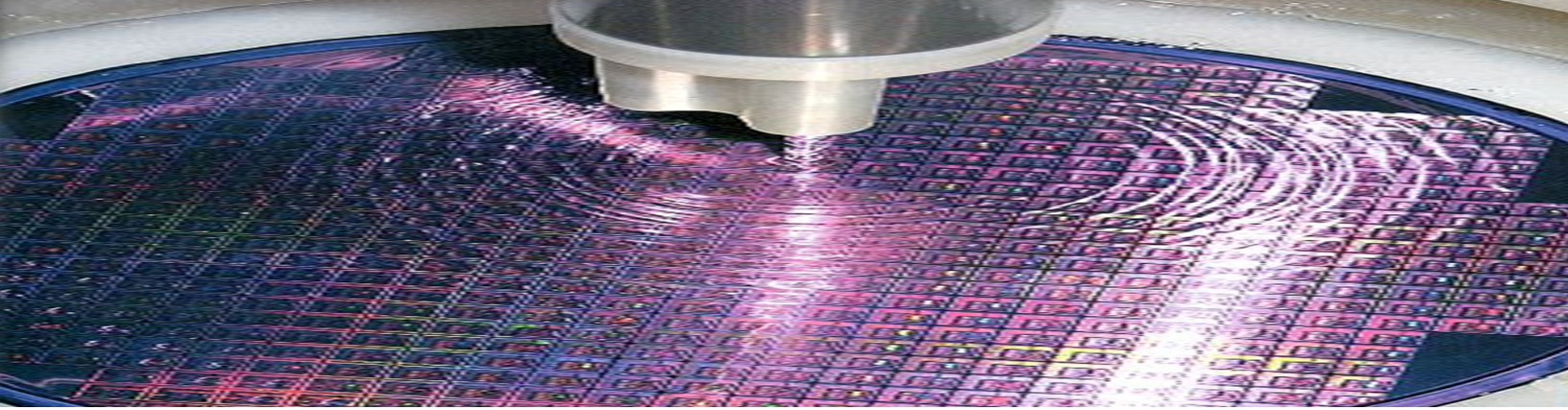


HONEYWELL DATA SCIENCE & ANALYTICS SOLUTIONS CREATE PREDICTIVE MODEL FOR COST-SAVINGS INSIGHTS

“By thinking outside the box and digitizing data from an antiquated paper-chart machine, a highly predictive model was created for more accurate control parameter recommendations.”



Case Study



A leading supplier of viscous liquid used by the semiconductor industry was producing material that didn't meet the strict film thickness quality standards required by its external customer. As a result, much of its yield was rejected, which translated to a potential \$20M/year loss.

The Needs

The client had applied multiple statistical control measures in attempt to identify and resolve the problem but achieved limited success. As a result, they needed a robust model that would recommend optimal operational parameters for greater end-customer acceptance.

The Solution

The Honeywell Data Science & Analytics team collected and narrowed down specific data elements supplied by the client and put them through a linear discrimination analysis. The resulting model initially achieved an 80% accuracy rate.

In order to improve on those results, a more creative approach was required. The team turned their attention to a series of paper charts produced by an antiquated machine in the production facility. They identified two additional key elements, digitized the data and ran it through the model which gave them the 95% accuracy rate required to adequately solve the problem.

By digging deeper to ensure all the right data elements were included, this highly reliable model enabled accurate and actionable insights and recommendations for more efficient film production.

The Benefits

- New process controls
- Significant reduction in client's manufacturing variability
- Improved materials acceptance rate
- **An annual cost savings of up to \$20M**

For more information

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