

## ASSIGNMENT #3

NES 470, Spring 2023, Dr. Ahmad T. Al-Hammouri

### Objectives:

To explore and to acquire a hands-on experience with the errors generated in SNMPv2.

### Problem Statement:

In this assignment, you will need to send well-crafted SNMP request messages to a SNMP agent to elicit specific error response messages from the agent.

In particular, you need to send the appropriate SNMP requests (get, get\_next, get\_bulk or set) to have the agent respond with each of the following error scenarios:

Response Message Number	Error Scenario
1	The <b>value field</b> of the variable binding is set to noSuchInstance
2	The <b>value field</b> of the variable binding is set to endOfMibView
3	The <b>error-status</b> field is set to wrongType, and the <b>error-index</b> field is set to <b>7</b> (see hint #2 below)
4	The <b>error-status</b> field is set to wrongLength, and the <b>error-index</b> field is set to <b>5</b>
5	The <b>error-status</b> field is set to wrongValue, and the <b>error-index</b> field is set to <b>9</b>

### Hints:

1. Your best friend for this assignment is going to be RFC 3416 (Version 2 of the Protocol Operations for the Simple Network Management Protocol (SNMP)) accessed via the URL <https://tools.ietf.org/html/rfc3416>. You need to consult it, and to heavily make use of it.
2. To prevent the EasySNMP from performing local validation on outgoing messages and to force it to send messages 'as-is', **un-comment** the line starting with '**mibs :**' in the file '/etc/snmp/snmp.conf'. **Then, by doing so, you must use NUMERICAL OIDs; not textual OIDs.**