

## MJC Industrial Electronics Advisory Meeting



### MINUTES

MAY 22, 2018

4:30PM – 6:00PM

SIERRA HALL 235

MEETING CALLED BY	<i>Career Technical Education and Workforce Development Division</i>
TYPE OF MEETING	<i>Industrial Electronic Program Update and Review</i>
FACILITATOR	<i>J Howen</i>
NOTE TAKER	<i>P Mendez</i>
TIMEKEEPER	<i>n.a.</i>
ATTENDEES	<i>Adrian DeAngelis (MJC Industrial Electronics), Nick Cason (American Systems Controls &amp; Integration), Jeremy Henley (Guntert &amp; Zimmerman Construction), George Loogman (Satake), Lance Lemmings (Gallo Glass), J Majewski (Gallo Glass), Jim Howen (MJC Industrial Electronics), P Mendez (Dean of CTE)</i>

**I. Welcome** *J Howen welcomed the group to Sierra Hall and asked for Introductions. Members checked in and introduced each other around. P Mendez asked for time on behalf of A DeAngelis to address the group before his class began at 5:00pm.*

**II. A DeAngelis Presentation**

DISCUSSION	<i>Presented information on where the program has been inclusive of classes, skills recognition awards, college certificates and degrees. Pointed out how a typical student moving through the program could first complete the SRA in Electrical Installation, then from there stop at any of the three college certificates and finally a degree. Explained that the Automation Technician SRA was designed for the working Electro Mechanic or Industrial Electrician seeking automation and system integration exposure.</i>	
	<i>Finally, reviewed the DAS Electrician Program overlap for students and the benefits of such designed. A DeAngelis requested the ability for faculty to provide information to the committee industry members to gather feedback. Also, a request was made to members to keep the program in mind and share scenarios, situations, and skill gaps during the year as they come up so that faculty can consider for inclusion in class lectures and labs.</i>	
CONCLUSIONS	<i>P Mendez suggested faculty use the email thread to the committee for this type of exchange and ensure all committee members were copied. Group agreed.</i>	
ACTION ITEMS	PERSON RESPONSIBLE	DEADLINE
<i>1. None</i>		

**III. Employer Feedback**

DISCUSSION	<b>J Howen asked industry members what type of things are you running into everyday at work that you wished your employees knew?</b> <i>L Lemmings: Siemens PLC exposure. More and more use of Siemens and it is a different language. N Cason: Yes, the issue is that versions between</i>
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Siemens cannot effectively at times be run on the same system and there are many of versions. However, focusing on ladder logic understanding, TIA Portal and Step Seven 5.5 software should provide effective exposure for students. J Majewski: Siemens Trailer has been out to our facility the college should reach out to explore partnerships. P Mendez: Yes, heard that they have done somethings throughout the nation with higher education.

J Majewski: Root Cause Analysis is another important aspect of the duties. Determination of mechanical versus electrical issues. J Howen: We teach that in our ELTEC 265 Troubleshooting Class and the concept is also interjected throughout curriculum. P Mendez: Jim can you provide information on your class to the committee? J Howen: Yes. I can also briefly review now if the committee would like.

Professor Howen provided a basic introduction of the Troubleshooting Class. Fundamentally, the class focuses on the distinction between Troubleshooting (one solution) versus Problem Solving (many solutions). Further reviewed course approach with the committee members. This included the important of Learning the List (SOPs) being identified by groups to a machine or process. Approach applied to routine maintenance and operation but also the handling of new machines. J Majewski: Can the course emphasize Root Cause... dive into 5 why analogy. J Howen: Noted.

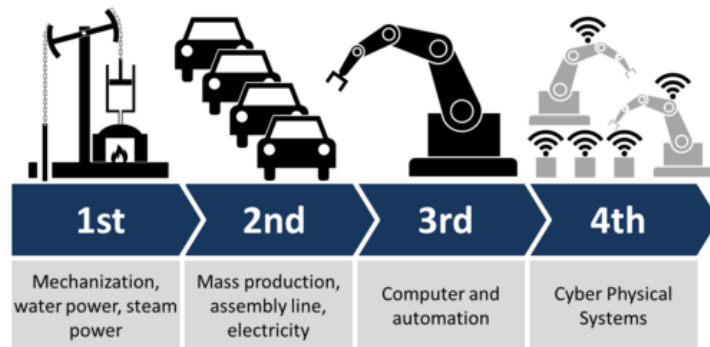
J Henley: At Guntert we are dealing with electrical assembly items where individuals need to have more automation.

L Lemings: Industry 4.0...everything is going to removing human intervention out of the process. Feedback loops and sensors. J Majewski: Yes... Angela Murco (???) 4<sup>th</sup> generation of automation... Industry of Things → 4<sup>th</sup> Generation of Industrial Revolution. Understanding time, temperature, vibration....big data...

L Lemings: Take data and now apply to operation. Taking information and having parts move based on it and then learn from itself. Robust through AI....sensors and algorithm. J Howen: Yes, multiple loop nested.

Journey Level Maintenance, E Mech and Controls should move to EMech and Controls only because all should have automation foundation.

J Majewski: Servo Motors



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	<p>STEM Outreach: <i>J Henley: is absolutely necessary. My own story was I was a biology student who was introduced to the possibility. N Cason... I was Math student.</i></p> <p>Online Classes: <i>J Henley: Because of flexibility should try. J Majewski: Make sure you ensure interaction portion of online class. Program would not students to hit play button and walk away. N Cason: Explore Asynchronized Lectures (students can elect to listen live and/or hear afterwards). P Mendez: Seek to do this to provide us greater ability to schedule more classes in the evening M-R where we presently have a bottleneck because of space available in SB 109 and SB102.</i></p> <p>INTERNSHIPS &amp; HIRES: <i>Gallo Glass hires primarily from within. Students first get on as a general workers then apply for tech positions. On average about 4-5 per year. Satake: Two we have hired are working out great. Looking for a bilingual individual because of our work in farms. ASCI: Hired several. Always open to Internships. Hiring about 1-2 a year now. Gunther: Internships presently working with MJC Career Service Center.</i></p> <p>Bakersfield BS in Automation: <i>Nice option. However, committee did not see what students were gaining on the technical skills side above and beyond what MJC is doing.</i></p> <p>New Proposed SRA for Electrical Engineering Tech.: <i>J Howen presented further deep dive. Requiring Instrumentation Level II Course, Motors Control Level II Course, Robotics, Etc. Committee was not sure of the creation of added classes.</i></p>	
CONCLUSIONS	N/A	
ACTION ITEMS	PERSON RESPONSIBLE	DEADLINE
1. Email members ELTEC 265 Curriculum Outline and Lesson Samples for Feedback.	J Howen	Summer 2018
2. Follow Up on J Howen Mini Assembly Line Discussion	N Cason/P Mendez/J Howen	Summer 2018

### IV. Region Research 1 & 2

DISCUSSION	<p><i>Research for regions have been updated. C Hudelson's update: (1) Did not see many example of industry partnerships. How do we recognize industry partners? (2) Liked pop-up messages Ventura College. N Sill: (1) liked a pathway approach she saw mapping classes in high school and onto college.</i></p>	
CONCLUSIONS	<p><i>Finalize research of college by next meeting.</i></p>	
ACTION ITEMS	PERSON RESPONSIBLE	DEADLINE
1. Region 5 will be assigned to Work Group Members	Nancy Sill	

### V. Professional Skills – New World of Work 2

DISCUSSION	<p><i>NWOW Update on piloting on campus through L Kropp, J Kropp and S Akiona. Tuesday and Thursday workshops, incorporation into classes and Summer approach. P Wall - Is there an online option approach? This would be helpful to students unable to attend. P Mendez – a</i></p>	
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	<p><i>recommendation worth exploring. P Mendez – MJC is also partnering with the CVML Region in sponsoring a NWOW March 22<sup>nd</sup> and 23<sup>rd</sup> Train the Trainer.</i></p> <p><i>More information needs to be parlayed to the campus to engage other Faculty. More prescriptive: (Planning meetings, observing the class, class).</i></p>		
CONCLUSIONS			
ACTION ITEMS	PERSON RESPONSIBLE	DEADLINE	

### VI. Review of Programs

DISCUSSION	<p><i>Course Pre-Requisites, SR Awards, College Certificates and Degrees were reviewed and discussed. Members confirmed not much has changed since the 2017 meeting. Further, they felt curriculum and program design was structured well for students and employees.</i></p> <p><i>Infusion of greater emphasis servo motors still a concern</i></p>		
CONCLUSIONS	<p><i>Unanimously agreed on the support of Pre-Requisites Courses and value of programs.</i></p> <p><i>Recommended: (1) Greater emphasis on servo motors, (2) Siemens PLC Exposure, (3) Industry 4.0 review and (4) Root Cause Analysis</i></p>		
ACTION ITEMS	PERSON RESPONSIBLE	DEADLINE	

### VII. SCHEDULE

DISCUSSION	<i>Members reviewed 18-19 expected schedule of classes. Felt design was good.</i>		
CONCLUSIONS	<i>N/A</i>		
ACTION ITEMS	PERSON RESPONSIBLE	DEADLINE	

<p><b>NEXT MEETING: <i>To be Scheduled Late October – November 2018</i></b></p>
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