



COLLEGE OF
ENGINEERING, ARCHITECTURE
AND TECHNOLOGY

CEAT HIGHLIGHTS

August 2020

Announcements

Community Advancing Conversations: Campus leaders promote proactive efforts, inclusive mindset



Announcements



YOU ARE INVITED TO A FREE
YOUTUBE SEMINAR
TUESDAY, SEPTEMBER 22, 2020 16:00 GMT



James Stine / **Designing new 130nm cells for SkyWater 130nm**

Existing design flows and tools require excessive design costs to achieve the power, area, and performance requirements of complex system-on-chip (SoC) solutions. Consequently, the semiconductor industry needs high-level synthesis tools that provide the ability to quickly

develop and accurately evaluate complex SoC solutions. These tools should provide accurate area, delay, and power estimates from high-level SoC architecture descriptions. They should also provide support for a wide variety of components including embedded memories, mixed-signal designs, custom and standard cell circuits, high-performance/low-power processors, and communication structures, such as buses and on-chip networks. In addition to being well documented, easy to use, and publicly available, the design flows should work in conjunction with industry-standard design tools.

This project will provide publicly-available high-level synthesis tools for complex SoC solutions for the SkyWater 130nm. The tools improve productivity by allowing SoC designers to quickly develop and evaluate high-performance, low-power systems. They also provide an improved understanding of area, performance, and power tradeoffs in SoC designs. The instructional materials and sample SoC architectures provided are useful for engineers, educators, and students, who are new to the area of SoC design, as well. Most importantly, the tools are designed to be free and open-source software (FOSS) and integrate with tools from eFabless as well as other open-source endeavors.

Academics

Inside OSU with Burns Hargis: EXCELSIOR



Inside OSU Podcast



OSU CEAT NACME Award



2020 Allen Scholars Announced



James Boudreaux



Kaylee Rolph

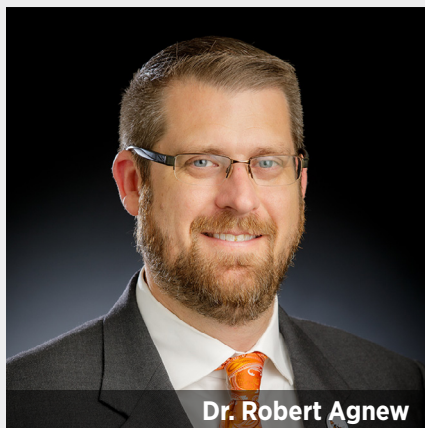


Rae-anne Williamson

Academics



Dr. Virginia Charter

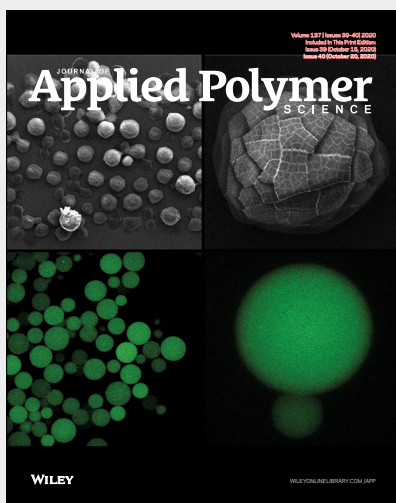
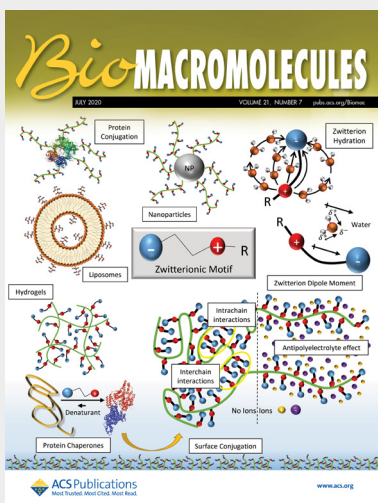


Dr. Robert Agnew

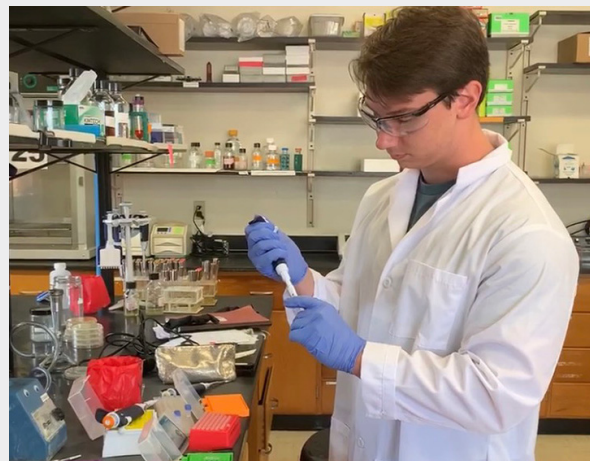
FPST Faculty Appointed to Endowed Professorships

Research

Two Chemical Engineering Papers Published on Front Page of Peer-Reviewed Journals



OSU I-Corps teams receive grants of \$200,000 from National Science Foundation



Building a better tornado warning system when minutes count

