Autodesk University 2012

Emerging Technologies in AEC

Jim Balding – The ANT Group

BO2365 This class will examine emerging technologies that support the design and construction industry. Technologies we will discuss may include augmented reality, immersive environments, fabrication and prefabrication, mobile computing, 3D printing, and laser scanning..

Learning Objectives

At the end of this class, you will be able to:

- Describe augmented reality and its potential implications in the AEC industry
- Explain immersive environments and the potential implications in the AEC industry
- Describe laser scanning and its potential implications in the AEC industry
- Explain fabrication and its potential implications in the AEC industry

About the Speaker

Jim Balding is a licensed architect with more than 25 years of experience integrating technology into the architectural field. Jim earned his bachelor of environmental design degree from the University of Colorado, Boulder. He has been a member of the Autodesk Revit Architecture Client Advisory Board since its inaugural meeting, and served as the Revit Product Chair for AUGI for five years. He also founded and served as the South Coast Revit Users Group (SCRUG) president for five years. Jim has spoken at several technology conferences and is one of the top-rated speakers at Autodesk University. Jim is currently serving as the Partnership Manager for the Revit Technology Conference – North America as well as the Chairman of Technology Committee for the US Institute of Building Documentation (USIBD). Jim recently launched his own architectural and design technology firm, The ANT Group.

jim.balding@theantgroup.com

Introduction
Introduction of session, purpose and foundation.

Reality Capture

Definition
Definition and types of reality capture

Reality Capture in AEC
Uses of reality capture in the AEC industry

Pros
Benefits of reality capture

Cons
Down sides to reality capture

What to Watch Out For
What are the real world pitfalls and how to implement reality capture

Immersive Environments

Definition
Definition and types of Immersive environments

Immersive Environments in AEC
Uses of immersive environments in the AEC industry

Pros
Benefits of immersive environments

Cons
Down sides to immersive environments

What to Watch Out For
What are the real world pitfalls and how to implement reality capture

Augmented Reality

Definition
Definition and types of augmented reality

Immersive Environments in AEC
Uses of augmented reality in the AEC industry

Pros
Benefits of augmented reality

Cons
Down sides to augmented reality

What to Watch Out For
What are the real world pitfalls and how to implement augmented reality

Digital Fabrication

Definition
Definition and types of digital fabrication

Digital Fabrication in AEC
Uses of augmented reality in the AEC industry

Pros
Benefits of digital fabrication

Cons
Down sides to digital fabrication

What to Watch Out For
What are the real world pitfalls and how to implement digital fabrication

The Cloud*

Definition
Definition and types of cloud uses

The Cloud in AEC
Uses of the cloud in the AEC industry

Pros
Benefits of using the cloud

Cons
Down sides to using the cloud

What to Watch Out For
What are the real world pitfalls and how to implement use of the cloud

Mobile*

Definition
Definition and types of mobile devices/uses

Mobile Devices in AEC
Uses of mobile devices in the AEC industry

Pros
Benefits of using the mobile devices

Cons
Down sides to using mobile devices

What to Watch Out For
What are the real world pitfalls and how to implement mobile devices

Robotics*

Definition
Definition and types of robotics

Robotics in AEC
Uses of robotics in the AEC industry

Pros
Benefits of using the robotics

Cons
Down sides to using robotics

What to Watch Out For
What are the real world pitfalls and how to implement robotics

* TBD, may not appear in final handout or presentation

Looking forward
What is coming soon?