

University of Idaho's Integrated Design Lab (IDL)

DAMON WOODS, B.S., M.S., & Ph.D Mechanical Engineering

Director, Integrated Design Lab

Assistant Professor, College of Art and Architecture

University of Idaho, Boise Campus

Podcast Companion Document



DAMON WOODS

Dr. Woods is a licensed mechanical engineer who started working at the IDL as a graduate student back in 2013. His dissertation used energy models paired with weather forecasts to predict how a radiant slab should be managed to maximize occupant comfort. His current research focus is on the integration of surface temperatures into building energy management systems. Dr. Woods has taught courses in advanced thermodynamics and energy modeling. In the office, he spends his time working on energy models and estimating savings from energy upgrades; out of the office he is usually fly fishing or gardening. Dr. Woods earned his B.S. from Montana State University, his M.S. from Boise State University and his Ph.D. from the University of Idaho.

BACKGROUND

During his time at Boise State, while completing grad school, Damon developed a passion for energy efficiency. He initially focused on aerospace engineering and renewables, and eventually shifted his focus to wind and hydrokinetic energy. The realization that buildings use such a high percentage of our country's overall energy use brought him to Idaho's Integrated Design Lab where his research earned him the title of director in 2021.

This podcast examines the energy used by individual building systems and provides efficient alternatives based on energy modeling and outlines the importance of selecting components that balance energy and comfort.

WHERE TO LEARN MORE

To learn more about what was discussed in this episode of the Building HEROes Podcast, please use these additional resources.

- [Integrated Design Lab - Boise](#)
- [Integrated Design + Construction Lab - Pullman](#)
- [Linkedin - Damon Woods](#)
- [ASHRAE Standards](#)

IMPORTANT TIMESTAMPS

0m59s: Introductions and guest speaker background

9m02s: Introduction of Boise Integrated Construction Lab

14m17s: Breakdown of Idaho's residential energy goals

25m22s: How Boise IDL helps schools to achieve affordable energy efficiency

32m40s: How energy audits help promote sustainability

38m42s: 3D printing structures using bio based materials

44m09s: Closing Comments from Damon Woods

