

TTU Faculty Senate Business Meeting
January 29, 2018

Members present: Douglas Airhart, Ismet Anitsal, Deborah Ballou, Tammy Boles, Troy Brachey, Chris Brown, Debra Bryant, Andrew Callender, Corinne Darvennes, Ahmed ElSawy, Billye Foster, Steven Frye, Stuart Gaetjens, Melissa Geist, Mark Groundland, David Hajdik, Jeremy Hansen, Paula Hinton, Steve Idem, Barbara Jared, Christy Killman, David Larimore, Regina Lee, David Huddleston for Jane Liu, Lori Maxwell, Tony Michael, Christine Miller, Holly Mills, Linda Null, Brian O'Connor, Joseph Ojo, Richard Rand, Jeff Roberts, Cara Sisk, Troy Smith, Sandi Smith-Andrews, Holly Stretz, and Jeremy Wendt

Members absent: S.K. Ballal, Jason Beach, Ward Doubet, Ann Hellman, Shelia Hurley, and LeeAnn Shipley

Guests: Dr. Bharat Soni, VP of Research & Economic Development; Mr. Tom Brewer, Associate VP Strategic Research Initiatives; Dr. Ben Mohr, CEE Chairperson; Dr. Darryl Hoy, Dean of the College of Engineering; Dr. Mohan Rao, ME Chairperson; Dr. Vahid Motevalli, Associate Dean for Research and Innovation of the College of Engineering; Barbara Fleming, TTU Board of Trustees; and Dr. Julia Gruber, faculty member

Approval of Agenda

Senator Darvennes made the MOTION to approve today's agenda. It was seconded by Senator Smith-Andrews, and APPROVED by Senators.

Approval of Minutes and Notes

Senator Hinton made a MOTION to approve the minutes of November 13, 2017, and seconded by Senator Larimore. The minutes were APPROVED with last 15 minutes missing. Senate President Killman will add these when located. Senator Geist made a MOTION to table a vote on the notes of December 4, 2017, seconded by Senator Smith-Andrews, and APPROVED.

New Business – Fitzgerald Glider Kits Discussion

Senate President Killman explained the format for the next discussion followed by questions.

Comments by Dr. Bharat Soni:

Dr. Soni gave a brief synopsis of the research study on the Fitzgerald Glider Kits. He said those involved with this research complied with rules and regulations, but sometimes man and materials make errors. He assured us that Tech's research policy 780 Misconduct in Research was followed. The issue is the allegation questioning the quality of research. An external review committee will investigate. Dr. Soni will work with Dr. Hoy on recommendations for external reviewers. In about 30 to 45 days we should have some results from reviewers of both investigations.

Comments by Mr. Tom Brewer:

Mr. Brewer said his background is in automotive industry with process and people. Saturn Corp. was one of his previous employers. He has been at TTU for the last 3 ½ years. He outlined the methodology and chronology as of today. In Spring 2016 he sat down with Fitzgerald leadership, an engineering company, but they had no engineers on staff. Fitzgerald came to Tom after the EPA proposed changes to the Clean Air Act in Phase II, with guidelines for older engines to meet emission standards. Fitzgerald had never tested these engines before, because they never had to. They wanted help understanding and help implementing tests for remanufactured engines. A study team was established, a proposal was developed in June 2016 and it was submitted. The study was \$39,000 with \$12,000 of it for equipment. An EPA approved portable hand-held device for field testing was used to test the exhaust of 13 vehicles, 5 of which were brand new. Tests indicated no significant differences in any of the 13 tested in Fall 2016. The Phase I report was presented to Fitzgerald. In October 2016, the Clean Air Act Phase II appeared in the Federal Register for comments. Mr. Brewer says he stands by this study using the calibrated hand-held device.

The concern today is about flawed and shoddy research, as stated in media articles. Two customers, Fitzgerald and the EPA, were satisfied that we answered their questions and did what they wanted us to do for them. The EPA emailed President Oldham to ask to meet with the study team to understand their testing protocols. The EPA recognized that Tech did a field test, not a lab test, and gave no negative comments or criticisms. The EPA started using ultra-low fossil fuel beginning in 2006 that resulted in 90% lower emissions. The EPA just took specifications, but didn't test. Neither customer, Fitzgerald nor the EPA, said the work was flawed or shoddy. News articles didn't have all the information, only some of it.

So where are we today? The EPA came out with a repeal in November. The EPA took out glider kits from engines. The EPA does not have the authority to define glider kit engine as a new vehicle. A repeal went into open comment until Jan 5th. The EPA is now analyzing those comments before going into law, or not.

Comments by Dr. Ben Mohr:

Dr. Mohr said he was the original PI in 2016, but withdrew effective last week. He is in the CEE Dept., with cement and concrete, and also pollutants (water and air). His concerns are that a lot of this was done while he was PI, but he not able to review data and report before it was sent to others. He referred to his resignation letter forwarded to Senators last week.

Questions from Senators:

Questions asked by Senators were directed to a specific person in the room. Most of the questions and responses are summarized below.

1. Senator ElSawy asked Dr. Mohr: Why did you not ask someone in Mechanical Engineering Dept. who has experience in this area? Dr. Mohr said the project was only to compare classes of vehicles, and generate some basic numbers.

2. Senator Ballou asked Dr. Mohr: What year were these engines you tested? Dr. Mohr said he didn't have this data here. Mr. Brewer said the new engines had less than 50 miles, and were all EPA certified engines. Remanufactured engines were also documented.
3. Senator Ojo asked Mr. Brewer: Who has the data? Where was it done? Why believe the data? Why did you draw the conclusions you did? Who wrote the letter to the President? Mr. Brewer said he wrote the letter for the President to sign. Congresswoman Diane Black asked Fitzgerald for the summary data for Phase I. Fitzgerald also asked us to do an Environmental Impact Study. A graduate engineering student did the tests.
4. Senator Geist asked Dr. Mohr: Who was the PI? Tom Brewer was named PI, too. So where/when did the PIs change? Dr. Mohr said he didn't know of the change along the way, and was never notified of a change.
5. Senator Darvennes asked Mr. Brewer: Ben Mohr and Mark Davis are listed on the original proposal, so why did you take data even though you weren't listed on proposal? Mr. Brewer said because he brought the request to the University and is the University representative, but was not part of the activation. Dr. Mohr was used as the engineering credential for the project. Mr. Brewer said he was at all the tests. Data was analyzed by a graduate engineering student, a first-year student. It is unknown if an advisor was working with this student.
6. Senator Ballou asked Mr. Brewer: There is a chasm between the study and the content of the letter with your name on it. One should not overstate the evidence that has been done. The letter is a gross overstatement. What did the President ask of you before he signed the letter? Was there sufficient caution about no particulate data being collected? The claims in the letter have conclusions that are exaggerated. Mr. Brewer said he reviewed the letter, but doesn't recall the President asking any questions. Dr. Soni said the same description given to Senators today was the same given to the President. Mr. Brewer continued by saying the particulate matter was measured with an approved hand-held device from EPA. Tests were based on 5 states of load of a vehicle, with 75% as the representative load. Fitzgerald turned over some, but he's not sure if all information, was turned over to EPA. Dr. Soni said most of the criticism is "from the 2-page stupid letter."
7. Troy Smith asked Mr. Brewer: Can you tell us what your educational background is? Mr. Brewer said his background is a Bachelor's degree in business administration, but also engineering work.
8. Rand asking Mr. Brewer and Dr. Soni: There are very specific standards. This research did not engaged an academic unit, but research was done in the name of the University. Is this common practice? There is a relationship of research done related to the funding. How's this all related? There's an appearance of conflict of interest. Mr. Brewer

responded by saying that we did not do research for EPA, only Fitzgerald. The conflict of interest timeline started in December 2016 with a report given to Fitzgerald. In March 2017, Millard Oakley was on campus talking with President Oldham, and he knew of our study with Fitzgerald. Mr. Fitzgerald said he had acreage by Sparta airport with which we could develop an automotive center. This was offered to us by Fitzgerald about 2 months after the report submitted, and had nothing to do with our research work for them.

9. Senator Stretz asked Dr. Soni: Who decided on the Phase II report? How did you decide whose name to put on it? Dr. Soni said he didn't have an answer today, and it will be answered later in process.
10. Senator Ojo asked Mr. Brewer: Who is the student's advisor? Who was supposed to do the calculations? Mr. Brewer said Steve Idem is now. Senator Idem said he is only serving as an academic advisor, and had nothing to do with the data reduction.
11. Troy Smith asked Mr. Brewer: Someone must have been responsible and realized the project research followed by the land offer, as a conflict of interest. Mr. Brewer said that Dr. Soni, himself, Dr. Saltsman, and the President were involved. We never thought there was a correlation.
12. Senator Ballal asked Mr. Brewer: We have a good reputation in engineering. How did you end up here, from Spring Hill? Mr. Brewer said he retired from General Motors, and then worked at the Northfield Building in Spring Hill, TN to re-train employees until it became idle, but not closed. Maury County had highest unemployment in the State at that time. A workforce development center was established at this old site, and Mr. Brewer helped build this program. Tech looked at it as a satellite campus a few years ago. Mr. Brewer was also President of TAMA (Tennessee Automotive Manufacturers Association) for Tennessee. He was asked to externalize the University in the automotive industry. Dr. Soni said that Mr. Brewer is an industry liaison for us.
13. Julia Gruber, AAUP representative asked if we can we rely on faculty expertise in the future. For external review, who at Tech benefited from this whole study?
14. Senator Maxwell to Dr. Soni: Dr. Mohr and Mr. Brewer didn't change the PI, nor did Dr. Soni. So who did? Dr. Soni is not sure the PI has been formally changed, so he can't answer that.
15. Senator Darvennes asked Dr. Mohr: This is testing, not research. A student took data, along with a technician. Were you aware they were going to take data, and aware what they were going to do with the data? Dr. Mohr said yes, but he wasn't present for it. The raw data was seen by Dr. Mohr, but he didn't write the report. Mr. Brewer and Mark wrote report.

16. Senator Groundland asked Dr. Soni: He considers Tech to have a stellar reputation in engineering, and is thinking about damage control moving forward. With an external review in place, what else are we going to do for damage control? This will affect grants, incoming students, new faculty, and more. Dr. Soni said discussions are going on now.
17. Senator Rand asked about the letter to Congresswoman Diane Black, that a decision was made to not include engineering faculty in the report. Why didn't you get an engineer to write that section? In the future, have qualified academic people writing appropriate sections.
18. Dr. Huddleston asked Mr. Brewer: What role did you expect that credential to serve? Mr. Brewer said to be the subject matter expert. This should be answered in the external review at a later date.

Senator Foster made a MOTION to table all other agenda items until the next business meeting.

The Senate will meet next Monday, Feb. 5 at 3:50 PM as an emergency meeting to further discuss this topic and cover the agenda items originally planned for today, and also on February 12th and 19th. The motion was APPROVED, with one opposed.

Discussion among Senators continued regarding the Fitzgerald Glider Kits issue. Has the Fitzgerald Company been asked to release it? Yes, and they won't do it.

Senator O'Connor said from Mr. Brewer's comments, Fitzgerald is OK with what we did, the EPA is OK with what we did, so where was the criticism? Dr. Hoy said the *Washington Post* article in November wrote about a cozy relationship between TTU and Fitzgerald, followed by articles and comments from others in the industry. We need to withdraw from this study pending an external investigation. He said the College of Engineering is appalled.

Senator O'Connor said we are at risk of getting into politics. Can we withstand the questioning? He hopes this doesn't develop into turf battles. Dr. Hoy said we have a qualified expert in engineering on this, with sound credentials, who was never asked to join this study nor give any opinion.

Senator Hinton is concerned that President Oldham's name is not mentioned more often in connection to this issue.

Senate President Killman said that Dr. Soni asked Dr. Otuonye to be lead internal investigator. President Oldham said we are going to do the right thing here, by doing an external investigation, etc.

Senator Stretz drafted a memo asking the Senate for a resolution in the form of a MOTION. Senator ElSawy seconded the motion.

Senators had some additional comments. Everything today encapsulates our concerns of the past few years. This was almost predictable. There is no emphasis on overall leadership in this project. Dr. Motevalli said why do we have a PI who is not qualified? The paperwork did not go thru any of the Centers at TTU. The final paperwork was received last week with a 2-page summary, signed by Dr. Soni. Mr. Brewer's experience is in automotive workforce development.

The Senate further discussed the resolution. We feel this needs to be an external review, not an internal one as Dr. Soni wants. Suggestions were made to tighten up the language in the resolution. Senator Geist made a MOTION to table a vote on the resolution until next week, and it was seconded by Senator Airhart. Ms. Barbara Fleming thanked everyone for this meaningful discussion, and wants to be sure we don't throw Tech under the bus. Be 100% sure we are upholding this with Tech. Senator Airhart expressed concern with Senator O'Connor's comments about whether or not we are jumping to conclusions based on editorials. This resolution doesn't address the process, only the misconduct in research. This can go public if passed, and sent to the President. Senate Secretary Lee will work with Senators Stretz and Ballou to clean-up parts of the resolution and put it in the proper format. An electronic vote will be taken tomorrow. Senator Foster moved to amend the MOTION to reflect this plan. The motion was APPROVED, with one opposed, and nobody abstaining.

The meeting adjourned about 5:45 PM.

Respectfully submitted,
Regina Lee, Faculty Senate Secretary

Approved: February 12, 2018