



**Florida Engineering Technology State Industry Advisory Board (SETIAB)
Meeting Minutes – September 27, 2023 6:30PM St Johns River State College**

COMMITTEE VOTING MEMBERS Present:

Cornelius Jackson Chair
Dean Bartles Vice-Chair
Michael Emigh (Virtual) Secretary
Robert Blevins
Walt Brown
Abraham Alangadan
James Gillard

Committee Members Not Present

Paul McAllister
Kon Champavannarath
Pete Cirak
Michael Ennis
Jayne Fifer

Committee Non-Voting Members Present:

Maria Alfano
Marilyn Barger
Philip Centonze
Ron Eaglin
Susan Frandsen
Shera Gill
Sid Martin
Earnie Friend
Sam Ajlani
Mori Toosi
Doug Brauer
Richard Gilbert
Shirley Dobbins
Ronald Smith
John Etienne

Minutes prepared by Mori Toosi from a translation recording submitted by Sheri Frank.

1. CALL TO ORDER AND OPENING REMARKS

Cornelius Jackson opened the meeting and conducted a roll call. Members were also asked to provide feedback on the previous meeting but there were none.

2. BOARD OF DIRECTORS' NEW MEMBERS

New Member Mr. Alangadan from Johnson and Johnson introduced himself. **On a motion made by Dean Bartles, second by Walter Brown, it was resolved to accept Mr. Alangadan as a new member of the State Engineering Technology Industry Advisory Board of Directors. Motion carried.**

3. **Cornelious Jackson, Chair, opened the floor for members updating the board.**

Ron Eaglin: I did have a meeting with a funding agency last week and the funding agency is focusing on specific needs, both statewide but also regional needs that are going to be giving us about 2 million worth of equipment. And they were setting the priorities. So, we had a large meeting to look at what those priorities would be. Right now, one of the priorities was welding. There is just a critical need for welders in the area. So, we're looking at both manufacturing, but we're also looking at the workforce needs specifically to be able to do this. And it looks like what I'm going to end up doing is creating a mobile welding lab with virtual trainers. In the virtual world. They have two virtual types. We call them red or blue because some are red, and some are blue. I think some people have the blue ones and some people have the red ones.

I can fit six welders into a semi and then I can move them. Because what we found with the welding training on the training side, we really need to be able to get to where the potential people that would be taking the program would be. They don't go, we have a massive service area, but they don't go more than about 10, 15 miles for any type of training or education. And we'll also probably put money into the program such that they can go through the program for free. That's kind of where we're looking at heading with that. They will work on real welding, but the beauty of the trainers is we can get them through much getting through the welding at very low cost. Because welding the biggest cost is the materials cost and instructor the materials. So that's one of the things that we'll be looking at purchasing.

In addition to that, I am buying three of the trainers for cybersecurity in manufacturing and looking at how to help the technicians harden the equipment so that they can know how to go through hardening. And what we discovered from hardening the equipment is you can't harden the equipment, or you can over harden the equipment. The people that we had as a whole group there were talking about one of the biggest issues that they're facing right now, the difference between IT and OT. Totally different cultures, IT locks everything down. Ot, everything must be working all the time all day. But that's going to be put into our program. We're figuring out how to deal with that. But that's going to be put in the program and they're also going to be, it looks like they're going to be funding. We have a cyber operations center and a skiff and they're going to be funding the cyber range because we're doing not just training for the people who are getting a degree in cybersecurity, but we're also going to be using the cyber operations center and the cyber range because it does have modules to help train people that are going into the technology side.

After a healthy discussion, suggestions were made by **Marilyn Barger and Walter Brown** about introducing the FAME program to the rest of the ET programs in the state of Florida. The process for companies getting involved with the FAME sponsorship program is that companies will contact the local ET program directors, explain their needs, and agree with the FAME's

sponsorship. Then the college will recruit students mostly directly from high school seniors who are interested in AS ET degree to match the need.

Richard Gilbert briefly talked about the history of FAME sponsorship program and explained many obstacles such restrictions having high school students working in industry.

The industry members present, including **Walter Brown from Coca Cola**, showed interest in sponsoring the FAME program. Walter expressed his preference for having FAME sponsorship program where the student at college sits in a classroom and do the projects in the lab compared to the apprenticeship programs that often are online and not as effective. There are several FAME overview webinars scheduled by the FAME organization. FLATE will share the link to register for one of these. The organization offers these FAME overview virtual sessions regularly and those interested in our group can sign up.

4. **APPROVAL OF PREVIOUS MEETING MINUTES**

On a motion made by Dean Bartles seconded by Cornelius Jackson, it was resolved to approve the minutes of the State Engineering Technology Industry Advisory Board of Directors meeting May 22, 2023, as presented. Motion carried.

5. **Cornelius Jackson, Chair, opened the floor for the officers' reports.**

The chairperson reported that Polk County has coordinated their effort to conduct manufacturing and supply chain lunch and work. A session was held with local business partners, 17 high schools. It's a virtual session where we bring those business partners in to showcase different things about their companies. Name a few in the partnership; Saddle Creek Logistics, New Core Steel. Florida SVD Metal Products, Campbell Snacks, New Cycle. The activity will be repeated in January as well.

Marilyn Barger praised the event as very effective and a great way to reach several students that may not be able to go out, especially on tours. Marilyn explains the format that the event is organized. Students receive lunch provided by manufacturers, at their locations of virtual gatherings.

Other officers informed the Board that they had nothing new to report.

6. **FLATE Report**

Marilyn Barger updated the Board on the status of the NSF grant and upcoming PI conference in Washington DC. She mentioned that herself along with three other grant Co-PIs, Mori Toosi, Sam Ajlani, and Sid Martin, are traveling and participating in the conference October 24-27. The team is participating in a series of workshops, conducting a poster presentation, and conducting a round-table discussions.

7. **FLORIDA MAKES REPORTS**

Maria Alfano requested if at the next meeting she can have 7 to 10 minutes time to do a presentation about FloridaMakes, the mission, who they are, what important things they are

doing. In summary she reported FloridaMakes is working toward manufacturing productivity and competitiveness. She reported about another piece of the legislation regarding the provision for an ET center, and that's why they wanted to work with community and technical colleges and other educational institutions to bridge the gap between manufacturing and administration. She reported Ernie Friend and Kevin, two CEOs at the National Conference with other practitioners from other MEP centers on a national basis, have 50 centers plus Puerto Rico. A few weeks ago, FloridaMakes had a presentation on What We Do, What FLATE is, what this is, What the ET Forum is and why that is important. She also reported that recently FloridaMakes was awarded funds for supply chain expansion, so they are doing some work in that area working on mapping. A healthy conversation took place, Dean asked if any company is asking FloridaMakes for any specific training, Maria responded yes, with most conversation is about AI. Richard Gilbert mentioned some typical manufacturing vocabulary like additive and subtractive manufacturing is changing because the manufacturing processes are changing, either by combining and not separating processes or modifying the processes entirely.

8. DEPARTMENT OF EDUCATION REPORTS

Bob Blevins reported on a few changes; Senate Bill 240, is a structured pathway from middle school all the way to college and university. It's a pathway where a middle school student takes a course that shows him a pathway to high school from high school that shows him a pathway into technical college, state college or four-year bachelor's degree. And it's an aligned pathway. Whether it's manufacturing, whether it's aviation, whether it's engineering or whatever it may be. So that's something that manufacturing could help because we do have to have inputs from manufacturing because we don't know what you guys have changed and changing, we know it changes and changing every day to something new.

The middle school program now is generic, it basically covers all 17 clusters at one time. And what senate Bill 240 is we must have a specific track. In other words, they must know, if I take this in middle school, what program am I going to take in high school? If I take it in high school, what program am I going to take in college? I mean it's specific. So it's not a general where they can go here, go here, go there. It's not like our ET degree where they can take 11 different tracks. There is an alignment required and at the present time there is a committee set up at DOE to do the work. Also, soon all Framework will not be taken care of by D O E. It's going to be taken care of on C-Palms.

Mr. Blevins continued providing info on Open-door-grant, The open-door grant is a grant students can apply for and up for the last two years it had a cap of \$3,000. Well, this year they removed that cap. So, if an individual can have \$10,000 financial aid if that program costs \$22,000. Then they can apply for a \$12,000 open door grant and have their education completely funded one hundred percent. It's for two-year degrees. A student must show that he/she has exhausted all financial aid grants, and if they are not eligible for others, then they will be eligible for the Open-Door-Grant. Board members discussed several advantages and disadvantages of both the Senate bill 240 and the open-door-grant.

9. Review and approval of the new SETIAB's webpage

Marilyn Barger and Mori Toosi demonstrated the content and design of the webpage. Marilyn explained that forming the industry advisory board at the state level pretty much matches the unique state level framework, and that is not common in other states. Board members discussed and emphasized that the webpage should be a key communication tool for all ET programs and their industry partners to utilize developing and/or updating their resources. Board member Dean Bartles suggested inviting guest speakers from different related fields to speak and provide updates. Motion was made by Dean and seconded by Walter Brown motion was carried.

10. Advanced Automation Certificate

Sam Ajani explained how he has collected the information by surveying industry on what their needs are related to automation. Data collections, data analysis, and data interpretation beside cyber security were the most important. Sam explained any two 2-year ET program is limited to 60 credit hours and what the study and this survey shows there is a need for additional topics and/or alternative credit hours. He discussed options of selecting and accepting part of the needs and implementing into the 2-year degree offer as Advanced Automation or offer the entire 27 credit hours as a new specialization. Industry member Dean explained that there is a great need for this sort of curriculum, He emphasized that data collection and data analysis and how to use the data are the most important components of what students need to know. Congrats on doing this.

Members Dean, Richard, Ron discussed the importance of functioning properly in Industry 4.0 environment, communications between edge sensors/computers/PLCs with cloud as extreme important and curriculum need is needed. In addition, it was acknowledged that not every or many companies are operating in Industry 4.0 environment. However, many new machines and operation components have become available that are equipped to function in industry 4.0 even though may not be used when installed and put into production.

The board will revisit this issue for further discussions on if the content should be offered entirely as specialization under a 2-year degree with path to follow onto a 4-year degree.

Industry member Walter Brown reminded that data acquisition using excel may not be an appropriate tool for industry 4.0 and many companies are already moving away from manual data processing. He emphasized implementing a system that is functional with technicians having knowledge to understand the concepts while also being able to go through the detail and solve the problem once an issue arises.

Board member Abraham Alangadan explained at Johnson and Johnson every data collection and recording is already automated. Collected data is displayed on the board where it's compared with the target points and that's how management monitors and improves the operation. Due to great needs, he supports the idea of offering the entire package as a separate specialization.

Board member Maria Alfano explained the need for automatic data collection, storage, and analysis can't be limited to large companies, mid-size, even small size operation needs to be looking at data and understand and analyzing it.

11. Review of the Tasks and Technology related to Industry 4.0

Phil Centonze started by asking a few members to identify types of data, it was concluded that data related to machine operations and conditions, also data related to production and efficiencies. He explains many manufacturers are not aware of the industry 4.0 and their needs on data collection are very basics related to the quality, and productivity. He connects that to the lack of expertise available for many manufacturers that often go to ex-military veterans with expertise in electronics. He explained about 9 different technologies that are used to describe industry 4.0. Four of the 9 technologies are cyber security related and horizontal and vertical system integration are considered as foundational regardless of other technologies that a particular operation has and using. Many companies use the applications of technologies up the level of communications between two or three machines like CAD/CAM applications, and the related skills set needed to operate. Some other examples of new technology used involve Scanning, and using simulations to create soft model of products, then make sure the product fits and functions before actual production.

Industry member James Gillard emphasized the importance and vital role of engineering technician with AS degree and expertise in playing to be a problem solver, filling the gaps of what is often missing between engineers, the blueprint design and assembly operations.

12. NEW BUSINESS

Factors related to employability. Mori Toosi explains three of the 18 ET program learning objectives, PLOs. (PLO 11 states that Students need to be employable, PLO 8 is Effective communications skills, and PLO 9 is appropriate math skills) that are interrelated, and they all can fit under employability. He explains that communication skills and math skills are essential parts of employability. He explains in addition colleges including Polk State is moving toward program assessment based on rubrics and not learning objectives, learning objectives are general statements and are not measurable. Board members briefly express their opinions about what should be required in the area of mathematics and communications. There is not a uniform general education requirement across colleges with ET degree in the state. The board will review this proposal in the future and before the next program framework review.

13. NEXT MEETING

The next Board of Directors' meeting will be announced 30 days in advance, but the plan is to hold SETIAB meetings in conjunction with the ET Forum which is held in the Spring and Fall of each year.

14. ANNOUNCEMENTS

- a. FAME Website: <https://fame-usa.com/>
- b. SETIAB Website: <https://flate.site/setiab/>

15. ADJOURNMENT

On a motion duly made, it was resolved to adjourn the meeting. Motion carried.

DISCLAIMER

The above minutes should be used as a summary of the motions passed and issues discussed at the meeting. This document shall not be considered a verbatim copy of every word spoken at the meeting.