

The SEAL Times

The Official Newsletter of the Sensors, Energy, and Automation Lab
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SEAL in 2004

➤ Student management

"Made in SEAL" - from quantity to quality

2004 marked SEAL's transition from sheer quantity to quality. At once, it expanded to a record size of 8 graduate students and 16 undergraduates. The official document GFNS also exceeded 100 pages. Later personnel reduction shows that the "beauty of being small" did not completely evade the attention of the SEAL director.

➤ Alumni

SEAL Alumni program was launched this year. Alumni status will be granted only to those worthy of the title. Aside from the pride this title offers, SEAL alumni will also receive newsletters and invitations to participate in SEAL events.

In summer 2004, SEAL graduated its first Ph.D. student, Min Wang, who is now with Intel in California. Also during this year, two SEAL alumni accepted permanent positions with our strategic partners, dTEC and Kronos Air, both local startup companies.



➤ Internships

Professor Mamishev finally gave up convincing his students that, in summer, nothing beats staying in front of the computer and work. In 2004, he deployed his students to various companies for summer internships. Three of them, for the first time, were with our strategic industrial partners, Intel and Kraft. This experiment worked well – all parties were happy.

➤ Social activities

2004 saw a record number of 27 participants in the SEAL Tour de Lake event. Despite the uncooperative weather, close to a half of the group finished the whole trip around the Lake Washington.



➤ Publications

"Kishore's diamond"

A 40-page paper 'Interdigital Sensors and Electrodes' was published in the IEEE Proceedings. It is so far the most thorough review on the topic. Several other journal papers published in SEAL this year pale in the face of this giant.

The paper, coauthored by Prof. Mamishev, Kishore, as well as the prof's former colleagues in MIT, was frequently referred

to by the professor himself as "Kishore's paper", a sure proof of his modesty. However, we also found him calling the paper 'a diamond' on occasion. We are sure what he really meant was – 'Kishore's diamond'.



Bubbles...

The bubble chart was invented in late 2004, a system that helps research groups envision their publication plans. The idea, created solely by Prof. Mamishev, is simply cute and brilliant. We are not sure about the name though. Let's try to solidify our plans before the bubbles burst.

Prof. Mamishev - the man

Prof. Mamishev became the Director of the Electrical Energy Industrial Consortium (EEIC). This, however, does not translate into an easier time for all the EEIC applicants from SEAL. Not all of them, at least. What matters the most is a favorable letter from 'The Man'. Isn't this enough reason for you to think twice next time you plan to skip a meeting or ignore a task?

"Ya-al like Simpsons?"

Prof. Mamishev finally got around to compiling and printing the Special "Simpsons" Edition of his Ph.D. thesis. We hope that this special edition will finally gain him the readership that he has thus far yearned.

SEAL in 2005?

"My turn, he-he"

After Min, Bing is now first in line to graduate with a Ph.D. degree. Bing's position in the lab is irreplaceable: he is both the most hard-working student and the most avid Chinese online novel reader in SEAL. His diligence will pay off in 2005 when he graduates, and SEAL will surely feel its loss.



"No more babysitting!"

Prof. Mamishev finally decided that 'babysitting' doesn't have to be part of his career. In 2005, he envisions for SEAL a transition to a four-layer lab structure: 1st) Director, faculty collaborators, and postdocs, 2nd) Senior graduate students, and postdocs, 3rd)



Junior graduate students and advanced undergraduate students, 4th) Undergraduate students. If managed well, this could lead SEAL towards a mature research lab; if not, it may well turn into a bureaucratic caste system.

The rest of his new-year resolutions:



- Generation of landmark research results
- High quality "square" publications in leading journals in each research direction
- At least one "pillow" or "cloud" publication in each strategic direction placed in major magazines
- Greater participation of students in charting strategic directions and staying on top of tactical decisions in research
- Greater ties with SEAL alumni
- Regular updates for our sponsors and partners
- Well-managed PR
- Excellent students at all levels

Recent Awards



- **Valerie Inlan** - EEIC Assistantship
- **Diana Cheng** - EEIC Assistantship
- **Eric Tran** - SEAL Scholarship
- **Jun Yi** - Chevron Scholarship
- **Alanson P. Sample** - Mary Gates Award
- **Marc E. Hungerford** - Mary Gates Award
- **David Seater** - Mary Gates Research Award
- **Abhinav Mathur** - EEIC Assistantship
- **Xiaobei Li** - IEEE ISEI Travel Award

Nels in Colorado

On the plane to Colorado for the 2004 IEEE CEIDP conference, Nels was busy working on his laptop. The lady sitting next to him was bored and tried to make conversation:

- *You must be a young professor editing your student's writing.*
Nels replied:
- *As a matter of fact, I am only a graduate student. I am editing my professor's writing.*

One professor at the conference was known for his conceit and sharp critical comments. At the poster presentation, Nels saw the professor approaching his poster and started preparing himself for a tough time. However, before reaching Nels's poster, the professor stopped and turned away. Nels walked up to him and said:

- *Do you have any questions about my poster?*

The professor, showing no sign of interest, replied:

- *I don't work this field and do not know much about it,*

and was ready to leave. However, Nels persisted:

- *Are you willing to learn?*

Moderately amused, the professor picked up the conversation, that was already starting to attract audience:

- *Usually, I teach...*

Nels retorted:

Are you willing to take a chance?

By this time, a small crowd already gathered around them. The professor dutifully followed Nels to his poster, and asked many questions.

Scholarship and Award Alert

February

- **AFCEA Ralph W. Shrader Graduate Scholarship**
- **AFCEA Fellowships**
- **Harriett G. Jenkins Predoctoral Fellowship Program**
- **National Security Education Program**
- **IEEE Regional Student Paper Contest**
- **Washington NASA Space Grant Undergraduate Research**
- **Dept. Homeland Security Graduate Fellowships**
- **Dept. Homeland Security Undergraduate Scholarship**
- **IEEE Life Member Graduate Fellowship**
- **SAMPE Undergraduate Awards Program**
- **Barry M. Goldwater Scholarship**

March

- **Mortar Board Alumni Scholarships**
- **AFCEA General John A. Wickham Scholarship**
- **Computer Science, Engineering, and Mathematics Scholarship**

Please refer to the Guide for New Students for details of each scholarship