



"Developing Outstanding Ideas and Individuals... One at a time."

ARG Alumni Newsletter Winter '10

1. Greetings & New Site

Hello all across the world. I know it's been a while and we skipped the summer version of the ARG newsletter; our apologies for that. Last Spring just about killed Prof. Alleyne teaching ECE 515 for the first time (got it cross listed as ME 540!! Yippee) plus dealing with all the ARRA funding opportunities as Associate Dean for Research. Anyway, that's all past. Happy New Year to all members of the ARG family and here's to seeing the 'aughts' out in style! Here's hoping this newsletter finds you and yours well. There has been a change in location of our ARG server this past fall. Partly, this was accelerated by the death of the old mr-roboto server. The new server can be found <http://mr-roboto.mechse.illinois.edu>. Almost the same as the old server but with a slight twist. You can see the new look for the server as well. Many thanks go out to the current grad student team that did the new design layout and is working to populate the new ARG website with content. There are new individual pages there so you can keep up with the activities ongoing within the lab.

2. Who's New?

There was one new addition to ARG this past Fall; we didn't get a chance to introduce any new ARG-ers because the Summer newsletter never went out.

Erick Sutanto joined ARG from an undergraduate program at the University of Texas at Austin. However, he's not a native Texan, his home



country is actually Indonesia. Erick is working in the NanoCEMMS and is currently working to see if we can move our E-jet process from a single nozzle and single ink effort to a multi nozzle and multi ink effort. There are several ways that he's going about doing this. They vary from a new multi-head design that houses individual syringes to a multi-nozzle design on a single print head. He's just getting started but has already made good contributions within NanoCEMMS collaborating with the VCSEL group on sensor validation.

That's all for new folks for now. We didn't take on many people this year since there weren't that many departures. We'll likely have some more newbies next Fall as some of the senior ARG folks transition

3. Transitions

Dr. Tom McKinley defended his Ph.D. in 2009 and has taken a job at his former

employer, Cummins, in Columbus, IN. Tom's dissertation focused on modeling and control for Selective Catalyst Reduction (SCR). This involved novel real-time simulation development for a SCR system model including a catalyst model. It also included the evaluation of an MPC control strategy for maintaining control while observing system constraints. Should you wish to contact him, his contact info is: tmckinley82@gmail.com.

4. Accomplishments

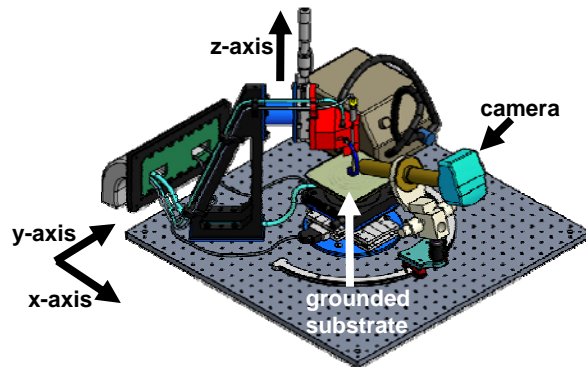
Here is a select update on what the current crop of ARG members has been doing to keep up the tradition that was set by previous members.

- Tom McKinley passed his Prelim Exam in February 2009.
- As mentioned above, Tom McKinley passed his Ph.D. Defense
- Tim Deppen, Neera Jain, Bin Li, and Yangmin Xie all pass the Qualifying Exam
- Kira Barton passed her Prelim Exam.
- Kira Barton received an ASME Graduate Teaching Fellowship. She just finished up teaching ME 460 for Fall 2009.
- Bin Li received a Best Presentation in Session award at DSCC 2009
- Dave Hoelzle receives 'Best Presentation in Session' at the ACC 2009
- Neera Jain and Tim Deppen deposited their M.S. Theses.
- Prof. Alleyne was selected to join the U.S. Air Force Scientific Advisory Board

That last bullet there has been very interesting. Prof. Alleyne has been involved with the DoD community for the past couple years and this was a unique opportunity to serve at a higher level. It's been a wonderful learning experience and definitely worthwhile; albeit with a lot of time investment. You can learn more about the SAB at <https://www.sab.hq.af.mil>.

Speaking of accomplishments, it would be neat to describe a recent research

accomplishment that Sandipan Mishra, Kira Barton, and Eric Sutanto have been working on. They've developed a relatively low cost E-jet machine that can print at very fine resolutions and also at high deposition rates. It's really pretty cool. A CAD picture is shown here and you can find out more from their websites.



5. ARG Alumni Fund Update.

Recently, ARG alumni surprised Prof. Alleyne with the establishment of a fund for the lab. That was quite a surprise and we were most grateful. One goal of the gift was to ensure that the current and future ARG members had as positive an experience as possible during their time within the ARG. In this spirit, the Alumni fund was utilized for the first time this past year to support a 'scholarship' supporting the travel of 2 ARG members to the 2009 American Control Conference in Saint Louis, Missouri. The two members chosen were



Nanjun Liu and Yangmin Xie. This was their first conference and they were very excited to

go and see what the state of the art was in control systems. Here is a picture of them in St. Louis at the top of the Arch during one of the many ARG social outings ☺ I'm sure many of you can remember your first conference and relate to their experience. Both are now eager to participate in upcoming conferences so they can be up at the front of the room soon.

For the near future we've decided on some good uses of the ARG Alumni Fund. It would be a good idea to continue the use in support of conference travel; in particular, for those who have a good reason for going to a conference without a paper being presented. Example reasons would be (a) never having been to a conference before or (b) needing to attend because there is something being presented that's of vital technical interest.

We're inviting interested alumni to help review short applications from ARG members and vote for the winners of the conference travel support. We currently plan to award this support to 1-2 ARG members for some conference every year. For this year, it will likely be the 2010 American Controls Conference in Baltimore MD. If you're interesting in being involved in 2010, please contact Dr. Rong Zhang (Ph.D. 2002) at rzhang06@gmail.com by February 1.

6. Catching up with ARG Alumni.

Big news from ARG Alumni. Dr. Brandon Hency (Ph.D. 2008) and Michelle Adams were married on September 9th, 2009 in Ithaca, New York. They are living in upstate New York as Brandon is starting up his Assistant Professor position at Cornell.

Marina Tharayil (Ph.D. 2005) was named by the Rochester Business Journal as one of the "40 under 40." Essentially, these are the young movers and shakers in the Rochester,

NY community. Here's a picture of Dr. Tharayil at the honors luncheon. Congrats!



Bryan Rasmussen (Ph.D. 2005) has found out that the half-life of the "ARG y-chromosome deficiency is about 4 years. Bryan and Holly and the 4 girls are welcoming a baby boy to College Station, TX. Congrats!

Speaking of Texas and babies, Brian and Rachel Eldredge (M.S. 2006) welcomed a third child, Lily Rachel Eldredge, born on May 12, 2009. Here's a recent picture of the Eldredge kids (Nathan, Annelise & Lily).



Finally, Dr. Xiaohui Xiao was a visiting scholar with us for a year. She wrote to let us know that things are percolating along with her for the past year. Here's a picture of her and her lab group at Wuhan University.



That's all the news that's fit to print at this point. I may have left out some news that you sent back for me and, if so, I apologize. I'll try to make sure and get a Summer newsletter out this year unlike last year. As always, it's really great to hear from all of you about what's going on in your lives. If you've got some neat stories to tell or some good news about your lives, please share. It really does have an impact on the rest of the ARG 'family' to know how others are doing. All the best for a great 2010!!