

**UNIVERSITY TRIBUNAL
THE UNIVERSITY OF TORONTO**

IN THE MATTER OF charges of academic dishonesty made on June 24, 2009,

AND IN THE MATTER OF the University of Toronto *Code of Behaviour on Academic Matters, 1995,*

AND IN THE MATTER OF the *University of Toronto Act, 1971*, S.O. 1971, c. 56 as amended S.O. 1978, c. 88

B E T W E E N:

UNIVERSITY OF TORONTO (the "University")

- AND -

S G (the "Student")

Tribunal Members:

Ms. Roslyn M. Tsao, Barrister and Solicitor, Chair

Professor Markus Bussman, Department of Mechanical and Industrial Engineering,
Faculty Panel Member

Mr. Robert Chu, Student Panel Member

Appearances:

Mr. Robert Centa, Assistant Discipline Counsel for the University, Paliare Roland
Barristers

Professor Mohammad Mojahedi, Department of Electrical and Computer Engineering

Professor Sean Hum, Department of Electrical and Computer Engineering

Professor Konstantinos Sarris, Department of Electrical and Computer Engineering

In Attendance:

Ms. Jane Alderdice, Director of Quality Assessment and Governance, School of Graduate
Studies

Ms. Natalie Ramtahal, Coordinator, Appeals, Discipline and Faculty Grievances

Not In Attendance:

Mr. S G , the Student

1. The Trial division of the Tribunal heard this matter on June 20, 2011. The Student was charged on June 24, 2009 of the following:
 - (a) In or about June 2007, you knowingly submitted academic work containing a purported statement of fact that had been concocted, which violated section B.I.1(f) of the Code of Behaviour on Academic Matters (the "Code).
 - (b) In the alternative, in or about June 2007, you knowingly engaged in a form of cheating, academic dishonesty or misconduct, fraud or misrepresentation in order to obtain academic credit or other academic advantage of any kind, which violated section B.I.3(b) of the Code.
2. The matter had initially been set for hearing in June, 2010 but was adjourned at the request of the Student.

Preliminary Issue - Request for Adjournment by Student

3. The University has acknowledged that the Student has ostensibly requested an adjournment of this hearing date through email correspondence. A brief review of the procedural history of this matter is required as background to this adjournment request.
4. The University filed an Affidavit of Betty-Ann Campbell sworn June 20, 2011 with exhibits (Exhibit "3") setting out the procedural history in the matter.
5. The charges in this matter were initiated in June, 2009, although the subject matter of the offence is alleged to have occurred in 2007. The Student, at the time of the laying of the charges, resided, studied and worked in the U.S. and, as an Iranian citizen, required a visa to return to the U.S. if he left to attend a hearing in Canada. The Student also preferred a hearing date during a school break to accommodate his academic studies.
6. In setting the original hearing date, the University and Tribunal accommodated the Student's requests and scheduled a hearing for June 14, 15, 16 and 17, 2010.
7. These June, 2010 dates were subsequently adjourned at the request of the Student and Downtown Legal Services. The adjournment request was consented to by the University.
8. Following a Telephone Case Conference in this matter before Senior Chair P. Jackson on November 23, 2010 for scheduling purposes, Senior Chair Jackson released a written direction of the same date which included, among other things, that:

- (a) four days of hearing time had been requested by the parties;
 - (b) having regard to the Student's academic schedule and his need to obtain a visa to enter Canada and to return to the U.S., the Tribunal would not schedule a hearing before June, 2011; and
 - (c) the Student had confirmed that he would immediately apply for the relevant visas.
9. In January, 2011, the Tribunal set the within hearing dates of June 13, 14, 20 and 21, 2011 with input and agreement from both the Student and the University. Accordingly, the Notice of Hearing was delivered January 24, 2011 (Exhibit "1").
 10. On about May 20, 2011, the 4 days of hearing were reduced to 2 days of June 20 and 21, 2011.
 11. On May 24, 2011, in response to the University's request to file Affidavit evidence in chief for some/all witnesses, the Student emailed the Tribunal to advise that he could not participate in the scheduled hearing. It is important to reproduce the email of the Student to identify his stated reasons for not attending and that he did not intend to participate at that time:

Unfortunately I cannot participate in the scheduled hearing due to some health issues and neither am I allowed to participate in any other stressful activity including any other hearing regarding this matter. I have mailed my under investigation Master's degree to your address. I neither admit the academic dishonesty charges nor will I dispute them and nor will I appeal any verdict.

I want to thank the University officials for their patience and understanding and for giving me two opportunities to participate in the hearing and I am sorry that I cannot participate in the hearing. (emphasis added)

12. Based on the Student's May 24, 2011 email, I issued a direction to the parties the same day to permit the filing of evidence in chief by affidavit provided that such witnesses were to be made available at the hearing for cross-examination and/or questions from the Tribunal.
13. On June 9, 2011, the Student emailed the Tribunal to indicate that he now wished to attend the hearing but not for 2-3 months. The Student's email stated, in full:

I was informed by my brother, who is my physician, that I will be able to attend the hearing within 2-3 months from now. I would like to attend the hearing and defend myself. Also, the visa restrictions for Iranian citizens

are removed by the U.S government and I will have no problem from that perspective. I can provide you with an official letter confirming my health issue if you are interested. (emphasis added)

14. On June 10, 2011 at 7:12 a.m. (this appears to be California time though I referred to it being Toronto time in my later direction), my further direction was released to the parties. This direction reviewed the procedural history, the Student's May 24th email and requested the following information/documentation to be provided no later than June 15, 2011 at noon to permit the University and the Tribunal to consider the adjournment request:

- (a) a letter from a duly qualified physician (other than the Student's brother) setting out details of his current medical condition and the basis as to why the Student could not or should not attend for hearing, his current treatment regime and a prognosis of when the Student would be able to participate and why by that time;
- (b) a signed Consent permitting Mr. Centa to speak with his physician; and
- (c) a letter from the Student's current academic institution (preferably his supervisor) to confirm his current academic program, status and anticipated completion date.

15. By return email of June 10th at 6:12 p.m. (again, California time), the Student emailed the Tribunal and advised:

I won't be able provide the requested information in such short time.(sic)

16. I issued a third direction on June 13, 2011 in response to the Student's June 10th email which stated ultimately that:

... In short, I urge Mr. G to forward whatever evidence/documentation that he wishes the Tribunal to consider at the outset of the scheduled hearing to determine his adjournment request. The deadline in my direction was given in an attempt to address the adjournment request in advance of the hearing date.

If sufficient documentation cannot be provided in advance, the Tribunal will deal with the adjournment request as a pre-hearing motion on June 20th based on what Mr. G has submitted by the time of hearing. In addition, I understand that Mr. G may participate for the purposes of the motion (and otherwise) by Skype. Mr. G should confirm if he wishes to so participate with Ms Ramtahal as soon as possible.

I want to make it clear that if the adjournment is not granted, the hearing will proceed as scheduled on June 20 and 21.

17. As at the commencement of the Hearing, the Student did not attend and there had been no further communication from the Student after my June 13th email.
18. Accordingly, at the outset of the Hearing, the Tribunal considered the ostensible adjournment request of the Student.
19. The Tribunal has ruled that the hearing may proceed in the Student's absence due to the Student's failure to provide any documentation or information to substantiate the reasons for his request for the adjournment despite having been given ample opportunity to do so.

Presentation of Evidence

20. As per the earlier Direction permitting the filing of Affidavit evidence, the University submitted Affidavits of Professor Mohammad Mojahedi (sworn June 13, 2011), Professor Sean Hum (sworn June 14, 2011) and Professor Konstantinos Sarris (sworn June 14, 2011), Exhibits "4", "5" and "6", respectively.
21. Each affiant also provided *vive voce* evidence at the Hearing and responded to questions from the Tribunal.
22. I note that the Student's emails and the Student's December 17, 2008 written response to the Professor Mojahedi's allegations were tendered to the Tribunal, not for the truth of their contents but to demonstrate that the Student had the opportunity to respond. It may be appropriate for the Tribunal to refer to these documents where such documents might give rise to some doubt as the University's case.

Facts of the Case

23. The Student's M.A.Sc. Thesis, titled "Dispersion Engineering: Electronic Implementations and Microwave Applications", was defended on July 5, 2007 before a committee consisting of Professors P.G. Gulak, S.V. Hum, M. Mojahedi and C.D. Sarris.
24. In summary, it is the University's submission that there were four (4) false statements made by the Student which were essential to the integrity of his thesis:
 - (a) that the Student represented that he used "series loading capacitors" in the design and construction of his transmission line (circuit boards) but upon inspection of at least one of the Student's actual circuit boards, "inductors" were, in fact, used;

- (b) that the Student represented that functional series loading elements were inserted into the line but, in fact, did not do so based on the inspection of the circuit board revealing that copper traces were not "cut" where these elements were situated and were, therefore, merely decoys;
 - (c) that the Student's simulated and measured results could not be reproduced and were, fabricated; and
 - (d) a photograph included in his thesis was, as subsequently admitted by the Student, digitally manipulated.
25. The University further submits that the thesis is an essential component to the granting of the M.A.Sc. degree.
26. As the Student is no longer a student at the University, the remedy sought by the University, among other things, is to cancel the Student's M.A.Sc. degree.

Discovery of Academic Misconduct

27. It is important in assessing the evidence and the Student's response to the investigation to review how Professor Mojahedi discovered and reached his conclusions about the Student's academic conduct.
28. Professor Mojahedi (hereinafter "the Professor") recommended the Student's application for admission to the Department of Electrical and Computer Engineering (School of Graduate Studies) (the "Department") and was the Student's thesis supervisor.
29. Prior to the Student's departure for California after receiving his degree, the Professor requested and obtained the 4 circuit boards that the Student had designed and fabricated as part of his Master's work.
30. In the Fall of 2007, the Professor asked his new research student to build on the Student's results with the aim to publish the results in a scientific journal. The Student's results could not be reproduced. Despite communication between the research student and the Student through the balance of 2007 until the spring of 2008, the research student did not receive a satisfactory explanation from the Student to the questions raised from the subsequent analysis of the thesis results.
31. The Professor indicates that the emails from the Student to his research student were not responsive to the issues raised. After providing the Student with many opportunities to assist in clarifying specific concerns with the thesis, the Student indicated that he would be providing no further replies in an email of February 24, 2008 to the research student.

32. The Professor was very busy in 2008 and it was not until the fall of 2008 that he, himself, made further efforts to investigate his research student's difficulties in reproducing the Student's thesis results. At this time, the Professor examined the circuit boards that the Student had provided as being from his research.

Evidence of Misconduct – University's Burden of Proof

33. It was the evidence of Professor Mojahedi which formed the primary basis of the University's case. Professor Mojahedi earned a Ph.D., M.S. and B.S. in electrical engineering from the University of New Mexico and completed his Ph.D. in 199. He received the Popejoy Award for the outstanding doctoral dissertation in physics and engineering from the University of New Mexico between 1997 and 2000. He has supervised over a dozen University of Toronto students since 2001 for their M.A.Sc. or Ph.D. in engineering degrees.
34. The Tribunal finds the Professor to be have been credible and sincere without any undue *animus* against the Student. The Professor's motivation in pursuing this matter was that if he did nothing about the alleged "academic misconduct", he would be condoning it.
35. The following is a review of the University's evidence of misconduct under each of the four principle allegations referred to in paragraph 24. above.
- a) Student's misrepresentation that he used "series loading capacitors" in the design and construction of his transmission line (circuit boards):*
36. When clearly and specifically asked by the Professor, by email, whether the Student used *series loading capacitors* as claimed in his thesis, the Student answered "Yes I did"¹.
37. It is the Professor's uncontradicted evidence that his measurements of the *series loading elements* on one of² the circuit boards caused him to conclude that the element used by the Student was an *inductor* and not a capacitor.
38. Furthermore, when the Student was confronted with the Professor's conclusions about the use of inductors instead of the thesis-stated capacitors, the Student attempted to claim (contrary to his unequivocal earlier response that he did use capacitors) that he may well have used inductors at a frequency above their "self-resonance frequency (SRF)" such that they would behave like the thesis-stated capacitors. To the Professor's credit, he did assess this explanation and found it to

¹ Email from Student to the Professor dated November 10, 2008.

² The Professor explained that he examined and physically compromised only one of the four circuit boards and left the other three boards intact and preserved so that the Student would not be prejudiced from using his remaining boards to defend against the allegations if he wished.

be scientifically implausible. In any event, this type of use of inductors was not mentioned whatsoever in the Student's thesis.

b) Student misrepresented that operational series loading elements were inserted into the line:

39. The Professor became more concerned about misrepresentations in the thesis and sent the circuit board (same one for which he had measured the series loading elements) to an outside company to remove the overlaying solder to expose the underlying copper traces.³
40. The circuit board revealed that the copper traces underlying these same series loading elements were not nor had ever been cut. The photographs provided to the Tribunal show, without question, that the copper traces were intact. As a result, the purportedly operational series loading elements on this circuit board were nothing more than dummy elements or, in the Professor's view, "decoys".
41. The Professor's evidence is that, in the absence of the purported operational elements, the circuit boards could not behave as a left-handed medium (a medium with negative phase delay), an essential, underlying concept of the Student's thesis research.
42. In response to this allegation, the Student indicated in one of his emails that he did not use etching to remove copper traces but rather he used a "sharp needle" by hand. The Student suggested that perhaps not all the soldering was removed which would give the physical appearance that the copper trace had not been cut. This explanation is not only implausible but also contradictory to the fact that in other locations on the same circuit board, copper traces can be seen to have been clearly and substantially cut by etching.

c) The Student's simulated and measured results were necessarily fabricated:

43. The Student provided data results in his thesis⁴ which purported to be simulated and measured results for his four circuit boards.
44. The Figures and data for the four circuit boards were, in all circumstances, uniform and consistent in the thesis.
45. The Professor was unable to simulate the results shown in the thesis for any of the four boards, and, certainly not for the board which the Professor subsequently

³ "Copper traces" which are initially found on a "new" circuit board are "cut" (removed by hand or by etching technique) to render inserted elements operative. Copper traces which are not cut before the insertion of an element result in a "short" such that any inserted element is essentially a dummy element.

⁴ Specifically Figures 5.5(a), 5.5(b) and 5.5(c) of the Thesis.

physically examined and found had the dummy series loading elements. In addition, the results from all four boards were consistent with each other under the Professor's testing.

46. The Professor's conclusions, which the Tribunal adopts, are: that the other 3 circuit boards must also have had dummy elements as the Professor's results were so consistent over all 4 boards; and, that the results were fabricated by the Student for all 4 boards since the Student's result could not be simulated on any of the boards.
47. The Student was invited to provide his simulation files to the Professor and he was given access to his old computer files and simulations resident on the computer network at the University. The Student did not act on this invitation.
48. In his December 18, 2008 written response, the Student provided another set of simulation results which admittedly differ from those in his thesis. The Student nevertheless claims that they are sufficiently close to his thesis results if one is to look at the results for a significantly higher frequency range. In layman's terms, the graph of the Student's new results may well simulate those that he submitted in his thesis but the entire aspect-ratio of the two graphs would have to be ignored.
49. The Professor confirmed that if the results that he derived from the Student's 4 circuit boards were reflected in the thesis, the Student's thesis conclusion would not have been supported.

d) The Student digitally altered a photograph included in his thesis:

50. The Student has admitted, upon being confronted, that Figure 5.7 of his thesis was a digitally altered photograph of his circuit board using Photoshop.
51. The University acknowledges that, in isolation, the altering of a photograph may be excusable but in light of the foregoing allegations, it is merely further evidence of deliberate misconduct.
52. The Student suggested that he used Photoshop because he no longer had access to a "special camera" which he needed to photograph the circuit board and so he added the series loading element to an earlier photograph. The Professor notes that no "special camera" is required to photograph a circuit board and the altered photograph does not even represent the circuit boards claimed to have been used for his thesis.

Evidence of Professors Hum and Sarris

53. Professors Hum and Sarris are associate professors in the Department, have earned Ph.D.s and were members of the oral presentation committee for the Student's thesis.
54. Professors Hum and Sarris were both asked whether the Student mentioned, at any time during his presentation, that inductors may have been used instead of the stated capacitors. Both professors confirmed that there was no issue about this during the oral presentation as the Student's thesis clearly propounded that use of capacitors.

Student's Claim of Honest and Unintentional Mistake

55. Although the Student did not appear at nor tender any evidence for the hearing, we note that in his December 17, 2008 written response, he claims that any errors with his research and findings were the result of "honest" and "unintentional" mistakes on his part.
56. In considering the possibility that the Student had committed honest and unintentional mistakes, the Tribunal notes the following:
 - (a) The Student has demonstrated a pattern of first denying any misrepresentation, then, after being confronted with incontrovertible evidence of the misrepresentation, providing a very different explanation of actions which he initially denied, then, finally simply suggesting that the results are theoretically good enough despite the now-demonstrated errors in his thesis representations⁵.
 - (b) The use of an inductor instead of a purported capacitor and the failure to cut copper traces (rendering the series loading elements entirely non-operational) cannot reasonably be found to be unintentional mistakes.

Decision of the Tribunal

57. Based on the foregoing evidence, the Tribunal finds that the University has satisfied its burden of showing that the Student knowingly submitted academic work containing a purported statement of fact that had been concocted, contrary to section B.I.1(f) of the Code.

⁵ Professor Mojahedi referred to this as "changing the goal posts".

58. The Student was a graduate student and ought to have known that he was submitting concocted academic work for an M.A.Sc. thesis. The assertion that the Student committed "honest" or "unintentional" mistakes (even if accepted by this Tribunal which it is not), would not, in any event, be a defence based on the extended definition of "knowingly" in the Code.
59. The facts and conclusions which were propounded in the Student's thesis cannot be simulated in any manner given the concocted description of the circuit set out in the thesis.

Penalty

60. The Tribunal imposes the following penalty at the request of the University:
- (a) the Student receive a final grade of zero in the course RST 9999Y;
 - (b) the Tribunal recommends to the Governing Council that it cancel and recall the M.A. Sc. awarded to the Student; and
 - (c) sanction imposed be imposed permanently on the Student's academic record and transcript; and
 - (d) this case be reported to the Provost for publication of a notice of the decision of the Tribunal and the sanction imposed, with the Student's name withheld.
61. The Tribunal reviewed the often-recited principles of sentencing in academic offences. There was no evidence of any extenuating circumstances affecting the Student and the Tribunal has that there was deliberate concoction and a lack of appreciation about the seriousness of such academic misconduct. In particular, we again note that the Student demonstrated a pattern of first denying any misrepresentation, then, after being confronted with incontrovertible evidence of the misrepresentation, providing a very different explanation of actions.
62. Unlike the circumstances in the *D* (May, 2007) decision, there was nothing in this case to warrant a consideration of the Student's rehabilitation/reformation against the need for deterrence and protection of the public.
63. An Order with the rulings and penalty was signed by the Tribunal at the hearing.

Date

July 28/2011

Roslyn M. Tsao, Chair