

Wireless Sensor Networks (CSD337) Lab 1

Instructions

For this lab, you will install NS2 and learn basics of network simulation.

Submission

- No submission required.

Grading Criteria

- This assignment carries 0 points; however, you should complete it during the lab hours.

Installation

1. Download & install some packages, if needed (optional):
 \$ sudo apt-get update
 \$ sudo apt-get install build-essential autoconf automake libxmu-dev
2. For downloading NS2 version 2.35, follow the link:
 <http://sourceforge.net/projects/nsnam/>
 \$ tar -zxvf ns-allinone-2.35.tar.gz
 \$ cd ns-allinone-2.35
 \$./install
3. Set environment variables
 \$ gedit ~/.bashrc

Add the following lines to the end of the file. Replace /home by the folder where you have stored ns2 file. Check the versions of otcl, tcl, tk, before copying the lines.

```
#LD_LIBRARY_PATH
OTCL_LIB=/home/ns-allinone-2.35/otcl-1.14
NS2_LIB=/home/ns-allinone-2.35/lib
USR_LOCAL_LIB=/usr/local/lib
export LD_LIBRARY_PATH=$LD_LIBRARY_PATH:$OTCL_LIB:$NS2_LIB:$USR_LOCAL_LIB
#TCL_LIBRARY
TCL_LIB=/home/ns-allinone-2.35/tcl8.5.10/library
USR_LIB=/usr/lib
export TCL_LIBRARY=$TCL_LIB:$USR_LIB
#PATH
XGRAPH=/home/ns-allinone-2.35/bin:/home/ns-allinone-2.35/tcl8.5.10/unix:/home/ns-allinone-2.35/tk8.5.10/unix
NS=/home/ns-allinone-2.35/ns-2.35/
NAM=/home/ns-allinone-2.35/nam-1.15/
export PATH=$PATH:$XGRAPH:$NS:$NAM
```

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4. Ensure that it immediately takes effect:
\$ source ~/.bashrc
5. Test the installation by:
\$ cd ns-2.35
\$./validate
6. Type ns in the terminal, % should be displayed.

Tutorials

- <http://www.isi.edu/nsnam/ns/tutorial/index.html> [III, IV,V,VI]