IN THE SUBORDINATE COURTS OF THE REPUBLIC OF SINGAPORE

Coroner's Inquiry N	umber: 002014 of 2012	
Inquiry into the deat	h of:	
	SHANE TRUMAN TODD (Passport No.: 047507887)	
	OPENING STATEMENT	

13 May 2013

Submitted by: Attorney-General's Chambers 1 Upper Pickering Street Singapore 058288

I. INTRODUCTION

- This is an inquiry under the Coroners Act (Cap 63A, 2012 Rev Ed), which came into effect on 2 January 2011. Before this Act was passed, coroners' inquiries were governed by the Criminal Procedure Code (Cap 68, 1985 Rev Ed), and were *quasi*-criminal in nature. The former regime required the Coroner to hold an inquiry to determine the circumstances under which the deceased came by his death, and also whether any person is criminally concerned in the cause of the death.
- The enactment of the Coroners Act in 2011 represented a shift from a fault-finding regime to a fact-finding one, in line with the approach taken in the United Kingdom, New Zealand, Australia, and Hong Kong.
- 3 Section 27(1) of the Coroners Act maintains that the "purpose of an inquiry into the death of any person is to inquire into the cause of and circumstances connected with the death". To this end, this section provides that a coroners' inquiry must be directed at ascertaining the following four matters, insofar as they may be ascertained:
 - (a) the identity of the deceased; and
 - (b) how, when, and where the deceased came by his death.
- In this case, the identity of the deceased is not in dispute. The evidence presented will relate to "where", "when", and "how" he came by his death, with a majority of the evidence directed to the question of "how".
- The Coroners Act provides that the Coroner shall not frame a finding in such a way as to determine any question of criminal, civil or disciplinary liability, but shall not be inhibited in the discharge of his functions by any likelihood of liability being inferred from facts that he determines or recommendations that he makes.

The role of the officers from the Attorney-General's Chambers, acting as State Counsel, is

to assist the Coroner in making his determination, by presenting all relevant evidence gathered.

We represent the interests of the State in ensuring that cases of unnatural deaths are properly

investigated, and not the interests of any party involved in the proceedings.

In this inquiry, there are two "properly interested persons", a term defined in the Coroners

Act. The first is the Next-of-Kin – the parents of the deceased. The Coroners Act specifically

provides that the Next-of-Kin have the right to examine any witness. The second is the Institute of

Microelectronics ("IME"). IME's interest in this matter arises primarily because before the

commencement of this inquiry, allegations have been raised by the Next-of-Kin of the possibility of

homicide linked to the deceased's work in IME.

8 I will now go through the main evidence that will be presented, starting with the

background as to how this inquiry arose. It is necessary to go into some detail, so that the Court

and all the parties concerned can appreciate the broader context, and within this context, the key

issues to be resolved.

II. FIRST INFORMATION REPORT

On the evening of 24 June 2012, Aw Xiuju ("Aw") went with two friends to "La Vie

Bridal", a bridal boutique on the first floor of No. 56 Spottiswoode Park Road, a 3-storey conserved

shophouse. While in the bridal boutique, she heard a woman's scream, which appeared to come

from the second floor of the shophouse. Just as Aw was about to walk up the stairs to check who

had screamed, a man (later established to be Michael William Goodwin ("Michael")) came running

down the stairs. Aw also saw a woman (later established to be Shirley Sarmiento ("Shirley"))

sitting on the top landing of the stairs, crying. Aw then called the police and reported:

"THERE IS A WOMAN SCREAMING AND CRYING FROM THE SECOND FLOOR."

The time of the call was about 6:47 pm.

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- Responding to Aw's call, three police officers arrived at the property at about 6:57 pm. They were SSGT Ang Yew Hua ("SSGT Ang"), SC¹ Muhammad Danial bin Mohammed Noh ("SC Danial"), and SC/CPL Mohamad Yussof bin Muhamad Hussian. On arrival, they met Michael, who directed them to the second floor of the property. Walking up the stairs to the second floor, the three officers saw Shirley sitting on the staircase. She told them that her boyfriend had hanged himself. She then pointed them in the direction of an apartment on the second floor. The door was not locked and the three officers entered the apartment. There were no signs of forced entry.
- Walking across the living room, SC Danial and SSGT Ang entered the master bedroom. The bedroom door was also not locked; nor were there signs of forced entry. In the bedroom, SC Danial and SSGT Ang saw a male subject hanging from a black strap in front of a door within the bedroom. The strap appeared to be secured to the top of the door. Around the subject's neck was a noose that had been fashioned from the strap. A white towel was also wrapped around the subject's neck under the strap. He was in a standing position, with his back to the door. SC Danial and SSGT Ang saw redness on both of the subject's forearms and legs, but they did not see any visible signs of injury on the body. They saw an upright wooden chair, with a towel lying flat under its four legs, about 1–1.5 metres in front of the body.
- An ambulance was immediately called for. Two paramedics, one of whom was SSGT Low Pey Yun ("SSGT Low"), arrived at the scene in an ambulance at about 7:11 pm. Having heard the broadcast of the First Information Report over the police radio, other police officers who were also on duty soon arrived at the scene to render assistance. These officers included SC/SGT Soh Guan Huat, Dennis ("SC/SGT Soh") and CPL Muhammad Shammer bin Mohamed Hassan ("CPL Shammer"). SSGT Low was present when SC/SGT Soh cut the strap at a point above the noose. Some of the police officers present and the paramedics then carried the body down from the

¹ Special Constable.

hanging position and placed it on the bedroom floor. While the body was being lowered, CPL

Shammer pushed the chair along the floor to create more space.

13 The subject was pronounced dead by SSGT Low at about 7:20 pm. She found no visible

signs of injury on the body, but noticed signs of blood pooling on the extremities. The subject was

later established to be Shane Truman Todd ("Shane"). He was 31 years old at the time of his

passing.

III. BACKGROUND

Shane had first arrived in Singapore from the USA on 30 November 2010, after completing

his PhD studies in Electrical Engineering at the University of California, Santa Barbara. Some six

months earlier, on 18 May 2010, he had applied to join IME in Singapore. In his application, he

stated that his areas of specialisation were:

(a) radio frequency Micro-Electro-Mechanical Systems ("MEMS");

(b) optical MEMS;

(c) micromachining and microfabrication;

(d) passive microwave circuit design;

(e) organic solar cells; and

(f) biological fuel cells.

15 He also stated that his current research focused on the design, modelling, simulation,

fabrication, and characterisation of micromachined high aspect ratio transmission lines in Silicon

and piezoelectric radio frequency MEMS switches.

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- On 3 August 2010, Professor Dim-Lee Kwong ("Professor Kwong"), the Executive Director of IME, sent a letter to Shane offering to appoint him as a Senior Research Engineer in the Sensors and Actuators Microsystems ("SAM") research group. Shane accepted this offer. He started work at IME on 1 December 2010, as an entry-level researcher with the SAM research group and was involved in designing sensors. As Shane had some experience fabricating sensors and actuators, he also worked initially with the MEMS research group. The MEMS research group fabricated sensors and actuators, designed by the SAM research group, for use in micro-machines.
- When he arrived in Singapore, he stayed with a friend of his, Ali Gilles Tchenguise Miserez, for a short period. Later, while looking for an apartment, Shane met Bart Richard Lendrum, an Australian national.
- On 3 March 2011, while Shane was still in the SAM research group, he sent an email to Professor Kwong indicating his interest to work in the Gallium Nitride ("GaN") research group at IME. GaN is a semi-conductor that can operate at high power and temperatures. At that point of time, the GaN research group had just been established and was headed by Dr Patrick Lo Guo-Qiang ("Dr Lo"). Following Shane's email, Shane was transferred to the GaN research group at first partially from March 2011, and then entirely on 1 July 2011. Dr Lo was Shane's immediate supervisor in the GaN research group.
- On 3 March 2012, Shane informed Dr Lo, *via* email, of his intention to resign. However, on Dr Lo's advice, Shane delayed his resignation to retain his performance bonus for the 2011 work-year and formally tendered his resignation to Dr Lo, *via* email, only on 2 May 2012. Shane's last day of work at IME was on 22 June 2012.

IV. EVIDENCE THE STATE WILL PRESENT DURING THIS INQUIRY

In the course of police investigations, conditioned statements were recorded from 57 witnesses. At least 36 witnesses will be called to give oral evidence. These witnesses include both witnesses of fact and expert witnesses. I now summarise the evidence they will present.

A. Initial police investigations

- 21 Police investigations were led by IO Muhammad Khaldun bin Sarif ("IO Khaldun").
- IO Khaldun had arrived at the scene on the night in question at about 7:56 pm, together with two other officers on duty that day, SIO Rayme Darman Koh ("SIO Rayme") and W/SGT Rajina Sharma d/o Rajandran ("W/SGT Rajina"). They were accompanied by a police photographer, CPL Firdaus bin Tahir. When they arrived, Shane's body had already been brought down from the hanging position. IO Khaldun and SIO Rayme examined Shane's body for visible signs of injury and found none.
- On entering the living room of the apartment, they saw boxes and piles of clothes scattered around. One of the officers present informed them that Shane was due to return to America on 1 July 2012. The cabinets in the kitchenette, the furniture in the living room, and the television all appeared in order. IO Khaldun and SIO Rayme checked the main door on the second floor which led to both apartments on that floor, and also Shane's apartment door, for signs of forced entry. They found none. They did not observe any signs of foul play.
- IO Khaldun tried to open the door from which the body had been suspended, but it was locked. However, he managed to open it using a set of keys he found on the dining table in the living room. It was the door to the attached toilet. On opening the door, he saw that the other end of the strap had a plastic buckle attached to it. The buckle had acted as a stopper, securing the strap against the top end of the toilet door. IO Khaldun also saw three grooves at the top of this door, but did not observe any other damage to the door.
- In the bedroom, IO Khaldun saw a "Post-it" pad on the television console. The first sheet of the pad contained the handwritten words, "Please do not enter. Please call the police". The subsequent sheet contained the handwritten words, "password: UzcØsØb5". IO Khaldun also saw a Hewlett-Packard laptop computer ("the laptop") and a HTC "Desire 8181" mobile-phone ("the mobile phone") on the bed. A wallet, containing money and several credit cards, was lying on a

table beside this bed. IO Khaldun further saw a laptop computer bag under this table. Compared to the living room and the kitchenette of the apartment, the bedroom was cleaner and neater. No bloodstains were found in the apartment.

- SIO Rayme accessed the laptop using the password written on the "Post-it" pad. A two-page document appeared on the screen. This document had been named "letter.pdf".
- 27 The first page of this document read as follows:

Dear Everyone,

I am very sorry it has come to this. I just want to make it clear that I do not blame anyone for my condition except myself. People at work have been patient and kind to me and have given me ample opportunity to succeed. My parents and family have given me more support than I could ask for. My friends in Singapore have been very kind and understanding and have tried to help me through this. And my girlfriend Shirley has been always loving and supportive even when it was no fun to hang out with me. She has been the most constant source of support, love, and friendship to me in Singapore and without her I wouldn't have made it this long.

I am so sorry it has come to this but I feel I am just a burden to those around me. I have tried to get jobs in the U.S. but I know I am not capable of fulfilling the duties required of me. I hope that you can remember the good things about me, about how I was loving son, grandson, brother, nephew, cousin, friend, boyfriend, coworker and teammate. I had a few successes in life, so please try to remember my actions by those successes and not by the failure I have succumbed to.

I understand that this is a crime in Singapore. But for the sake of my family, I ask that you please be lenient and allow my family the ability to decide on what to do with me. If they wish to bring me back to the U.S., I ask you to please allow them to do so. I also ask that you allow them access to my bank account to pay for any expenses that arise. If you allow me to, I ask that my family decides what to do with any remaining money. I suggest giving the money to charity.

I am very sorry for the pain and trouble this causes. I never wanted to hurt anyone and I hope that you forgive me.

Love to all.

Shane Todd

Parents: Richard Todd and Mary Todd

The second page of this document read as follows:

Dear Mom and Dad,

I just want to let you know that I am so thankful for having you as my parents. You have given me the most love, patience, and support that any son could ask for. As you know I have been going through a difficult time and I am facing problems that I don't know how to solve. You both have given me such good advice but I don't have the strength or ability to follow through. I want to reiterate that none of this is your fault and despite the things I have said to you in the past, I am the only one to blame for my problems. I am so proud of the things you have built and the lives you have touched through your church and ministry. I hope that you understand that I am so sorry for the pain this causes. I just know how much of a burden I will be to you in the future so I feel it is better to do this now rather than wait until I have caused more damage.

You gave me so many great memories in life, spending time on the lake in Montana, going to the beach to drink Shirley Temples, bean dip at happy hour, fishing and snorkeling in the Keys, going to my countless sporting events, barbeques and family functions in our house on the hill, and going to church on Sundays. I hope that you cherish our good memories together. I love you very much.

Dear John, Chet, and Dylan,

I am so proud of the great men you guys have become. You guys are my best friends. I hope that you will always keep family close and have faith that God will bless your lives. I love you very much.

Dear Shirley,

You have been an angel to me. I know this will cause you great hurt but I know that you will be able to stay strong and rely on God to help you heal from this. You are so talented in so many ways and have a very bright future ahead of you. Please remember the good times we had and know that you are the best thing that happened to me while I was here in Singapore. I love you.

Dear Friends,

I thank you all for being a part of my life. Please remember the good times we had.

Again I am sorry and I hope you all forgive me.

Love,

Shane

29 IO Khaldun interviewed Shirley briefly at the scene. She informed him that Shane was an engineer at IME, and had been suffering from depression because of his work. IO Khaldun then asked W/SGT Rajina to continue interviewing Shirley, while he carried out his other duties. Shirley later informed W/SGT Rajina that Shane was so busy with work that he had stopped meeting her on weekdays. Shirley repeated to W/SGT Rajina that Shane had been depressed because of his work.

- A number of items at the scene were seized as case exhibits by IO Khaldun. These included the strap and the towel around Shane's neck, the mobile-phone, the laptop, the "Post-it" pad containing the two handwritten notes, and an IME diary. All these items were subsequently sent for forensic analysis.
- A number of other items (not formally seized as exhibits) were brought back by IO Khaldun to the Central Police Division for safekeeping. These included two thumb-drives, a hard-disk drive (the "HDD"), and the wallet (including its contents).
- On 27 June 2012 at about 8:36 pm, IO Khaldun connected the HDD to his own HP Elitebook 2540p laptop computer. He opened several folders and documents in the HDD to check if they contained any suspicious information. As he did not find any such information, he closed the folders and documents he had opened. He did not delete any files. He also checked the two thumb-drives. Likewise, he did not find anything suspicious. Most of the files contained in the two thumb-drives appeared to be routine files, related to Shane's work at IME. IO Khaldun thus assessed that the HDD and the two thumb-drives should be classified as Shane's personal belongings (instead of exhibits). IO Khaldun returned the HDD, the two thumb-drives, and the wallet (including its contents) to Shane's parents on 28 June 2012.
- 33 Subsequently, at Shane's parents' request, the Federal Bureau of Investigation (the "FBI") was also asked to assist in the forensic examination of the HDD.
- On 29 June 2012, Shane's mother, Mrs Mary Brooks Todd, called IO Khaldun and informed him that she had found some tablets in the apartment. When IO Khaldun went to the apartment following the call, Mrs Todd handed him an unlabelled white bottle containing the following 19 tablets:
 - (a) two tablets with the words "EK" on it; and
 - (b) 17 white tablets with the words "Lexapro" on it.

- 35 Mrs Todd also passed IO Khaldun the name card of "Dr Nelson Lee", a psychiatrist from the "Psychological Wellness Centre" in Singapore. She had found this card in the apartment.
- The tablets were subsequently sent to, and analysed by, the Health Sciences Authority ("HSA"). On analysis, all 19 tablets were found to contain Citalopram, an anti-depressant. According to the toxicology report from the HSA, no foreign compounds (including Citalopram) had been found in Shane's blood and urine.

B. Shane's colleagues and friends

- 37 The State will call several of Shane's colleagues and friends from IME. These colleagues include:
 - (a) Shane's superiors:
 - (i) Professor Kwong; and
 - (ii) Dr Lo.
 - (b) Shane's colleagues when he worked with the SAM research group and the MEMS research group:
 - (i) Soon Bo Woon, Jeffrey;
 - (ii) Ilker Ender Ocak;
 - (iii) Kropelnicki Piotr; and
 - (iv) Margarita Sofia Narducci.
 - (c) Shane's colleague, Joseph Romen Cubillo.
 - (d) Shane's fellow scientists in the GaN research group:
 - (i) Susai Lawrence Selvaraj; and

- (ii) Wang Weizhu ("Weizhu").
- (e) the Human Resource Officer who conducted Shane's orientation and exit interview, Ong Wei Pyng.
- The State will also call Surani bin Dolmanan ("Surani"), a specialist from the Institute of Materials Research and Engineering. In January 2012, Surani and Shane had both received training on a Metal Organic Chemical Vapour Deposition system at the training centre of Veeco Instruments Inc. ("Veeco") in Somerset, New Jersey, USA. Surani will testify as to the nature and context of the training they received.
- The evidence of these colleagues will show that as Shane had little experience working with GaN, he found it difficult to cope with his work in the GaN research group. This led to a gradual change in his demeanour and behaviour in the months before his passing.
- Apart from Shane's IME colleagues, a number of Shane's friends outside IME will testify as to his behaviour and demeanour, particularly in the few months before his passing. Shirley, Shane's girlfriend since December 2010, will testify about:
 - (a) their relationship;
 - (b) Shane's admission to her in early June 2012 that he had been depressed since October 2011; and
 - (c) changes in their relationship in the weeks before Shane's passing.
- The State will also be calling Michael. Michael lived in the other apartment on the second floor of the Spottiswoode Park Road property. He will testify about Shane's account of his problems at work.
- The State will also call Shane's three other friends:

(a) Ali Gilles Tchenguise Miserez;

(b) Bart Richard Lendrun; and

(c) Alexander W. Fang.

The first two witnesses will provide insights into Shane's character and personality.

Alexander Fang was a friend of Shane's from the US. He will give evidence of a particular set of

events, which took place in 2011.

The last person to have seen Shane alive was Luis Alejandro Andia Montes, a French

national, who was Shane's colleague at IME. They had dinner on 23 June 2012 near Shane's

apartment, which ended at about 7 pm. Montes is not in the jurisdiction, but we are still trying to

make arrangements to see whether we can request him to attend as a witness.

45 Investigations show that after 7:00 pm on 23 June 2012, there was no further internet

activity recorded on the laptop. No calls were made, or SMS messages sent, from the mobile-

phone.

C. HSA Forensic and simulation exercise reports

The post-mortem examination was conducted on the morning of 25 June 2012 by Dr Wu

Jiahao ("Dr Wu"), a Medical Officer at the Forensic Medicine Division of the HSA. He was

supervised by Dr Wee Keng Poh ("Dr Wee"), a Senior Consultant Forensic Pathologist of the HSA.

In addition to the Autopsy Report by Dr Wu, four additional reports relating to the post-

mortem examination have been presented to this Court. They were made by:

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- (a) Dr Edward H Adelstein ("Dr Adelstein"), Deputy Medical Examiner in Boone County and Callaway County, USA;
- (b) Dr Wee;
- (c) Dr David Richard Fowler ("Dr Fowler"), the Chief Medical Examiner for the State of Maryland, USA; and
- (d) Dr Valerie Josephine Rao ("Dr Rao"), the Chief Medical Examiner of District 4 and part of District 3, Jacksonville, Florida, USA.
- According to Dr Wu's Autopsy Report, the cause of Shane's death was "asphyxia due to hanging". He described the ligature mark around Shane's neck as follows:

There was a near-circumferential ligature mark around the neck, running backward and upward on both sides and back of the neck, with the apparent highest suspension point at the right side of the back of the head, within the scalp hair. The ligature mark comprised a poorly demarcated abrasion within which was a strip of parchmented abrasion with irregular margins. No scratch marks or obvious bruises were present around the mark...The ligature mark is consistent with a ligature mark of hanging.

- Dr Adelstein was engaged by Shane's parents to give an opinion on the manner in which Shane died. In his report dated 8 October 2012, Dr Adelstein has expressed the view that Shane's death was a homicide and that "[h]e engaged in a fight as evidenced by the blunt trauma to both hands". Furthermore, Dr Adelstein's report states that "[h]e was killed by an encircling ligature (Garroting) and death occurred quickly". According to Dr Adelstein, after Shane died, "he was suspended by a broader based ligature in an attempt to obscure the original thinner ligature". In coming to his views, Dr Adelstein appears to have reviewed Dr Wu's Autopsy Report, and some photographs.
- Dr Wee, in a report dated 17 October 2012, stated that the ligature mark around Shane's neck "was typical of hanging". The neck structures did not show any haemorrhage into the anterior strap muscles of the neck, or any fractures of the thyroid cartilage, cricoids cartilage or

hyoid bone. There were no other injuries other than those found in the neck. These were the reasons why the death was certified as "asphyxia due to hanging".

Dr Fowler and Dr Rao were requested, as independent experts, to review Dr Wu's Autopsy Report, Dr Wee's report, and Dr Adelstein's report. In his report dated 28 February 2013, Dr Fowler stated:

I fully concur with the cause of death as stated in the autopsy report. Further in the practice of forensic pathology as medical examiner in United States I would be required to provide an opinion as to the manner of death. In my opinion the manner of death in this case is suicide.

In her report dated 18 March 2013, Dr Rao stated:

The autopsy is typical of that seen in a hanging suicide... There is not a single abrasion, contusion or laceration on the deceased's face or body to suggest a physical altercation between him and any other party. There are no restraint injuries whatsoever. The ligature mark is classical for that seen in hangings...

- The notes containing handwriting from the "Post-it" pad in the bedroom, which were seized from Shane's bedroom, were analysed by the HSA and found to have probably been written by Shane.
- The State will call Ms Lim Chin Chin, the Laboratory Director of the Forensic Chemistry and Physics Laboratory of the Forensics Science Division of the HSA. She will present the findings of a simulation exercise she conducted relating to the mechanics of the hanging.

D. Forensic examination of the laptop and mobile-phone

- IO Khaldun had seized the laptop from the scene and submitted it for forensic analysis. A forensic examination of the laptop has revealed that the operating system of the laptop was installed and activated on 10 March 2012, at about 11:00 pm.
- The document SIO Rayme saw when he accessed the laptop on the night of 24 June 2012 using the password was:

- (a) first saved in ".docx" format on 26 May 2012 at about 3:46 pm (the "Word document"); and
- (b) converted into PDF format the next day, 27 May 2012 at about 8:40 am (the "PDF document").
- 57 The results of a forensic examination of the mobile-phone which belonged to Shane provide some insights into Shane's life on 26 May 2012 and 27 May 2012.
- On 25 May 2012, Shane and Shirley had arranged, over SMS texts, to have dinner the following day. However, they did not eventually have dinner, because Shane had informed Shirley, *via* SMS text, on 26 May 2012 at about 4:30 pm, that he was "not feeling too good" and had a "bad headache". Shane suggested that they could meet the next day.
- On the morning of 27 May 2012 (a Sunday), Shirley asked Shane, in an SMS text, if he was still having a headache and when he wished to meet that day. Shane replied at about 3:26 pm, apologising because he was still not feeling well, and asking if they could meet in the following week. Shirley was upset as Shane had cancelled their plans to meet again. Shane apologised again, and told Shirley that he was unable to "explain fully what [he was] going through". The texts exchanged between them for these days are reproduced in the table below:

To/From	Date & Time (SG)	Text
From Shirley to Shane	25/05/12; 9:59 pm	Just got off work. Tired but glad its over:)
From Shane to Shirley	25/05/12; 10:08 pm	You got to work tomorrow?
From Shirley to Shane	25/05/12; 10:09 pm	Yes but morning shift:)
From Shane to Shirley	25/05/12; 10:21 pm	What time do you get off?
From Shirley to Shane	25/05/12; 10:22 pm	Around 4 pm
From Shane to Shirley	25/05/12; 10:39 pm	Do you want to get dinner?
From Shirley to Shane	25/05/12; 10:43 pm	I would love to:) I can't wait to
From Shane to Shirley	25/05/12; 10:43 pm	Ok sounds good what time you want to come over?
From Shane to Shirley	25/05/12; 10:45 pm	Ok see you then:)

From Shane to Shirley From Shirley to Shane From Shane to Shirley	From Shirley to Shane	25/05/12; 10:45 pm	Around 7 or 8?
From Shane to Shirley25/05/12; 10:47 pmOk Selma :)From Shane to Shirley26/05/12; 4:31 pmHey Shirley 1 am not feeling too good tonight can we meet up tomorrow?From Shirley to Shane26/05/12; 4:32 pmOkay what happened?From Shirley to Shane to Shirley26/05/12; 4:36 pmJust got a bad headacheFrom Shane to Shirley to Shane26/05/12; 4:36 pmThanks Shirleychan :)From Shane to Shirley26/05/12; 4:47 pmJust let me know if there's anything I can do to helpFrom Shirley to Shane26/05/12; 4:53 pmOk thanks sweetheartFrom Shirley to Shane27/05/12; 8:09 amMorning :) Are you still having a headache? What time do you want to meet up?From Shane to Shirley27/05/12; 3:26 pmHey Shirley I am so sorry but I am still not feeling well. Can we hang out next week?From Shirley to Shane27/05/12; 4:58 pmIt would really make me happy if you wouldn't make plans and cancel the last minute. I understand that you are going through a lot but time shouldn't be wasted especially now that we have so little of it. I want you to know that it makes me happy to be in the same room as you. It doesn't matter whether you are happy, sad or too grumpy because you have a bad headache. I love you too. I was just too pissed a while ago to say it back.From Shane to Shirley27/05/12; 5:05 pmI know it isn't fair to you to make plans and then cancel last minute. I can't tell you enough how sorry I am. I just can't explain fully what I am going through. You make me so happy too. I am sorry I haven't been showing it. I do love you dearly.From Shirley to Shane27/05/12; 5:31 pmI know I can't fix your problems but I'm here if <th></th> <th></th> <th>See you tomorrow Matt! lol</th>			See you tomorrow Matt! lol
From Shirley to Shane From Shane to Shirley From Shirley to Shane From Shirley to Shane			
From Shirley to Shane From Shane to Shirley From Shirley to Shane From Shane to Shirley From Shane to Shirley			Hey Shirley I am not feeling too good tonight
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From Shane to Shirley From Shirley to Shane Thanks Shirleychan: Just let me know if there's anything I can do to help Ok thanks sweetheart Short you still having a headache? What time do you want to meet up? Hey Shirley I am so sorry but I am still not feeling well. Can we hang out next week? It would really make me happy if you wouldn't make plans and cancel the last minute. I understand that you are going through a lot but time shouldn't be wasted especially now that we have so little of it. I want you to know that it makes me happy to be in the same room as you. It doesn't matter whether you are happy, sad or too grumpy because you have a bad headache. I love you too. I was just too pissed a while ago to say it back. From Shane to Shirley From Shane to Shirley I know it isn't fair to you to make plans and then cancel last minute. I can't tell you enough how sorry I am. I just can't explain fully what I am going through. You make me so happy too. I am sorry I haven't been showing it. I do love you dearly. From Shirley to Shane I know I can't fix your problems but I'm here if	From Shirley to Shane	26/05/12; 4:32 pm	
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I am happy that you are in my life. Get some rest			•
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- Forensic examination of the laptop shows that the Word document and the PDF document were last accessed on 23 June 2012, at about 11:00 am.
- Based on the forensic records of Shane's mobile-phone, no SMS texts were sent or received on 23 June 2012 at all, except for an SMS text from Citibank containing a one-time PIN for the purpose of an internet banking transaction which had taken place at about 4:12 pm. The last recorded SMS text between Shane and Shirley, based on forensic investigations, was on 20 June 2012, at about 11:01 pm.
- Forensic investigations of the laptop further retrieved the following text fragment which had been typed on or before 18 May 2012 at about 9:48 pm, and subsequently discarded:

Dear Shirley,

I can't express how much you have meant to me while I have been here. You have been the one source of happiness for me and I only hope that I gave you half as much joy as you gave me. I am so sorry you have found me this way. I have been experiencing problems that I have not fully explained to you and these are problems which I don't know how to fix. I quit my job because I wasn't capable of executing what was required of me. And if I went back to the US I foresaw that I would have the same difficulties there. I have been constantly unhappy, and my unhappiness has affected my ability to think properly and solve problems. I am supposed to be someone whose job it is to solve problems, but I am not capable. I am sorry. Like I told you before, you are an angel. You are beautiful, smart, and talented and you deserve and will achieve a very bright future. Please contact my family for me. I hope you can visit them in the U.S. if you are able to do so. I leave all of my money to you from my Citibank.

- Insights into Shane's frame of mind during the months before his passing can be gained by studying patterns of his internet activity on the laptop during this time.
- Keyword searches on the words "noose", "hangman", "methods", "knots", "psychiatric", "short drop", "simple suspension", and "suicide" revealed that between 10 March 2012 and 23 June 2012, he had accessed several suicide related web-pages. The first search was on how to tie a hangman's noose, on 10 March 2012. The internet history of the laptop shows that he searched suicide-related sites on 19 different occasions during this period, including sites which describe

different methods of committing suicide, such as "www.lostallhope.com". The most number of such searches were made on 23 June 2012. The last suicide-related web-page accessed was an article entitled "Death tent spotted at Marina Bay Sands after tourist falls from Skypark", conducted on 23 June 2012 at about 5:47 pm.

The internet history on the laptop also shows that during the last few months of his life, several depression related web-pages were accessed, including an article on depression on the web-site "www.health.com". From April to June 2012, depression searches were made on 19 separate occasions, with the most number being made in the month of May 2012.

Keywords searches using the words "kill", "murder", "threaten", "fear", "danger", "worry", "concern", "threat", "safety" and "espionage" did not reveal any results.

E. Medical and psychiatric evidence

On 17 March 2012, Shane consulted Dr Clarence Yeo ("Dr Yeo"), a general practitioner from Killiney Family and Wellness Clinic Pte Ltd. Apart from stress at work, Shane complained of difficulties sleeping and coping. Shane also indicated a past medical history of depression, and that he had previously been on anti-depressants. Dr Yeo referred Shane to Dr Nelson Lee ("Dr Lee"), a psychiatrist from the Psychological Wellness Centre for psychiatric treatment.

In a patient information questionnaire he completed at Dr Lee's clinic, Shane had indicated that his main problems were his "struggles with stress, anxiety, and depression due to work and life related issues". Following his consultation with Dr Lee, Shane was prescribed 26 anti-depressant tablets.

The State will call both Dr Yeo and Dr Lee.

F. The HDD

- On 12 October 2012, IO Khaldun received an email from Shane's father. In this email, Shane's father stated that he had sent the HDD for examination by Mr Ashraf Massoud and that these results showed that someone had accessed some files in the HDD on 27 June 2012, three days after Shane's body had been found in his apartment. One of the files that had been accessed was a PowerPoint presentation entitled "characterization result to veeco.pptx" (the "PPT Presentation"). The PPT Presentation was allegedly created and erased at about 8:40 pm on 27 June 2012.
- Forensic examination of IO Khaldun's HP Elitebook 2540p laptop computer revealed that the HDD was a Seagate Free Agent Go USB Device, with serial number 2GE18WCK. The HDD was last connected to IO Khaldun's HP Elitebook 2540p laptop computer on 27 June 2012, at about 8:36 pm.
- A report by the Federal Bureau of Investigation ("FBI") confirms that the HDD in Shane's parents' possession and the HDD connected to IO Khaldun's HP Elitebook 2540p laptop computer are one and the same.
- Police investigations have revealed that Surani and Weizhu jointly prepared the PPT Presentation, in response to Veeco's request for characterization results in relation to demo wafers sent by them to IME. Weizhu had sent the PPT Presentation to the engineers from Veeco on 31 May 2012. However, they could not open the PPT Presentation. As Weizhu was on leave when the engineers from Veeco informed IME of this on 1 June 2012, Shane assisted Weizhu to send the PPT Presentation to the engineers from Veeco that same day.
- 74 The information contained in the PPT Presentation was subsequently publicised in an academic publication, "Raman Scattering and PL Studies on AIGaN/GaN HEMT Layers on

200mm Si(111)"², which was co-authored by Weizhu and Surani, amongst others. To honour Shane, his name was also included in this publication (which was published after his passing).

V. CONCLUSION

The State is acutely aware of the strong public interest in this case. We are committed to presenting all the relevant evidence to the Court, so that a proper determination can be made as to the cause of and circumstances surrounding Shane's death.

With that introduction, we seek Your Honour's leave to call the first witness.

Tai Wei Shyong, Senior State Counsel Isaac Tan, Deputy Senior State Counsel Prem Raj Prabakaran, Deputy Senior State Counsel Krystle Chiang, State Counsel Teo Lu Jia, State Counsel

² World Academy of Science, Engineering and Technology 69 2012, p 1108.