



MTX/CET -MINUTES
Tuesday, February 20th, 2024, at 6:00 PM.
Zoom

Members Present: Paul Cunningham, Jon Pfister, Jim Malinowski, Nathan Pierce

Members Absent: Jerome Davis

Clark College: Ken Luchini, Theo Koupelis, Tina Jenkins, Monte Gantka, Alex Kison, Carl Douglas, Elizabeth Flores

NEXT MEETING DATE

Tuesday, May 21st via Zoom at 6:00 PM

MINUTES OF THE PREVIOUS MEETING

The previous minutes from November 29th, 2022, have been approved.

COLLEGE UPDATES

Ken shared that the advanced manufacturing program will open in Boschma Farms in Ridgefield, WA in fall of 2024. The new building is 50,000 square feet. The program will offer some additive manufacturing, laser cutting, and subtractive manufacturing.

DEPARTMENT UPDATES

Ken suggested that the program would benefit from extended Columbia Tech Center campus hours, including weekends.

Theo is optimistic that the building will be open for full hours this fall, 2024, after budget reviews and security training in July.

Ken shared that since the start of the pandemic, attendance for the program has decreased. However, it has been gradually increasing, and currently, there is a 50% enrollment rate among full-time students across the campus.

Ken shared that students enrolled in industry are taking programmable logic controller classes.

Ken discussed the clean energy technician program will be merging with mechatronics, in hopes of enrollment increases. The clean energy technician program is in the process of submitting the course

action requests to get it through administrative processes. Additionally, Ken is building the course syllabus, gathering textbooks, and determining what laboratories will be taught in each of the classes and types of projects with new equipment.

Ken shared the following new classes to the clean energy technician program in place of the electronic classes:

- Power utility class.
- Clean energy tech class.
- Clean buildings class.
- District energy.
- Localized distribution.

Ken noted that the clean energy technician program hopes to begin by fall 2025 once the clean energy technician program gets through the committee. The clean energy technician program was put together by their advisory board, the Washington State University energy program, and the Center of Excellence for Clean Energy located in Centralia, WA.

Ken shared that Monica and Jason Selwitz formed the program and have been consulting with the mechatronics program on how the classes will be taught in the program map. Additionally, they approved course action requests.

Ken shared the program has a new computer software system called computer integrated manufacturing (CIM)

Ken shared that the following programs: mechatronics, welding, automotive, and diesel students toured Clover Park Technical College, arranged by Carl Douglas so that the programs could visit the facilities. Clover Park has a brand-new building, and students viewed capstone projects, industrial robots, and mechatronics equipment.

Ken mentioned that the laptop computers in the laboratories at Clark College need to be updated, and the laboratories need stronger computer connections because the wireless internet gets slow when a lot of students log on. However, students are still successful in the program.

Ken noticed that since the program has been in person, the program enrollment has been steadily increasing.

Ken announced the program would be conducting a new job search for a tenured instructor. Additionally hire on more adjunct instructors to assist with the program. Currently, Tina Jenkins is the tenure track instructor, and William Doug Miller is a full-time adjunct instructor.

Ken announced that he will be retiring on June 25th, 2024. He might teach a class in the winter quarter of 2025 and remain available to help.

Ken noted that Monte Gantka and AJ Swan remain technical and classroom support techs.

Ken noted that Fred Terranova, master electrician, teaches electrical power distribution and fluid power classes. Tina Jenkins teaches the advanced fluid power class.

Theo mentioned there are more faculty in the works and the program aims to keep increasing instructors. Theo noted that when the new budget begins in July, the program should be able to purchase new laptops in the laboratories with student fees.

Jim welcomed the college to connect with Clark Public Utilities staff and refer Clark students as qualified candidates for entry-level positions at PUD. Jim will report to their general manager, so she is aware.

ELECTION

Nathan motioned to elect Jon as the committee chair. Paul seconded, and the committee approved. Carl volunteered for the vice chair position, and the committee approved.

INDUSTRY UPDATES

Jon noticed a surge in IOT development in building automation and controls. Jon has noted that his workplace has developed their control line to help introduce IOT, MQTT, and rest API, all protocols that have emerged a lot more in the HVAC industry. It's a great step moving forward to introduce this to students in the program.

Nathan noted that MQTT is universal for a lot of IOT things as well as rest API.

Carl shared that the semiconductor market and the workforce training issues are still present. Carl noted that current projections are that by 2030, we expect to be about 1.4 million technicians shy of the need for expanded facilities going into the United States. There are ways to improve training, work with colleges, and find the best-suited employees for the industry.

Carl shared eleven new mega factories are going into the United States, and there are five or six expansions in our area outside of those eleven factories.

Carl noted that there are always jobs available; however, due to increasing costs and decreased sales, there is less employment. However, once these areas are improved, more hiring will occur.

Paul shared that Thero Fisher hired a recent mechatronics graduate, and it's been going well. Paul recommended integrating more project management and an introduction to AI in the program.

Nathan recommended introducing project management, a vital skill and a great thing to add outside of technical things.

Carl mentioned the mechatronics capstone is an ideal opportunity for project management implementation.

Paul recommended a project management presentation with a GAMP chart and completion milestones for the capstone project.

Action Items: The program will look into the following for our upcoming spring meeting in May to look into implementation and what it would look like.

1. Intro to AI
2. Project management
3. Introduction to different software's earlier in the first-year students.

Ken suggested introducing projects in the class that the students are currently taking and gradually bringing in the gamp charts, charging, and solar energy so that by the time they are working on the capstone projects, they are familiar with the topics.

Ken suggested introducing various software earlier with the first-year students.

Jim shared that the power industry is facing challenges in reliable power pressure to shut down cold plants and convert heating and transportation to electric supplies. The industry will have substantial low growth, and they do not know where their new resources will come from.

Jim shared that the lead times for nuclear are 10-12 years from now, and the lead time to build renewables is 2-3 years, and transportation is several years as well. The increase in high prices is going to become more common, and the industry faces several problems in the next couple of years.

Jim stated the development of small modular nuclear reactors is a component of the supply and geo-thermal. But there is no way we can provide reliable energy with wind, solar, and storage, especially in the northwest.

Jim is stating that the current workforce is nearing retirement, and new recruitment is critical.

Ken stated the clean energy technician program aims to help optimize building performance in terms of energy consumption will be vital.

Jim conservation is the best; however, there are some challenges with that as well. Jim believes we need to develop a workforce that can handle these challenges.

The meeting adjourned at 7:00 PM.

Prepared by Elizabeth Flores