  - how the funding from the ATG is critical to the research,
  - what the student's academic/scholarship record is, and
  - an endorsement of the student's research plan.

Procedure

- Send your completed application to the ATG Technical Group Chair, Kelly Caine ([caine@clemson.edu](mailto:caine@clemson.edu)) by **Tuesday, September 5th, 2017**.
- A selection committee comprised of ATG members will review and score the submissions.
- The ATG Scholarship award will be presented at the ATG business meeting at the HFES annual conference. Please be sure to attend the Wednesday lunch!

## Older Adults No Slower Than Young Adults at Taking Control of Semi-Autonomous Vehicles

New research from North Carolina State University finds that older adults have comparable response times to young adults when tasked with taking control of a semi-autonomous vehicle.

“Before we see fully autonomous cars enter the marketplace, we are likely to see semi-autonomous vehicles on the road; to a certain extent, we’re seeing hints of this already,” says Jing Feng, an assistant professor of psychology at NC State and senior author of a paper on the work. “These cars will handle the driving most of the time, but will require drivers to take control of the vehicle under certain circumstances – such as when the weather affects visibility.

“We wanted to know whether and how a driver’s age affects his or her ability to take control of the vehicle, and what sort of notification from the computer is most effective at getting drivers to take control in a safe and timely way,” Feng says. “For example, are there changes in driver response time as a result of age?”

To explore this issue, researchers performed an experiment with 35 drivers: 17 drivers between the ages of 18 and 35, and 18 drivers between the ages of 62 and 81.

Study participants were placed in a driving simulator and the concept of semi-autonomous vehicles was explained. Participants knew they would need to take control of the vehicle at some point, but were otherwise allowed to choose how to occupy themselves.

Driver behavior was observed by four video cameras, as well as via the simulator itself. The researchers also used two types of warning indicators, to tell drivers when they needed to take control of the vehicle: one type of indicator gave drivers a warning 4.5 seconds before the autonomous system shut off; the second type of indicator gave drivers a warning 7.5 seconds before the system shut off.

After analyzing the results of the experiment, researchers found that younger drivers primarily made use of electronic devices, while older drivers predominantly engaged in conversation. The researchers also found that older drivers responded to the warnings as quickly as younger drivers, though older drivers fared slightly better with the earlier, 7.5 second warning. There was also some discrepancy in post-takeover behavior.

Older drivers, for example, tended to brake harder than young drivers.

“While this sort of braking behavior could cause traffic problems, ultimately both age groups were capable of taking over the vehicle in a safe and timely way,” Feng says.

“That is despite the fact that we found older drivers engage in secondary, non-driving activities more than we expected – though it was still less than the younger group,” Feng says.

The paper, *Age Differences in the Takeover of Vehicle Control and Engagement in Non-driving-related Activities in Simulated Driving with Conditional Automation*, is published in the journal *Accident Analysis & Prevention*. Lead author of the paper is Hallie Clark, a Ph.D. student at NC State. The work was supported, in part, by the Highway Safety Research Center. You can read more about the paper at <http://www.sciencedirect.com/science/article/pii/S000145751630313X>

## Aging Sessions at HFES Annual Meeting 2016

1. Joseph Sharit, Jessica Taha, Ronald W. Berkowsky, and Sara J. Czaja, U. of Miami, **Seeking and Resolving Complex Online Health Information: Age Differences in the Role of Cognitive Abilities**
2. Anne C. Grego-Nagel and Malgorzata J. Rys, Kansas State U., **Exploring the Adoption of Telecommunication Services by Older Adults**
3. Hagai Tapiro, Avinoam Borowsky, Tal Oron-Gilad, and Yisrael Parmet, Ben-Gurion U. of the Negev, **Where Do Older Pedestrians Glance Before Deciding to Cross a Simulated Two-Lane Road? A Pedestrian Simulator Paradigm**
4. Ben D. Sawyer, Joonbum Lee, Jonathan Dobres, Bruce Mehler, Joseph F. Coughlin, and Bryan Reimer, Massachusetts Inst. of Technology, **Effects of a Voice Interface on Mirror Check Decrements in Older and Younger Multitasking Drivers**
5. Natalee K. Baldwin and Richard Pak, Clemson U., **The Effects of Olfactory Environmental Cues on Prospective Memory**
6. Jessica J. Crumely-Branyon and Richard Pak, Clemson U., **Older Adults' Perceptions of Memory Aid Use and Meta-Memory Accuracy: A Focus Group Study**
7. Sean A. McGlynn, Denise Geiskkovitch, Tracy L. Mitzner, and Wendy A. Rogers, Georgia Tech, **PARO's Stress-Reduction Potential for Older Adults**
8. Shraddhaa Narasimha, Sruthy Agnisarman, Kapil Chalil Madathil, and Anand K. Gramopadhye, Clemson U.; Brandon Welch and James McElligott, Medical U. of South Carolina, **An Investigation of the Usability Issues of Home-Based Video Telemedicine Systems with Geriatric Patients**
9. Mina Ostovari, Denny Yu, Shan Xie, Qing Ye, and Bhagyashree Katore, Purdue U.; Mohammad Adibuzzaman, and Kenneth J. Musselman, Regenstrief Center for Healthcare Engineering; Roshanak Nateghi, Cleveland G. Shields, and Yuehwern Yih, Purdue U., **Bridging the Gap Between Population Needs and Barriers Into Onsite Clinic Use**