

PTSE and NAPTA announce 2017 National Troubleshooting Competition for teams of Process Technology students

PTSE and the North American Process Technology Alliance (NAPTA) have announced the 2017 National Troubleshooting Competition for college Process Technology student teams.

This competition provides a forum for the students to showcase their troubleshooting skills at the team level. The troubleshooting problems are embedded in simulated industrial processes that could potentially be encountered on the job.



Process technology instructors can put together three-student teams and register for the competition between Feb.1-22, 2017.

All teams must take part in the Qualifying Round. This round, held online at each participating school, can take place at any date between March 8th-29th next year. A web-based Learning Management System will be used to deliver troubleshooting scenario-based questions.

The top teams from the competition qualifying round will participate in the National Competition on April 21-22, 2017 at Lone Star College Atascocita Center in Houston, Texas.

The North American Process Technology Alliance, or NAPTA (www.naptaonline.org), will take over the competition hosting duties from PTSE, as the NSF grant funding the competition has ended.

Eight top scoring teams from the Qualifying Round will advance to the National Finals Competition.

A team from South Central Louisiana Technical College took top honors during the 2016 competition.



Two Alaska teams, Kenai Peninsula College - Anchorage and Kenai Peninsula College - Kenai River, came in 2nd and 3rd, respectively.

Other competitors in 2016 included teams from Bellingham Technical College (Washington), ITI Technical College (Louisiana), Los Medanos College (California), Mississippi Gulf Coast Community College, and University of Alaska Community & Technical College.

More information will be posted on www.ptseonline.com and the NAPTA website, along with the PTSE Facebook page. Facebook page: PTSE - Process Troubleshooting Skills in Energy.

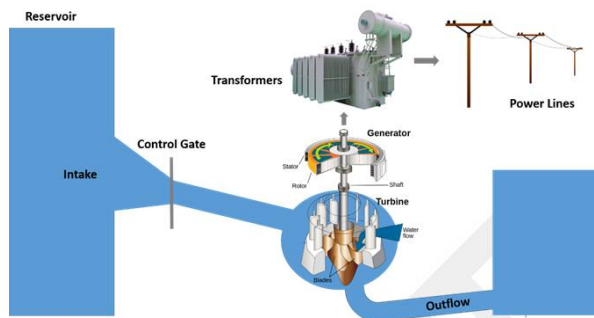
PTSE offers no-cost troubleshooting materials for instructors, trainers

The PTSE organization has developed a series of no-cost equipment and process-specific troubleshooting scenarios, along with basic troubleshooting methodologies and tools.

The materials were developed through an NSF grant "Developing Students' Troubleshooting Skills in Energy Programs", awarded to Lone Star College- Kingwood.

The applied scenarios are incorporated into modules as part of a set of instructional materials for use at in troubleshooting training and education-related programs. Industry trainers and energy program college instructors can customize the modules to meet instructional needs.

The modules include process descriptions, drawings (PFDs and P&IDs), troubleshooting steps, specifications, self-check questions, additional activities, and other content. Most modules include two or more troubleshooting activities, based on different possible scenarios that process technicians could encounter.



Hydropower Turbine graphic

"The PTSE consortium has worked diligently to create educational materials for use by college instructors and industry trainers, to help enhance troubleshooting skills," said Martha McKinley, PTSE Project Director

PROCESS VARIABLE	HV-101 Fails Closed	FIC-102V Fails Closed	FIC-104V Fails Open	LIC-102 Fails High
LIC-101	↓	↑	↔	↔
FIC-102	↓	↓	↔	↔
LIC-102	↓	↓	↔	↑
FIC-103	↓	↓	↔	↑
LIC-103	↓	↓	↑	↑
FIC-104	↓	↓	↑	↑

Tanks "What If" exercise

The open-source materials will be available for download from the PTSE website free of charge. Instructors and trainers can request a login to access the materials.

The materials include a Troubleshooting 101 guide and these equipment and process scenarios:

- 3-phase Separation
- Absorption/Stripping
- Adsorption
- Biodiesel Distillation
- Biodiesel Reaction
- Boilers
- Compressors
- Cooling Towers
- Decanters
- Distillation
- Ethanol Dehydration
- Ethanol Fermentation
- Furnaces
- Gas Dehydration
- Heat Exchangers
- Instrumentation
- Liquid Fuel Storage
- Product Flow
- Pumps 1/2
- Reactors
- Steam Systems
- Tanks
- Turbines
- Waste water systems

Visit www.ptseonline.com for details about the learning modules and to request a login

PTSE team presents at 2016 Instructor Skills Conference

The PTSE team conducted a workshop at the 2016 Instructor Skills Conference to help prepare college instructors and industry trainers in the usage of the process troubleshooting scenarios.



**Maribeth Stitt; Gayle Cannon,
& Martha McKinley**

Participants reviewed the instructor and student plans and completed an exercise to help familiarize them with the use of the module in preparation for their students. The conference is presented annually by the North American Process Technology Alliance (NAPTA).

Gayle Cannon, industry expert, Martha McKinley, Principal Investigator, and Maribeth Stitt, Lone Star College grant coordinator, held a Q & A session for the group. "The workshop was a huge success!" said McKinley.

A representative from PTSE's vendor partner, Systran, Inc., presented a session titled "Troubleshooting – Are You Ready to Compete?"

Attendees to this group discussion learned about the criteria and knowledge needed to compete in the National Troubleshooting Competition. Participants were given a troubleshooting problem, similar to ones student team members might see in competition, and worked in teams to find the solution.



Albert Garcia, Systran, facilitated the session.

PTSE thanks leadership team as NSF grant concludes

As the NSF grant "Developing Students' Troubleshooting Skills in Energy Programs" awarded to Lone Star College concludes, the PTSE team wants to thank the leadership team for their tremendous time, effort, and expertise and congratulate them for the highly successful results produced. The leadership team includes:

Martha McKinley, Project Director/Principal Investigator

Daniel Schmidt, Co-PI, Bismarck State College

Dr. Linda Luehrs Wolfe, Grant Manager, Dean of Science & Health Occupations, Lone Star College

Maribeth Stitt, Grant Manager; Dean, Business, Technology, Communications & Languages, Lone Star College

Tim Judge, Simulator Representative, Simtronics, Inc.

Mike Tucker, Industry Representative, Eastman Chemical

David Esquibel, Corporate Workforce Development, Shell Oil Company

David Hirsch, General Manager, Systran Inc.

Ann Burress, Learning Development Manager, Chevron Products Company

Dr. John Flynn and Dr. Linda Rehfuss, External Evaluators, IEC LLC.

Susanne Mathis, Senior Instructional Designer

John Dees, Web Developer and Communication Specialist, d3 consulting



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