Green Fund Project
Final Report

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Department: Engineering Advisement
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Faculty Advisor (if applicable):
Project Title: Promoting Paper and Printer Ink Waste Reduction in the Office Work Environment
Project ID #: 18SP110
Award Date: 04/27/2018
Completion Date: 03/01/2019 with continued use
Total Funds Used: $1,015.97- $250 support from Provost = **$765.97** from the Green fund

1. **Provide a summary of your project/project experience.**

   The main goal of this project was to reduce paper consumption and ink waste in the College of Engineering Advisement office. For this pilot program, we purchased four electronic signature pads to use while advising students each semester. Students are required to sign their Course Registration Form (CRF) to acknowledge we have met and discussed course options. On average, an advisor will print 10 pages per year per student. All students will see their advisor at least twice per year and often three or more times per year for class options each semester, graduation plans, letter requests, maximum hour adjustments, change of curriculum forms, etc. Advisors also print out email correspondences to put in the student files.

   There were a few setbacks on getting started with this project. The e-sign pads were ordered a little later than expected so we were unable to start using them until the 3rd week into advisement for the Fall 2018 semester. There was a little learning curve on getting it to work on our PDF forms, but IT was able to assist. It took a little extra time to close the PDF, open the pDoc program, find the CRF we wanted to sign, create a signature box, sign, save, and email to the student. Before, we would just print and sign. After the Fall semester ended, I had time to work on a better solution for the signing process and was able to edit the PDF with a permanent signature box. Now the process was to open the PDF through pDoc, click to sign, save, and email to the student.

   There were several staffing changes in both IT and advisement in August. For the Fall semester, I was able to use the e-pad with most of the Mechanical Engineering students. The other advisors began using the e-pads starting on February 18th for Summer and Fall advisement. By the end of the Spring semester, all of the Engineering students will be signing their CRFs electronically.

   There has been a positive response from most students with signing electronically. Aside from a few who like the hard copies, the majority said they like having access to it in their email. They also like there is room for the advisor to write notes and reminders rather than the old half sheet of course options. They like getting their graduation plans emailed to them as well. We

are also in transition to provide the graduation plans through one of our platforms, DegreeWorks. Another platform we use, Navigate, allows us to save notes and advising reports where we can attached the registration form and graduation plans. Even though the initial plan for this project was to sign the registration forms, these platforms have allowed us to save emails and other information to the student file that we would normally have printed. We can now copy/paste or save important emails to the notes sections of Navigate. Since mid-Fall semester, I have printed very little, other than a few forms or letters. I have used the printer so little, that it is actually a waste of space on my desk. I anticipate we would be able to get rid of our personal printers altogether in the office within the next year.

It was good to start small as a pilot program, especially with an equipment purchase. In my original proposal, I planned to purchase four of the same e-pads. Before I ordered them, I decided to get two different types because they were different prices. One had a light-up display where the student could see their signature. The other e-pad was a blank screen. Some students commented on not being able to see their signature and most seemed to like the one with the display. I will be able to provide feedback on the two different e-pads if the Registrar's office decides to purchase these for all advisors in the future, as they have inquired about.

2. **Provide a summary of your results (environmental, social, and/or economic) including quantifiable data as appropriate (ex. # of individuals reached, lbs. diverted from landfill, energy saved, etc.).**
The environmental benefit of this project was probably the most noticeable. On average for the past 3 years (2014-2017), one personal printer used three black toner cartridges per year. At about 2,000 pages per cartridge, that totaled 6,000 pages per year for one advisor. An alternate estimate is that same advisor has about 400 students, using about 10 pieces of paper per student per year is about 4,000 pieces of paper.

Commercial printers can use 300-500 watts when printing and 30-50 watts while on standby. According to energyusecalculator.com, Printing for 6 minutes each day at 400 watts with a price of .10 per kWh would cost $1.46/year and the cost on standby would be $33.58 to total $35.04 per printer each year. With five printers in the Engineering office, the cost would total about $175.20 on energy costs for one office on campus.

Every student must advise and we would typically their Course Registration Form (CRF) for spring, fall, and summer semesters (if applicable). In Engineering, there are about 800 students. That is 1,600 CRFs for a year and roughly 200-400 for summer. Therefore, we could eliminate 1,800-2,000 pieces of paper per year from one form. Not to mention the other forms we sign or documents we could email. Therefore, each advisor would save about 2,000 pages per year, which would total about 6,000 just from CRFs. We also did not print their graduation plans and cut down on the amount of emails we printed, if any.

There was more of a social impact than I realized, especially once we promoted the project on our Facebook page and students were talking about it over the next few days. Students and advisors will recognize the positive impact and role they play in sustainability on the SIU

campus. By reducing paper waste in this small setting and becoming conscience of how we can contribute and move society forward, students and advisors can carry this habit over to other areas of their lives.

This project also helped to improve efficiency by reducing the time it takes to print and sign both copies of the registration forms. Advisors liked to highlight the benefits to students in that students could refer to their email for their registration number and suggested classes instead of trying to keep up with a hard copy or leave it in the dorm or apartment when they travel back home and want to register during break.

There was also a positive economic benefit with this project. As encouraged from the Chancellor's office, reducing paper waste can help save money over time, especially if units across campus adopt technology to use electronic tools. An average yearly cost estimate for white paper is $200.00/year and for ink/toner is $1,000.00/year. Given the transition into going paperless, the savings would cover the cost of the equipment within 1-2 years, depending on the use of the e-pads combined with the online platforms.

3. **Summarize how your project promoted the Green Fee/Sustainability on campus including, but not limited to, flyers created, screenshots of website, signage, etc. Please include website links, if applicable. (Reminder: you are required to promote your project using at least 2 items from the awardee website promotion list.)**

On May 7, 2018 I announced that I received the grant at the all advisor meeting. I gave a brief overview of the project and let everyone know I would give an updated on it in Spring.

On February 13, 2019 I gave an update at the all advisor meeting on the success so far with using electronic signature pads. Although there were a few setbacks, the transition into going paperless was easier given our technology and platforms.

On February 18, 2019 all Engineering advisors began using the e-pads for the start of the Spring advisement season. This semester, all College of Engineering students will see the new initiative. At the end of most advising sessions when students are ready to sign, the advisors briefly explain the projects funding from the Green Fund Grant in an effort to help reduce paper and ink waste.

On February 21, 2019, the Facebook and Twitter promotions were uploaded with pictures of the e-pads in use during advising sessions. Screenshots and links below:
https://www.facebook.com/siuc.college.of.engineering/?epa=SEARCH_BOX
https://twitter.com/SIUCEngineering
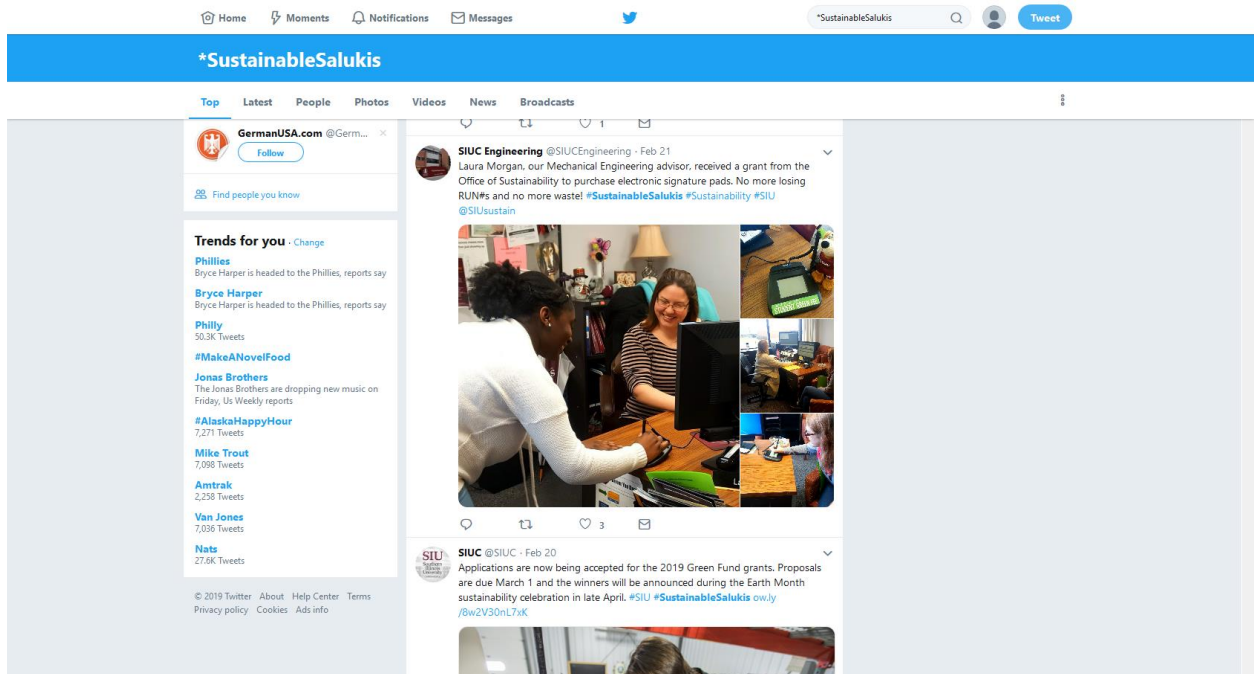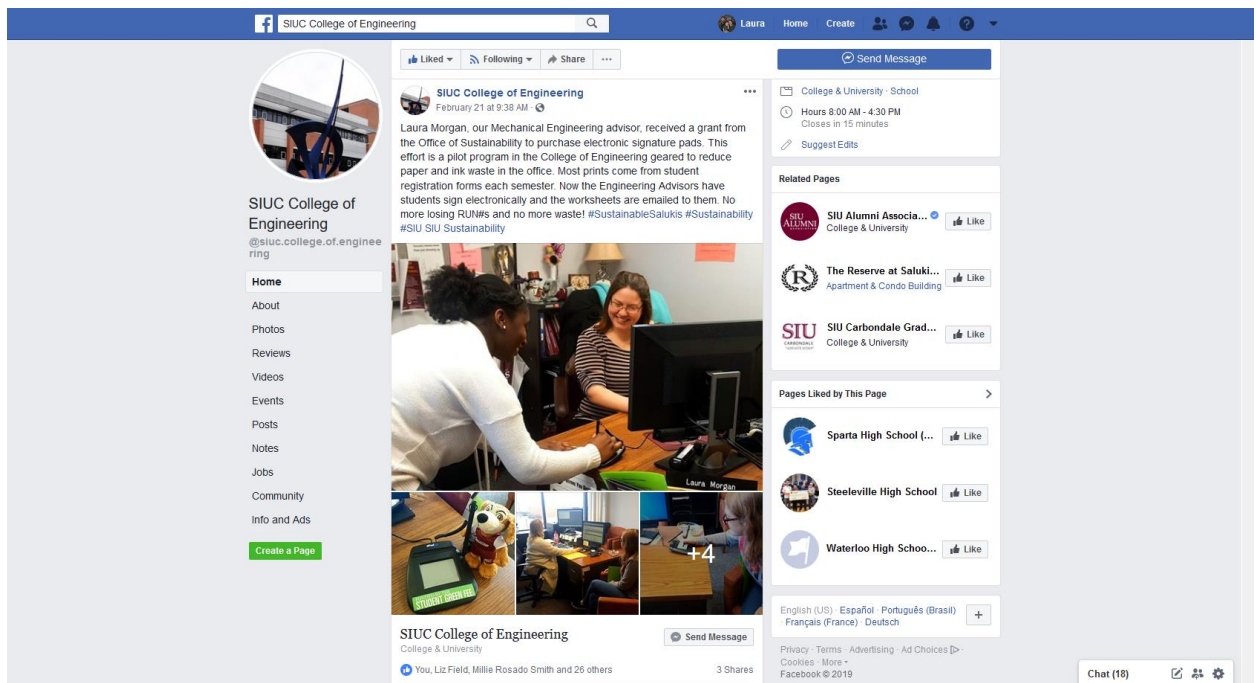
For the future:
Site visits and training (in person and video) when other advisors purchase e-pads
Presentation at an All Advisor Meeting- late Spring 2019

4. **Provide evidence of how you used the Green Fund Marker in your project.**
   We placed the Green Fund Markers directly on the electronic signature pads so every student in the College of Engineering will have seen this by the end of the Spring term.

5. **Is there anything you would do differently if you were to do a similar project in the future? If so, please describe.**
    I would gather better data ahead of time. I did not realize that IT was unable to provide monthly reports. I would have self-tracked how much paper and ink I used for the year prior to starting the project to collect better data on savings and benefits.

6. **Provide as an attachment to the email (see email address below) a minimum of 5 digital images. Images should be of high a quality as possible and be attached in jpg format, if available. Images will be used to promote interest in sustainability projects on campus and may be used on our website and in other promotional material. These can be photos of the progress of the project or the completed project. Provide captions for photos here.**

Laura Morgan, the Mechanical Engineering advisor, having a student sign her registration form electronically.
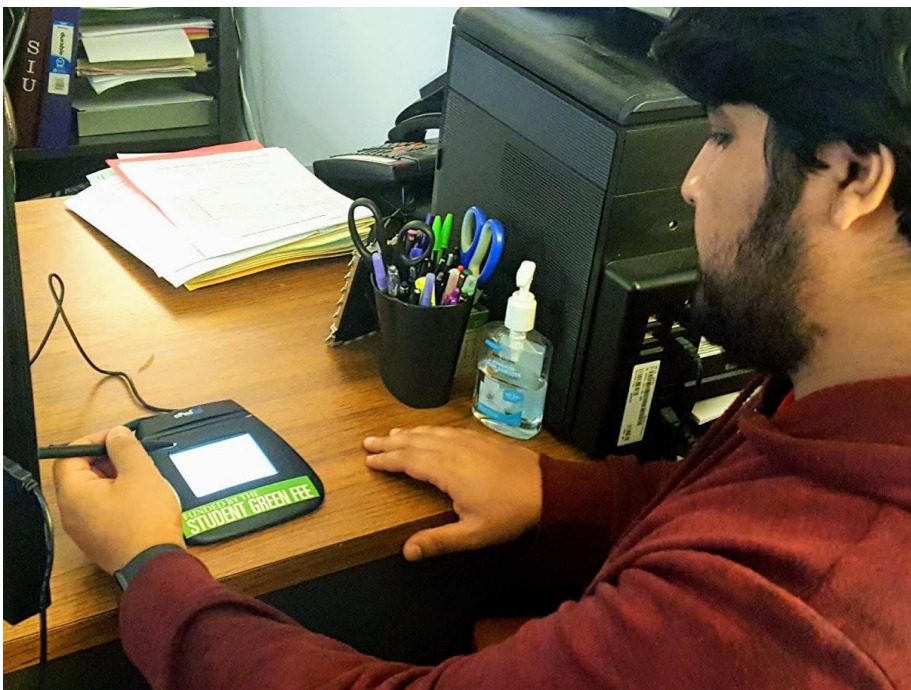
Brown dog supports this green initiative too!
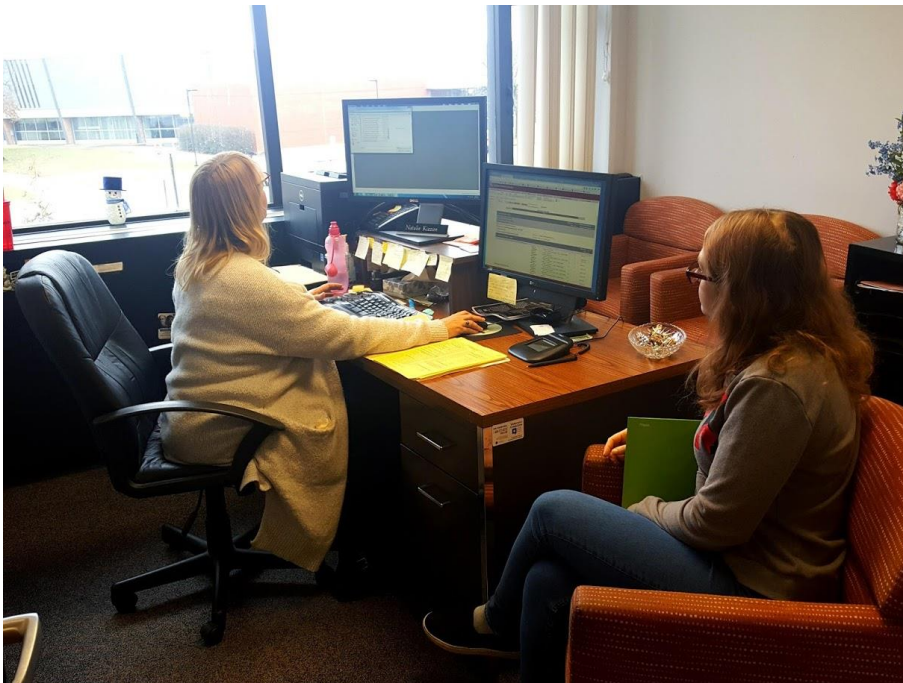
Natalie Kizzire, the Industrial Management and Applied Engineering and Civil Engineering advisor, prepares the form for electronic signature.

A Civil Engineering signed her Course Registration form, which she will receive via email instead of a hard copy.

A Mechanical Engineering student waits for the electronic signature pad to light up so he can sign his registration form.

A Mechanical Engineering student signed his registration form on the e-pad sporting the Green Fund marker.

Grey dog is going green too!

7. **List suggestions for the SIU Sustainability Council to improve the Green Fund Award Process here:**

I think this was a smooth process with clear instructions and guidance. I would suggest more proposal examples for reference.

Final Report forms should be sent electronically, in editable Microsoft Word format, to greenfund@siu.edu. This should be completed before requesting final reimbursement. A Sustainability Council designate will review final reports before releasing funds.