

## **Part IV**

# **Control Charts**

This Part contains two chapters dealing with the monitoring of processes. In Chapter 9, the most important tool in statistical process control is explained: control charts. Several types of control charts are shown in order to detect if a process is out of control. By controlling the stability of the process, we may anticipate future problems before products/services are received by the customer. It is also a powerful improvement tool, as the investigation of special causes of variation may result on better procedures to avoid the root cause of the out-of-control situation. Chapter 10 presents a methodology to monitor processes where a nonlinear function characterizes the quality characteristic. Thus, confidence bands are computed for the so-called nonlinear profiles, allowing the monitoring of processes under a similar methodology to the control charts approach.