# Electronics Advisory Board

## Meeting Minutes

Date: 5/3/21

4pm – 4:45pm

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| **Present:** | **Thomas Thoen (PCC, Lead Electronics Faculty)**  **Sonia Shtonov (PCC, Design Tech Faculty)**  **Jonathan Hymer (Mt SAC, Faculty, former Dept. Chair)**  **Tim Barker (Electrical Engineer, College of the Canyons, CS and Electronics Faculty)**  **Kyle Lomen (Student and Tutor, PCC Eng)**  **Dr. Julie Kiotas (Dean of Business & Applied Technology, PCC)**  **Dan Rascoe (JPL, student at PCC)**  **Farbod Khoshnoud (Cal Poly Pomona, visiting instructor at CalTech)** |

1. Agenda

* **Welcome / Introductions [4:05 – 4:10]**
* **Previous meeting minutes [4:11 – 4:12]**
* **Conversion of BDT OSC to CoA APPROVED / Grant funds APPROVED**
* **State of program since last advisory**
* **How other programs are faring?**
* **Other feedback / wrap up**

1. Presentation 4:15 – 4:35

* Conversion of certificate from Occupational Skills Certificate to Certificate of Achievement
  + This is a common sense change to help students by presenting this on their transcripts.
  + Advisory board voted unanimously YES to approve conversion.
* Approval of new grants
  + Titile V and SWP funds used to replicate real lab experience
  + Funding student worker like Kyle. They provide tutoring and assist with current COVID check-in protocol, adapting the lab, etc.
  + Voted YES to approve funding.
* New Audio Electronics class
  + Progress in writing a proposal to be submitted to Curriculum and Instruction committee.
  + This course will teach students basic lab skills and ties in nicely with TV and Radio division.
  + Offered in Summer 2022
* Plans to develop Internet of Things course
  + Development work to be done this year.
  + IoT is a very relevant topic in industry.
* Laser Tech program
  + Faculty member, JPL engineer, is working on this at PCC.
  + Would like to create a shared space/facilities.
  + One electronics PCC student is in the laser tech program.
  + Amada is a great company that can be an industry partner.
* Continuing Goal: Supporting student projects
  + TECH 197 has good enrollment with student working on great individual projects.
  + Example of the student projects were given.
  + Student who complete electronics tech courses take TECH 197 to continue working on projects that were started. They often present their progress to other electronics students.
  + Plans to document completed projects via video for social media and program promotion on social media.
  + TECH 197 is a general purpose elective (welding, machine shop, etc.)
  + QUESTION: how is OCC managing to produce good enrollment numbers for TECH 197. Other colleges have similar elective options for individual projects.
  + ANSWER: Class size is limited to 12 student because this type of work requires a lot of support.
  + TECH 197 includes project management strategies such as Gantt charts.
  + Consider: how can be include TECH 197 in a skills based certificate (employability).
* FPGA integration into Electronics courses
  + Outdated technology makes it cumbersome to teach
  + New digital platform of ICEBlocks/Upduino similar to LabView with low learning curve. New students were able to simulate circuits faster than before.
* Fall 2021
  + Plans for face-to-face for all classes
  + Plan B: lectures are online, labs are split into 2 sections and on-campus
  + Lower enrollment due to pandemic affecting students.

1. College of the Canyons update, Tim Barker

* Students are experience Zoom burnout
* Grades are good but maintaining student engagement is the biggest challenge.

1. Mt SAC, Jonathan Hymer

* Spring 2021: Used CARES act funding for equipment for students to do same labs remotely. Over $1000 per student. Hardware based labs have been able to continue.
* Spring 2020 and Fall 2020 did not benefit from this.
* Exploring offering online courses to serve vulnerable student population and improve the health of the program.
* The country’s lifting of restrictions is what has allowed for face-to-face teaching this semester.
* Hopeful of having students return in Fall 2021.
* Equipment: lab grade vector analyzers

1. Farbod Khoshnoud

* Electromechanical Eng at Cal Poly Pomona, visiting instructor at CalTech.