SMART BUILDING TECHNOLOGY MODULES
for Academic and Professional Education

SUMMARY OF THE PROJECT

DEVELOP AND VALIDATE a set of module-based course materials ready to be adopted by college professors in smart building technologies.

GO HERE: https://www.sbse.org/courses/Smart-Building-Technologies

DEVELOP 16 online training videos suitable for building professionals' continuing education.

GO HERE: https://www.wbdg.org/ce/doe/bto/sbtt

DISSEMINATE project information and resource to target audiences.

- College professors
- Building professionals
- Smart building software developers
- General public

GO HERE: https://slipstreaminc.org/education/smart-building-technology

PROJECT PARTNERS

slipstream

TEES
TEXAS A&M ENGINEERING EXPERIMENT STATION

sbse

National Institute of BUILDING SCIENCES™

COURSE MODULES FOR COLLEGE EDUCATION

MODULE #	MODULE TITLE
0	Introduction of the Course
1	Fundamentals of Building Mechanical and Energy Systems, and Building Systems Integration
2	Smart Building Technologies Drivers and Trends
3	Fundamentals of Smart Building Technologies
4	Advances in Building Energy Management and Controls
5	Applications of Engineering Tools and Standards—Building Operation
6	Smart Building Technologies Case Studies for Design and Operation

ONLINE TRAINING VIDEOS FOR BUILDING PROFESSIONALS

TOPIC CATEGORY	SESSION #	TOPIC
Introduction	1	Introduction to Smart Building Technologies
Building Systems	2	Building HVAC—Basic Systems
	3	Building HVAC—Complex Systems
	4	Networked Lighting Controls and HVAC Integration
	5	Solar PV, BESS, and EV Charging
	6	Smart Window, Automated Shades, Phase Change Materials, and Plug Loads
Sensors and IOT Devices	7	Sensors
	8	IOT Devices and Example Building Applications
Smart Building Controls	9	Advanced Building Monitoring and Controls
	10	Smart Building Control Platform
	11	Smart Building Control Platform Cybersecurity
	12	Smart Building Control Methods
	13	Occupant-centric Control
Smart Building Applications	14	Grid-interactive Efficient Buildings and Connected Communities
	15	Review of Whole-building Simulation Programs
	16	Smart Building Application Examples

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