

**Real-Time Auditing, Validation & Predictive Fault Analysis
Solution Comparison**

Solution Methods & Requirements	Supplier/ Vendor	Cost per Sensor (Typical)	Automatic Implementation & Maintenance	User Friendliness	Process Knowledge Required	Combined Capability A=Validation B=Fault Analysis C=SPC
Customers' Ideal Solution	Universal	Free	Yes	High	Normal Operation	A, B, C
M&E Balance Quantitative Models	FALCONEER Technologies	<\$250	Yes	High	Normal Operation	A, B, C
PCA & Other Statistical Models	Business	>\$500	No	Low	Normal Operation	A, B
Neural Networks	Business	>\$500	No	Low	Abnormal Operation	A, B
Expert Systems	Business	\$1K	No	Medium/High	Abnormal Operation	A, B, C
Smart Sensors	Business	>\$5K	No	High	N.A.	A, B
Redundant Sensors	Any Sensor Vendor	\$5K - \$10K	No	High	N.A.	A, B
Academic Methods	Universities	<\$1K	No	Medium	Abnormal Operation	B
In-House	Business	???	No	???	In-House	A, B, C