Built Environment

Learning & Teaching Showcase 2018

BLDG1021 Industrial and Infrastructure Construction

Dr. Samad Sepasgozar
Features and innovations
Why has this been chosen as an Exemplar?

Case 1 (BLDG1021) Industrial & Infrastructure Construction

Built Environment (BE) BLDG1021 - 300 students

Dr. Samad Sepasgozar - PhD technology in engineering

1. **Communities**
   - BE industry partnering with Multiplex, FM, PVCE,
   - Vantage Interactive, Interactive Teaching Resources:
     - interviews, documents, videos + 360°

2. **Feedback & Dialogue**
   - Encourages dialogue between students, industry, teacher via authentic, immersive experience

3. **Inspired Learning**
   - Students + industry in case study roleplay, projects off-campus. Continuous review 10 weeks at/group wikis

4. **Being Digital**
   - Immersive 360° construction site environment - AVIE Mining Space video
G-WiKi

Project Team Video Edit section
Tutor Feedback Edit section

Group Section - Construction Management Edit

Project Objectives
Contractual Arrangements
Project Stakeholders
Organisational Requirements
Personnel Flow Management
Leadership
Construction Site Analysis
Crane Tower and Plant Equipment Location
Work Process and Schedule
Project Efficiency Management - MUDA Analysis

Individual Sections - Project Role Descriptions
Project Director:
Contract Administrator:
Head Architect:
WHS Coordinator:
HR Manager:
Site Manager:
Project Manager:
Site Engineer:
Financial Officer:
Facilities Manager:

Role

Separate groups (Group Project)
Complete your Group Project Wiki

Start page
Latest edit: Friday, 31 August 2018,

Workshop 4 Group B CBD Light Rail - Shaman

History! view and click 'Compare selected'
G-WiKi
Role-Play
Q3.13 - Using WGP allows me to monitor my **own contribution** in the group.

- Agree: 79.66%
- Disagree: 3%

Q3.18 - I think that the provided Wiki template **assists** me to develop my project.

- Agree: 74.57%
- Disagree: 5.08%

Q3.12 - Using WGP allows to **monitor** the performance of my **team members**.

- Agree: 79.66%
- Disagree: 2

Q3.20 - **How often** did I use WGP per week.

- > 2 times: 62.71%
- Once: 35.59
Virtual Reality

Our iVRT is an innovative immersive environment which brings real practice into universities to enable thousands of students of built environment, construction, mining, and civil engineering become familiar with the state of the art in a no-risk environment.
A student: “I felt I was on an excursion on-site. It gave me knowledge and insight about what actually is involved in a construction site”.

iVRT
Interactive mixed reality tour
Explore the excavation process using VR
Interactive Resources
Virtual Reality Modules for showing the infrastructure
A student: “It was more in-depth and with the questions that through that interactive exercises the quizzes, the quizzes, we got to learn more just than a YouTube video explaining the process.”

Interactive Resources
Virtual Reality Modules for showing the infrastructure

iVRT covers the disadvantage of digital education by dealing with the practical needs of the course. iVRT changes the students’ learning attitude to be virtually present on site and increases the authenticity of learning by its virtual presence on site and being able to see site managers operating in iVRT.
Engagement of Brookfield Multiplex, a global contractor, Vantage Interactive, Estate Management, the Portfolio of the PVCE, Engineering and the ILI team for UNSW’s 2025.

Thank you!