Electrical Power Systems & Instrumentation Students Follow Career Path to Tesla Motors

By Roy Brixen, emeritus professor of electronics

CSM has developed a close working relationship with Tesla Motors through the Electronics Department. To date, 15 students completing the college’s 19-unit Electrical Power Systems and Instrumentation Certificate Program have been hired by Tesla to work in battery manufacturing, electrical/electronic subassembly testing, or process sustaining engineering.

Generally, new hires without previous experience in electromechanical systems begin their Tesla career as members of the Battery Manufacturing Group where they learn to assemble, test, and certify the standard battery pack and the high-output optional pack.

New hires that have some experience in electromechanical systems enter the Tesla workforce as component/subassembly test and repair technicians. These individuals use computer-driven test programs and Tesla-designed test fixtures to execute and complete a set of pre-assembly test procedures to verify that vehicle components and vehicle subassemblies are fully functioning before they are mounted in a new Model S.
Finally, a more experienced group of new hires are brought directly into the Process Sustaining Engineering Group where they are expected to work side-by-side with vehicle design engineers developing and implementing test procedures designed to stress vendor parts that are being considered for new vehicle designs. Right now, two of our most talented graduates are in the process of testing, to the point of destruction, components being considered for the new cross-over SUV due for new model introduction in 2015.

To add a bit of context to this flock of new hires, one of CSM’s first graduates joined Tesla in the battery group. His background was commercial printing. He had been the production manager of a large commercial printing company in the South Bay and had been the owner of his own commercial printing company. Unfortunately, competition from desk-top publishing software driving high-quality color printers and/or competition from overseas printing plants put the viability of commercial printing in California into a tail spin.

Joining our program at the onset with the goal of retraining and switching careers, this student quickly excelled. He was driven by a desire to change careers and he was able to repurpose the electromechanical troubleshooting skills he had learned and honed in his printing career. Rebuffed by the local electrical utility as “over qualified”, he applied to Tesla and within two years moved from battery assembly/test, to component/subassembly test, to process sustaining engineering. He is now working on the drivetrain reliability for the upcoming crossover SUV.

Another student came to us with an employment background as a weekday sales clerk/stockman at the family vegetable stand in Redwood City and as a carpet installer on the weekends. When he joined the program he was a bit of a computer “nerd” and was well-versed in spreadsheets, coding, and the Internet—not so much hardware troubleshooting, but lots of software troubleshooting. He also joined Tesla early on, again starting in the battery group, and quickly moved into component/subassembly testing. He is now assigned to a team of three component engineers and is responsible for developing computer-controlled component test programs using National Instruments LabView software. His understanding of electrical theory and his background in computer software have afforded him a career path filled with nothing but growth and success.

One of the most impressive outcomes of the CSM relationship with Tesla is how our students have changed. This is a company passionate about electric vehicles; it is passionate about excellence; it is passionate about the future and clean tech. Our former students come back to visit (and recruit!) and we hear things like: “This is the real deal—we are leading the industry to a new vision!” and “If I work hard and produce good work, there are a lot of opportunities for me.”

It’s a good partnership—for the benefit of students, the company and CSM.
CSM Celebrates Classified Staff

On June 24, more than 150 faculty, staff and administrators celebrated CSM’s classified staff during the Classified Appreciation Lunch and Service Awards. Employees gathered on College Center’s Terrace where they were treated to a buffet barbecue lunch catered by Pacific Dining and served up by CSM’s managers. President Mike Claire emceed the ceremony which honored eight employees who reached long-term service milestones in 2013-14. The highlight of the event was a surprise performance by an unnamed group of local punk rockers who totally captivated the audience!

Members of the classified service honored this year were:

**15 Years**
Michele Muller
Jackie Collado
Russell Cunningham
Theresa Francisco

**20 Years**
Melanie Berzon
Bryan Gerbig

**30 Years**
Juanita Celaya
Kathy Chaika
The Kinesiology, Athletics and Dance Division reports that CSM student athletes in 2013–14 received $2,405,491, a record scholarship total for CSM athletics in any given year. Scholarship awards were received by 41 of the 49 athletic transfer students; five football players received individual awards of more than $100,000. This year’s transfer students will be attending colleges and universities in 19 states and Canada.

**Transfers by Sport:**
- **Softball:** 7 out of 7 sophomores transferred = 100 percent
- **Basketball:** 5 out of 6 sophomores transferred = 83 percent
- **Football:** 24 out of 28 sophomores transferred = 86 percent
- **Baseball:** 8 out of 9 sophomores transferred = 89 percent
- **Men’s Track:** 3 out of 11 sophomores transferred = 27 percent
- **Women’s Track:** 2 out of 5 sophomores transferred = 40 percent

**Additional highlights:**
- 71 percent of the transfers are from underrepresented groups.
- 77 percent of all sophomore female athletes transferred
- 73 percent of all sophomore male athletes transferred
On June 6–8, new members of the ASCSM Student Senate participated in the annual ASCSM Leadership Conference sponsored by the CSM Center for Student Life and Leadership Development at Happy Valley Conference Center in Santa Cruz. The conference focused on different leadership theories, personal development, communication skills, and teambuilding. Prior to the retreat, participants were all administered the Myers-Briggs Type Indicator assessment. Some of the workshops were tailored to the individual and group results of this assessment to help explore different strategies for effective communication and conflict resolution. On the final day of the retreat, members participated in a ropes/challenge course, which further helped develop teamwork, communication, and trust among the group. (Article and photos contributed by Fauzi Hamadeh)
Student Curatorial Projects on Display in College Center

On July 16, CSM’s President’s Office hosted a reception to showcase curatorial projects of three Peninsula Museum of Art interns/former CSM students on display in College Center. One project, an exhibit in the President’s Office is a large triptych of Crystal Springs Reservoir by master painter and CSM Professor Emeritus of Art Duane Wakeham. It was curated by Eryn Espiritu and will be on a 10-year loan from the Peninsula Museum of Art. The other project features a collection of prints, curated by Diana McNutt and Justine Wuebold, from “The Plan Lore of Shakespeare,” a limited edition folio of lithographs by Rosa M. Towne, illustrating the plants mentioned in the works of Shakespeare. It is on display in the hallway adjacent to the Creative Arts/Social Science Division Office. This rare folio was bequeathed to CSM by Dr. Bruce Cameron, emeritus professor of English and film.

Photos by Alexis Madayag
Between June 16–25, CSM’s EOPS program hosted its annual Summer College Readiness Program (SCRP). Twenty-seven students were accepted into the program, designed to assist EOPS-eligible students in successfully transitioning from high school to CSM. The program covered topics including educational goals, financial aid, transferring, study skills, and student rights and responsibilities. Students met individually with EOPS counselors to create student educational plans and participated in CSM's library orientation. In addition to learning all about CSM, the group visited San Jose State University and UC Santa Cruz. SCRP students learned the tools needed to navigate the college system and created supportive relationships with one another as they were welcomed into the CSM EOPS community. Upon completion of the program, the SCRP students were offered acceptance into EOPS for the fall 2014 semester. (Article and photo contributed by Tami Hom)
Student Success Story: Sarah Lowe

UC Davis, Biology

“I loved my experience at CSM,” says Sarah Lowe, who first stepped foot on CSM’s campus as a concurrently enrolled high school student. By the time she graduated from Mills High school, she had already earned eight units of college credit and completed several college requirements. Her decision to continue at CSM as a transfer student was easy. “CSM has a great atmosphere and the people are so nice! Because I was familiar with the college and understood what professors expected, I knew attending CSM and transferring to a university was the right path for me.”

Building on her previous college experience, Sarah became a more competitive and motivated student which served her well in classes. She recalls one of her favorite classes, General Zoology, taught by Professor Huy Tran: “Learning about animal diversity was fascinating and fun. That class was the reason that I decided to major in biology.”

To add to her college experience, Sarah joined Alpha Gamma Sigma (AGS), CSM’s honor society, and eventually was elected as president. She explains that “AGS became a bridge to involvement in other clubs on campus. I made a lot of new friends through the honor society and student clubs.”

During Sarah’s years at CSM, she had the opportunity to work on campus as a student ambassador assisting with the college’s outreach activities. “By serving as a student ambassador, I got to know the college really well and I was able to branch out and meet so many interesting people—students, faculty and administrators. Getting involved in student life and working as a student ambassador provided lots of opportunities to network with other students who shared similar academic and social interests.”

On track to transfer to the UC system, Sarah was the recipient of several scholarships recognizing her academic success and leadership experience. In fall 2014, Sarah will transfer to UC Davis to study biology. Beyond that, she has set her sights on attending medical school to pursue a degree in radiation oncology. “CSM helped me grow—develop a strong work ethic and formulate my goals. I left CSM as a much more confident student and I definitely feel ready to compete at a major university.”