

What is claimed is:

1. A speech recognition circuit comprising:
 - one or more clusters of processors, each said cluster comprising:
 - one or more processors; and
 - an acoustic model memory storing acoustic model data;
 - wherein each said processor is configured to compute a probability using the said acoustic model data in said acoustic model memory;
2. The speech recognition circuit of claim 1 where said probability is an input to an evaluation of a state transition of a model of states.
3. The speech recognition circuit of claim 2 where said model is a Hidden Markov Model.
4. The speech recognition circuit of claim 2 where said probability is computed from a Gaussian mixture model and one or more feature vectors.
5. The speech recognition circuit of claim 1 where the circuit further comprising:
 - a buffer for storing one or more feature vectors coupled to said processors.
6. The speech recognition circuit of claim 5 further comprising:
 - a search controller coupled to said processors and capable of controlling said processors to initiate speech recognition processing in all said processors or in a subset of said processors.
7. The speech recognition circuit of claim 1 wherein the said acoustic model memory in each said cluster of processors is a distinct and separate memory from the said acoustic model memory in each other ones of said clusters of processors.
8. The speech recognition circuit of claim 1 where said acoustic model memory is coupled to all of said processors in all of said clusters of processors.