**Worksheet Open ‘Lec08 student copy’** (use with set text, Negnevitsky 3rd ed. 200)

* We will visit the Competitive algorithm again in Case Study 06 where it will be used in a comparison with the back propagation algorithm in classifying a standard data set of Iris data. Find out what is special about the **Iris data set**, leave the rest. Read the material if you are interested but we will hardly make any reference to it.
* **Slide 12 Initial and final states of the Hebbian network:** Explain how the network forgot.

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* **Exam question 08-1:** Explain Hebb’s law and how you might implement it.

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* **MATLAB:** Hebbian\_learning

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* **Exam question 08-2:** MATLAB Explain the result of the probe (test vector).
* **Slide 15: Competitive learning** The algorithm in MATLAB ‘Competitive’ will be used again in
* **MATLAB:** Competitive – you’ll use this later, you don’t need to run it now.
* **Exam question 08-3:** MATLABHow successful was the competitive net in the example?
* **Slide 22: The Mexican hat function of lateral connection:** Why is the Mexican hat function is central to the Kohonen network? Explain it to your neighbour.

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* **Exam question 08-4:** In what way does the Kohonen model provide a topological mapping?
* **MATLAB:** Kohonen

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* **Exam question 08-5:** MATLAB What do the results of the test probes signify?
* **Demo task** None
* **Wiki** None