



Thermoflow's Gas Turbine, Combined Cycle and Cogeneration System Workshop

Day 1	Content	Topic / Feature
	Comparing GTCC Configurations <ul style="list-style-type: none"> ➤ at the design point ➤ applying Annual Yield Simulation 	GT PRO / GT MASTER / PEACE <ul style="list-style-type: none"> ➤ TIME ➤ ELINK
	Gas Turbine <ul style="list-style-type: none"> ➤ Vendor Data Matching ➤ User-Defined GT GT Inlet Conditioning <ul style="list-style-type: none"> ➤ Inlet Cooling with Absorption Chillers and Storage GT Fuel Heating	Basics - Thermoflow's GT Database <ul style="list-style-type: none"> ➤ GT TUNING ➤ GT TEMPLATE Discussion of technologies. <ul style="list-style-type: none"> ➤ Sample storage operation in THERMOFLEX
	Discussion HRSG Design <ul style="list-style-type: none"> ➤ 1p-, 2p-, 3p ➤ Reheat Systems HRSG Optimization in GT PRO / GT MASTER <ul style="list-style-type: none"> ➤ Overall HRSG ➤ Convective Superheater at various operating points 	Basics of HRSG Design. GT PRO, GT MASTER: <ul style="list-style-type: none"> ➤ Multi-Design Point Feature ➤ Influence of steam turbine efficiencies and live steam parameters on "optimized" GT PRO model.
	Steam Turbine <ul style="list-style-type: none"> ➤ Group Design, Optimization of ST Group intake capacity for extraction steam turbines ➤ Exhaust End Design and Exhaust End Optimization. ➤ Controlled and uncontrolled ST extractions. ➤ Using Scripting to control ST extraction flows and ports Steam Turbine Vendor Data Matching	GT PRO, GT MASTER, THERMOFLEX <ul style="list-style-type: none"> ➤ Autom. Steam Turbine efficiency estimation in GT PRO, GT MASTER ➤ Manually adjusting ST Group design ➤ THERMOFLEX Steam Turbine Assembly, autom. ST Group efficiency estimation ➤ Scripting in GT PRO, GT MASTER and THERMOFLEX Real World Example using GT PRO, GT MASTER and THERMOFLEX

Day 2	Content	Topic / Feature
	Steam Turbine (continued)	
	Cooling Systems <ul style="list-style-type: none"> ➤ Optimization of cooling system capacity 	GT MASTER <ul style="list-style-type: none"> ➤ Cooling System Optimizer ➤ ELINK / TIME
	Cogen Plants <ul style="list-style-type: none"> ➤ Advanced District Heating System Controls ➤ District Cooling Systems with Storage / Storage sizing 	Hybrid Models <ul style="list-style-type: none"> ➤ Use LINKS to make hybrid models of GT PRO/GT MASTER and THERMOFLEX ➤ DH Controls using Scripting ➤ Control Loop ➤ Selected Logical Components ➤ 24h-Storage Model in THERMOFLEX
	Further Samples of Hybrid Models <ul style="list-style-type: none"> ➤ Integrated Solar System Combined Cycles (ISCC) ➤ Tri-Generation Plants ➤ Heat Storages 	Linking GT PRO/MASTER & THERMOFLEX <ul style="list-style-type: none"> ➤ Use LINKS to make hybrid models of GT PRO/GT MASTER and THERMOFLEX
	THERMOFLEX User-Defined Components <ul style="list-style-type: none"> ➤ Running external programs in THERMOFLEX. 	Introduction & Sample <ul style="list-style-type: none"> ➤ THERMOFLEX' User-Defined Component
	Further examples particularly relevant to course attendees	Topics will be requested from course attendees in prior to the event.