



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

# ARG Alumni Newsletter Winter '05

## 1. Greetings

Hello again and Happy New Year to all. This ARG newsletter promises to be a short one. We already introduced several of our new faces in the last newsletter. As you'll see in the announcements, we're hoping for lots more new faces to share amongst all you ARG alumni come summer. However, for further, and more frequent, updates you can always check out the "What's New" section leading off the ARG website at <http://mr-roboto.me.uiuc.edu>.

## 2. Accomplishments

As always, we like to keep you all updated about what we're doing here so that you can still speak with pride about being a part of the ARG. Here we just give a brief update on some of the more notable things that have occurred to ARG members since the last time we wrote.



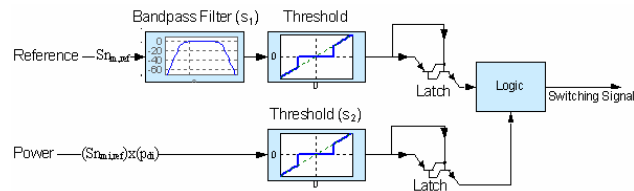
- Marina Tharayil participated in the 2004 Chicago marathon. I know it's not academically related but that was still very impressive! Impressive enough to warrant a picture above of the future Joan Benoit.
- Bryan Rasmussen did very well in teaching ME 360 this Fall. He's actually had his ASME Graduate Teaching Fellowship renewed for another year based on his success in the classroom.
- Doug Bristow received an ASME Graduate Teaching Fellowship. This makes two ARG members in a row for this competitive ASME award.
- Marina Tharayil had her final defense presentation and passed. Just a matter of turning in her dissertation and she'll be ARG PhD # 6.
- Brad Edler finished his M.S. thesis and started a job with Caterpillar, Inc.
- Pinaki Gupta finished his M.S. thesis and started a job with Caterpillar, Inc.

If you know any of the people mentioned above, feel free to drop them an e-mail in the lab and say congrats. Also, you can check our ARG homepage regularly to find out whether any new news has come through.

## 3. Featured Research.

The research that we'll be featuring this time around is Pinaki Gupta's work on switching powertrain control. He has taken a look at controlling powertrains for off-highway vehicles, similar to other previous ARG members. In controlling powertrains, it is often necessary to do some type of optimization to either minimize fuel consumption or maximize responsiveness of

the engine/powertrain. Pinaki's work has focused on a strategy that switches between a fuel hungry, high-performance strategy and a fuel-sipping, energy saving strategy.



Pinaki has to do some filtering and signal processing to interpret the user's commands. This allows his control strategy to determine if it's in a situation that requires high performance or one that requires low fuel consumption. As a result, we have a powertrain that has the "best of both worlds": performance and economy.

#### 4. Alumni Focus.

This worked great last time with Mark Depoorter but I currently have no detailed career news about a particular ARG member. If any of you are willing to submit information about yourself and your career after graduating from the ARG, I'd be very happy to have it included. I know that the current students get a great deal of motivation from seeing where their careers may take them. Also, it's great for former ARG members to see what other alumni are working on these days. I'll look forward to hearing from some of you.

#### 5. Announcements-Catching up.

At this point in time, we have no pictures or announcements of ARG alumni. However, we do have lots and lots of rumors. There are several current and former ARG members that will be expecting additions to their families in 2004. Some of those that I hope to have pictures or news from include:

- Mark Depoorter (MS 1997)
- Crystal Gwynn (MS 2000)
- Rong Zhang (PhD 2002)
- Danian Zheng (PhD 2002)
- Brian Eldredge (Current ARG member)

We'll be having a very productive 2004. Good luck to all the new parents, and those who are going through it again. Hope all goes smoothly for you and I'll be looking forward to getting the birth announcements and pictures to pass along.

That's all for now. We'll have a more extensive newsletter this summer.

- Sean Brennan (PhD 2002)