CEDIA

CUSTOM
ELECTRONIC
DESIGN &
INSTALLATION
ASSOCIATION

REGISTERED
OUTREACH
INSTRUCTOR

ROI course descriptions, learning objectives, continuing education credit information, course numbers, subject codes, and designations.

Unless otherwise indicated, each course is 60 minutes.

1. Hiding Technology
   Home electronics should integrate seamlessly into a home's design and décor. This course reviews the three-pronged approach to hiding technology—advance planning, design philosophy, and product selection—which are available for minimizing the visual impact of electronics without compromising performance. Specific challenges and recommendations related to hiding video displays, projectors, speakers, controls, cameras, and equipment racks—among others—will be addressed. This course speaks to innovative and creative ways to lessen the visual impact of electronics by making them low-profile, hidden or camouflaged, or even invisible! Attendees will also walk away with an understanding of how to properly engage a trained electronic systems contractor (ESC) in their next project.

   Learning objectives for this course:
   - Discuss the roles, responsibilities and functions of an electronic systems contractor (ESC)
   - Identify different types of residential systems
   - Explain the importance of engaging an ESC early in the design and build process
   - Discuss how advance planning, design philosophy, and product selection affect your project
   - List a variety of methods and strategies for hiding technology
   - Define the value of identifying and working with an ESC

Association:	AIA Information	AIBD Information	IDCEC* Information	NAHB Information	NARI Information
Credit:	1.0 CEH	1.0 CEU	0.1 CEU	1.0 Cr Hr	0.1 CEU
Course Number:	CIO011	CIO011	5687	N/A	N/A
Subject Code:	N/A	N/A	2.1	N/A	N/A
Designation(s):	Health, Safety, & Welfare and Sustainable Design	N/A	Health & Safety	Multiple	All

2. Control Systems Impact on Building Green

A "green home" is more than energy efficiency; one must look at the big picture. Participants in this course will discuss their understanding of what it means to "go green". Discussion will include efficient use of resources, including electricity and water, and how electronic devices can work with these resources to contribute to reducing a home's carbon footprint. Additionally, attendees will discuss how a green home can be a comfortable and healthy environment for its occupants and identify methods such as engaging a trained electronic systems professional, choosing the right building materials, and providing proper air quality and ventilation in order to achieve clients' "green goals".

Learning objectives for this course:
- Define a green home
- List ways to reduce and monitor energy usage
- Define specific energy reduction benefits relative to:
  - ✓ Lighting
  - ✓ Lighting control
  - ✓ Motorization
  - ✓ HVAC
- Recognize the essential criteria for engaging an electronic systems professional in the design and build process

Association:	AIA Information	AIBD Information	IDCEC* Information	NAHB Information	NARI Information
Credit:	1.0 CEH	1.0 CEU	0.1 CEU	1.0 Cr Hr	0.1 CEU
Course Number:	CIO012	CIO012	40013	N/A	N/A
Subject Code:	N/A	N/A	5.6	N/A	N/A
Designation(s):	Health, Safety, & Welfare and Sustainable Design	N/A	Health & Safety	Multiple	All

3. Video Displays: The Value of Proper Installation for Comfort and Safety

Video displays are found in virtually every area of the home today and properly installed video displays bring added entertainment, enjoyment, comfort, and safety to the home's occupants and guests. Attendees of this course will walk away with basic knowledge regarding proper display height, distance guidelines, and detailed information regarding different display types. Participants will be able to speak with clients regarding strategies for hiding displays so that technology can be integrated into the home's décor without compromising the integrity of the design space, and will recognize the essential criteria for engaging a trained electronic systems professional to achieve these goals. Additionally, participants will be able to define specific terminology and speak intelligently regarding the value of properly calibrated and installed displays throughout the home.

Learning objectives for this course:
- Determine display height and distance placement options
- Describe strategies for hiding displays and techniques used for proper mounting of displays
- Define calibration terminology and the considerations for each of those terms
- Identify types of displays available and considerations for each
- Recognize the essential criteria for engaging an electronic systems professional in the design and build process

Association:	AIA Information	AIBD Information	IDCEC* Information	NAHB Information	NARI Information
Credit:	1.0 CEH	1.0 CEU	0.1 CEU	1.0 Cr Hr	0.1 CEU
Course Number:	CIO013	CIO013	5971	N/A	N/A
Subject Code:	N/A	N/A	5.2	N/A	N/A
Designation(s):	Health, Safety, & Welfare and Sustainable Design	N/A	Welfare	Multiple	All

4. Introduction to Electronic Home Entertainment (This is a 90-minute course)
This education course highlights the current trends in digital entertainment, the different types of entertainment available, such as such as personal video recording, movies, digital audio, and gaming, and explores whole-house application options. Additionally, infrastructure choices for distributed home entertainment will be discussed, along with available software applications, such as wired vs. wireless systems, network options, and user control options available to clients. Attendees will also participate in discussion related to identifying the most qualified electronic systems professionals and how and when to engage these individuals in the design and build process.

Learning objectives:
- Identify trends and benefits associated with distributed home entertainment
- List the different types of electronic entertainment
- Describe how media is controlled via home network infrastructures
- Describe the hardware and software applications available for electronic entertainment
- Discuss control system options
- Recognize essential criteria for engaging an electronic systems professional in the design and build process

Association:	AIA Information	AIBD Information	IDCEC* Information	NAHB Information	NARI Information
Credit:	1.5 CEHs	1.5 CEUs	0.1 CEU	1.5 Cr Hrs	0.15 CEUs
Course Number:	CIO020	CIO020	5945	N/A	N/A
Subject Code:	N/A	N/A	5.2	N/A	N/A
Designation(s):	Health, Safety, & Welfare and Sustainable Design	N/A	General Knowledge	Multiple	All

5. Introduction to User Interfaces
What is a user interface and what type will fit your clients' needs the best? Participants will find answers to these questions and more while participating in this introductory course. Attendees will discuss remotes, keypads, and touchscreens and the pros and cons of each, as well as what characteristics make user interfaces effective and easy to use. Additionally, such topics as subsystem control, home automation, and systems integration will be touched on. The all-important client interview will be discussed and participants will be schooled on recognizing the essential criteria for engaging a trained electronic systems professional.

Learning objectives:
- Define the term user interface
- Discuss the multiple user interfaces available and some of the pros and cons of each
- Define effective user interfaces and the goals of utilizing a user interface
- List controllable subsystems and the components involved
- Discuss factors in understanding the client
- Define home control vs. home automation
- Recognize the essential criteria for engaging an electronic systems professional in the design and build process

Association:	AIA Information	AIBD Information	IDCEC* Information	NAHB Information	NARI Information
Credit:	1.0 CEH	1.0 CEU	0.1 CEU	1.0 Cr Hr	0.1 CEU
Course Number:	CIO021	CIO021	5995	N/A	N/A
Subject Code:	N/A	N/A	5.2	N/A	N/A
Designation(s):	Health, Safety, & Welfare and Sustainable Design	N/A	Health & Safety	Multiple	All

6. Electronic Systems Infrastructure Requirements

Supporting the multitude of technologies found in today's connected homes requires planning, specialized installation, and a solid infrastructure in place. Attendees will discuss the trends and future technologies and their impact on today's homes, as well as be able to understand the basic infrastructure requirements needed to support these technologies so that they perform at maximum capacity. Participants will be able to define the components of a structured wiring system and list the benefits that correctly installed systems offer to their clients' technology needs. Attendees will also engage in discussion related to partnering with a trained electronics professional in the planning and installation of these complex systems.

Learning objectives:
- Define today's technology needs and consumer demands
- Explain what the digital conversion means to home networks, and cable and bandwidth requirements
- Review the term "structured wiring"
- Evaluate old and new methods related to a home's wire structure
- Identify the main components of a structured wiring system and the unique characteristics of:
    ✓ Head end equipment
    ✓ Cables
    ✓ Convenience outlets
- Recognize the essential timeline for engaging an electronic systems professional in the design and build process.

Association:	AIA Information	AIBD Information	IDCEC* Information	NAHB Information	NARI Information
Credit:	1.0 CEH	1.0 CEU	0.1 CEU	1.0 Cr Hr	0.1 CEU
Course Number:	CIO016	CIO016	40014	N/A	N/A
Subject Code:	N/A	N/A	5.5	N/A	N/A
Designation(s):	Health, Safety, & Welfare and Sustainable Design	N/A	Health & Safety	Multiple	All

7. Integrating Audio Into Homes for Performance and Aesthetics

Whole house audio is a trend that has been increasing in popularity during recent years. Participants of this course will discuss how whole house audio systems can and are used, and the benefits these systems provide to the homeowner—including the advantages of integrating them with other electronic systems in the home. Additionally, attendees will walk away with an in-depth knowledge of what technologies are utilized and the components required for proper installation and performance of these complex systems without compromising the home's aesthetic beauty and design. Participants will learn about how to engage an electronic systems professional and the benefits of including this trade early in the design and build process.

Learning objectives:
- Discuss how whole house audio systems are used and the many benefits for the entire family
- List the technologies used and the components required
- Discuss the many speaker options available and the importance of proper placement and set up
- Describe how to integrate great sound into the home while blending and complementing the décor
- Recognize essential timeline for engaging an electronic systems professional in the design and build process

Association:	AIA Information	AIBD Information	IDCEC* Information	NAHB Information	NARI Information
Credit:	1.0 CEH	1.0 CEU	0.1 CEU	1.0 Cr Hr	0.1 CEU
Course Number:	CIO017	CIO017	5996	N/A	N/A
Subject Code:	N/A	N/A	5.1	N/A	N/A
Designation(s):	Health, Safety, & Welfare	N/A	General Knowledge	Multiple	All

8. <u>Media and Game Room Design</u>
The demand for home entertainment spaces is growing at a rapid pace—don't be uninformed and left behind! Participants in this course will be educated on the differences between media rooms and game rooms from a usage standpoint as well as specific design characteristics relative to equipment, furnishings, power requirements, ventilation, lighting, and acoustics. Attendees will also walk away with the knowledge of how and when to engage an electronics systems professional in the design and build process.

Learning objectives:
- Determine exact room usage specifications
- Identify specific design considerations related to:
    - ✓ Equipment choice and placement
    - ✓ Furnishings and furniture placement
    - ✓ Power, ventilation, and user control
    - ✓ Light and lighting
    - ✓ Acoustics
- Assess common issues related to occupant comfort in media and game rooms
- Recognize essential timeline for engaging an electronic systems professional in the design and build process

Association:	AIA Information	AIBD Information	IDCEC* Information	NAHB Information	NARI Information
Credit:	1.0 CEH	1.0 CEU	0.1 CEU	1.0 Cr Hr	0.1 CEU
Course Number:	CIO015	CIO015	40008	N/A	N/A
Subject Code:	N/A	N/A	4.9	N/A	N/A
Designation(s):	Health, Safety, & Welfare	N/A	Health, Safety, & Welfare	Multiple	All

9. <u>A Practical Guide to Incorporating Technology Into Your Next Project</u> (This is a two-hour course)
Technology is everywhere—be prepared to meet your clients' growing needs and demands! Participants will be able to identify areas where technology impacts design and discuss such key areas such as value to the client, benefits of properly planned for and installed components, key elements, budgeting, best practices, and common misconceptions. Attendees will leave with an in-depth knowledge of the types of technologies that can be installed into residential projects and the proper infrastructure that is needed to support these complex systems, as well as being able to incorporate essential timelines needed for engaging an electronic systems professional in the design and build process.

Learning objectives:
- Identify five areas of home technology to include infrastructure, media systems, distributed music, lighting control, and integration
- Within each module:
    - ✓ Recognize the value
    - ✓ Define key benefits
    - ✓ Identify glossary of key elements
    - ✓ Create checklist of best practices
    - ✓ Establish and dispel common misconceptions
- Establish budgeting techniques
- Recognize the essential timeline for engaging an electronic systems professional in the design and build process

Association:	AIA Information	AIBD Information	IDCEC* Information	NAHB Information	NARI Information
Credit:	2.0 CEHs	2.0 CEUs	0.2 CEUs	2.0 Cr Hrs	0.2 CEUs
Course Number:	CIO030	CIO030	40160	CIO030	CIO030
Subject Code:	N/A	N/A	4.7	N/A	N/A
Designation(s):	Health, Safety, & Welfare and Sustainable Design	N/A	Health & Safety	Multiple	All

10. Digital Signage in the New Economy

   Digital signage is one of the fastest growing segments of the installed audio/ video industry! Digital signage is ubiquitous, from the 6-inch screen on the gas pump at your neighborhood service station to the 50-inch HD screen in an upscale salon and spa. Participants will have "digital signage" defined and will examine how this exciting industry is projected to grow and change over time. Attendees will walk away with a working knowledge of the infrastructure requirements that allow a digital signage system to operate and evolve, as well as how these systems can be managed for maximum return on investment. Additionally, participants will look at the value of working with trained electronic systems professionals and when to engage that trade in the planning process.

   Learning objectives:
   - Define digital signage and its applications
   - Analyze how digital signage will grow and change over time
   - Define the topology of digital signage installations
   - Establish a working knowledge of infrastructure requirements that allow a digital signage system to operate and evolve
   - Recognize the essential criteria for engaging an electronic systems professional in the design and build process

Association:	AIA Information	AIBD Information	IDCEC* Information	NAHB Information	NARI Information
Credit:	1.0 CEH	1.0 CEU	0.1 CEU	1.0 Cr Hr	0.1 CEU
Course Number:	CIO029	CIO029	40164	CIO029	CIO029
Subject Code:	N/A	N/A	2.7	N/A	N/A
Designation(s):	Health, Safety, & Welfare and Sustainable Design	N/A	Health, Safety, & Welfare	Multiple	All

11. Electronic Systems Integration for Convenience, Comfort, and Safety

   Technology touches virtually every surface of the home today. Learn about how technology influences your clients' convenience, comfort, and safety, and how advances in electronics will result in these technologies becoming more and more ubiquitous. Electronic systems integration can bring multiple benefits and features to the homeowner; become educated by understanding the difference between automation and systems integration and how offering real options and enhancements to clients' lives are ways to set yourself apart from your competition. This course will provide basic understanding of current and future technology options, as well as help establish the benefits of partnering with a qualified electronics professional.

   Learning objectives:
   - Define electronic devices vs. electronic systems and provide examples of each
   - Compare and contrast home automation and systems integration and provide examples of each
   - Assess how home integration and systems integration influence clients' convenience, comfort, and safety
   - Discuss infrastructure options for various types of systems
   - Recognize essential criteria for engaging an electronic systems professional in the design and build process

Association:	AIA Information	AIBD Information	IDCEC* Information	NAHB Information	NARI Information
Credit:	1.0 CEH	1.0 CEU	0.1 CEU	1.0 Cr Hr	0.1 CEU
Course Number:	CIO022	CIO022	40181	CIO022	CIO022
Subject Code:	N/A	N/A	4.7	N/A	N/A
Designation(s):	Health, Safety, & Welfare and Sustainable Design	N/A	Health, Safety, & Welfare	Multiple	All

12. Making Home Technology Profitable in the Remodeling Market
    According to a recent Joint Center for Housing of Harvard University report, three growth areas are projected in the remodeling sector; energy management, the aging population, and home entertainment. During this course, participants will discuss these growth areas, with specific focus on technology systems. Attendees will walk away with talking points to use with homeowners that include how to approach the clients' needs and wants related to monitoring energy usage, addressing their aging in place requirements, and providing entertainment options. Additionally, attendees will discover how and when to include the electronic systems professional in the design and build process.

    Learning objectives:
    - Define types of residential technology systems
    - Discuss areas of growth in the remodeling industry
    - Develop talking points for effective solutions related to:
        - ✓ Monitoring energy usage and reducing a home's carbon footprint
        - ✓ Addressing special desires and needs for the aging population
        - ✓ Providing entertainment options that meet the entire family's needs
    - Recognize the essential criteria for engaging an electronic systems professional in the design and build process

Association:	AIA Information	AIBD Information	IDCEC* Information	NAHB Information	NARI Information
Credit:	1.0 CEH	1.0 CEU	0.1 CEU	1.0 Cr Hr	0.1 CEU
Course Number:	CIO032	CIO032	40182	CIO032	CIO032
Subject Code:	N/A	N/A	4.7	N/A	N/A
Designation(s):	Health, Safety, & Welfare and Sustainable Design	N/A	Welfare	Multiple	All

13. Interactive Technology in a Learning Environment
    The days of passive learning are gone—what is an interactive white board and how will technology affect learning environments in years to come? Those questions, among others, will be answered! This course will explore the opportunity for audio, video, and interactive technology in the learning environment, as well as review and apply the "teacher's triangle" concept. An overview of the infrastructure needed to support these technologies will be explored, as well as how to choose a trained electronic systems professional for your project's current and future needs.

    Learning objectives of this course:
    - Describe the opportunity for audio, video, and interactive presentation technology in the learning environment
    - Discuss the application of interactive technology in a learning environment
    - Define the use for and application of "interactive white board" technology
    - Apply the concept of the "teacher's triangle"
    - Identify the need for signal compatibility amongst technologies in the learning environment
    - Recognize essential criteria for engaging an electronic systems professional in the design and build process

Association:	AIA Information	AIBD Information	IDCEC* Information	NAHB Information	NARI Information
Credit:	1.0 CEH	1.0 CEU	0.1 CEU	1.0 Cr Hr	0.1 CEU
Course Number:	CIO014	CIO014	40253	N/A	N/A
Subject Code:	N/A	N/A	4.5	N/A	N/A
Designation(s):	Health, Safety, & Welfare and Sustainable Design	N/A	General Knowledge	Multiple	All

14. Sound Isolation in a Specialty Room
Isolating sound is tricky—without the correct tools, the right people, and the proper design the results are often disastrous. Participants in this course will review the needs for sound isolated specialty rooms, define the fundamentals of sound and discuss how much sound isolation is needed in varying circumstances. In addition, attendees will dive into the three tools of sound isolation—mass, absorption, and mechanical isolation and the role of each in the design and build process, while discussing the process of building a specialty room. This course will also outline the essential criteria for choosing a qualified electronic systems contractor and the expertise that these professionals bring to a well-designed and functional space.

Learning objectives of this course:
- Define the fundamentals of sound and the importance of controlling it
- Define how much sound isolation is required in varying circumstances
- List the three tools: mass, absorption, and mechanical isolation and the role of each
- Outline design considerations related to the construction of specialty rooms
- Recognize the essential criteria for engaging an electronic systems professional in the design and build process

Association:	AIA Information	AIBD Information	IDCEC* Information	NAHB Information	NARI Information
Credit:	1.0 CEH	1.0 CEU	0.1 CEU	1.0 Cr Hr	0.1 CEU
Course Number:	CIO025	CIO025	40270	N/A	N/A
Subject Code:	N/A	N/A	5.1	N/A	N/A
Designation(s):	Health, Safety, & Welfare and Sustainable Design	N/A	Health, Safety, & Welfare	Multiple	All

15. Lighting Control Systems
Lighting control has become a standard in new construction and existing retrofit solutions…those who have it love it and wonder how they ever lived without it! Participants will walk away from this course with a basic understanding of lighting control terminology, and the benefits and solutions related to lighting control—presented in simple, easy to understand language. Additionally, attendees will be active participants in discussion surrounding common misconceptions, features, and lighting control design considerations. This course will conclude with an informative dialogue regarding what to consider when interviewing and hiring an electronic systems contractor (ESC).

Learning objectives:
- Discuss lighting control terminology
- Discuss and differentiate between various types of lighting control solutions
- Identify the benefits of lighting control
- Clarify common misconceptions related to lighting control systems
- Explore design considerations
- Recognize essential timeline for engaging an electronic systems professional in the design and build process

Association:	AIA Information	AIBD Information	IDCEC* Information	NAHB Information	NARI Information
Credit:	1.0 CEH	1.0 CEU	0.1 CEU	1.0 Cr Hr	0.1 CEU
Course Number:	CIO028	CIO028	40384	CIO028	CIO028
Subject Code:	N/A	N/A	5.11	N/A	N/A
Designation(s):	Health, Safety, & Welfare and Sustainable Design	N/A	Health & Safety	Multiple	All

16. Planning for Electronic Systems in the Home
    As with other rough-in trades (mechanical, electrical, and plumbing), electronic systems should be planned for well in advance of construction and documented at the construction drawing phase of design. This course describes the processes used by professionals in the project planning, design, and installation phases of electronic systems. Participants will be able to identify different types of residential systems and the unique impact of each on specific design considerations, such as space, framing, electrical, and ventilation requirements. This course will also help attendees identify and analyze the benefits of working with trained electronic systems professionals.

    Learning objectives:
    - Identify the different types of residential systems and unique considerations of each
    - Describe the processes used by professionals in the project planning, design, and installation phases of electronic systems
    - Determine electronic systems impact on the design and construction relative to:
        ✓ Space allocation
        ✓ Framing requirements
        ✓ Electrical and conduit requirements
        ✓ Ventilation and millwork requirements
        ✓ Home theater design
    - Recognize essential timeline for selecting and engaging an electronic systems professional for your project

Association:	AIA Information	AIBD Information	IDCEC* Information	NAHB Information	NARI Information
Credit:	1.0 CEH	1.0 CEU	0.1 CEU	1.0 Cr Hr	0.1 CEU
Course Number:	CIO024	CIO024	40412	CIO024	CIO024
Subject Code:	N/A	N/A	2.10	N/A	N/A
Designation(s):	Health, Safety, & Welfare and Sustainable Design	N/A	Health, Safety & Welfare	Multiple	All

17. Partnering with an Electronic Systems Contractor* (This is a 90-minute course)
    What is an electronic systems contractor (ESC) and how does one fit this subcontractor into design and build projects effectively? These questions and more will be answered during this course. Attendees will walk away with basic knowledge of the various types of residential electronic systems and how electronic systems can be seamlessly integrated into a home's design and build process with the help of a trained, electronics professional. Discover the specific design considerations that electronic systems bring to a project, such as space allocation, framing, HVAC, electrical, and ventilation requirements. Included are "insider" tips to successfully negotiating a contract with this vital subcontractor and questions to ask during the interview process regarding locating, hiring, and collaborating with the ESC best suited to a project.

    Learning objectives:
    - Identify the different types of residential systems and unique considerations of each
    - Describe the processes used by professionals in the project planning, design, and installation of electronic systems
    - Determine the electronic systems impact on the project's design and construction
    - Describe the electronic systems professionals' business model, including interview questions, project agreements, and tips on establishing the project expectations
    - Recognize the essential timeline for engaging an electronic systems professional in the design and construction process

Association:	AIA Information	AIBD Information	IDCEC* Information	NAHB Information	NARI Information
Credit:	1.5 CEH	1.5 CEU	0.1 CEU	1.5 Cr Hr	0.15 CEU
Course Number:	CIO019	CIO019	40417	CIO019	CIO019
Subject Code:	N/A	N/A	8.6	N/A	N/A
Designation(s):	Health, Safety, & Welfare	N/A	General Knowledge	Multiple	All

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18. Designing Dedicated Theaters
    What is a home theater? This may sound like a simple question, but is it? Participants in this course will come away with a very distinct definition of what a home theater is—and what it isn't! Discussions will also include basic acoustical physics, common mistakes in designing theaters, as well as specific design considerations related to video, lighting, electrical, and safety and comfort. This course will provide guidance related to what goes in the room—from equipment, to wall treatments, to seating—and provide practical solutions to problems associated with home theater design and construction. Additionally, attendees will discuss the importance of engaging a trained, qualified professional early in the design and build process.

    Learning objectives:
    • Define a "dedicated home theater" and its attributes
    • Discuss the science of "good sound"
    • Analyze common and costly mistakes with home theater design
    • Identify specific theater design considerations, such as video optimization, lighting, electrical, safety and comfort
    • Recognize the essential criteria for engaging an electronic systems professional in the design and build process

Association:	AIA Information	AIBD Information	IDCEC* Information	NAHB Information	NARI Information
Credit:	1.0 CEH	1.0 CEU	0.1 CEU	1.0 Cr Hr	0.1 CEU
Course Number:	CIO026	CIO026	40451	CIO026	CIO026
Subject Code:	N/A	N/A	2.2	N/A	N/A
Designation(s):	Health, Safety, & Welfare	N/A	Health, Safety, & Welfare	Multiple	All

19. Understanding Current Home Technology and Infrastructure Options
    There are many available options related to technology for today's savvy clients, and this course will help guide participants through the myriad of choices. Participants will walk away from this course with a comprehensive overview of current home technologies available in today's connected homes. The in-depth discussion will include wired vs. wireless, integrated systems—what they are and how they work—and engaging a trained electronic systems professional. This overview will also help attendees plan for proper wiring infrastructure and other profitable electronic systems.

    Learning objectives:
    • Identify various residential systems and their unique qualities.
    • Define benefits of technology related to energy efficiency and savings, comfort, convenience, and safety.
    • Analyze the considerations related to wired systems vs. wireless systems.
    • Recognize essential timeline for engaging an electronic systems professional in the design and build process.

Association:	AIA Information	AIBD Information	IDCEC* Information	NAHB Information	NARI Information
Credit:	1.0 CEH	1.0 CEU	0.1 CEU	1.0 Cr Hr	1.0 CEU
Course Number:	CIO027	CIO027	30185	CIO027	CIO027
Subject Code:	N/A	N/A	5:1	N/A	N/A
Designation(s):	Health, Safety, & Welfare	N/A	General Knowledge	Multiple	All

20. <u>From Vision to Reality; Where Technology Meets Design – 1.0 CEH (AIA/CES Only)</u>
    This course outlines the challenges that Designers and Architects face daily with an increasing amount of technology compromising their design vision. This course provides insight into the many ways it can be "photo-shopped" out in real life to retain the integrity of the space.

    Learning objectives:
    - Identify the challenges of multiple technologies and aesthetic inconsistencies across different devices and brands.
    - To create awareness of low visual impact technologies that can overcome these issues.
    - To teach basic principles of audio and HVAC placement for best functionality with minimal intrusion.
    - To discuss project life cycles in relation to technology and identify opportunity to minimize long term effects.

Association:	AIA Information
Credit:	1.0 CEH
Course Number:	212
Subject Code:	N/A
Designation(s):	Health, Safety, & Welfare

*IDCEC governs the continuing education for the following associations: ASID, IDC, IDEC, and IIDA

AIA: American Institute of Architects
AIBD: American Institute of Building Design
NAHB: National Association of Home Builders
NARI: National Association of the Remodeling Industry