EET 4710 (2)

DIGITAL CONTROL SYSTEMS DESIGN

Semester/year

Specific, Measurable Student Behavioral Learning Objectives:

Upon completion of this course the student should be able to:

1. Analyze both classical and modem digital control systems.
   a. Develop competency in the use of the z-transform as an analysis tool
   b. Determine stability of systems through a wide variety of techniques
2. Develop methods for stable design of digital control systems
   a. Use a variety of discrete mathematical techniques for digital control system design
   b. Develop an understanding of the applications of digital control systems
3. Design a variety digital control systems
   a. Lag, Lead, and lag-lead compensation
   b. Pole-placement technique
   c. State variable feedback control systems
   d. State observers control systems
   e. Fuzzy logic control systems.

ABET	Competency Area	Data Collection
b	an ability to select and apply a knowledge of mathematics, science, engineering, and technology to engineering technology problems that require the application of principles and applied procedures or methodologies	

ADDITIONAL COMMENTS:

PLEASE:
1. MAKE SURE ALL REFERENCES ARE IN Y DRIVE;
2. SAVE THIS FILE UNDER THE COURSE NUMBER, FOR EXAMPLE: CET1000 SPRING 2018.DOC;
3. SEND YOUR REPORT TO LINDA;

_____   _____
<Name>   <Date>

Following tables define the Performance Indicators for each of the Student Outcomes a through k

ABET b: an ability to select and apply a knowledge of mathematics, science, engineering, and technology to engineering technology problems that require the application of principles and applied procedures or methodologies				
	Unsatisfactory	Developing	Satisfactory	Exemplary
Use science, math, and engineering concepts to conduct qualitative analysis	Unaware of needs for qualitative analysis	Working on the knowledge and skills for qualitative analysis	Proper analysis with 70% partial solution or better	Proficient in using selected tools for qualitative analysis
Use science, math, and engineering concepts to conduct quantitative analysis	Unable to identify tool for the needed quantitative analysis	Working on the knowledge and skills for quantitative analysis	Proper analysis with 70% partial solution or better	Proficient in using selected tools for quantitative analysis
Develop designs of products, systems, or processes that respond to authentic needs	Unaware of or not understanding the needs	Knowledge or skill set not enough for solving the engineering technology problem	70% partial solution or better	Proper solutions obtained