ONR Pre Survey Winter 2016 – EE 360

Do not write your name anywhere on this survey.

May we use your responses on this survey (with no name attribution) for evaluation of the effectiveness of educational techniques?
Circle one: YES  NO
(Only circle “yes” if you signed the informed consent document; the redundancy is just to help us keep track.)

Demographics
1. What is your age? ______

2. What is your gender? Circle one:
   Female / Male / Prefer not to answer / Other (please specify)

3. What is your field of study? (e.g. electrical engineering)

4. Approximately how many prior signals courses have you completed?

5. Approximately how many prior college mathematics courses have you completed? ______

Motivation & Interest
Please rate your level of agreement with each of the following statements by circling a choice.

6. I am interested in theoretical mathematics of signals and radios.
   Strongly Disagree / Disagree / Neither Agree nor Disagree / Agree / Strongly Agree

7. I am interested in design of systems that use signals and radios.
   Strongly Disagree / Disagree / Neither Agree nor Disagree / Agree / Strongly Agree

8. I am interested in construction of systems that use signals and radios.
   Strongly Disagree / Disagree / Neither Agree nor Disagree / Agree / Strongly Agree

9. I am interested in testing and validation of systems that use signals and radios.
   Strongly Disagree / Disagree / Neither Agree nor Disagree / Agree / Strongly Agree

10. I am interested in doing outside reading on signals and radios.
    Strongly Disagree / Disagree / Neither Agree nor Disagree / Agree / Strongly Agree

Perceptions of Signals and Radios
Choose one number between each adjective pair to indicate how you feel about the object:

11. To me, signal processing theory and communication theory are:
    Boring 1 2 3 4 5 Interesting

12. To me, signal processing hardware and communication hardware are:
    Boring 1 2 3 4 5 Interesting

13. To me, signal processing theory and communication theory:
    Means nothing 1 2 3 4 5 Means a lot

14. To me, signal processing hardware and communication hardware:
    Means nothing 1 2 3 4 5 Means a lot
Abilities
Please rate your level of agreement with each of the following statements by circling a choice.

15. I can explain or describe the mathematics behind signals and radios.
   Strongly Disagree / Disagree / Neither Agree nor Disagree / Agree / Strongly Agree

16. I can perform mathematical manipulations related to signals and radios. Circle one:
   Strongly Disagree / Disagree / Neither Agree nor Disagree / Agree / Strongly Agree

17. I can design a system that incorporates signals and radios.
   Strongly Disagree / Disagree / Neither Agree nor Disagree / Agree / Strongly Agree

18. I can build and test a system that incorporates signals and radios.
   Strongly Disagree / Disagree / Neither Agree nor Disagree / Agree / Strongly Agree

19. I can write MATLAB code that executes correctly.
   Strongly Disagree / Disagree / Neither Agree nor Disagree / Agree / Strongly Agree

20. I can write MATLAB code that is compact and computationally efficient.
   Strongly Disagree / Disagree / Neither Agree nor Disagree / Agree / Strongly Agree

21. I would feel comfortable talking to an engineer about signals and radios.
   Strongly Disagree / Disagree / Neither Agree nor Disagree / Agree / Strongly Agree

22. I would feel comfortable teaching someone else about signals and radios.
   Strongly Disagree / Disagree / Neither Agree nor Disagree / Agree / Strongly Agree

23. Rate your degree of ability to work independently to perform the following tasks by recording a number from 0 to 100. (0 = low; 50 = moderate; 100 = high)

   Conduct engineering design  ____
   Identify a need  ____
   Research a design need  ____
   Develop design solutions  ____
   Select the best possible design  ____
   Construct a prototype  ____
   Evaluate and test a design  ____
   Communicate a design  ____
   Redesign  ____