Good Afternoon,
You are invited to attend our weekly ECE Graduate Seminar.

Old Dominion University
College of Engineering and Technology
Department of Electrical and Computer Engineering

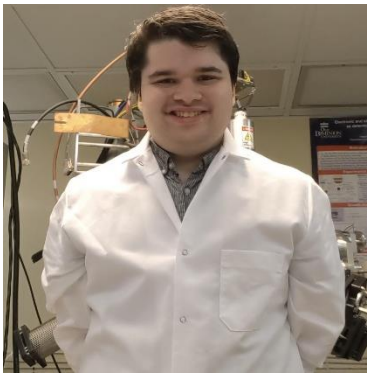
All lectures to be held at 3:00pm on Fridays online at
https://vs.prod.odu.edu/kvs/interface_webex/?cid=202020_ECE731ECE831VS_94044
For more information, contact Dr. Chung Hao Chen at (757) 683-3475 or email cxchen@odu.edu.

Friday, March 12, 2021 Seminar Topic:

RECRYSTALLIZATION OF THIN FILM SEMICONDUCTORS WITH METAL HALIDES by Ben Belfore,
PHD Candidate in the Department of Electrical & Computer Engineering at Old Dominion University

Abstract:

Improving the economic viability of non-Si based photovoltaics can be achieved by increasing thin film deposition times and lowering the deposition temperature, which in turn lowers manufacturing costs. This can however have a negative impact on device performance. Annealing with metal halides has been shown to improve the quality of thin film technologies like CdTe. By finding an analogue with another common thin film photovoltaic material, CIGS, its economic viability can also be enhanced. Experiments done with a new metal halide will be described and the results analyzed.



Bio:

Benjamin Belfore is a Ph.D. candidate in the ECE department at ODU. After graduating with a bachelor's degree in Chemical Engineering from Virginia Tech, he has worked in ECE's clean room on various projects with the Department of Energy, NASA, and the Jefferson Laboratory. His area of interest is in thin film semiconductors applied to optoelectronic devices. In particular, he has studied the recrystallization of copper indium gallium diselenide (CIGS) via metal halide fluxing agents. By using metal halides to improve semiconductor quality, he hopes to improve the economic viability of thin film CIGS photovoltaics.