

# Educational Services

Maximize Your Investment with Well-Trained Personnel



## EnTech Training Schedule 2019

APPLIED PRACTICAL LOOP TUNING COURSES	
COURSES	2019 SCHEDULES
<p><b>9032 – Applied Modern Loop Tuning</b></p> <p><i>9032 is a 3-day course intended for E &amp; I Technicians, Process Control engineers and Managers. The practical hands-on course introduces participants to control loop troubleshooting and controller tuning. Lambda tuning concepts are taught with a focus on minimizing process variability. The course content includes lectures, problem sets and hands-on lab simulation to test the students understanding of lecture material and controller tuning. Approximately 40% of the course is devoted to lab work, where control loops are evaluated and tuned using a dynamic simulation.</i></p> <p>Price: \$2300</p>	<p><b>Toronto:</b> Mar. 5-7 Sept. 10-12</p>
<p><b>9035 – Applied Modern Loop Tuning + Applied Advanced Regulatory Controls</b></p> <p><i>The 9035 is a combined ‘Applied Modern Loop Tuning + Applied Advanced Regulatory Controls’ 4-day course intended for E &amp; I Technicians, Process Control engineers and Managers. The practical hands-on course introduces participants to control loop troubleshooting, Lambda tuning concepts and advanced regulatory controls. Lambda tuning concepts are taught with a focus on minimizing process variability. The course content includes lectures, problem sets and hands-on lab simulation to test the students understanding of lecture material and controller tuning. Topics include Process Dynamics and identification, Lambda Tuning self-regulating, integrating, cascade and interactive process loops, PID Algorithms, Dynamic Feedforward, Ratio Control, Deadtime Compensation (Smith Predictor).</i></p> <p>Price: \$2800</p>	<p><b>Houston:</b> Apr. 1-4</p> <p><b>Toronto:</b> Oct. 21-24</p>

Courses held at Emerson’s offices in either Toronto, Ontario, Canada or Houston, Texas, USA.





## PROCESS CONTROL FOR ENGINEERS

COURSES	2019 SCHEDULES
<p><b>9030 – Process Dynamics, Control and Tuning Fundamentals</b></p> <p><i>A college level 4-day course that covers the control engineering theory and concepts integral to other EnTech application courses.</i></p> <p><i>9030 addresses the fundamental theory governing process dynamic behavior and its application to control system operation and tuning. Topics included: process dynamic models; PID controllers; controller tuning with an emphasis on Lambda tuning methods; frequency response; regulatory performance; level control; and tuning interactive loops. 9030 is a must for anyone who is responsible for process and control design, or for addressing process stability or optimization through process design, equipment performance, control strategy application, instrumentation performance and loop tuning.</i></p> <p>Price: \$2800</p>	<p><b>Toronto:</b> May 6-9</p> <p><b>Houston:</b> Nov. 4-7</p>
<p><b>9031 – Process Analysis and Minimizing Variability</b></p> <p><i>9031 is a 4-day course that covers the knowledge and techniques used to troubleshoot process and control system problems, improve process performance and reduce process variability. Time series analysis, including statistics, power spectrum and correlation functions, are presented as the tools for process and control loop auditing. Practical use of these auditing tools is demonstrated using case study examples. Discussions include the impact on process variability associated with: process design; control system performance; control strategy; controller tuning, and instrumentation.</i></p> <p>Price: \$2800</p>	<p><b>Toronto:</b> Jun. 3-6 Dec. 9-12</p>

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EnTech Registration, schedule and course information may be found on the Emerson website:  
<http://emrsn.co/65>

For more information about our global training offerings, please visit our Emerson website:  
[www.emerson.com/education](http://www.emerson.com/education)

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