ROS-I Developers' Training

The ROS-Industrial Consortium Americas is providing a three-day ROS-Industrial Developers Training Class, July 18-20, with both Basic and Advanced Track Offerings on ROS 2. The class will run three full days with Day 3 focused more on exercises/lab type application. This class will be in-person and will be provided via AWS EC2 instance. The class is geared toward individuals with a C++ programming background who seek to learn to compose their own ROS nodes. Day 1 will focus on introductory ROS 2 skills (Details Below). Day 2 will examine motion planning using MoveIt2, as well as the Descartes planner and perception concepts. Advanced topic Motion Planning Pipeline on day 1 and hands-on lab with an industrial manipulator on Day 3.

The ROS-Industrial *Consortium* is a membership organization. Training is free to dues-paying members (limit three seats per Full member, two seats per Associate member, and one seat per Research member). Others may attend for a fee of $2,199.

Class Prerequisites:

Basic understanding of programming (C++ preferred), Ubuntu Linux, and Linux command line. If Linux and C++ are new to you, complete the prerequisites of the online curriculum for background.

Event Location:

Southwest Research Institute
Building 68
6220 Culebra Rd
San Antonio, TX 78238

Accommodations:

Courtyard by Marriott Westover Hills

For more information, please contact:
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Agenda

		Basic	Advanced
Day 1 Classroom	0815	Depart from the hotel	Depart from the hotel
	0835-0900	Sign-in, Introductions, and Agenda	Sign-in, Introductions, and Agenda
	0900-1015	ROS Setup, Colcon, Installing Packages	Intro to Terms/Flow/Connecting to VM
	1015-1030	Break	Break
	1030-1200	Creating Packages/Nodes, Topics, Messages	Setting up basic motion planning pipeline in Tesseract
	1200-1300	Lunch (Provided)	Lunch (Provided)
	1300-1430	Services, Actions	Refining planning pipeline and increasing robustness
	1430-1445	Break	Break
	1445-1700	Launch Files, Parameters	Unique customization of tasks and pipelines
	1720	Wrap-up	Wrap-up
Day 2 Classroom	0815	Depart from the hotel	
	0835-0900	Recap and Agenda	
	0900-1015	URDF, Workcell XACRO	
	1015-1030	Break	
	1030-1200	TF, Build a MoveIt! Package	
	1200-1330	Lunch (Provided)	
	1330-1500	Motion Planning Using Rviz, C++	
	1500-1515	Break	
	1515-1700	Introduction to Descartes Path Planning and Perception	
	1720	Wrap-up	
Day 3 Lab	0815	Depart from the hotel	
	0835-0900	Recap and Agenda	
	0900-1030	Lab Introduction, Labs	
	1030-1045	Break	
	1045-1200	Work on Lab Applications	
	1200-1245	Lunch (Provided)	
	1245-1530	Work on Lab Applications	