VS.

SUJAY SHARMA

CAUSE NO. 79

139 Northwestern Avenue West Lafayette, IN 47906

APR 1 1 2013

DOB: 05/16/1989

OLN: 1450-71-8748 (IN)

Chinta Coffey Clerk of Tippecanoe County

MITSUTOSHI SHIRASAKI

102 North Chauncey, Apt. 506

West Lafayette, IN 47906

DOB: 10/27/1988

CAUSE NO. 79

OLN: S60906883 (MA)

CAUSE NO. 79 DO2-1304-FC-00018

**ROY CHAORAN SUN** 14 Longwood Drive, Apt. 8 Andover, MA 01810-1526

DOB: 08/24/1988 OLN: S99395990 (MA)

## AFFIDAVIT OF PROBABLE CAUSE

The undersigned Affiant, first being duly sworn upon oath, states and deposes that he is a law enforcement officer for the Purdue University Police Department in the County of Tippecanoe, State of Indiana. Affiant is familiar with and read reports written by himself, Ofc. Wiete, Ofc. Stuller, Det. Wietbrock, Ofc. Snider, Ofc. Hegg, Ofc. Bryan, Ofc. Sharp, Lt. Davis, and Ofc. M. Boesch of the Purdue University Police Department and Inv. Sean Leshney of the Tippecanoe County Prosecutor's Office stating that on January 3, 2013, Greg Hedrick, Director of Information Technology Security Services for Purdue University ("ITAP") contacted Purdue University Police Department concerning a student logging into a professor's Purdue University computer account and changing his grades. Professor Arthur Frazho twice contacted ITAP to request his password be reset as someone had changed his password without his permission. Curt Jansen, Network Security Analyst for Purdue University, examined the log data for Frazho's account which showed that on November 30, 2012, an unknown person from an IP address not affiliated with Purdue University gained access to Frazho's account and changed the password. Frazho contacted ITAP again on December 18, 2012 as his password once again was changed. Jansen further examined log activity associated with the password reset of Frazho's account and was able to identify that an account by an individual by the name of Mitsutoshi Shirasaki logged onto PAL (Purdue Air Link wireless network) and further logged into Frazho's account and changed Shirasaki's grade in his Control Systems Lab class from a "C" to a "B." The grade change came from a computer called XS-macbook-pro. The original grade was given to Shirasaki by Frazho on December 14, 2012 and was changed without Frazho's permission through Shirasaki's PAL account on December 18, 2012.

service provider for the associated IP address, and later confirmed the log-in information from Shirasaki was associated with an apartment building situated at the corner of N. Chauncey Ave. and W. Columbia St. in West Lafayette, Indiana. Officers confirmed Mitsutoshi Shirasaki lived in this same apartment building; more particularly at 102 N. Chauncey Avenue, Apt. 506.

In further examining log-in data associated with accessing other professors' accounts to change grades in Shirasaki's other classes, it was determined various other professors' accounts were accessed by an individual identified as Shirasaki from computers in various locations such as the Mathematical Science building other than through Shirasaki's PAL account at 102 N. Chauncey Ave.

On January 23, 2013, this Affiant learned from Hedrick that further investigation of Shirasaki's grades from previous semesters resulted in the discovery of multiple grade changes through the same means, accessing the accounts of professors. ITAP determined the following grades in Shirasaki's classes were changed from the Spring 2010 semester through and including the Fall 2012 semester without authorization from instructors:

PROFESSOR	COURSE	TERM	ORIGINAL GRADE	CHANGED GRADE	DATE OF GRADE CHANGE	
D. Sun	AAE203	Spring 2010	C	A	5-11-10	
W. Crum	CS159	Spring 2010	D	A	5-11-10	
K. Blanchard	ECON251	Spring 2010	F	A	5-11-10	
T. Liu	MA266	Spring 2010	F	Α	5-11-10	
Chin-Teh Sun	AAE204	Fall 2010	D	A	12-21-10	
J. Doyle	AAE20401	Fall 2010	F	A	12-21-10	
S. Nalk	ME200	Fall 2010	С	A	12-21-10	
Y. Kim	PHYS241	Fall 2010	D	A	12-21-10	
J. Garrison	AAE301	Spring 2011	F	A	5-10-11	
A. Alexeenko	AAE333	Spring 2011	F	В	5-10-11	
T. Weisshaar	AAE352	Spring 2011	FN	A	5-10-11	
S. Collicott	AAE334	Fall 2011	F	B+	12-20-11	
K. Howell	AAE340	Fall 2011	F	A	12-20-11	
J. Doyle	AAE35201	Fall 2011	F	Α	12-20-11	
In. Hwang	AAE364	Fall 2011	F	A-	12-20-11	
K. Howell	AAE440	Spring 2012	F	В	5-8-12	
Chin-Teh Sun	AAE555	Spring 2012	F	Α	5-8-12	
T. Clark	ENGL421	Spring 2012	D	A	5-8-12	
A. Grandt	AAE454	Spring 2012	F	В	5-8-12	
A. Frazho	AAE36401	Fall 2012	С	В	12-18-12	
W. Anderson	AAE439	Fall 2012	D	B+	12-18-12	
J. Doyle	AAE546	Fall 2012	F	A	12-18-12	
E. Fujita	JPNS301	Fall 2012	A	A+	12-18-12	

On January 25, 2013, members of the ITAP Department informed this Affiant that members learned from a meeting with Shirasaki that Shirasaki installed key logging devices in various keyboards in classrooms and in professors' offices at Purdue University in order to obtain keystroke data from the user. Shirasaki would gain access by picking professors' office locks as classrooms were already unlocked. Beginning on January 25, 2012, this Affiant and other officers began collecting keyboards from classrooms and professors' offices from where professors' accounts were suspected to be fraudulently accessed by Shirasaki or others. Of those keyboards examined by this Affiant and Jansen, at least four keyboards when disassembled, were discovered to have been tampered with. For instance, those tampered keyboards had wires which were cut and reconnected using electrical tape allowing the keyboards to function. This Affiant believes the wires were reconnected with electrical tape after the keylogging device was removed. A keylogging device was located inside one collected keyboard which originally belonged to Prof. Chun-Sing Lee and originally was placed in the MSEE building. In this keyboard, wires were cut and then both ends were connected to a keylogging device to capture keystrokes from the keyboard.

On February 5, 2013, this Affiant and Lt. Davis located and spoke with Shirasaki's girlfriend, Xiaonan Jing, who advised Shirasaki's admitted to her he had changed his class grades to higher grades. In fact, Jing stated Shirasaki told her he changed one of her class grades. According to ITAP, this was Professor Eriko Fujito's JPNS301 class; and the grade was changed from an A to an A+ on December 18, 2012. According to Jing, Shirasaki would swap out keyboards in classrooms replacing the keyboard with a keylogging device installed. As to professors' offices, Jing told this Affiant and Davis that Shirasaki would pick the locks of the offices, take the keyboard, return to his residence where he would install a keylogging device and then return the keyboard to the office. Jing informed officers Shirasaki would get log-in and password information from the devices. Shirasaki told Jing that a friend of Shirasaki's, Roy Sun, told Shirasaki to destroy all evidence when Sun found out the police discovered the changed grades. Jing advised Shirasaki told her he drove her car to the country where he discarded keyloggers and his Macbook Pro laptop. Shirasaki told Jing that Roy Sun showed Shirasaki how to install keyloggers in keyboards and change grades. Shirasaki also told Jing that Sun forged a grade change document. Jing informed police Shirasaki and a Sujay Sharma were friends.

On February 4, 2013, this Affiant learned one of Sharma's class grades was changed. According to ITAP, this was Professor Byunghoo Jung's ECE201 class; and the grade was changed from a D to an A on May 11, 2010. On February 5, 2013, Lt. Davis spoke with Sharma who told Davis that Shirasaki would pick the locks and enter professors' offices in order to install keylogging devices into keyboards to obtain keystroke data to gain access to professors' accounts to change grades. Sharma was aware Shirasaki changed Shirasaki's grades through this process. Sharma indicated Shirasaki would purchase locks from Wal-Mart and practice picking the locks prior to picking the locks of professors' offices. Sharma admitted he would be Shirasaki's "look-out" while Shirasaki entered the professors' offices to gain access to the

admitted he told Sun he was having trouble in his ECE201 class in the Spring of 2010. According to Sharma, Sun told him he would help him. Sharma advised Sun gained access to the professor's (Byunghoo Jung) account and changed the grade from a D to an A. Sun did this by planting a keyboard to access the professor's account. As to Shirasaki, Sharma indicated he knew Shirasaki was struggling in classes in the Fall of 2012. Shirasaki told Sharma that Shirasaki placed circuits in keyboards and would exchange a keyboard with one in a classroom or a professor's office and knew Shirasaki did this as many as five times in the ARMS building at Purdue. Sharma stated that during the fall of 2012, he and Shirasaki would go to the ARMS building 2300hrs and 0200hrs and act as if they were studying. Sharma admitted he was a lookout for Shirasaki. Sharma indicated Shirasaki would bring a keyboard in a backpack, leave Sharma as the lookout, and go to professors' offices or classrooms.

Sharma further informed police Shirasaki did not change grades in Sharma's NUC510 class, but Shirasaki did supply Sharma with a thumb drive containing two or three tests Shirasaki obtained from Professor Won Sik Yang's account. Further, on February 5, 2013, officers located a thumb drive on Sharma's person which Sharma admitted contained the tests Shirasaki gave Sharma for his NUC510 class half way through the Fall 2012 semester. Sharma admitted to also being a lookout in the ARMS building—where Sharma's NUC510 class met—in late September or early October 2012 while Shirasaki went to a classroom to place a keyboard that had a keylogger installed.

Sharma went into further detail by stating he assisted Shirasaki as a lookout in the ARMS building three times during the Fall 2012 semester. During this time, Sharma sat in the study area near the elevators on the 3<sup>rd</sup> floor where he could see Shirasaki in the hallway. Shirasaki would pick the lock to an office, remove the keyboard, take the keyboard to Sharma's apartment, disassemble the keyboard, install a keylogger, reassemble the keyboard, and then go back to the ARMS building where Shirasaki would replace the keyboard while Sharma acted as a lookout. Sharma stated this occurred at the beginning of the Fall 2012 semester; at approximately half-way through the semester; and finally at the end of the semester near the Thanksgiving break. This Affiant would note the Fall 2012 semester at Purdue University started on August 20, 2013 and ended on December 15, 2013. Further, this Affiant would note the Thanksgiving break during this semester was from November 21<sup>st</sup> through November 25<sup>th</sup>.

On February 5, 2013, officers searched Shirasaki's apartment and located a keylogger device in a latex glove and portions of a lockpicking tool set.

On February 6, 2013, Shirasaki showed officers where he discarded evidence in rural Tippecanoe County. Shirasaki stated he disposed of a laptop, approximately five computer hard drives, and nine or ten keystroke logger. During Shirasaki's tour, he indicated there were crimps and pins that connect circuits to the crimps referring to the keystroke logging devices. Shirasaki indicated he threw manual lockpicking tools near a driveway near West Point, IN. Officers located a laptop, some parts of lockpicking tools, three hard drives, battery cylinder for a lockpicking device, a shredded lockpicking device manual, and a packing receipt showing the

On February 19, 2013, Shirasaki further spoke with officers at which time he stated during the fall of 2009 Roy Sun told him how to use a keylogger, obtain usernames and passwords, and ultimately how to change his grades. During the Spring 2010 semester, Shirasaki began failing a class at which time Sun suggested changing grades. Shirasaki reported Sun told Shirasaki that Sun changed a grade of Shirasaki's after asking Shirasaki for professors' names, classes and where the classes were held. This Affiant would note per ITAP records, four of Shirasaki's grades were changed during the Spring 2010 semester.

Shirasaki further stated that during the Fall 2010 semester, Sun asked Shirasaki again for the names of his professors, classes, and class locations. Sun showed Shirasaki how to pick locks and showed Shirasaki lockpicking devices. During this semester Sun picked locks while Shirasaki was a lookout. According to Shirasaki, Sun would remove a keyboard, take to one of their apartments, show Shirasaki how to disassemble and install a keylogger. Shirasaki also admitted he and Sun would go to a computer store and buy similar keyboards, install keyloggers, and then switch out with keyboards already in classrooms for a few days and then switch back with the original keyboard. Shirasaki stated he and Sun would do this in the evening hours when building services were not present. Shirasaki recalled specifically acting as a lookout while Sun entered offices and/or classrooms in the EE or MSEE building. Shirasaki recalls Sun placing three keyloggers in professors' offices on the third floor of the MSEE building. Further Shirasaki also recalls Sun placing two keyloggers on the second floor—one in a classroom and one in a professor's office. According to Shirasaki, Sun would switch out keyboards, return a few days later, pick the locks again, and while inside the office download keylogger information onto a laptop. Sun would search for professors' usernames on the Purdue website and then search keylogger data for passwords.

Sun graduated from Purdue University in 2010 with a BSEE degree. ITAP determined the following grades in Sun's classes were changed from the Fall 2008 semester through and including the Spring 2010 semester without authorization from instructors:

PROFESSOR	COURSE	TERM ORIGINAL CHANGED GRADE		CHANGED GRADE	DATE OF GRADE	
					CHANGE	
D. Jiao	ECE311	Fall 2008	D	A	12-23-08	
B. Bouman	ECE301	Fall 2009	F	A	12-22-09	
S. Gelfand	ECE302	Fall 2009	F	A	12-22-09	
R. Pierret	ECE305	Fall 2009	F	A	12-22-09	
M. Qi	ECE455	Fall 2009	F	Α	12-22-09	
T. To	ECE266	Fall 2009	F	A	12-22-09	
R. Jacko	CE297	Spring 2010	F	Α	5-10-10	
Chun-Sing Lee	ECE382	Spring 2010	F	Α	5-11-10	
Cheng-Kok Koh	ECE400	Spring 2010	F	A	Multiple	

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permission to change any grades, gave no one permission to access their Purdue computer accounts, and did not give anyone permission to enter their offices for such pursposes.

Shirasaki indicated Sun stayed on campus for one to two semesters and while there helped Shirasaki secure passwords so Shirasaki's grades could be changed. Sun purchased lockpicking devices online from Shirasaki's apartment. When Shirasaki departed the West Lafayette area, he left five to six keyloggers and lockpicking tools for Shirasaki to use. Sun told Shirasaki two additional keyloggers were located inside professors' keyboards if Shirasaki needed them. According to Shirasaki, these two keyloggers were located in the MSEE building on the second floor in either the first or second office facing Northwestern Avenue.

Shirasaki advised Shirasaki changed grades himself without Sun's assistance during two semesters: of which one he recalls as being during the Fall 2012 semester. Sun would change Shirasaki's grades during the other occasions even after Sun left campus after Shirasaki would email Sun information such as usernames, passwords, and course numbers. Shirasaki recalled specifically Sun changing Shirasaki's grades during the Spring of 2012 because Shirasaki was on a family trip immediately after finals week. Shirasaki recalled one semester perhaps during the Fall 2011 semester where Shirasaki sent the required information to Sun through email and they both changed grades with Sun walking Shirasaki through it on the phone.

Moreover, Shirasaki indicated he and Sharma used a computer lab computer to gain access to the account of one of Sharma's professors at which time Sharma downloaded exams on a thumbdrive. Further, on another occasion, Shirasaki and Sharma went to the Nuclear Engineering Building where Shirasaki picked the lock of a professor's door which was the third door from the left while Sharma acted as a lookout. This Affiant believes this office, Room 108C, to be of Prof. Rusi. P. Taleyarkhan who instructed Sharma's Fall 2011 NUC300 class. Shirasaki stated Sharma entered the office to search for and took pictures of exams on Sharma's cell phone while Shirasaki was a lookout. Shirasaki admitted to accessing Prof. Frazho's Purdue computer account in late fall of 2012 and changing the challenge questions.

During an additional statement on January 28, 2013, Shirasaki asserted Sharma knew Sun was going to change Sharma's grade before it happened. Also, Sun told Shirasaki he forged a professor's signature during his last semester at Purdue University to change a grade and believes it may have been Prof. Jan Allebach or Prof. Saul Gelfand. Sun told Shirasaki about a time when Sun attempted to pick a lock of one of Sun's professors but the lockpicking tool broke off in the lock on either the second or third floor of the MSEE building. This Affiant is familiar with a report made by Prof. C. Bouman on October 23, 2009 indicating that an unknown person damaged a locking mechanism to his door of Rm. 348 and a partial piece of a lock-picking tool was recovered. At the time, Bouman suspected one of his ECE301 students as a test was scheduled on October 23, 2009. This Affiant notes Sun was enrolled in Bouman's ECE301 class in the Fall of 2009. Shirasaki reported he acted as a lookout during the middle of the Fall 2009 semester for Sun who picked the lock of Bouman's office and installed a keylogger. Shirasaki asserted sometime after this, Sun entered Bouman's office again and stole a MacBook laptop computer and Sun picked the lock of the of the office yet again to take a cardboard box for the

During the Spring 2010 semester, Shirasaki advised he acted as a lookout for Sun when Sun picked the locks of two professors' offices. Shirasaki indicated these offices were Room 254 which this Affiant knows belonged to Prof. Cheng Kok Koh, and Room 250 which this Affiant knows belonged to Prof. Chun-Sing Lee. This Affiant would note Sun was enrolled in ECE382 taught by Chun-Sing Lee and ECE400 taught by Cheng Kok Koh during the Spring 2010 semester. Further, in each of these classes, grades were changed without authorization.

During the Spring 2010 semester, Shirasaki admitted to picking the lock of Prof. Dengfeng Sun's office close to finals week while Sun was a lookout. This Affiant would note finals week during the Spring 2010 semester was from May 3, 2010 through May 8, 2010. Dengfeng Sun was Shirasaki's AAE203 instructor. After gaining entry, both Shirasaki and Sun placed a keylogger in Dengfeng Sun's keyboard. Shirasaki and Sun returned at a later date to retrieve the username and password. Affiant would note Shirasaki's AAE203 grade was changed from a C to an A on May 11, 1010.

During the Spring 2010 semester, Shirasaki said Sun bought two keyboards identical to those in Purdue University classrooms and installed keyloggers in each. Sun later switched the keyboards with keyboards in two classrooms, that of Prof. Tong Liu and Prof. Kelly Blanchard. This Affiant would note Shirasaki was enrolled in Liu's MS266 class and Blanchard's ECON251 class during the Spring 2010 semester. At a later date, Shirasaki and Sun came back to these classrooms and switched keyboards out again and obtained usernames and passwords. This Affiant would note Shirasaki's MS266 and ECON251 grades were both changed on May 11, 2010.

Shirasaki admitted to picking the lock of Prof. W. Anderson's office during finals week which this Affiant notes occurred from December 10, 2012 through December 15, 2012, placing a keylogger in the keyboard and then removing the keylogger to obtain the login and password. This Affiant would further note Anderson taught Shirasaki's AAE439 in which Shirasaki's grade was changed to a B+ on December 18, 2012.

Shirasaki further admitted to picking the lock of Prof. James Doyle's office and placing a keylogger in a keyboard and then picking the lock again later and removing the keylogger during finals week of the Fall 2012 semester which occurred from December 10, 2012 through December 15, 2012. This Affiant would note Doyle instructed Shirasaki's AAE546 class in which Shirasaki's grade was changed to an A on December 18, 2012.

Shirasaki indicated to obtain usernames and passwords of the following professors, he placed keyloggers in classrooms: Prof. S. Collicott, Prof. A. Frazho, and Prof. E. Fujita. Shirasaki confirmed for professors' offices once the keylogger was ready to be removed, Shirasaki would take his laptop to the office and download the contents of the device and then once on his laptop would disassemble the keyboard, remove the keylogger, and then reassemble the keyboard and leave the office. For classroom keylogger, however, Shirasaki would simply switch out keyboards by taking the keyboard to his apartment where he would download information.

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amount of Three Hundred Fifty Dollars and Ninety-Five (\$330.93) sent to IMG Bank Slaski S.A. in Katowice, Poland with a Final Credit Name of Keelog in Wroclaw, Poland. In further checking with Keelog in Poland, it was determined a total eleven keylogger devices were purchased and shipped to a Roy Sun in four separate shipments from October 5, 2009 through and including April 19, 2011.

On March 5, 2013, this Affiant obtained a Academic Record Change form filled out for Roy Sun for the ECE438 course Prof. Jan Allebach taught during the Spring 2010 and in which Sun was enrolled. The form contains what is represented to be Allebach's signature and name. Allebach indicated Sun had no grades for the entire semester indicating he didn't show up for class. Allebach indicated during this timeframe her computer account was hacked and he was forced to submit grades via email to the Registrar's Office. Allebach did not give permission for Sun to change his grade and confirmed the signature on the form was not his and the writing also did not belong to him. This Affiant would note Sun's grade in this class was changed from an I to an A.

Further, this Affiant would note the following regarding Purdue University's academic calendars: Spring 2010 semester started January 11, 2010 and ended on May 8, 2010; Fall 2010 semester started August 23, 2010 and ended on December 18, 2010; Spring 2011 semester started January 10, 2011 and ended on May 7, 2011; Fall 2011 semester started on August 22, 2011 and ended on December 17, 2011; Spring 2012 semester started on January 9, 2012 and ended on May 5, 2012; and Fall 2012 semester started on August 20, 2012 and ended on December 15, 2012.

Starting on March 8, 2013, Shirasaki placed phone calls to Sun. During these phone calls, Sun expressed his concern about the police investigation into the grade changing scheme. On March 8, 2013, Sun tells Shirasaki that one doesn't give up your buddy to something. On March 12, 2013, Sun tells Shirasaki he has started to clear out his hard drives and took care of a lot of tools the day before. Sun discussed with Shirasaki the total number of keyloggers they had. Sun indicated he had all of the serial numbers of all of the old keyloggers. Sun counted nine keyloggers and then mentions a keylogger whish had USB ports broken off and another one which was lost. Sun then stated there were nine keyloggers plus the three he ordered for Shirasaki; and additionally reported he had nine bags. During another phone call on March 12, 2013, Sun acknowledges two keyloggers still in the MSEE building and states the doors in MSEE are easy to get into. Sun told Shirasaki he would come up with an idea to block the cameras so Shirasaki can retrieve these two keyloggers. Sun remembers the two offices in MSEE as belonging to Chun-Sing Lee in Rm. 256 and Dan Elliott in Rm. 258. During a phone call on March 14, 2013, Sun was concerned Sharma knows more than what Sun would like and was worried Sharma couldn't keep his mouth shut. Sun admits to changing Shirasaki's grades from Sun's computer in the past. Sun was concerned if police traced IP addresses they would come back to Sun's computer. During an additional phone call on March 14, 2013, Sun indicates he still has four little lockpick tools and a wrench left and could mail them to Shirasaki so he could get the two remaining keyloggers out of the MSEE building. Sun indicated some of Sun's grades got changed and acknowledged it is computer tampering.

as they are trained law enforcement officials in Tippecanoe County, State of Indiana.

Your Affiant believes Greg Hedrick, Arthur Frazho, Jan Allebach, Charles Bouman, and Curt Jansen to be reliable and credible as they are witnesses whose statements were partly corroborated by police investigation.

Your Affiant believes Sujay Sharma, Mitsutoshi Shirasaki, Roy Sun, and Xiaonan Jing to be reliable and credible insofar as they made admissions against their penal interests and as their information was corroborated by police investigation.

Your Affiant believes ITAP records to be reliable and credible as they are made and kept in the regular course of business and are routinely relied upon.

Further, your Affiant saith not.

	Affiant	does	swear or	affirm,	under p	enalt	ies of	per	jury	as s	spec	ified	under	Indian	a C	ode
35-44-2	2-1, tha	t the	foregoing	repres	entation	s are	true	to 1	the 1	best	of.	Affiai	nt's k	nowled	ge a	and
belief.											_					

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Date: 4-11, 2013

Sgt. Det. M. Rosenbarger, Affiant Purdue University Police Department