



## BUENAVENTURA RAS/IAS CHAPTER

# Servo Drive-Motor Considerations, Technologies and Future Insight for Robotics Applications

By Karl Meier, Executive with *ADVANCED* Motion Controls

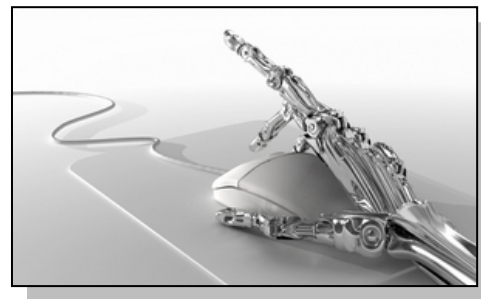
Wed Dec 2, 2015 at 6:30 pm

101 Swenson Building on the CLU campus

Meetings are free and open to the public

RSVP at this link <http://servodrive4robotics.eventbrite.com>

There is a robotics revolution happening right now and robots today rely on more than just being programmed for navigation, object detection and avoidance or other on-the-fly intelligent operations. Autonomous, remotely controlled or in-place robots require an array of enabling hardware that is also critical to overall system performance. This presentation focuses on motion control technologies, specifically servo drives, and how this affects robot designs. Also, discussed will be insight to future designs that will allow for even more compact robotic systems.



Robots have long been the desire of mankind to help in conducting work deemed unfit or dangerous. Without a complete understanding of motion control and how it affects robotic designs, true performance is rarely realized. As a core 'enabling technology', servo driven motion control can maximize how robots provide that assistance. So many major robotics platforms are currently active around the world with many more projects in the works. An educational insight to what these robotic companies are doing, what they know about motion control technology and future deliverables will be the basis for this knowledge transfer.



Our speaker, Karl Meier, is a key executive team member with *ADVANCED* Motion Controls for nearly 15 years and leads marketing and business development expansion efforts and continues to provide strategic direction for engineering and product development. His extensive product and industry knowledge comes from 30+ years of experience, including work in the Space Shuttle program as an officer in the U.S.A.F. He has assisted many companies over the years with automation needs and continues to interface with many industry leading robotics companies and research institutions. His formulation of a 'University Outreach' program has assisted hundreds of projects from top educational institutions like

Carnegie-Mellon's 'Red Team', Ohio State University's 'Birt', University of Pennsylvania's 'X-RHex' and many, many others. Karl's education includes a BSEEE '83, NDSU, Fargo, ND and an MSCS '87, WCU, Santa Barbara (extension campus), CA. He has also spent time as a graduate assistant and conducted personal research developing algorithms for artificially intelligent identification systems using predictive pattern recognition techniques. He is a senior member of IEEE and member of AUVSI and selected as a member of RoboBusiness' Advisory Council. He is the Founding Chairman of the RAS chapter in IEEE's Region 6 Buenaventura Section. He has written several technical articles and given presentations at conferences on a variety of technical subjects.

**Location:** California Lutheran University  
101 Swenson Building,  
141 Faculty Street  
Thousand Oaks, CA

**Our sponsors**  
California Lutheran University  
IEEE Buenaventura Section

**RSVP:** [at this link](#) (free event)

Pizza/networking starts at 6:30 pm  
Talk starts at 7:00 pm



**Directions from Ventura:**

Take the Ventura Freeway 101 South

Take Lynn Road Exit, turn left, drive 2.9 miles

Lynn Road turns into Olsen Road, drive .9 miles

Turn right onto Mountclef Boulevard - the University is on the right

Turn Right onto Faculty Street

Park on Faculty Street or adjacent streets

Visitors may park on the streets after 7 pm without a permit.

Important: do not park in the spots marked "Homeowner Parking only"

Before 7 pm, we recommend to park in the G lot on the southwest corner of Olsen and MountClef and walk to the Swenson building

**Directions from Los Angeles:**

Take the Ventura Freeway 101 North

Take Lynn Road Exit, turn right, drive 2.9 miles

Lynn Road turns into Olsen Road, drive .9 miles

Turn right onto Mountclef Boulevard - the University is on the right

Turn Right onto Faculty Street

Park on Faculty Street or adjacent streets

Parking on the street is open after 7 pm

Prior to 7 pm, Respect parking signs and do not park in faculty spots

Visitors may park on the streets after 7 pm without a permit

Important: do not park in the spots marked "Homeowner Parking only"

Before 7 pm, we recommend to park in the G lot on the southwest corner of Olsen and MountClef and walk to the Swenson building

# **CLU STREET PARKING PERMIT IEEE-RAS-IA MONTHLY MEETING**

**THIS VEHICLE IS AUTHORIZED TO PARK ON ANY CLU STREET BEFORE 7 PM ON ANY WEDNESDAY EVENING OF THE MONTH IN CONNECTION WITH THE IEEE-ROBOTICS AUTOMATION/INDUSTRIAL APPLICATIONS MEETING ON THE CLU CAMPUS.**

**NAME:** \_\_\_\_\_

**LICENSE PLATE:** \_\_\_\_\_

**CONTACT PHONE NUMBER:** \_\_\_\_\_

**CURRENT DATE:** \_\_\_\_\_

**Fred Miller  
Director of Campus Public Safety  
(805)493-3960**