# **Elmore Family School of Electrical** and Computer Engineering

Engineering Faculty Document No. EFD 91-24 February 29, 2024

#### Memorandum

To: The College of Engineering Faculty

From: The Elmore Family School of Electrical and Computer Engineering

Re: revision to the Computer Systems Concentration for BSCmpE

The faculty of the Elmore Family School of Electrical and Computer Engineering has approved the following revisions of the Computer Systems Concentration for BSCmpE from the College of Engineering. This action is now submitted to the Engineering Faculty with a recommendation for approval.

#### FROM:

### Electives (9 credits)

VIP (Vertically Integrated Projects) and ECE 49600 Undergraduate Projects may be taken for a maximum of 3 credits toward the concentration upon approval of the Associate Head of Undergraduate Programs or Associate Head of Teaching and Learning.

ECE 33700 - ASIC Design Laboratory and

ECE 43700 Computer Design and Prototyping

ECE 40862 - Software for Embedded Systems or

ECE 56800 - Embedded Systems

ECE 46300 - Introduction to Compilers and Translation Engineering or ECE 50863 – Computer Network Systems

ECE 46800 – Introduction to Compilers and Translation Engineering or ECE 57300 – Compilers and Translator Writing Systems

ECE 40400 – Introduction to Computer Security

ECE 46900 – Operating Systems Engineering

ECE 49600 – Electrical and Computer Engineering Projects

ECE 51220 – Applied Algorithms

VIP 37920 - Junior Participation In Vertically Integrated Projects (VIP)

VIP 47920 - Senior Participation In Vertically Integrated Projects (VIP)

Office: 765-494-3390

#### TO:

# **Electives (9 credits)**

ECE 33700 - ASIC Design Laboratory and

ECE 43700 Computer Design and Prototyping

ECE 40862 - Software for Embedded Systems or

ECE 56800 - Embedded Systems

ECE 46300 – Introduction to Compilers and Translation Engineering or ECE 50863 Computer Network Systems

ECE 46800 – Introduction to Compilers and Translation Engineering or

57300 – Compilers and Translator Writing Systems

ECE 40400 – Introduction to Computer Security

ECE 46900 – Operating Systems Engineering

VIP (Vertically Integrated Projects) and ECE 49600 Undergraduate Projects may be taken for a maximum of 3 credits toward the concentration upon approval of the Associate Head of Undergraduate Programs or Associate Head of Teaching and Learning.

ECE 49600 - Electrical And Computer Engineering Projects

VIP 37920 - Junior Participation In Vertically Integrated Projects (VIP)

VIP 47920 - Senior Participation In Vertically Integrated Projects (VIP)

**Reason**: Just updating the VIP/Research verbiage to match the other concentrations.

Mithuna Thottethodi

Associate Head of Teaching and Learning

Professor of Electrical and Computer Engineering

# **Computer Systems Concentration for Computer Engineering**

The Computer Systems Concentration gives students an opportunity to specialize in classes that cover the foundations of computer systems: how do the hardware and software systems that applications run on work. These courses cover topics such as networking, computer hardware, compilers, and operating systems.

# Electives (9 credits):

Must complete a minimum of 9 credits from the Elective courses below. VIP (Vertically Integrated Projects) and ECE 49600 Undergraduate Projects may be taken for a maximum of 3 credits toward the concentration upon approval of the Associate Head of Undergraduate Programs or Associate Head of Teaching and Learning.

ECE 33700: ASIC Design Lab [2 credits] AND

ECE 43700: Computer Design and Prototyping [4 credits]

ECE 40862: Software for Embedded Systems [3 credits] OR

ECE 56800 Embedded Systems [3 credits]

ECE 46300: Introduction to Computer Communication Networks [3 credits] OR

ECE 50863 Computer Network Systems [3 credits]

ECE 46800: Introduction to Compilers and Translation Engineering [4 credits] OR

ECE 57300: Compilers and Translator Writing Systems [3 credits]

ECE 40400: Introduction to Computer Security [3 credits]

ECE 46900: Operating Systems Engineering [4 credits]

With Approval of the Associate Head of Undergraduate Programs or Associate Head of Teaching and Learning, can include up to 3 hours of:

- •VIP 37920 [2 credits]
- •VIP 47920 [2 credits]
- •ECE 49600 [1-3 credits]

1010 200

The Control of the Co