



TOYOTA Production Systems Laboratory

Industrial and Systems
Engineering

Fall 2009.

Lab Continues Successful Outreach Activities

This 3rd edition of our newsletter will summarize activities and events from the summer quarter and the fall quarter which is drawing to a close. We have new staff members on the team, have added to the lab's infrastructure and capabilities, completed successful student and outreach experiences, and continue to work on improving the lab itself and how we operate it.

Staffing

The lab is currently staffed by 3 graduate students: Ainoa Mazeika, Arvind Sridharan, and Manuel Sosa. This provides a nice mix of experience and fresh ideas, and the students are becoming more proactive in making suggestions regarding operations and improvements in the lab. Many of the improvements described below were driven by them as much as the faculty. Also, Dr. Andres Carrano is on a six month sabbatical at a univer-



sity in Japan so Professor John Kaemmerlen is "pinch hitting" to help coordinate lab activities.

Toyota Visits

Andres Carrano and John Kaemmerlen had the good fortune to spend 2 days at Toyota in June. They visited the Georgetown, Kentucky plant (TMMK), the North American headquarters (TEMA), the training center in Georgetown

(NAPSC), and the Center for Manufacturing at the University of Kentucky, where they met with Ken Kreafler and others. It was an excellent visit, and they returned with a better sense of some of the latest areas of emphasis of TPS. In addition, Ken Kreafler, Kim Demko, and Jerry Sturdivant, all of Toyota, visited the TPS lab in September. Also, Dr. Carrano visited the Tsutsumi plant in Japan this past November.

Lab Capabilities and Operations

New capabilities have been added to the lab in the past several months. There is a white board that is used to visually manage development, fabrication, purchasing, and support activities. The "freshman prototype" design and fabrication was completed, so there is a new assembly that mimics an electro-

mechanical product that can be used for additional lab exercises. Two "heijunka box 3's" were designed and built so we now have a complete 4 box heijunka system that is used to teach lean production control. Also, a set of "kanban posts" was designed and fabricated. The students continue to document standard work (e.g. job

element sheets) for the labs used as a part of our outreach activities. This has been part of a larger effort to improve documentation of lab practices (purchasing, budget, etc.), the instructions for the labs students do, and other key activities. Also, we initiated an effort to improve 5 S practices in the lab and to improve space

utilization, which started with an A 3 and has led to freed up space, some safety upgrades, improved 5 S discipline, routine confirmation checks by leaders, and a Plan-for-every-part activity. And if you have not visited the new **TPS lab website**, be sure to check it out as it has been upgraded with new information and a video.

NEWS

- THE LAB HOSTED WOMEN IN ENGINEERING SUMMER CAMPS IN JULY. FEEDBACK FROM THE GIRLS (GRADES 4-10) CONTINUE TO BE VERY POSITIVE
- THE LAB ALSO HOSTED THE "WE'RE IN MOTION" PROGRAM FOR INCOMING FRESHMAN WOMEN WITH ACTIVITIES IN THE LAB
- NEW WEBSITE ADDRESS:

<http://www.rit.edu/kgcoe/ise/facilities/ToyotaLab>

QUICK FACTS

NUMBER OF GIRLS (GRADES 4-10) THAT PARTICIPATED IN SUMMER 2009 CAMPS	75
NUMBER OF INCOMING FRESHMAN WOMEN THAT PARTICIPATED IN THE "WE'RE IN MOTION" PROGRAM DURING SUMMER 2009	60