**The SCL Language**

SCL is an experimental system programming language that can be used as: <http://ksuweb.kennesaw.edu/~jgarrido/sysplm/>

* A higher-level language for general applications
* A system programming language for low-level programming. It will typically be used for programming micro-controllers (embedded systems), IoT, and various applications involving such hardware systems as the ones that use Arduino and SiliconLabs.
* A language for high performance computing (HPC).

The SCL language is described in a preliminary informal form, and a language processor (a translator or high-end compiler) has been implemented that translates an SCL program to C code. Thus, the language processor generates C code from SCL code.

The project consists of the following task:

* Investigate various system programming languages
* Investigate various languages for HPC
* Read the paper (ACMSE 2017 Conference) and the other PDF documents on SCL
* Use the formal specification of the SCL language using BNF and EBNF provided.
* Develop several (three or more) SCL programs.
* Evaluate the SCL language using the programs developed.
* You may use the Bison and Lex tools to verify and extend the SCL language grammar
* Write a report documenting all work done by the team.

*Several documents and papers on SCL are included.* *Jose Garrido*