AI Discussions - MME Seminar

Introduction to Deep Neural Networks
Prof. Florin Bobaru

Thursdays, Kiewit Hall A253 at 3:30 PM

Goals: develop a fundamental understanding of Deep Neural Networks (DNNs) as curve-fitting surrogate models.

- **Part 1**: AI and Artificial Neural Networks: the Good, the Bad, and the Ugly; Linear and Nonlinear Least Squares. (Sept. 4th)

- **Part 2**: An artificial Neural Network example. (Sept. 11th)

- **Part 3**: The Stochastic Gradient Descent (SGD) method. (Sept. 18th)

- **Part 4**: Backpropagation and the training of a DNN. (Sept. 25th)

- **Part 5**: Convolutional Neural Networks. Example. (Oct. 2nd)

Further reading: see MECH 888 Nonlinear Optimization in Engineering (Spring 2026)

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