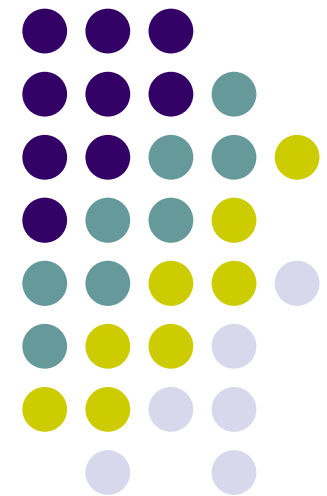


SCM

Sistemas de Comunicação Móvel

PL3. Introduction to 1st Graded Assignment



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Goals



To explore NodeMCU's WiFi libraries

- Client/Server communications

Delivery date:

- October 3rd, 2021 (EOB for report, on inforEstudante)

Documentation – WiFi library:

- <https://arduino-esp8266.readthedocs.io/en/latest/esp8266wifi/readme.html>

Assignment description

Phase 1



- Using two Arduinos, and starting from the examples available on the Arduino IDE:
 - *Create a server on the port 25 of the first Arduino. Everything that arrives at this server should be sent to the console.*
 - *Create a client on the second Arduino and have it connected to the first. Everything written in the console should be sent to the server.*

Assignment description

Phase 2



- Based on the previous phase:
 - *Adjust the code so that it becomes possible to turn on/off the LED of each Arduino using the console of the other Arduino.*
 - *Adjust the code so that it becomes possible to know which 802.11 variant (802.11b/g/n) and which channel are being used for the Wi-Fi communication (display that info on the serial console)*
 - *Adjust the code so that it becomes possible to know the RSSI of the used SSID*

Assignment description

Delivery format:



- Short PDF report, including:
 - *Student name and number*
 - *Optionally, any remarks and comments you may want to provide (e.g., implementation options, found issues, devised solutions, etc.)*
 - *Printed source code (please properly comment your source code, so it becomes easy to understand it)*
- *Live demo to be provided on the October 3rd class*