Lab #7: Standard Library Functions
(Due at the end of the lab period or beginning of the next)

Objective: Learn more about the functions from the standard libraries. There are a great many standard functions that are included with C compilers. These functions are designed to carry out various common and repeatedly performed tasks by the C programmers. Having a good understanding about these functions and properly utilizing them can greatly reduce the coding time for large and complex programs.

Works to do:

1. Go to the web page: http://www.cplusplus.com/reference/clibrary/. Click on various C library and study the functions, including what are their purposes, type of their return values, the parameter lists, examples of uses, etc. In particular, review the functions in the following headers: <ctype.h>, <math.h>, stdio.h>, <stdlib.h>, <string.h> and <time.h>.

2. In a simple way, define your own versions of the flowing functions. Test your functions by writing a main(). (Call the program Lab7.c)

   ```
   int AtoI ( const char * str );
   int StrCmp ( const char * str1, const char * str2 );
   char * StrCpy ( char * destination, const char * source );
   char * StrCat ( char * destination, const char * source );
   char * StrChr ( char * str, int character );
   ```

EVALUATION:
You need to show your instructor the complete programs at the end of this lab, or at the beginning of your next lab. The marks you will receive for this lab are made of two parts: Lab work marks 8 and **attendance marks 2**. **Total 10 marks**.

Lab Work Mark: You will be evaluated based on your solutions for the problems based on the following scheme:

0 mark = No work done.
2 mark = Incomplete code / does not compile, with no/invalid documentation
4 marks = Complete running program with no/invalid documentation
6 marks = Incomplete code / does not compile, with proper documentation
8 marks = Complete running program with proper documentation

IMPORTANT:
ASK QUESTIONS IF YOU GET STUCK, BUT DO YOUR OWN CODE. ANY CODE SUSPECTED TO BE SIMILAR TO ANOTHER SUBMISSION WILL CAUSE BOTH SUBMISSIONS TO RECEIVE A ZERO MARK ON ALL LABS AND BE REPORTED FOR PLAGIARISM