EEL5840: Elements of Machine Intelligence

Today’s Handouts in www:
- Outline Class 7
- Lisp Notes 1
- Tentative First Exam Date
  - Thursday 10/08/15

Web Site
- www.mil.ufl.edu/eel5840
- Software and Notes
- XLISP Documentation

Today’s Menu

- LISP
  - More on User-Defined Functions
    - DEFUN
    - COND
    - FUNCTION-LAMBDA-EXPRESSION
  - LISP Chapter 4 Predicates and Conditionals
  - LISP Chapter 5 Procedure Abstraction & Recursion
Primitive Functions: 
car or first, cdr or rest, cons, null, cond, atom, symbolp
numberp

Predicate Functions: 
(integerp sex) t if sex is an integer
(floatp sex) t if sex is a floating point number
(and sex1 sex2) t if sex1 and sex2 are both true
(or sex1 sex2) t if sex1 or sex2 or both are true
(not pred) nil if pred=\texttt{t} or non-nil, t if pred=\texttt{nil}

User-Defined Functions: 
\( \text{cond} \ <\text{(clause}_1\text{)}>\ldots<\text{(clause}_n\text{)}> \) returns the evaluated action from the 1st non-nil predicate or nil where (clause_i) \( \Rightarrow \) (predicate-form action-form)

\( \text{defun} \ \text{name} \ \text{(argument-list)} \ <\text{(forms)}> \)

\( \text{pprint} \ \text{(function-lambda-expression \#name)}>\)

Recursive Function Definitions

See LISP Notes 1

The End!