Structural Engineering with Architecture at UCD

CIARA FARMER (2014 GRADUATE)

Intro – About me & Why I chose SEwA….


Growing up…

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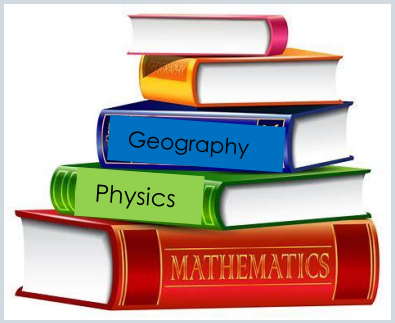

School subjects…

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Interest in Architecture & Built Environment…

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University:

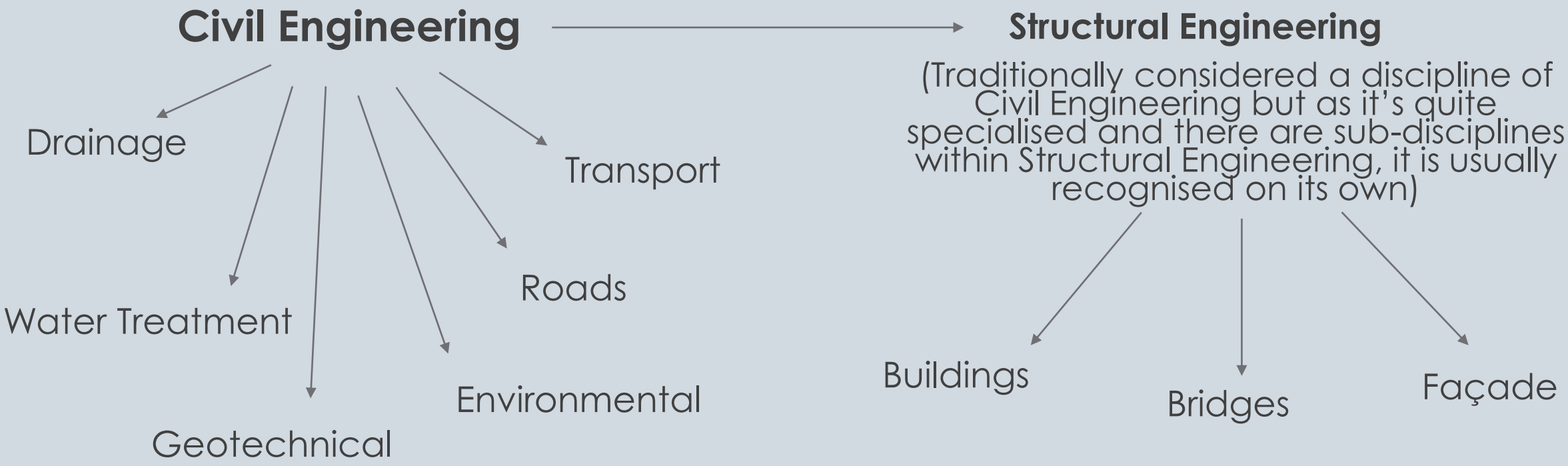
2009 – 2014 UCD Structural Engineering with Architecture BSci & ME

Work:

2014 – 2016 Graduate Engineer - Hayes Higgins Partnership

2016 – Present Structural Engineer & Associate - Cronin and Sutton Consulting

Civil Engineering & Structural Engineering – what's the difference??



The Course

Fundamentals - Engineering Principles…

What makes buildings stand up?

Analysis of structures - hand calculations / computer software

Materials

Design of Structural Members

Lab classes

Drawing /Modelling

Collaboration & Team work – with Classmates + Architecture Students

Case studies

Group Projects

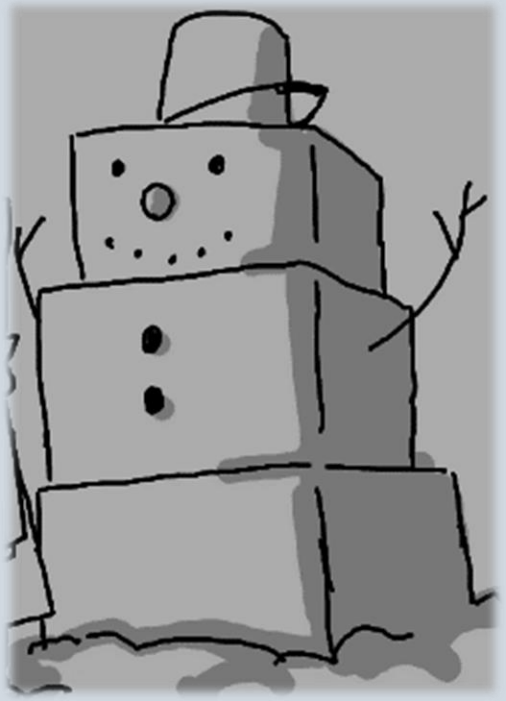
Tutorials

Work Experience opportunities

Thesis & Research

"The programme's aim is to develop an appreciation for architecture, coupled with the solid fundamentals of an engineering degree. This will enable graduates to challenge the traditional boundaries of structural design."

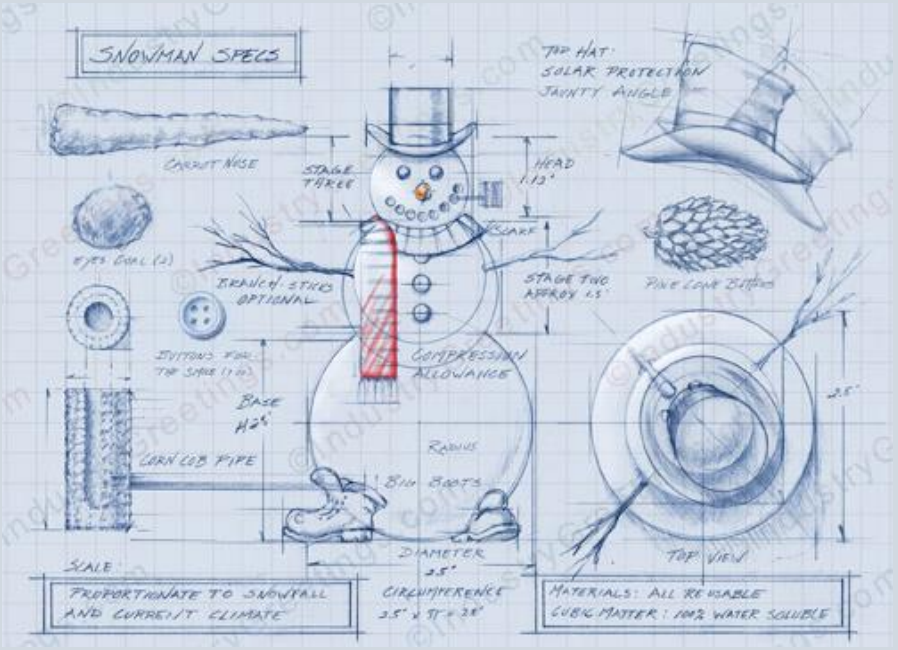
Collaboration – Snowman Analogy



An Engineer's Snowman

An Architect's Snowman

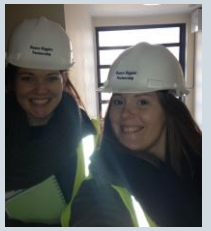
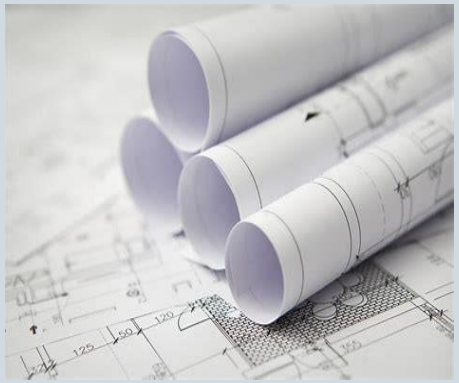
With Collaboration between both disciplines…..

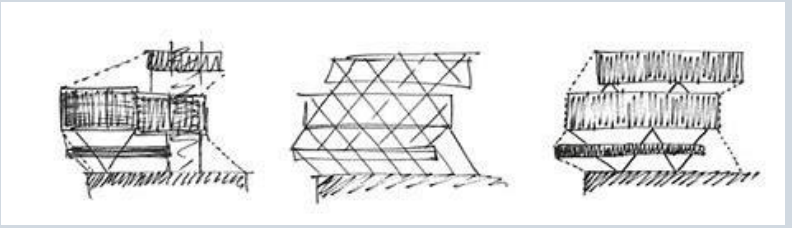


A Typical Day…..

- Liaising with Architect and other Design Team members
- Attending Design team meetings and workshops
  (Client, QS, Architect, M&E Consultant…sometimes Conservation Architects or other specialist)
- Analysing structures (sometimes using computer software)
- Designing structural members
- Sketching solutions to communicate ideas
- Manage production of drawings
- Liaising with Contractors
- Managing information flow to site
- Site visits and inspections
- Writing reports
- Carrying out Desktop studies

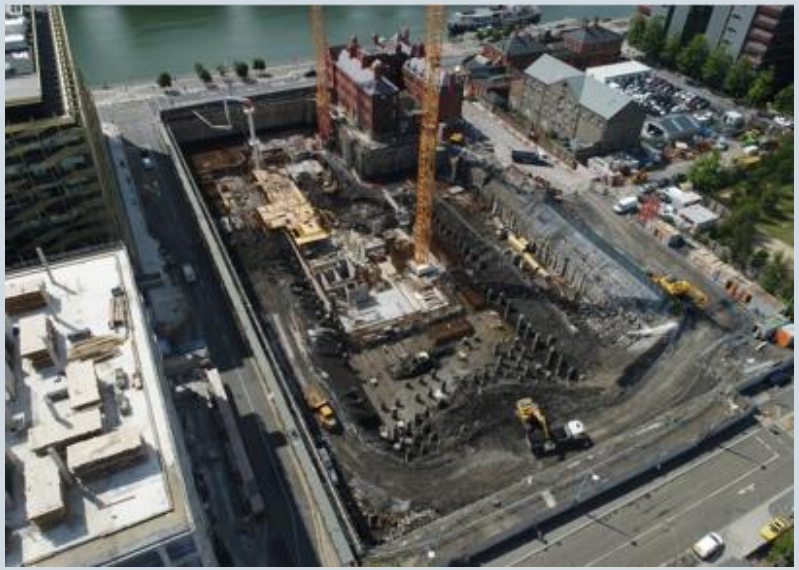


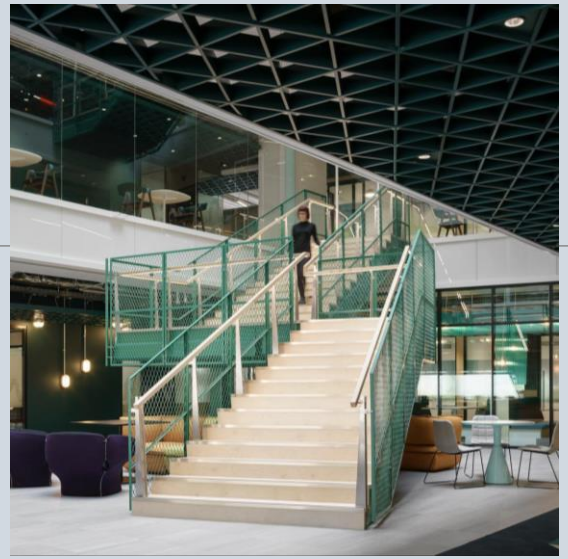



Projects

Spencer Place



Amazon Fit-out



The Crossings, Adamstown

Treasury Annex (Google)

55 South William St (Conservation)

Projects

FIBONACCI SQUARE

(SITE OF AIB BANKCENTRE)

Careers

Consultancy
Design Engineer

Academia
Research PhD

Contractor
Site Engineer

Specialist Area

Façade

Precast Concrete

Post tensioned Concrete

Geotechnical Engineer

Other...

Project Management

Finance Sector

Management Consultancy

Where we've worked…

Thornton Tomasetti

DBFL CONSULTING ENGINEERS

DIAGEO

BM BARRETT MAHONY

Roughan & O'Donovan

Waterman Moylan Engineering Consultants

walls

Gníomhaireacht Bainistíochta an Chisteáin Náisiúnta
National Treasury Management Agency

CS CONSULTING
Civil, Structural & Traffic Engineering

AUTODESK.

OBA CONSULTING

ARCADIS

ARUP

OPW Oifig na nOibreacha Poiblí Office of Public Works

OCSC O'CONNOR | SUTTON | CRONIN

Is it right for you?

If you want a career that…….

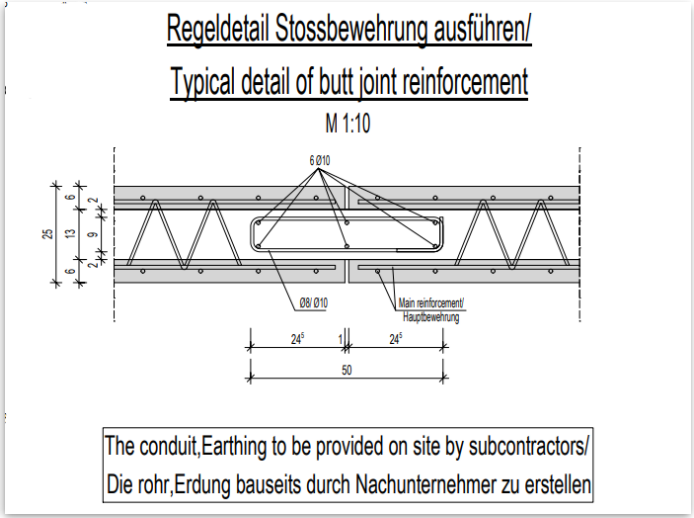
- Allows you to contribute to shaping the built environment
- Is continuously evolving and growing
- Allows for continuous learning and development
- Is challenging and exciting
- Provides a wide variety of opportunities
- Allows you to see your designs being constructed

Thank you

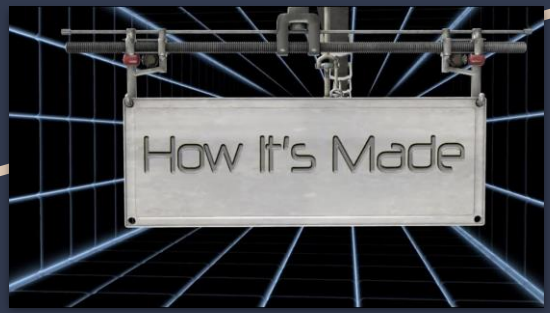
Structural Engineering with Architecture

Niall McSweeney

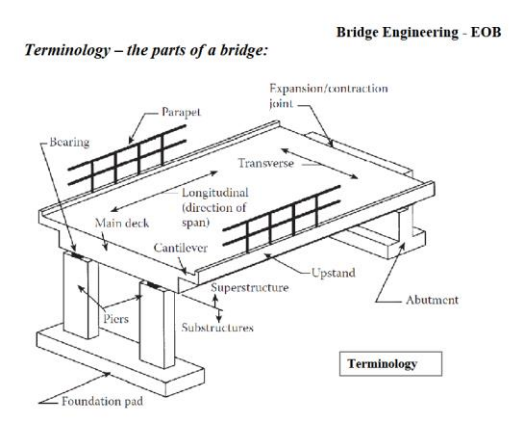
What is SEwA?

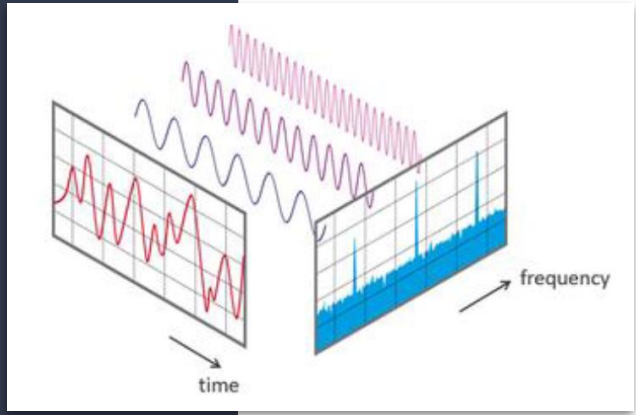

Regeldetail Stossbewehrung ausführen/
Typical detail of butt joint reinforcement
M 1:10
6 Ø10
25
6
13
9
2
2
6
Ø8/ Ø10
Main reinforcement/
Hauptbewehrung
24⁵
1
24⁵
50
The conduit,Earthing to be provided on site by subcontractors/
Die rohr,Erdung bauseits durch Nachunternehmer zu erstellen

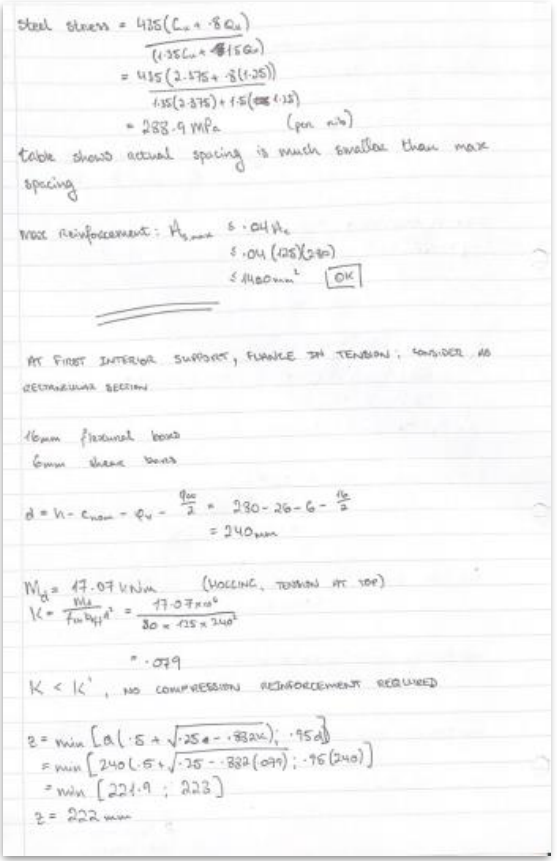
Why I chose SEwA

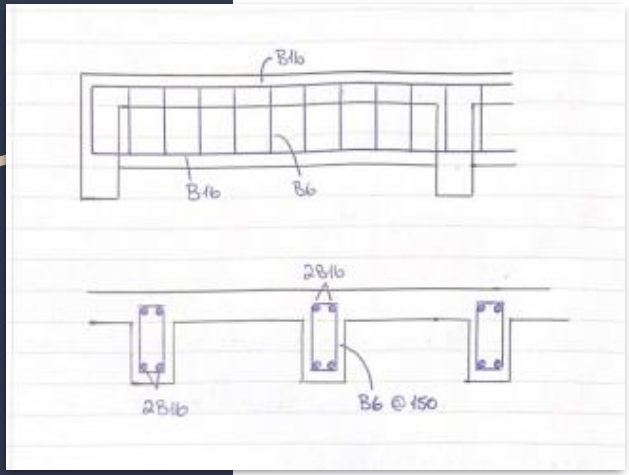


What you Learn

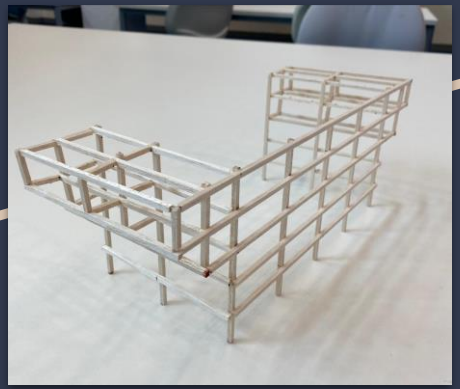


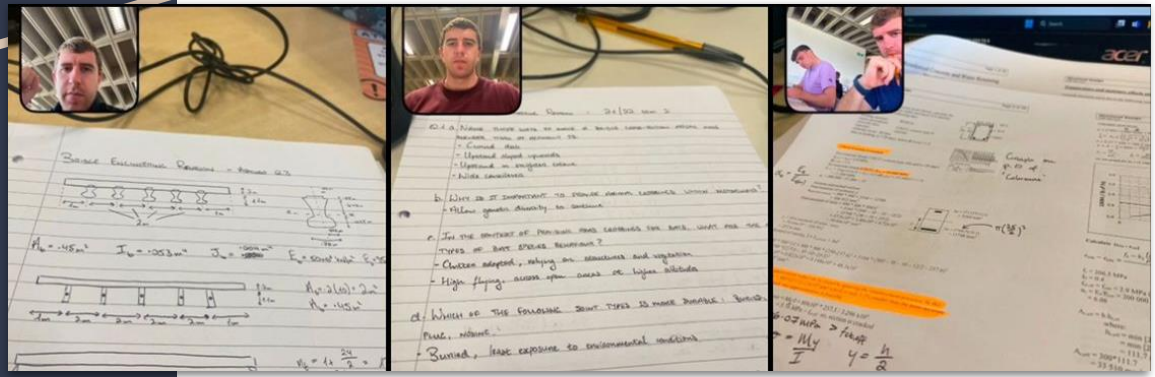






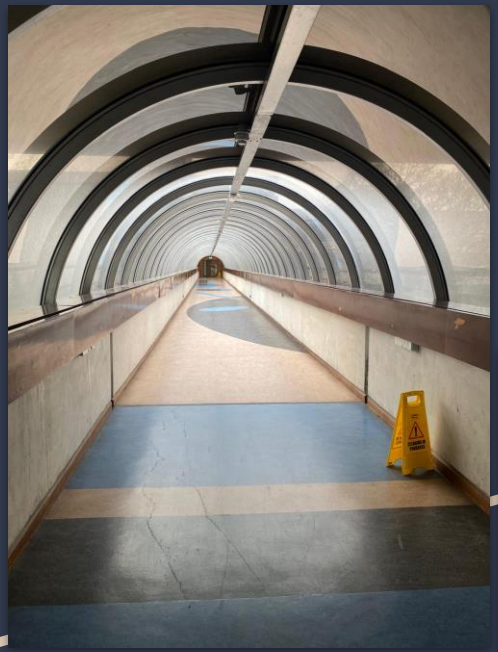
Challenges

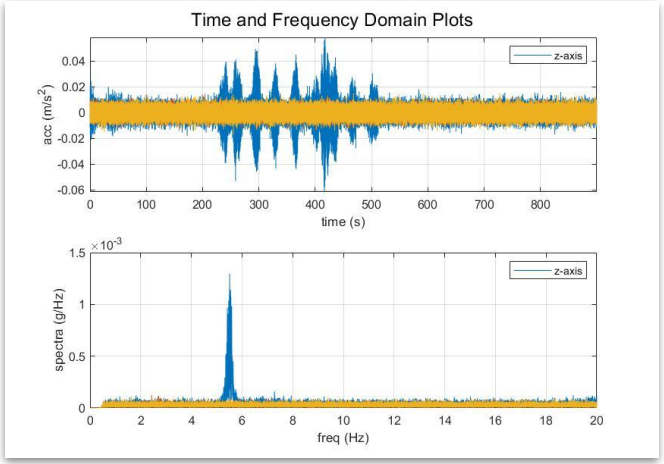




Work Placement

Thesis





Open Access Article

15 pages, 9387 KiB

Extracting Bridge Modal Frequencies Using Stationary Versus Drive-By Modes of Smartphone Measurements

by **Niall McSweeney**, **Ramin Ghiasi**, **Abdollah Malekjafarian** and **Ekin Ozer**

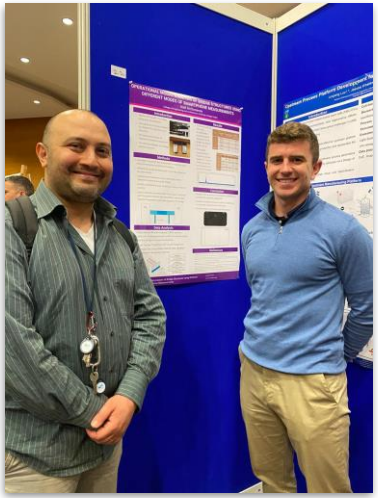
Infrastructures **2024**, *9*(12), 218; **https://doi.org/10.3390/infrastructures9120218** - 3 Dec 2024

Viewed by 3777

Abstract In this research, we harmonize the two mobility approaches, stationary and mobile measurements, within the same framework to generate comparison opportunities, particularly in terms of identified bridge modal frequencies. Vibration tests were conducted to determine the natural frequency of a pedestrian bridge located **[...] Read more.**

(This article belongs to the Special Issue **Bridge Modeling, Monitoring, Management and Beyond**)

► **Show Figures**



Career Opportunities

My Career

MERCURY

My Advice