

Idaho Incubation Fund Program

Final Report Form

Proposal No. IF12-015
Name: Suat Utku Ay
Name of Institution: University of Idaho
Project Title: SSLAR Imaging System Development for High-Speed,
High Resolution Surveillance Camera Markets

Information to be reported in your final report is as follows:

1. Provide a summary of overall project accomplishments to include goals/milestones met, any barriers encountered, and how the barriers were overcome:
 - The previous 10-bit ADC design was upgraded to 12-bit. Several technical difficulties were overcome and final design meets the requirements.
 - The 720p sensor was sent for fabrication in May 11, 2012 after a delay during tapeout. The delay on the fabrication resulted in 2 months shift on our testing timeline. As a result the testing will be completed in August 2012 after the project period ends in June 30th. Testing will not require any cost due to the fact that all required test fixtures, software, and equipment were made ready before the project period ends. PI will spend his personal time to complete the task.
2. Describe the current state of the technology and related product/service:
 - We have 12-bit SSLAR technology in a 720p HDTV format which has 945,744 pixels. Comparing with 10-bit and 30,000 pixel that we had before, this design is 30x larger and possesses 4x better ADC bit resolution.
3. List the number of faculty and student participants as a result of funding:
 - Two undergraduate students were hired; one was a Computer Engineering senior for integrated circuit (IC) design and the other one was a Computer Science senior for software design tasks. This project not only provided training for the students but also provided a platform for them to work on real product grade IC design and testing. Both students graduated in May 2012. They received several job offers and started working right after graduation.
4. What are the potential economic benefits:
 - We will have a production grade 720p image sensor to attract more funding for successful commercialization of the SSLAR technology.

5. Description future plans for project continuation or expansion:
 - Testing and camera house integration will be completed in August 2012, and several academic papers will be written about the technology. It will be published in a conference that has trade show setting that the technology will be showcased in January 2013. Other trade shows will be considered for attracting customers and expand the customer base improving acceptability of the new SSLAR technology.
6. Please provide a final expenditure report (attached) and include any comments here:
 - Overall: Requested funds were spent at the end of the project period acquiring all items required successful completion of the project.
 - Personnel: Two undergraduate RA were hired during Spring 2012 semester. They completed their tasks for Spring semester and did not work during assigned summer time due the fact that both were seniors in ECE and CS department and they start working right after graduation. The work assigned for summer for the RA was completed by the PI during extra summer week. As a result PI received 3 weeks of summer salary instead of 2 weeks.
7. List invention disclosures, patent, copyright and PVP applications filed, technology licenses/options signed, start-up businesses created, and industry involvement:
 - UI has a patent application filed for the technology. No new disclosure or patent application was filed during the term of this funding.
8. Any other pertinent information:
 - None

FINAL EXPENDITURE REPORT

A. FACULTY AND STAFF		
Name/Title	\$ Amount Requested	Actual \$ Spent
Suat Utiku Ay / Assistant Professor	\$7,500.00	\$9,964.80
B. VISITING PROFESSORS		
Name/Title	\$ Amount Requested	Actual \$ Spent
C. POST DOCTORAL ASSOCIATES/OTHER PROFESSIONALS		
Name/Title	\$ Amount Requested	Actual \$ Spent
D. GRADUATE/UNDERGRADUATE STUDENTS		
Name/Title	\$ Amount Requested	Actual \$ Spent
TBD/Research Assistant (Graduate Student, 20hr/week)	\$7,200.00	\$3,356.50
E. FRINGE BENEFITS		
Rate of Fringe (%)	\$ Amount Requested	Actual \$ Spent
PI:24% (SUM)	\$1,800.00	\$2,259.25
RA: 1% (ACA), 9%(SUM)	\$200.00	\$13.79
PERSONNEL SUBTOTAL:	\$16,700.00	\$15,594.34
F. EQUIPMENT: (List each item with a cost in excess of \$1000)		
Item/Description	\$ Amount Requested	Actual \$ Spent
1.	\$0.00	\$0.00
2.		
3.		
4.		
EQUIPMENT SUBTOTAL:	\$0.00	\$0.00
G. TRAVEL		
Description	\$ Amount Requested	Actual \$ Spent
1.		
2.		
3.		
TRAVEL SUBTOTAL:	\$0.00	\$0.00

H. PARTICIPANT SUPPORT COSTS:			
Description		\$ Amount Requested	Actual \$ Spent
1.			
2.			
3.			
PARTICIPANT SUPPORT COSTS SUBTOTAL:		\$0.00	\$0.00
I. OTHER DIRECT COSTS:			
Description		\$ Amount Requested	Actual \$ Spent
1. Other Direct Costs		\$27,800.00	\$28,905.66
2. Other (specify nature & breakdown if over \$1000)		\$5,500.00	\$5,500.00
3.			
OTHER DIRECT COSTS SUBTOTAL:		\$33,300.00	\$34,405.66
TOTAL COSTS (Add Subtotals):		\$50,000.00	\$50,000.00
TOTAL AMOUNT REQUESTED:			\$50,000.00
TOTAL AMOUNT SPENT:			\$50,000.00