ECE 523 Term Paper Requirements

## Objectives

The term paper is devoted to a topic of current interest in semiconductor devices, aiming to provide a comprehensive exposition of the subject so that a reader with an electrical engineering background can be acquainted with the technical aspects of the area by reading the article and will have the resources to embark on an in-depth exploration of the topic.

## Organization

The paper should have an abstract that concisely summarizes the contents. Beginning with an introduction, the background and historical development in the field are described. This section serves to place the activities in the field in the perspective of current technology. The main body of the paper should provide a technical exposition of the scientific principles central to the topic, theoretical and practical advancements in the field, and an account of the current research efforts as well as their potential applications. The last section of the paper should be devoted to a summary that brings together the major findings and their relation with each other, the current challenges in the field, and the outlook for the future. Following the summary, a discussion on the ethical aspects in applications of the technology of semiconductor devices and integrated circuits should be included, with attention given to their impact on society and the daily life of humankind, along with the role of the supply chain of semiconductor devices in the global economy. A list of around ten references should be included with full citation of sources, titles, and authors.

## Format

The paper should adhere to the two-column style as seen in IEEE journals. Information on the format can be found at

<https://eds.ieee.org/images/files/Publications/JMEMS_Editors/2columnformatguide.pdf>

In printed form, the paper should be at least 5 pages but no more than 8 pages in length.

Figures need to be numbered and each have a caption. If a figure is taken from a published article, the source should be acknowledged in the caption.

## Originality

While the paper is a literature digest, you must write in your own words. No plagiarism will be allowed.