

Sensor Networks Program



Vision

Develop technology to enable self organising, survivable, low cost arrays of wireless sensor networks

The Opportunity

The wireless sensor market is expected to grow to in excess of USD\$39Billion (Approx AUS\$60 Billion) by 2010*. The Sensor Networks Program will develop intellectual property that enables Australian industry to participate in this market.

Research

Antenna Technologies

- Efficient Miniature Patch Antennas
- Frequency and Polarisation Diversity Antennas

Signal Processing

- Signal Processing for Improved Range and Performance in Interference Constrained Environments
- Low Power, High GPS Performance in Low Signal Strength Environments
- Technologies to Improved Performance due to Power and Manufacturing Process Limitations (transceiver with low IP3 and P1dB levels)

Protocols and Medium Access Control

- Adaptive Routing Protocols
- Self Organising and Fault Tolerant Networks

Fundamental Technologies

- Low Data Rate Estimation and Control
- Sensor Scheduling
- Distributed Tracking and Localisation

* ON WORLD INC JUNE 2004